

Bharat Sanchar Nigam Limited

(Electrical Wing)

Office of

Executive Engineer (E)
BSNL Electrical Division I,
Second Floor, Kellys Telephone Exchange
Kellys, Chennai-10
Ph.No.044-26470405

TENDER DOCUMENT

Name of work:- Comprehensive Maintenance of Electro Mechanical Services for GSM BTS sites under DGM Rural BSS, Chennai for 2022-23- SW:- (Attending EI and AC faults under DE BSS TVR) for 3 Months. (Recall)

NIT No.: 04 /EE(E)/ED-I/BSNL/CH/22-23 DATED 21-04-2022

Date of opening: 19-07-2022 15:30 Hrs

This tender document contains 45 pages only

(To be filled in by the Contractor)

Name of the Agency

Address

Telephone No. of agency:

Contractor Page 1 of 45 Executive Engineer

INDEX

SL.No	Description	Page no.
1	Front cover and Index	2
2	Notice Inviting Tender form - BSNL EW6	6
3	General Instructions to the Bidders	10
4	Undertaking to abide by EW 6 & EW 8 (Form 'A')	12
5	Undertaking regarding EPF& ESI provisions (Form 'B')	13
6	Performance report of works (Form 'C')	14
7	No Near relative working certificate (Form 'D')	15
8	Model form of Bank Guarantee for EMD (Annexure-I)	16
9	Model form of Performance security Guarantee bond (Annexure-II)	17
10	Schedule of Quantities	20
11	Specifications	33
12	List of Approved Makes	40
13	List of Indian Standards	42
14	Proforma Schedules	43
15	BSNL EW – 8 form	44-45

Contractor Page 2 of 45 Executive Engineer

INFORMATION AND INSTRUCTIONS FOR BIDDERS

The Executive Engineer (Elect), BSNL, ED-I, Chennai on behalf of the CMD,BSNL invites Item rate bids from eligible bidders in Single bid system for the following work:

1	Name of work	Name of work:- Comprehensive Maintenance of Electro Mechanical Services for GSM BTS sites under DGM Rural BSS, Chennai for 2022-23-SW:- (Attending EI and AC faults under DE BSS TVR) for 3 Months) (Recall)
2	Estimated cost put to tender	Rs.1,99,284/-
3	Earnest Money	Rs. 3986/-
4	Period of completion	Three Months
5	Tender Fee(Non- refundable)	Rs.500 (+) 18% GST=Rs 590/-
6	Last date & time for submission of tender	Up to 15:00 Hrs. on 19.07.2022
7	Date and time for opening of tender	15:30 Hrs. on 19.07.2022

Contractor Page 3 of 45 Executive Engineer

ELIGIBILITY CRITERIA

The bidders satisfying the following conditions:

(1) Average annual turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost put to tender.

AND

(2)BSNL enlisted contractors in Electrical category of respective class as per their tendering limits.

OR

(3) The manufacturer/authorized dealer/OEM of any of the makes of major equipment included in the NIT. The letter of authorization from manufacturer in original/photocopy attested by BSNL Executive will be submitted.

OR

(4)Experience of having successfully completed similar works in BSNL comprising of either substation or air conditioning service as part of scope of work during last 7 years ending last day of month previous to the one in which applications are invited, should be either of the following:

Three similar successfully completed works costing not less than the amount equal to 40% of the estimated cost put to tender.

OR

Two similar successfully completed works costing not less than the amount equal to 60% of the estimated cost put to tender.

OR

One similar successfully completed work costing not less than the amount equal to 80% of the estimated cost put to tender.

For the purpose of this clause "similar works" means "AMC/Repair of window /split AC units (or) AMC of EMS"

The experience certificate / Completion Certificate shall be issued by an officer not

below the rank of Executive Engineer / Assistant General Manager.

Contractor Page 4 of 45 Executive Engineer

IMPORTANT INSTRUCTIONS TO BIDDERS DOWN LOADING THE TENDER DOCUMENT FROM WEB SITE

The bidders, who have down loaded the tenders from the web site, shall read the following important instructions carefully before quoting the rates and submitting the tender documents.

