# BHARAT SANCHAR NIGAM LIMITED

(A Government of India Enterprise)

#### O/0 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: -

SI. No.	Name of work	Estimated cost.(Rs.) including GST	EMD (Rs).	Time	NIT No.	<i>≥</i> 3G
1	Providing E.I & FANS, service connection cable & S.I.T.C of Exhaust fan for GSM project BTS site at CHARICHHAK MALUD under Bhubaneswar SSA (2nd Call).	120620-00	2412.00	15 days	90/BSNL-BSR/20-21	Convecting India
	A/A & E/S Reference	Project work				
	T/S No.	50/BSNL-EDB/20-21				
	Tender paper cost (Non refundable) Rs.	590.00				
	Last Date of receipt of application:-	07.01.2021	(upto 4.00PM)		``````````````````````````````````````	
	Last Date of tender paper sale:-	07.01.2021	(upto 5.30PM)	]		
	Last Date of tender paper receipt:	08.01.2021	(upto 3.00PM)	]		
	Date of opening:-	08.01.2021	(after 3.30 PM)			

Eligibility Criteria :-

4

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 guarranted 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 .

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/20/361

Dt. 29/12/2020

- 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.

NOTICE INVITING TENDER

CPWD - 6

# BHARAT SANCHAR NIGAM LIMITED

(A Govt. of India Enteprise)

Item rate	e tenders are invited on behalf of the BSNL from elegible of					
	Providing E.I & FANS, service connection cable & S.		for GSM project B	TS site at		
	CHARICHHAK MALUD under Bhubaneswar SSA (2nd	Call).				
The wo	rk is estimated to cost Rs.	120620.00	This estimate howe	ever 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 of his rates as per various tems and conditions of the said for				publication, tender shall	l quote
3 ).	The time allowed for carrying out the work will be		15 days			
4).	The availablity of individual site will be specified in the av	ward letter.				
5).	Receipt of applications for issue of forms will be stopped will be stopped One day before the date fixed for openi		vs before the date fix	ed for opening of ter	nders. Issue of tender f	orms
	Tender documents consists of plans , specifications, the conditions of contract to be complied with by the whose t Engineer (E),BSNL ELECTRICAL DIVISION , Bhubanest excluding standard form, will be issued from his office , d	tender may be accepte war between 11.00 AM	ed and other necess I & 04.00 PM every	ary document can be day except on Sund	e seen in the office of th	ne Executive
6).	The tender must produce an Cartered Accountant certifi 02.07.1970 as amended from time to time before tender			Ministry of Finance	O.M. No. 67/30/69/ITA	L dated
7).	Tenders, which should always be in sealed envelope, with	th the name of work a	nd due date written o	on the envelope, will	be received by	
Executiv	ve Engineer (E), BSNL Electrical Division, Bhubaneswar. on the same day at 03.30 PM.	up to 03.00 PM on	08.01.2021	and will be opened	by him or his suthorize	ed representative in his office
8)	The tender shall be accompanied by earnest money of F Accounts Officer(CASH), BSNL, O/o The GMTD, BHUB		2412.00 unt being credited to		f a scheduled Bank iss State Bank .	ued in favour of
9).	The description of the work is a follows :-					
Na	me of the work :- Providing E.I & FANS, service connection cable & S.I.T.C SSA (2nd Call).	of Exhaust fan for GS	M project BTS site at	CHARICHHAK MALI	JD under Bhubaneswar	

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 exmine the site and its suttoundings and satisty themselves before submitting eheir tenders as to the ground and sub - soil.( so far as is practicaable ), the form and nature of the site , the means of access to the site , the accomodation they may require and in general shal themselves obtain all necessary information as to tisks , 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 ijplies that he has read this notice and all other contract documents and has made himself aware of the scope and

conditions and ates 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 prohibied and the tenders submitted by the contractors who restore to canvassing will be liable to rejection.

