

## **BHARAT SANCHAR NIGAM LIMITED**

*(A Government of India Enterprise)*

**O/o THE EXECUTIVE ENGINEER (ELECTRICAL), BSNL ELECTRICAL DIVISION, DOOR SANCHAR BHAWAN (3RD FLOOR), UNIT-IX, BHUBANESWAR-751 022**

### **NIT NOTIFICATION**

The Executive Engineer (Elect.), BSNL Electrical Division, Bhubaneswar invites sealed item rate tenders on behalf of the Bharat Sanchar Nigam Limited for the following work from the Electrical contractors satisfying the under mentioned eligibility conditions: -

Sl. No.	Name of work	Estimated cost.(Rs.) including GST	EMD (Rs.)	Time	NIT No.
1	Providing E.I & FANS, service connection cable & S.I.T.C of Exhaust fan for GSM project BTS site at CENTRAL UNIVERSITY under KORAPUT SSA.	195593.00	3912.00	15 days	82/BSNL-BSR/20-21
<b>A/A &amp; E/S Reference</b>		Project work			
<b>T/S No.</b>		43/BSNL-EDB/20-21			
<b>Tender paper cost (Non refundable) Rs.</b>		590.00			
<b>Last Date of receipt of application:-</b>		15.12.2020	(upto 4.00PM)		
<b>Last Date of tender paper sale:-</b>		15.12.2020	(upto 5.30PM)		
<b>Last Date of tender paper receipt:-</b>		16.12.2020	(upto 3.00PM)		
<b>Date of opening:-</b>		16.12.2020	(after 3.30 PM)		



#### **Eligibility Criteria :-**

1 **BSNL enlisted contractors in Electrical category of respective class with valid electrical licence as per their tendering limits.**

2 **All other terms & conditions as per BSNL EW-6 and BSNL EW-8 form.**

3 The tenderer shall submit the tender in 2 sealed covers marked as cover 1 st and 2nd inscribing the name of work. Both should be separate & they should not be enclosed in common third cover. The first cover should contain the earnest money deposited in the shape of demand draft /pay order of a schedule bank/nationalised bank/state bank guaranteed by Reserve Bank of India drawn in favour of **A.O(CASH), BSNL, O/o The GMTD, Bhubaneswar**. In case submitting tender down loading from web site , the 1 st cover should contain DD towards cost of tender document and EMD drawn in favour of **A.O(CASH), BSNL,O/o The GMTD, Bhubaneswar** along with attested copy of eligible criteria. The second cover contains the tender documents, if the 1 st cover is not annexed in proper form, the second form containing tender will not be opened at all.

Note :- I) The company or firm or any other person is not permitted to tender for work in BSNL unit in which his/her near relative(s) is(are) posted .

4 If the date of opening is declared as holiday, then the tender shall be opened on next working day.

5 The tender documents shall not be sent through courier /post. The tender documents received through courier/ post shall not be opened / considered at all.

#### **LIST OF MANDATORY SELF ATTESTED DOCUMENTS TO BE SUBMITTED WITH THE TENDER (1st COVER)**

(1) Demand Draft/Pay Order/Banker's Cheque /FDR/TDR/BG of any Nationalized/ scheduled bank in favour of "Accounts Officer (Cash), BSNL, O/o the GMTD, Bhubaneswar" towards EMD
(2) DD/Pay Order/Bankers Cheque of a Nationalized / Scheduled Bank in favour of "Accounts Officer (Cash), BSNL, O/o the GMTD, Bhubaneswar" towards tender cost.
(3) Documentary proof of satisfying eligibility conditions as per sl. no.1 of above.
(4) PAN card issued by Income Tax Department, Govt of India.
(5) Valid GST Registration Certificate issued by statutory authority.

**No:-PLG-04/BSNL-EDB/20/319**

**Dt. 05/12/2020**

- 1) The C.E(E), BSNL Electrical Odisha Zone, Bhubaneswar
- 2) The Executive Engineer(E) BSNL Electrical Division, Sambalpur.
- 3) The Executive Engineer(E) BSNL Electrical Division,Cuttack
- 4) The Vigilance Officer O/o the CGMT Orissa Circle, Bhubaneswar.
- 5) The Accounts Officer, BSNL Electrical Division, Bhubaneswar.
- 6) The Notice Board.
- 7) Contractors

**Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.**

**BHARAT SANCHAR NIGAM LIMITED**  
( A Govt. of India Enterprise )

Item rate tenders are invited on behalf of the BSNL from eligible contractors for the work of :-

**Providing E.I & FANS, service connection cable & S.I.T.C of Exhaust fan for GSM project BTS site at CENTRAL UNIVERSITY under KORAPUT SSA.**

The work is estimated to cost Rs.

195593.00 This estimate however is given merely as a rough guide.

1) Tender will be issued to

Please refer eligibility criteria

2) . Agreement shall be drawn with the successful tenderer on prescribed form no. 8 which is available as a Govt. of India publication, tender shall quote his rates as per various terms and conditions of the said form which will form part of the agreement .

3) . The time allowed for carrying out the work will be

15 days

4) . The availability of individual site will be specified in the award letter.

5) . Receipt of applications for issue of forms will be stopped by 1600 Hrs. **two days before the date fixed for opening of tenders.** Issue of tender forms will be stopped **One day before the date fixed for opening of tenders.**

Tender documents consists of plans , specifications, the schedule of quantities of the various classes of work to be done and the set of terms and conditions of contract to be complied with by the whose tender may be accepted and other necessary document can be seen in the office of the Executive Engineer (E),BSNL ELECTRICAL DIVISION , Bhubaneswar between 11.00 AM & 04.00 PM every day except on Sunday and public Holiday. Tender documents, excluding standard form, will be issued from his office , during the hours specified above on payment of Rs. **590.00** only in DD.