- 1. The tenderer should see carefully and ensure that the tender document containing all the pages as per the index has been down loaded for making required entries. The balance pages of Standard BSNL EW8 form will be attached with the agreement after the award of work.
- 2. A clear print out of tender document shall be taken on good quality A4 size paper and the printer settings, etc., shall be such that the document is printed as appearing in the web and without any change in format, number of pages, etc., and shall also ensure that no page is missing. Only original computer printout of the document shall be used. Photocopy shall not be accepted.
- 3. In case of any doubt in the downloaded tender, the same shall be got clarified from the Engineer in charge calling the NIT before submission.
- 4. The name of the bidder shall be filled on the relevant pages of tender document and all the pages shall be invariably signed. (With stamp)
- 5. The tenderer shall ensure that the downloaded tender document is properly stitched before submitting the document.
- 6. There shall be no correction / addition / alteration / omission made in the text of the downloaded tender document. If found otherwise, the same shall be treated as non-responsive and rejected.
- 7. The tenderer shall sign the declaration enclosed before submitting the tender.
- 8. The tenderer shall submit the tenders in 2 covers marked as No.1 and No.2. The tenderer shall submit the credentials for meeting the eligibility conditions along with the cost of the tender fee and EMD in the prescribed format as detailed in NIT, along with a covering letter on his printed letter head stating the details of enclosures in the **first cover**. The credentials shall be self-attested. The **second cover** shall contain the price bid. The rates and amounts should be filled in the schedule of work attached thereto.
- 9. The **cover-1** shall contain the following.
 - a. Tender Fee in the prescribed format
 - b. EMD in the prescribed format
 - c. Certificate of Financial Turnover from Chartered Accountant iifapplicable
 - d. Documents fulfilling Eligibility criteria (Please note that in case the bidder is authorised by the manufacturer, the original authorisation letter is to be scanned and uploaded)
 - e. Enlistment certificate issued by BSNL if applicable
 - f. Electrical license issued by TN Govt.
 - g. GST Registration Number details
 - h. PAN Card
 - i. EPF and ESI Registration certificate if applicable
 - j. Certificate of work experience issued by client department (Form 'C') if applicable

Not submitting the above documents in Cover-1, the Cover-2 will not opened

Contractor Page 5 of 45 Executive Engineer

10. The **Cover-1 and 2** shall be deposited in the tender box available in the office of tender opening authority, by all the bidders before **3:00 PM** on 19/07/2022 the tender opening date, failing which the tender shall not be opened.

Contractor Page 6 of 45 Executive Engineer

BSNL EW-6

Bharat Sanchar Nigam Limited Electrical Wing

Electrical Division: **ED-I,Chennai** Sub Division: **ESD- GSM-II**

Item rate tenders on single bid system are invited on behalf of CMD,BSNL for the work "Comprehensive Maintenance of Electro Mechanical Services for GSM BTS sites under DGM Rural BSS, Chennai for 2022-23- SW:- (Attending EI and AC faults under DE BSS TVR) for 3 Months(Recall)." from the eligible bidders as per NIT notification. The enlistment of the bidders should be valid on the opening date of tender. In case the date of opening of tender is extended, the enlistment of bidder should be valid on the original date of opening of tender.

- Tenders which should always be placed in sealed covers with the name of the work written on the envelope will be received and opened by the tender opening authority as per the date and time mentioned in INFORMATION AND INSTRUCTIONS FOR BIDDERS. Unsealed tenders will be summarily rejected.
- 2. Intending bidder is eligible to submit the bid provided that he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority as per the eligibility conditions mentioned in the NIT notification page.
- 3. The work is estimated to cost **Rs 1,99,284/-** This estimate, however, is given merely as a rough guide.
- 4. Agreement shall be drawn with the successful bidder on prescribed form as amended up to the date of opening of tender. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 5. The time allowed for carrying out the work will be **Three Months** from the 10th day after the date of written order to commence the work.
- 6. The site for the work is available / or the site for the works shall be made available in parts. The successful bidder shall execute the work in coordination with other agencies working in the campus.
- 7. The bid documents consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.chennai.bsnl.co.in at free of cost. The BSNL EW-8 document can be seen from the web site www.chennai.bsnl.co.in atfree of cost.
- 8. The Tender Feein the form of Demand Draft issued by the Nationalized / Scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL**, **Chennai Telephones** payable at **Chennai**. The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
- 9. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000)/ CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of BSNL, Chennai Telephones payable at Chennai.