3. The competent authority on hehalf of BSNL reserves to himself the right of accepting the whole or any part of the tender and the tenderer whall 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 account tant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer(both inclusive). He shall also intomate 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 he 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 abtained 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 o opening of tenders. If any tender withdraws his tender before the said period or makes any notifications in the tems 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 forfit 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 Acepting 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 tende 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 certificatethat none of his / her such near relatives isn 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 campany 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 deposite will be forfeited any stage whenever it is so notices. 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 \_\_\_\_\_\_ here by certify that none ofmy 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 / incorect, 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 (sonin 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 eclare 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
clausesand Sub - Clauses of terms P.W.D 8 I/c up to date amendments therein . I
further declare that while submitting the tender for

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 liablities I.e. duties etc. arising out of 46th amendments of constitution of India.

Date :-

(Full singnature of the tenderer)

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

#### **GENERAL SPECIFICATIONS.**

1) The work shall be carried out as per current department / CPWD specificiations.

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 Chanrge 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 - Change 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 - Chanrge.

- 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.

#### "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.

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.

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 marerials.
- 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 inwanted 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 shll be made of mild steel of size 16 / 18 SWG as per CPWD specification except the fromt 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 eletrode resistance test.
- 14 On completion of electrical instalation a certificate shall be furnished by the contractor in prescribed proforma, this certificate shall be in addition to the certificiate 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

		SOUTHERN SWITCHGEAR/ BIECCO LAWRIE/CROMPTON/ JYOTI/ MEI/ KIRLOSKAR/ VOLTAS/NGEF/ ALSTOM/ SIEMENS
1	HV SWITCHGEAR	(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/ KANOHAR (MEERUT)/ ITL RAJASTHAN TRANSFORMER & SWITCHGEAR JAIPUR
3	АСВ	L&T/ SIEMENS/ CONTROL & SWITCHGEAR SCHNEIDER/ GE POWER CONTROLS
4	МССВ	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	ст	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					
	Approved makes for EA Set Works	/					
1	ENGINE	CUMMINS/ RUSTON	I/ ESCORTS/ KEOL/	CATER PILLAR/ A	SHOK LEYLAND/ GRE	AVES/VOLVO PENTA (200-5	00 KVA)
2	ALTERNATOR	(SLIP RING/BRUSH	_ESS, 6-200 KVA)/ A	VK-SEG (UPTO 25		'A) STAMFORD/ CROMPTON NE (UPTO 100 KVA)/ CROMP 000 KVA)	
3	АСВ	L&T/ SIEMENS/ COI	NTROL & SWITCHG	EAR SCHNEIDER/	GE POWER CONTRO	LS	
4	МССВ	L&T/ SIEMENS/ COI	NTROL & SWITCHG	EAR SCHNEIDER/	GE POWER CONTRO	LS	
5	CONTACTORS AUXILIARY	L&T/ LAXMI/ GE PO	WER CONTROLS S	IEMENS/ SCHNEID	ER/ MEI/		
6	IDMT RELAY	AVKC-SEGC					
7	ст	AE/ IMP/ MARSHAL	PACTIL/ KAPPA/ L	&T/ ASHMOR/ INDC	COIL/ WACO/ MECO/	,	
8	PF METER	AE/ IMP/ RISHABH/	MECO/ UNIVERSAL	/ DIGITRON			
9	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSA	L/ RISHABH/ KAYC	EE/ MECO ENERCO	DN		
10	SELECTOR SWITCH	L&T/ KAYCEE/ AE /	IMP/ THAKOOR/ RE	CO/VAISHNO/ SAL	ZOR/ RASS CONTRO	L	
11	INDICATING LAMPS	VAISHNO/ SIEMENS	6/ L&T/ AE/ IMP/ RAS	SS CONTROL/ TEK	NIC/ SCHNEIDER/ KA	YCEE	
12	FREQUENCY METER	DIGITRON/ RISHAB	H/ MECO/ KELTROM	N/ IMP AE			
13	LEAD ACID BATTERY	EXIDE/ STANFORD/ GREAVES/ HITACH		D/ PACE SETTER/ I	NICCO/ PRESTOLITE/	AMAR RAJA/STANDARD/ CF	ROMPTON
14	GI / MS PIPE	BST/ TATA/ ATL/ IT	C/ ATC/ IIA/ JST/ ITS	/JINDAL/ ZENITH/ (	GSI/ TTA		
15	AVM PADS	DUNLOP/ POLYBON	1D				
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/ TRISHL	L/ LEADER/ KIRLO	SKAR			
20	TRIVECTOR METER	SUNCO/ JAIPUR/ IM	P				