6) . The tender must produce an Cartered Accountant certificate in the revised form as modified under Ministry of Finance O.M. No. 67/30/69/ITAL dated 02.07.1970 as amended from time to time before tender papers can be sold to him.

7) . Tenders, which should always be in sealed envelope, with the name of work and due date written on the envelope, will be received by

Executive Engineer (E), BSNL Electrical Division, Bhubaneswar. up to 03.00 PM on **16.12.2020** and will be opened by him or his suthorized representative in his office on the same day at 03.30 PM.

8) The tender shall be accompanied by earnest money of Rs. **3912.00** in the form of DD of a scheduled Bank issued in favour of **Accounts Officer(CASH), BSNL, O/o The GMTD, BHUBANESWAR,** the amount being credited to Nationalized Bank / State Bank .

9) . The description of the work is a follows :-

**Name of the work :-**

**Providing E.I & FANS, service connection cable & S.I.T.C of Exhaust fan for GSM project BTS site at CENTRAL UNIVERSITY under KORAPUT SSA.**

Copies of other drawings and documents pertaining to the works will be open for inspection by the tenderers at the office of the above mentioned officer.

Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be responsible for arranging and maintaining at his own cost all materials, 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 conditions and rates at which stores, tools and plants, etc. will be issued to him by the department and local conditions and other factors having a bearing on the execution of the work.

1. The competent authority on behalf of the BSNL does not bind himself to accept the lowest or any other tender and reserves to himself the authority to reject any or all the tenders received without the assignment of any reason. **All tenderers in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.**

The public enterprises that avail benefits of the purchase preference should be subjected to adequate penalties for cost overruns etc.

2. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

3. The competent authority on behalf of BSNL reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.

4. The contractor shall not be permitted to tender for work in the BSNL (responsible for award and execution of contracts) in which his near relative is posted as divisional accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the BSNL or in the Ministry of communication. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

5. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of two years after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.

The tender for the works shall remain open for acceptance for a period of ninety days from the date of opening of tenders. If any tender withdraws his tender before the said period or makes any notifications in the terms and condition of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money as aforesaid.

6. 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 15 days from the stipulated date of start of the work sign the contract consisting of :-

a) 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 there to.

b) Standard C.P.W.D. form 8.

**Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.**

**Near relative(s) of BSNL employee not permitted to tender :**

The company or firm or any other person is not permitted to tender for works in BSNL unit in which his near relative(s) is (are) posted. The unit is defined as SSA/ Circle / Chief Engineer / Chief Arch / Corporate office for non-executive employees and all SSA in a circle including circle office / Chief Eng. / Chief Arch. / Corporate office for executive employees (including those called as Gazetted officers at present).

Therefore, it has been decided by the competent authority that a clause must be added in the tender and other related documents that the tenderer should give a certificate that none of his / her such near relatives is working in the units as defined above where he is going to apply for tender.

work .In case of proprietorship form certificate will be given by the proprietor , for partnership firm certificate will be given by the partners and in case of limited company by all the directors of the company.

Any breach of these conditions by the company or firm or any other person, the tender / work will be cancelled and earnest money / security deposit will be forfeited any stage whenever it is so notified. The department will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit.

**FORMAT OF THE CERTIFICATE TO BE GIVEN BY THE FIRM/ PERSON:**

I \_\_\_\_\_ S/O \_\_\_\_\_ R/O \_\_\_\_\_

hereby certify that none of my relative(S) as defined below is/ are employed in BSNL unit as per details given in the tender documents. In case at any stage, it is found that the information given by me is false / incorrect, BSNL shall have absolute right to take any action as deemed fit / without any prior intimation to me.

- a) Members of Hindu Undivided family,
- b) They are husband and wife,
- c) The one is related to the other in the manner as father, mother, son(s) & son's wife ( daughter- in - law), Daughter(s) & daughter's husband ( son-in law , brother(s) & brother's wife, sister(s) & sister's husband( brother in law).

Signature of the firm / person.

**DECLARATION**

I ..... (full name of Tenderer ) hereby declare that I am fully aware of the terms and conditions of contracts

for work presently prevailing in the Civil Wing of BSNL . I also declare that, I have thoroughly gone through the terms and agreements as contained in various clauses

clauses and Sub - Clauses of terms P.W.D. - 8 I/c up to date amendments therein . I ..... ( full name of contractor )

further declare that while submitting the tender for .....

.....

.....( full name of work ).

I fully agree to abide by the aforesaid terms and conditions of the contract and shall be bound to enter into the agreement in case my tender is accepted.

I undertake to bear all liabilities i.e. duties etc. arising out of 46th amendments of constitution of India.

Date :-

( Full signature of the tenderer )

**Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.**

**GENERAL SPECIFICATIONS.**

- 1) The work shall be carried out as per current department / CPWD specifications.
- 2) Layout of the work shall be given at site of work by the Engineer - in Charge or his duty authorized representative.
- 3) Samples of the all articles shall be got approved from the Engineer - in Charge before they are used.