Contractor Page 7 of 45 Executive Engineer

The validity of the EMD in the form of DD shall be 60 days from the date of opening. If the EMD is in the form of CDR/FDR/BG, the validity shall be 180 days from the date of opening. In case of L1 bidder, the validity of CDR/FDR/BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit. Exemption from payment of Tender Fee, Earnest Money and Security Deposit by any other unit/ department shall not hold good for BSNL.

- 10. The last date for submission of bid is **19.07.2022 up to 3:00 PM** and the bid submitted shall be opened at 03:30 PM on the day. If a holiday is declared on the tender opening day, the tender will be opened on the next working day.
- 11. **Performance Guarantee**: The bidder is required to furnish Performance guarantee for an amount equal to 5% of the contract value in the form of bank guarantee/CDR/FDR/DD (of a Nationalized/ Scheduled Bank in a standard format) within two weeks from the date of issue of acceptance letter. This period can be further extended by the Engineer-incharge up to a maximum period of two weeks on written request of Bidder. The validity period of the performance security in the form of performance bank guarantee shall be: Two Months from the date of actual completion of work, for AMC works; and One year from the date of actual completion of work for all other works. **In case the bidder fails to deposit the said performance guarantee within the stipulated period, including the extended period if any, the Earnest Money deposited by the bidder shall be forfeited automatically without any notice to the bidder and the bidder will not be allowed to participate in the re tendering for the same work.**
- 12. **Security Deposit**: In addition to Performance guarantee stated above, a sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum be deducted with the sum already deposited as earnest money, will amount to security deposit of 5% of the contract value of the work. **The security deposit shall be released after an observation period as follows: Three Months from the date of actual completion of work, for AMC works; and One year from the date of actual completion of work for all other works.**
- 13. If it is found at any stage oftender scrutiny after submission of tender that the bidder has made any correction/addition/alteration/omission intender documents vis-à-vis tender documents available on the website /original Draft NIT in office, the bid shall be treated as non-responsive and shall be summarily rejected and the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further, the bidder shall not be allowed to participate in the retendering process of the work.
- 14. The Tender documents shall not be sent through the Courier/Post. Tender documents received through Courier/post shall not be opened/considered at all. All communication with the bidders shall be in writing. Fax / E-mail shall be covered under this category and considered as adequate means of communication.
- 15. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, 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 bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at

Contractor Page 8 of 45 Executive Engineer

- his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the
- 16. contract documents. Submission of a tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the BSNL and local conditions and other factors having a bearing on the execution of the work.
- 17. The competent authority on behalf of the CMD 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 tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected. The competent authority on behalf of CMD reserves to himself the right of accepting the whole or any part of the tender and the bidder shall be bound to perform the same at the rate quoted.
- 18. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable to rejection.
- 19. Agreement shall be drawn with the successful bidder on prescribed form. Bidder shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.
- 20. The bidder should give a certificate as per the following that none of his/her relative is employed in BSNL units as per **Form 'D'**. In case of proprietorship firm, certificate will be given by the proprietor and for partnership firm certificate will be given by all the Directors of the company.
 - a. Near relatives of all BSNL employees either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of BSNL. The near relatives for this purpose are defined as:
 - i. Members of a Hindu Undivided family.
 - ii. They are husband and wife.
 - iii. 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).
 - b. 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 Archt./Corporate office for non-executive employees and all SSA in a circle including circle office/Chief Eng./Chief Archt./Corporate office for executive employees (including those called as Gazetted officers at present). The bidder should give a certificate that none of his/her such near relative is working in the units as defined above where he is going to apply for tender/work, for proprietorship, partnership firms and limited company certificate shall be given by the authorized signatory of the firm. Any breach of these conditions by the company or firm or any other person, the tender/work will be cancelled and earnest money/performance guarantee will be forfeited at any

Contractor Page 9 of 45 Executive Engineer

stage whenever it is so noticed. BSNL 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.