21	KWH METER	SIMCO/ JAIPUR/ IMI	P/ AE/ UNIVERSAL/F	RISHABH				
	List of Approved makes for EI and fans, P	ump sets and Compo	ound Light Works					
1	АСВ	L&T/ SIEMENS/ COM	NTROL & SWITCHG	EAR SCHNEIDER/	GE POWER CONTRO	LS		
2	мссв	L&T/ SIEMENS/ COM	NTROL & SWITCHG	EAR SCHNEIDER/	GE POWER CONTRO	LS		
3	TPN SWITCH AND HRC FUSES	L&T/ SIEMENS/ HAV	/ELLS/ HH ELCON/S	SCHNEIDER/ STAN	DARD (UPTO 400A) G	E POWER CONTR	OLS	
4	ст	AE/ IMP/ MARSHAL/	PACTIL/ KAPPA/ La	&T/ ASHMOR/ INDC	COIL/ WACO/ MECO/			
5	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSA	L/ RISHABH/ KAYCI	EE/ MECO ENERCO	DN			
6	SELECTOR SWITCH	L&T/ KAYCEE/ AE /	IMP/ THAKOOR/ RE	CO/VAISHNO/ SAL	ZOR/ RASS CONTROL	L		
7	INDICATING LAMPS	VAISHNO/ SIEMENS	S/ L&T/ AE/ IMP/ RAS	SS CONTROL/ TEK	NIC/ SCHNEIDER/ KA	YCEE		
8	CAPACITORS (APP TYPE)	KHATAU JUNKER/ S	SCHNEIDER/ L&T/ IN	IP UNIVERSAL ELE	ECTRIC/ USHA/ ASIAN	I/ 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/ ZER	OTRIP/ SIEMENS					
15	TIMER	L&T/ SIEMENS/ MIN	ILEC/ TELEMECHAI	NIQUE/ AE				
16	MCB, ISOLATOR AND DISTRIBUTION BOARD	BENTEX/ CLARITON	V/ HAVELLS/ INDO-ł	(OPP/STANDARD/	SCHNEIDER/ MDS/SIE	EMENS		
17	CHANGEOVER SWITCH	STANDARD/ HAVEL	LS/ CONTROL & SV	VITCHGEAR HH EL	CON			
18	PIANO SWITCH	ISI MARK						
19	MONOBLOCK PUMP SET	KSB/ BEACON/ KIRI	_OSKAR/ BATLIBOI/	JYOTI/BE/ CROMP	TON/ PEC/ MATHER8	PLATT/WASP		
20	STARTER	L&T/ SIEMENS/ BCH	I/ ABB/ MEI/ GE PO	WER CONTROLS				
21	GI / MS PIPE	BST/ TATA/ ATL/ ITC	C/ ATC/ IIA/ JUST/ IT	S/JINDAL/ ZENITH	/ GSI/ TTA			
22	FOOT VALVE	ISI MARK						
23	GATE VALVE	FOUNTAIN/ TRISHU	IL/ SANT/ ANNPURM	A LEADER				