- 4) The work shall be supervised by the qualified supervisor from the contractor's side.
- 5) Any damage done o the building / equipment of the department shall be made good by the contractor without any extra cost.
- 6) No T & P shall be issued to the contractor by the department.
- 7) Testing shall be done in the presence of the Engineer - in - Charge or his duly authorized representative.
- 8) The contract shall stand for guarantee against defective materials of manufacturering defects and workmanship for the work carried out by him for the period of one year from it's commissioning & make good / repair / replace the faults during this period without any extra cost , failing which the same shall got done at the risk and cost of the contactor. This is in superseesion to the period of 6 months as mentioned in the clause-16 of this agreement.
- 9) Security deposite of the contractor shall be released only after satisfactory completion of guarantee period.
- 10) Makes of product shall be as per product directory enclosed or approved by the Engineer - in - Change.
- 11) Without prejudice of any of the rights or remedies under this contract, if the contractor dies, the Engineer in charge on behalf of the BSNL shall have the option of terminating the contract without compensation to the contractor.
- 12) INDULGING OF CONTRACTOR IN CRIMINAL/ANTISOCIAL ACTIVITIES AND CASES UNDER INVESTIGATION / CHARGE SHEETED BY CBI OR ANY OTHER GOVERNMENT AGENCIES ETC. : If the CBI/Independent External Monitor (IEM) / Income Tax /Sales Tax/ Central Excise/ Custom Departments recommend such a course – Action will be taken as per the directions of CBI or concerned department.

**Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.**

**"ESSENTIAL CONDITIONS OF CONTRACT "**

The firm shall read carefully the following conditions and shall quote accordingly conforming all the points in their offer. Firm should specifically note that if they do not enclose E.M.D. with their tender , their tender will not be opened at all.

1. **TAXES AND DUTIES** : The firm shall quote the rate each time on lump sum basis .The rate quoted by the agency should be **exclusive of GST &** other Taxes.
2. Loading , unloading , transportation, insurance etc. shall all be included in their offer.
3. All the materials will be under the charge of the contractor till it is completed and handed over . No materials will be removed from site without written permission of the Engineer - in Charge.
4. Firm shall confirm to carry out the work as per the N.I.T. conditions.

**5.PAYMENTS TERMS** : No advance payments will be made. Stipulations like levy of interest if any payment is not made in specificied time is not acceptable to the department.

6. **Offer should be clear** . Any ambiguous offer is liable fo rejection by the department. **There will be no negotiation with the lowest tenderer. Hence the firms are requested to quote carefully. Department's decision in this regard shall be final and binding on the tenderer . Offer with condition will be summarily rejected.**

7. **GST** : The rates offered by the firm shall be **exclusive of GST**. The firm shall claim GST with the bill clearly furnishing the complete details of GST so included.

**Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.**

## SPECIFICATION

### E.I & FANS :

- 1 The work is to be carried out as per CPWD specifications ( External ) and I.E Rule amended up to date.
- 2 Good workmanship is an essential requirement to be complied with. The entire work of manufacturer, fabrication, assembly and installation shall conform to sound engineering practice.
- 3 Rates quoted shall be inclusive of packing , forwarding, insurance , freight and delivery at site watch and ward of all materials.
- 4 All Sundry fittings , accessories , hardware items, foundation bolts, termination lugs for electrical connection as required and all other sundry items which are useful & necessary for proper assembly and efficient working of the various components of the works shall be deemed to have included in the tender.
- 5 Following works shall be carried out by the contractor and therefore their cost shall be deemed to be included in their tendered cost.
  - a) The contractor shall be responsible for repairing all damages and restoring the same to their original finish. He shall also remove at his cost all unwanted and waste materials arising out of his work from his site.
  - b) All chases required in connection with the electrical works shall be provided and filled by the contractor to the original finish.
  - c) Temporary shed if required over the storage space and locking arrangement , watch and ward of the materials shall be provided by firm till completion of the work and final taking over of the installation by the department.
- 6 The contractor shall employ qualified engineer/Supervisor as required and intimate names of such persons to the Engineer- in- Charge on commencement of work. Failure to employ will attract penalty as per agreement.
- 7 If any conduit is laid before award of work recovery for the same will be made from contractor at the rate of S.R-2012 + Abatement of respective S/H of this tender.
- 8 All non- metallic conduit pipes and accessories shall be of I.S.I marked , conduit accessories shall be of grip type / threaded type.
- 9 PVC conduit to be used shall be ISI marked heavy gauge and fire retardant quality.
- 10 The switch box shall be made of mild steel of size 16 / 18 SWG as per CPWD specification except the front side. The clear depth of MS switch shall not be less than 60 mm. Phenolic laminated sheet cover of 3 mm thick shall be provided in the front side of box.
- 11 Earthing shall be carried out in presence of representative of the department.
- 12 Numbering and sign writing of entire installation shall be carried out by the contractor as per instructions of the Engineering - in- Charge for which nothing extra shall be paid.
- 13 On completion of installation following tests shall be carried out:-
  - A) Insulation resistance test. B) Polarity test. C) Earth continuity test. D) Earth electrode resistance test.
- 14 On completion of electrical installation a certificate shall be furnished by the contractor in prescribed proforma, this certificate shall be in addition to the certificate required by local electric supply company.
- 15 **Breaking capacity of MCBs should be 10 KA.**

**Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.**

**List of Approved makes for Sub Station Works**

**List of Approved makes for Sub Station Works**

1	HV SWITCHGEAR	SOUTHERN SWITCHGEAR/ BIECCO LAWRIE/CROMPTON/ JYOTI/ MEI/ KIRLOSKAR/ VOLTAS/NGEF/ ALSTOM/ SIEMENS (Note: Make of the accessories like meters, CTs PTs etc. shall be as provided by the manufacturer of the HT panel.)
2	TRANSFORMER	ABOVE 400 KVA: KIRLOSKAR/ NGEF/ CROMPTON/ SIEMENS/ ABB/ VOLTAS/ BHARAT BIJLEE/ ANDREW YULE/ EMCO/ GE UPTO 400 KVA: IN ADDITION TO ABOVE MAKES PATSON/ ETE/ KANO HAR (MEERUT)/ ITL RAJASTHAN TRANSFORMER & SWITCHGEAR JAIPUR
3	ACB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS
4	MCCB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS
5	TPN SWITCH AND HRC FUSES	L&T/ SIEMENS/ HAVELLS/ HH ELCON/ SCHNEIDER/ STANDARD (UPTO 400A)/ GE POWER CONTROLS
6	CONTACTORS AUXILIARY	L&T/ LAXMI/ GE POWER CONTROLS SIEMENS/ SCHNEIDER/ MEI/
7	IDMT RELAY	AVKC-SEGC
8	APFC RELAY	SYNTRON/ SCHNEIDER/ TRINITY ELECTRONICS
9	CT	AE/ IMP/ MARSHAL/ PACTIL/ KAPPA/ L&T/ ASHMOR/ INDOCOIL/ WACO/ MECO/
10	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSAL/ RISHABH/ KAYCEE/ MECO ENERCON
11	SELECTOR SWITCH	L&T/ AE/ IMP/ RASS CONTROL/ THAKOOR/ KAYCEE/ RECO/ VAISHNO/ SALZER
12	INDICATING LAMPS	VAISHNO/ SIEMENS/ L&T/ AE/ IMP/ RASS CONTROL/ TEKNIC/ SCHNEIDER/ KAYCEE
13	PF METER	AE/ IMP/ RISHABH/ MECO/ UNIVERSAL/ DIGITRON
14	CAPACITORS (APP TYPE)	KHATAU JUNKER/ SCHNEIDER/ L&T/ IMP UNIVERSAL ELECTRIC/ USHA/ ASIAN/ AE
15	CABLES	
	A. UPTO 1.1 KV GRADE	ISI MARK
	B. ABOVE 1.1 KV GRADE	ISI MARK
16	AIR BREAK SWITCH	NATIONAL/ KIRAN/ PACTIL/ ATLAS
17	PIN INSULATOR	JAYSHREE/ WS/ IEC/ PCL/ BHEL
18	LIGHTENING ARRESTOR	ELARO/ LAMCO/ INTERNATIONAL/ GE/ ATLAS
19	DROPOUT FUSES	NATIONAL/ KIRAN/ PACTIL
20	FIRE EXTINGUISHER	ISI MARK
21	RUBBER MATTING	ISI MARK



22	CABLE JOINT KIT	RACHEM/ M-SEAL/ DENSONE
23	VACUUM CIRCUIT BREAKER	ALSTOM/ SIEMENS
<b>List of Approved makes for EA Set Works</b>		
1	ENGINE	CUMMINS/ RUSTON/ ESCORTS/ KEOL/ CATER PILLAR/ ASHOK LEYLAND/ GREAVES/VOLVO PENTA (200-500 KVA)
2	ALTERNATOR	KIRLOSKAR/ NGEF/ LEROY SOMER/ JYOTI FRAME SIZE PTG (62.5 KVA-500 KVA) STAMFORD/ CROMPTON GREAVES (SLIP RING/BRUSHLESS, 6-200 KVA)/ AVK-SEG (UPTO 250 KVA)/ ELECTRODYNE (UPTO 100 KVA)/ CROMPTON GREAVES AL SERIES (15 TO 100 KVA)/ ELGI (20 TO 380 KVA) / KEL (BRUSHLESS UPTO 1000 KVA)
3	ACB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS
4	MCCB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS
5	CONTACTORS AUXILIARY	L&T/ LAXMI/ GE POWER CONTROLS SIEMENS/ SCHNEIDER/ MEI/
6	IDMT RELAY	AVKC-SEGC
7	CT	AE/ IMP/ MARSHAL/ PACTIL/ KAPPA/ L&T/ ASHMOR/ INDOCOIL/ WACO/ MECO/
8	PF METER	AE/ IMP/ RISHABH/ MECO/ UNIVERSAL/ DIGITRON
9	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSAL/ RISHABH/ KAYCEE/ MECO ENERCON
10	SELECTOR SWITCH	L&T/ KAYCEE/ AE / IMP/ THAKOOR/ RECO/VAISHNO/ SALZOR/ RASS CONTROL
11	INDICATING LAMPS	VAISHNO/ SIEMENS/ L&T/ AE/ IMP/ RASS CONTROL/ TEKNIC/ SCHNEIDER/ KAYCEE
12	FREQUENCY METER	DIGITRON/ RISHABH/ MECO/ KELTRON/ IMP AE
13	LEAD ACID BATTERY	EXIDE/ STANFORD/ FURUKAWA/ AMCO/ PACE SETTER/ NICCO/ PRESTOLITE/ AMAR RAJA/STANDARD/ CROMPTON GREAVES/ HITACHI
14	GI / MS PIPE	BST/ TATA/ ATL/ ITC/ ATC/ IIA/ JST/ ITS/JINDAL/ ZENITH/ GSI/ TTA
15	AVM PADS	DUNLOP/ POLYBOND
16	FIRE EXTINGUISHER	ISI MARK
17	RUBBER MATTING	ISI MARK
18	CABLES	
	A. UPTO 1.1 KV GRADE	ISI MARK
	B. ABOVE 1.1 KV GRADE	ISI MARK
19	GM VALVE	FOUNTAIN/ TRISHUL/ LEADER/ KIRLOSKAR
20	TRIVECTOR METER	SUNCO/ JAIPUR/ IMP