24	MS CONDUIT	ISI MARK						
25	SUBMERSIBLE PUMP	KSB/ KALAMA/ AMRUT/ KIRLOSKAR/ PEC BE						
26	ELCB	STANDARD/ MDS/ H	AVELLS/ DATAR/S	IEMENS/ GE POWE	ER CONTROLS			
27	CONTACTOR	SIEMENS/ L&T/ SCH	INEIDER/ MEI/ LAX	MI GE POWER COM	NTROLS			
List of A	Approved makes for Fire Detection Works							
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	EXIDE/ STANFORD	FURUKAWA/ AMC	O/ PACE				
	AND MAINTENANCE FREE)	SETTER/ NICCO/ PI	RESTOLITE/ AMAR	RAJA/STANDARD/	CROMPTON GREAVE	S/ HITACHI		
9	CONDUIT	ISI MARK			1	1		
List of A	Approved makes for Fire Fighting Wet Riser Works							
1	HOSE REEL	ISI MARK						
2	HOSE PIPE	ISI MARK						
3	DIESEL ENGINE FOR FIRE PUMP	CUMMINS/ ESCORT	S/ KEOL/ CATERPI	LLAR/ ASHOK LEYI	LAND/ GREAVES/ VO	LVO PENTA (200-5	00 KVA)/ RI	USTON
4	FIRE EXTINGUISHERS	ISI MARK						
5	MOTORS	GE/ SIEMENS/ CRO PER IS 12615/1984			ABB/ MEI/ SPARTON/	NGEF (ENERGY EI	FFICIENT M	IOTORS AS
6	STARTER	SIEMENS/ L&T/ BCH	H/ ABB/ MEI/ GE PO	WER CONTROL				
7	TPN SWITCHES AND HRC FUSES	L&T/ SIEMENS/ HAV	/ELLS/ HH ELCON/S	STANDARD / SCHN	EIDER/ GE POWER C	ONTROLS		
8	мссв	SIEMENS/ L&T/ COI	NTROL & SWITHGE	AR SCHNEIDER/ G	E POWER CONTROL	S		
9	INDICATING LAMPS	VAISHNO/ SIEMENS	6/ L&T/ AE/ IMP/ RA	SS CONTROL/ TEK	NIC/ SCHNEIDER/ KA	YCEE		

1		
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	ст	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
List of	Approved makes for Air Conditioning Works	
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/ ZERO	OTRIP/ SIEMENS					
9	RESIN BOND GLASS WOOL	FIBRE GLASS/ PILK	INGTON/ UPTWIGA	A				
10	EXPANDED POLYSTERENE	BASE (INDIA) LTD.						
11	GAUGES	FIEBIG/ H-GURU/ PF	RICOL					
12	CONTROLS	INDFOSS/ HONEYW	ELL/ SPORLAN/ RA	ANCO/RANUTROL/	PENN/ DANFOSS/ FLI	CA		
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/ K	IRLOSKAR/ PURO	MATIC/AITECH/ FU	RAFILL/ ARW/ ATHLE	TE/ PUROLATOR/ /	ANFILTRA I	EFFULENT
15	GI SHEETS	TATA/ SAIL/ NIPPON	V/ DENRO/ HSL/ JIN	IDAL/ NATIONAL				
16	INDICATING LAMPS	VAISHNO/ SIEMENS	/ L&T/ AE/ IMP/ RA	SS CONTROL/ TEP	KNIC/ SCHNEIDER/ KA	YCEE		
17	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSA	L/ RISHABH/ KAYC	EE/ MECO ENERCO	ON			
18	SELECTOR SWITCH	L&T/ KAYCEE/ AE / I	IMP/ THAKOOR/ RE	CO/ VAISHNO/ SAI	_ZOR/ RASS CONTRO	L		
19	ст	AE/ IMP/ MARSHAL/	PACTIL/ KAPPA/ L	&T/ ASHMOR/ INDO	DCOIL/ 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
	As mentioned in the Schedule	e of work		

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 CHARICHHAK MALUD under Bhubaneswar SSA (2nd
Call).