21	KWH METER	SIMCO/ JAIPUR/ IMP/ AE/ UNIVERSAL/RISHABH				
<b>List of Approved makes for EI and fans, Pump sets and Compound Light Works</b>						
1	ACB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS				
2	MCCB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS				
3	TPN SWITCH AND HRC FUSES	L&T/ SIEMENS/ HAVELLS/ HH ELCON/SCHNEIDER/ STANDARD (UPTO 400A) GE POWER CONTROLS				
4	CT	AE/ IMP/ MARSHAL/ PACTIL/ KAPPA/ L&T/ ASHMOR/ INDOCOIL/ WACO/ MECO/				
5	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSAL/ RISHABH/ KAYCEE/ MECO ENERCON				
6	SELECTOR SWITCH	L&T/ KAYCEE/ AE / IMP/ THAKOOR/ RECO/VAISHNO/ SALZOR/ RASS CONTROL				
7	INDICATING LAMPS	VAISHNO/ SIEMENS/ L&T/ AE/ IMP/ RASS CONTROL/ TEKNIC/ SCHNEIDER/ KAYCEE				
8	CAPACITORS (APP TYPE)	KHATAU JUNKER/ SCHNEIDER/ L&T/ IMP UNIVERSAL ELECTRIC/ USHA/ ASIAN/ AE				
9	CABLES					
	A. UPTO 1.1 KV GRADE	ISI MARK				
	B. ABOVE 1.1 KV GRADE	ISI MARK				
10	PVC INSULATED COPPER CONDUCTOR WIRE	ISI MARK				
11	FIRE EXTINGUISHER	ISI MARK				
12	RUBBER MATTING	ISI MARK				
13	CABLE JOINTS	RACHEM/ M-SEAL/ DENSONE				
14	SINGLE PHASING PREVENTOR	L&T/ MINILEC/ ZERO TRIP/ SIEMENS				
15	TIMER	L&T/ SIEMENS/ MINILEC/ TELEMECHANIQUE/ AE				
16	MCB, ISOLATOR AND DISTRIBUTION BOARD	BENTEX/ CLARITON/ HAVELLS/ INDO-KOPP/STANDARD/ SCHNEIDER/ MDS/SIEMENS				
17	CHANGEOVER SWITCH	STANDARD/ HAVELLS/ CONTROL & SWITCHGEAR HH ELCON				
18	PIANO SWITCH	ISI MARK				
19	MONOBLOCK PUMP SET	KSB/ BEACON/ KIRLOSKAR/ BATLIBOI/ JYOTI/BE/ CROMPTON/ PEC/ MATHER&PLATT/WASP				
20	STARTER	L&T/ SIEMENS/ BCH/ ABB/ MEI/ GE POWER CONTROLS				
21	GI / MS PIPE	BST/ TATA/ ATL/ ITC/ ATC/ IIA/ JUST/ ITS/JINDAL/ ZENITH/ GSI/ TTA				
22	FOOT VALVE	ISI MARK				
23	GATE VALVE	FOUNTAIN/ TRISHUL/ SANT/ ANNPURNA LEADER				

24	MS CONDUIT	ISI MARK
25	SUBMERSIBLE PUMP	KSB/ KALAMA/ AMRUT/ KIRLOSKAR/ PEC BE
26	ELCB	STANDARD/ MDS/ HAVELLS/ DATAR/SIEMENS/ GE POWER CONTROLS
27	CONTACTOR	SIEMENS/ L&T/ SCHNEIDER/ MEI/ LAXMI GE POWER CONTROLS
<b>List of Approved makes for Fire Detection Works</b>		
1	HEAT DETECTORS	NITTON/ APPOLLO/ CHEMTRON/ HOCHIKI/EDWARD/ WORMALD/ FENWAL/
2	SMOKE DETECTOR IONIZATION TYPE	VIJAY/ APPOLLO/ CEREBRUS/ HOCHIKI/EDWARD/ WORMALD/ FENWAL/ NITTON
3	SMOKE DETECTOR PHOTOELECTRIC TYPE	NITTON/ APPOLLO/ CEREBRUS/ HOCHIKI EDWARD/ WORMALD/ FENWAL/ VIJAY
4	FIRE PANELS	MATHER & PLATT/ MELTRON/ STEELAGE INDUSTRIES (MINIMAX)/ VIJAY/ SAFEWAY SECURITY SYSTEM MUMBAI/ CARMEL AND RAVAL ELECTRONICS CO. CHENNAI/ NAVEEN SYSTEM CHENNAI/ ALERT FIRE SERVICE BANGALORE
5	P A SYSTEM	AHUJA/ PHILIPS/ MOTWANI/ AKG
6	HOOTER	VAISHNO/ AHUJA/ AGNI/ PHILIPS/ MOTWANI
7	PVC INSULATED COPPER CONDUCTOR CABLE	ISI MARK
8	BATTERY (LEAD ACID SEALED AND MAINTENANCE FREE)	EXIDE/ STANFORD/ FURUKAWA/ AMCO/ PACE SETTER/ NICCO/ PRESTOLITE/ AMAR RAJA/STANDARD/ CROMPTON GREAVES/ HITACHI
9	CONDUIT	ISI MARK
<b>List of Approved makes for Fire Fighting Wet Riser Works</b>		
1	HOSE REEL	ISI MARK
2	HOSE PIPE	ISI MARK
3	DIESEL ENGINE FOR FIRE PUMP	CUMMINS/ ESCORTS/ KEOL/ CATERPILLAR/ ASHOK LEYLAND/ GREAVES/ VOLVO PENTA (200-500 KVA)/ RUSTON
4	FIRE EXTINGUISHERS	ISI MARK
5	MOTORS	GE/ SIEMENS/ CROMPTON/ HBB/ KEC/ BHARAT BIJLEE/ ABB/ MEI/ SPARTON/ NGEF (ENERGY EFFICIENT MOTORS AS PER IS 12615/1984 FOR MOTORS BELOW 37KW)
6	STARTER	SIEMENS/ L&T/ BCH/ ABB/ MEI/ GE POWER CONTROL
7	TPN SWITCHES AND HRC FUSES	L&T/ SIEMENS/ HAVELLS/ HH ELCON/STANDARD / SCHNEIDER/ GE POWER CONTROLS
8	MCCB	SIEMENS/ L&T/ CONTROL & SWITHGEAR SCHNEIDER/ GE POWER CONTROLS
9	INDICATING LAMPS	VAISHNO/ SIEMENS/ L&T/ AE/ IMP/ RASS CONTROL/ TEKNIC/ SCHNEIDER/ KAYCEE

10	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSAL/ RISHABH/ KAYCEE/ MECO ENERCON					
11	SELECTOR SWITCH	L&T/ KAYCEE/ AE / IMP/ THAKOOR/ RECO/VAISHNO/ SALZOR/ RASS CONTROL					
12	CT	AE/ IMP/ MARSHAL/ PACTIL/ KAPPA/ L&T/ASHMOR/ INDOCOIL/ WACO/ MECO					
13	LEAD ACID BATTERY	EXIDE/ STANDARD/ AMCO/ PACE SETTER/ NICCO/ PRESTOLITE/ AMAR RAJA/					
		CROMPTON GREAVES/ HITACHI/ STANFORD/					
14	GI / MS PIPE	BST/ TATA/ ATL/ ITC/ ATC/ IIA/ JUST/ ITS/JINDAL/ ZENITH/ GSI/ TTA					
15	AVM PADS	DUNLOP/ POLYBOND					
16	RUBBER MATTING	ISI MARK					
17	CABLES						
	A. UPTO 1.1 KV GRADE	ISI MARK					
	B. ABOVE 1.1 KV GRADE	ISI MARK					
18	SINGLE PHASING PREVENTOR	L&T/ MINILEC/ ZEROTRIP/ SIEMENS					
19	GM VALVE	FOUNTAIN- ISI MARK/ TRISHUL/LEADER/ SANT/ ANNPURNA					
20	GAUGES	FIEBIG/ H-GURU/ PRICOL					
21	PUMPS	KSB/ BEACON/ KIRLOSKAR/ BATLIBOI/ JYOTI/WASP/ BE/ CROMPTON/ PEC/ MATHER&PLATT					
22	SPRINKLER	ISI MARK					
<b>List of Approved makes for Air Conditioning Works</b>							
1	MOTOR	SIEMENS/ CROMPTON GREAVES/ HBB/ KEC/BHARAT BIJLEE/ ABB/ MEI/ SPARTON/ NGEFGE					
2	COMPRESSOR	VOLTAS/ KIRLOSKAR COPELAND/ BATLIBOI/ CARRIER/ KPC CARRIER/ COPELAND/ ACCEL/BLUE STAR/ TRANE					
3	STARTER	SIEMENS/ L&T/ BCH/ ABB/ MEI GE POWER CONTROLS					
4	MCB, ISOLATOR AND DISTRIBUTION	BENTEX/ CLARITON/ HAVELLS/ INDO-KOPP/					
	BOARD	SIEMENS/ STANDARD/ SCHNEIDER/ MDS					
5	GI / MS PIPE	TATA/ ATL/ ITC/ ATC/ IIA/ JST/ ITS/ JINDAL ZENITH/ GSI/ TTA/ BST					
6	CABLES						
	A. UPTO 1.1 KV GRADE	ISI MARK					
	B. ABOVE 1.1 KV GRADE	ISI MARK					
7	GM VALVE	FOUNTAIN/ TRISHUL/ ANNPURNA/LEADER/ SANT					

8	SPP / OVERLOAD UNIT	L&T/ MINILEC/ ZEROTRIP/ SIEMENS						
9	RESIN BOND GLASS WOOL	FIBRE GLASS/ PILKINGTON/ UPTWIGA						
10	EXPANDED POLYSTERENE	BASE (INDIA) LTD.						
11	GAUGES	FIEBIG/ H-GURU/ PRICOL						
12	CONTROLS	INDFOSS/ HONEYWELL/ SPORLAN/ RANCO/RANUTROL/ PENN/ DANFOSS/ FLICA						
13	FRESH AIR FAN	GE/ KHAITAN						
14	FILTER, EFFICIENCY 90% DOWN TO 20 MICRONS) AND EU-3 (FINE FILTER, EFFICIENCY 95% DOWN TO 5 MICRONS)	DYNA/ TENACITY/ KIRLOSKAR/ PUROMATIC/AITECH/ FURAFILL/ ARW/ ATHLETE/ PUROLATOR/ ANFILTRA EFFULENT						
15	GI SHEETS	TATA/ SAIL/ NIPPON/ DENRO/ HSL/ JINDAL/ NATIONAL						
16	INDICATING LAMPS	VAISHNO/ SIEMENS/ L&T/ AE/ IMP/ RASS CONTROL/ TEKNIC/ SCHNEIDER/ KAYCEE						
17	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSAL/ RISHABH/ KAYCEE/ MECO ENERCON						
18	SELECTOR SWITCH	L&T/ KAYCEE/ AE / IMP/ THAKOOR/ RECO/ VAISHNO/ SALZOR/ RASS CONTROL						
19	CT	AE/ IMP/ MARSHAL/ PACTIL/ KAPPA/ L&T/ ASHMOR/ INDOCOIL/ WACO/ MECO/						

### PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each intending tenderer)

#### **SCHEDULE 'B'**

Schedule of materials to be issued to the contractor.