Estimated cost of work:	12062	20.00
Earnest money:	2412	

J J.	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.
GENERAL RULES and DIRECTIONS:	
Officer inviting tender:	Executive Engineer (E), BSNL Electrical Division, Bhubaneswar.

#### 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 10%
labour to cover all overheads and profits.
Clause 5
Time allowed for execution of work. 15 days
Authority to give fair and reasonable extension of S.E(E), O/o the C.E(E), BSNL Electrical Odisha Zone, Bhubaneswar
time for completion of work.
Clause 12 NA
<b>12.1.2</b> (iii) Schedule of rates for determining <b>± the % over the rate entered in the schedule of rates</b>
rates for additional, altered or, substituted items
that cannot be determined under 12.1.2 (i)and(ii)
Clause.25
Ulause.20

Authority competemt for conciliation S.E(E) not in charge

## SCHEDULE OF WORK

			ANS, service connec LUD under Bhubanes		I.T.C of Exhaust fan all).
SI. 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)			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. (a) 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	5		Mtr	
3	Wiring for light/power plug with 2 X 4 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.	15		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.			Mtr.	

5	Sypplying, Installation, testing and commissioning of pre- wired, 18Watt 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)	2	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.		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)		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	40	Mtr	
	b) In existing GI pipe.	5	Mtr	

	c) Direct in ground including excavation and refilling the trench etc. as required but excluding sand cushioning and protective covering.		Mtr	
	d) In Air with supplying and foxing of required hard wire except 6 SWG GI wire etc. as required.	10	Mtr	
10	Supply and making of end termination with brass compression gland & lugs including socketing the leads for 3.5 x 25 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.	10	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.		Set	
13	Providing & fixing 25mm x 5mm GI strip in 40 mm dia. GI pipe from earth electrode as required.	30	Mtr	
14	Providing & fixing 25 mm x 5 mm GI strip on surface or in recess for connection etc. as required.	10	Mtr	
15	Providing & fixing 6 SWG dia G.I wire along with cable /conduit for for loop earthing etc. as required.	50	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). a) 4 way (4 + 12), Double door (Make- Legrand/L&T/Hager		Each	
17	Supplying and fixing following rating four pole, 415 Volts , isolator in the existing MCB DB complete with connection, testing & commissioning etc. as reqd. a) 63 Amps (Make- Legrand/L&T/Hager)	1	Each	
18	Supplying and 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/I&T/Hager)	4	Each	
	b) 63 amp FP MCB (Make- Legrand/I&T/Hager)	1	Each	
	c) 9W LED Bulb	2	Each	
19	Supplying and fixing brass batten/ angle holder including connection etc. as required.	1	Each	

20	Supplying and 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)		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)		Mtr	
22	Supplying and fixing 40 mm dia PVC pipe on surface of wall for protection of cable etc. as reqd.	10	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)		Mtr	
24	Supplying and 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)		Each	
25	Supplying and 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	Job	

26	Supplying and 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 and fixing of nuts and bolts including grouting in wall, minor civil works, painting etc. complete as required for fixing of CFL street light luminaries.		Each	
27	SITC 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		Each	
28	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 deliverying capacity not less than 3250 m <sup>3</sup> / hour (1910 CFM) and maximum sound level not more than 60-65 db.		Each	

29	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	
30	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.		Each	
31	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)		Job	
32	Supply of 450mm X 450mm X 50mm size panel type Inlet Air Filter having washable Synthetic Fiber filteration medium, GI/Aluminium frame with aluminium /spray iron protect mesh capable for air filteration 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.		Each	

	Supply of inlet Air filter housing cum louver unit of following overal 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 horizintally 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 (25mm X 25mm - 2.64mm X 2.64mm )( 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.				
2)	(Depth) - For Shelter BTS sites	1		Each	
	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.			dol	
			Total Valu	ie in Rs.	
			ADD GST @		
			GRAND TOTAL	VALUE IN Rs.	

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

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