Sr. No.	Description of item	Quantity	Rates in figures and words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
<b>As mentioned in the Schedule of work</b>				

#### **SCHEDULE 'F'**

Reference to General Conditions of contract.

Name of work:

**Providing E.I & FANS, service connection cable & S.I.T.C of Exhaust fan for GSM**

project BTS site at CENTRAL UNIVERSITY under KORAPUT SSA.

Estimated cost of work:	195593.00
Earnest money:	3912

Performance guarantee	5% of the tendered value of the work in the form of Bank Guarantee from Scheduled Bank in respect of works with estimated cost put to tender exceeding Rs 6 lacs.
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**GENERAL RULES and DIRECTIONS:**

Officer inviting tender:	Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.
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**Definitions:**

2(v) Engineer-in-Charge	Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.
2(vi) Accepting Authority	Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.
2(x) Percentage on cost of materials and labour to cover all overheads and profits.	10%

**Clause 5**

Time allowed for execution of work.	15 days
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Authority to give fair and reasonable extension of time for completion of work.	S.E(E), O/o the C.E(E), BSNL Electrical Odisha Zone, Bhubaneswar
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**Clause 12**

NA

<b>12.1.2</b> (iii) Schedule of rates for determining rates for additional, altered or, substituted items that cannot be determined under 12.1.2 (i)and(ii)	<b>± the % over the rate entered in the schedule of rates</b>	
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**Clause.25**

Authority competent for conciliation	S.E(E) not in charge
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**SCHEDULE OF WORK**

Name of work:		Providing E.I & FANS, service connection cable & S.I.T.C of Exhaust fan for GSM project BTS site at CENTRAL UNIVERSITY under KORAPUT SSA.			
Sl. no.	Description of Items	Quantity	Unit Price excluding GST (Rs ₹)	Unit	Total Amount excluding GST (Rs ₹)
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. (Group-A)	4		Point	
2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. <b>(a) 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire</b>	10		Mtr	
3	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit along with 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	5		Mtr.	
4	Wiring for light/ power plug with 4 X 4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit along with 2 nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	10		Mtr.	
5	Sypplying, Installation, testing and commissioning of pre-wired, 18 Watt LED type box fitting, complete with all accessories and 18W LED tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor single core cable and earthing etc. as reqd.( Make - Havells/ SS make)	1		Each	

6	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	1		Each	
7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. <b>a) 5/6 amps switch</b>	1		Each	
	b) 3 pin 5/6 amp socket outlet	1		Each	
8	Supplying of 3.5 x 25 sqmm PVC insulated PVC sheathed aluminium conductor armoured cable confirming to relevant ISI etc. as reqd. ( Make - Polycab / ISI Marked)	200		Mtr	
9	Laying of one no. PVC insulated & sheathed power cable of 1.1 KV grade of size up to 35 sq mm in following manner as reqd. a) On surface clamped with 1mm thick saddle	10		Mtr	
	b) In existing GI pipe.	15		Mtr	
	c) Direct in ground including excavation and refilling the trench etc. as requitred but excluding sand cushioning and protective covering.	25		Mtr	
	d) Direct in ground including excavation and refilling the trench including sand cushioning and protective covering etc. as requitred.	150		Mtr	



10	Supply and making of end termination with brass compression gland & lugs including socketing the leads for 3.5 x25 sqmm. cable as reqd.	4		Set	
11	Providing & fixing 4.00 mm dia copper wire on surface or in recess for loop earthing of power plant etc. as reqd.	5		Mtr	
12	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 mtr long etc. with charcoal or coke & salt etc. as required.	2		Each	
13	Providing & fixing 25mm x 5mm GI strip in 40 mm dia. GI pipe from earth electrode as required.	8		Mtr	
14	Providing & fixing 25 mm x 5 mm GI strip on surface or in recess for connection etc. as required.	5		Mtr	
15	Providing & fixing 6 SWG dia G.I wire along with cable /conduit for for loop earthing etc. as required.	10		Mtr	
16	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator). <b>a) 4 way (4 + 12), Double door (Make-Legrand/L&amp;T/Hager</b>	1		Each	

17	Supplying & fixing following rating four pole, 415 Volts , isolator in the existing MCB DB complete with connection, testing & commissioning etc as reqd. <b>a) 63 Amps (Make- Legrand/I&amp;T/Hager)</b>	1		Each	
18	Supplying & fixing following rating four pole/single pole MCB in existing MCB DB complete with connection, testing & commissioning etc. as reqd. a) 6/16/25/32 amp SP MCB. (Make- Legrand/L&T/Hager)	4		Each	
	b) 63 amp FP MCB (Make- Legrand/I&T/Hager)	1		Each	
	c) 63Amp TPN SDFU without Sheet Steel enclosure (Make - Havells/ SS make)	1		Each	
	d) 9W LED Bulb	2		Each	
19	Supplying and fixing brass batten/ angle holder including connection etc. as required.	1		Each	
20	Supplying & fixing of MCB protected Socket outlet 4 module with metal box comprising of 01no. 25Amps socket and 01no. 25Amps Plug and 01no. 25Amps "C" series SPMCB for Split AC units including connection, testing etc. as required. (Make- Legrand /Havells/HPL/Standard)	2		Each	

21	Providing & fixing of 40 mm. dia. M-class GI pipe in ground / on surface / alongwith pole for protection of cable etc. as required. (Make:- Tata/Jindal)	15		Mtr	
22	Supplying & fixing 40 mm dia PVC pipe on surface of wall for protection of cable etc. as reqd.	5		Mtr	
23	Supplying & drawing 4 x 10 sqmm PVC insulated copper conductor cable in existing PVC pipe for extending 3 phase supply to power plant etc. as reqd. (Make- Finolex/L&T/Cable corporation/Polycab)	5		Mtr	
24	Supplying & fixing 63 amp FP onload type change over switch in sheet steel enclosure suitable for operation on 415 V, 50 HZ AC supply etc. as reqd. (M/s HPL Socomec/Similar superior make)	1		Each	
25	Supplying & fixing end box made of 16 SWG MS sheet complete with powder coated painting for fixing on top & bottom of MCBDB for termination of cable etc. as reqd. (Note:- 1 job consist of 2 nos. boxes)	1		Each	
26	Providing & fixing of double door M S feeder pillar by grouting with 40 x 40 x 5mm M.S. angle iron structure in existing P.C.C. foundation including painting etc. as required. The feeder pillar is to be made of 16 SWG MS sheet with detachable gland plate for cable entry & Base plate for TPN Switch with provision including locking arrangement and painting the box with two coats of primer & Sy. enamel paint of approved colour etc. as required.	1		Each	

27	Supplying & fixing of 20Amp -100 Amp Direct reading type Energy meter of accuracy class 1.0 suitable for operation on 415V, 50HZ, AC supply etc. as required.( Make -Secure / SS make)	1		Each	
28	Supplying & fixing of Single arm GI bracket made of 40mm dia medium Class GI pipe (Approx. 1.5 mtr length) suitable for fixing on parapet/wall/street light poles with suitable size clamps, supplying & fixing of nuts and bolts including grouting in wall, minor civil works, painting etc. complete as required for fixing of CFL street light luminaries.	1		Each	
29	S.I.T.C of street light luminaries Energy saving and environmental friendly long life LED street light made up of pressure die cast aluminium housing with acrylic cover as diffuser with IP66 protection and Impact resistance of IK07. 25W 5700K LHEWEBP7PL6S025-Havells/ equivalent make of Phillips/Crompton/Bajaj	1		Nos	
30	Supply of following size exhaust Fan with a capacitor start and run type, continuously rated, totally enclosed and ruggedly built motor having prelubricated double ball bearing with Class "A" and "E" insulation suitable for operation on 230 volts single phase 50 HZ AC supply with features for smooth & silent operation to deliver the maximum output at lower operating cost. The impeller of the Exhaust Fan is to be propeller type and both hub and impeller are to be dynamically balances and frames and arms mounted on rubber bushing so that, vibration are virtually eliminated. (Make- Almonard HD (ISI) or similar superior)				
	a) 380mm /15" heavy duty 1400 RPM, maximum free air delivering capacity not less than 3250 m <sup>3</sup> / hour (1910 CFM) and maximum sound level not more than 60-65 db.	1		Each	

31	Installation of exhaust fan up to 450mm sweep in the existing opening with fastener/ GI nuts and bolts , including making good the damage, connection, testing, commissioning etc. as required	1		Each	
32	Supplying and installation of gravity type Aluminum/ GI louver shutters suitable for 380mm sweep exhaust fans with fastener/GI nuts and bolts etc. complete as required.	1		Each	
33	Making opening on brick wall of suitable size for fixing of 380mm sweep Exhaust Fans including making good the damages, minor civil works etc. complete as required. (For room BTS sites)	1		Job	
34	Supply of 450mm X 450mmX50mm size panel type Inlet Air Filter having washable Synthetic Fiber filtration medium, GI/Aluminium frame with aluminium /spray iron protect mesh capable for air filtration 35 microns (maximum size ) and maximum air handling capacity of 2000 CFM, including fixing the same in existing GI /MS frame structure etc. complete as required.	1		Each	

35	Supply of inlet Air filter housing cum louver unit of following overall size, made of 18 SWG GI sheet with collars of about 50mm width in all front sides, suitable size drill holes for fixing the same on wall, detachable 18 SWG thick, 10mm width GI supporting strip of length 560 mm with drill holes at both ends in front facia for holding the air filter in position, louver blades of 100mm width of required quantities shall be welded horizontally at back side of the filter housing frame with half of the portions remain outside the frame at an angle of about 30 deg downwards to prevent entering of rain water into the room/shelter, a GI /stainless steel protective wiremesh type (25mmX25mm - 2.64mmX2.64mm ) ( Wire diameter 14 SWG-2.64mm, distance from centre to centre of wire - 25mm for both main and cross) to be welded inside the GI sheet housing frame, painting the welded spots by aluminium oxide paint etc. as per the direction of Engineer in charge, including fixing the same in existing opening with Fastener /GI nuts and bolts etc. complete as required.				
36	a) Overall Size 460mm (Width) X 450 mm (Height) X 125mm (Depth) - For Shelter BTS sites	1		Each	
37	Making of air inlet opening on brick wall of approximate size 450mm X 460mm, suitable for fixing the filter housing cum louver unit including making good the damages, minor civil works etc. as required.	1		Job	
Total Value in Rs.					
ADD GST @					
GRAND TOTAL VALUE IN Rs.					

Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.

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