- c. No employee in BSNL/ Govt. of India is allowed to work as a contractor for a period of two years of his retirement from service without the prior permission. The contract is liable to be cancelled if either the bidder or any of his employees is found at any time to be such a person who had not obtained the permission as aforesaid before submission of tender and engagement in the bidders service.
- 21. The tender for the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders. If any bidder withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the BSNL, then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.
- 22. The bidder has to comply with the provisions of EPF and miscellaneous provisions Act-1952 and employees provident fund scheme-1952 as amended up to date in respect of labours/employees engaged by them for this work. Any consequence arising due to non-complying of provisions as specified above shall be the sole responsibility of the firm only. The agency shall give an undertaking to this effect as per **Form 'B'**.
- 23. Extension of Validity of tender: In case, where the letter of award of work cannot be placed within the validity period of the tender, the BSNL can request the bidder to extend the validity of their respective tenders and the Earnest Money deposit by a reasonable period. In such cases, extension of validity of Earnest Money deposit by 30 days beyond the extended validity date of tender should also be asked for. While BSNL can make the request for extension, the tenderer is free to either extend the validity or refuse the request to extend the validity.
- 24. Rates quoted by the contractor shall be firm and shall be valid for the currency of contract. No cost escalation shall be permitted during the currency of contract.
- 25. This notice inviting tender shall form a part of the contract document. The successful bidder, 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 part of the tender as uploaded at the time of invitation of tender, subsequent amendments issued and the rates quoted at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b. Standard BSNL EW-8 form

Contractor Page 10 of 45 Executive Engineer

c. General Instructions to the Bidders

- 1. The intending bidder must read the terms and conditions of BSNL-EW 6 carefully. He should only submit his bid, if he considers himself eligible and he is in possession of all the documents required.
- 2. Information and instructions for bidders posted on website shall form part of bid document.
- 3. Applicants are advised to keep visiting the above mentioned website from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. An incomplete application may be liable for rejection.
- 4. Even though any bidder may satisfy the above requirements, he would be liable to disqualification if he has:
- a. Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
- b. Record of poor performance such as abandoning work, not properly completing the contract, or financial failures / weaknesses etc.
- 5. If any information furnished by the bidder is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in BSNL. The BSNL reserves the right to verify the particulars furnished by the applicant independently.
 - 6. GSTandanyothertax applicable in respect of this contract shall be borne by the bidder himself. The bidder shall quote his rates considering all such taxes. The TDS as per the Govt. regulations will be recovered from the contractor.

7. **Tender Evaluation**:

- (a) The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST. The bid with lowest net cost as elaborated above will be the L1 bidder.
- (b) Vendors should furnish the correct GST Rate in the price schedule. If the Input Tax Credit is found to be not admissible at any stage subsequently owing to wrong furnishing of GST Rate, then the vendors will be liable to refund such non-admissible amount, if already paid, along with penalty if charged by the concerned authority.
- 8. However, pursuant to the constitution (Forty-sixth amendment) act, 1982, if any further tax or levy is imposed by statute, after the last date of receipt of tenders, and the contractors there upon necessarily and properly pays such taxes/ levies, the contractor shall be reimbursed the amount so paid, provided such payment, if any, is not in the opinion of Superintending engineer (whose decision shall be final and binding) be attributable to delay in execution of work within the control of contractor.
- 9. The Contractor shall, within a period of 30 days of imposition of any further tax or levyin

Contractor Page 11 of 45 Executive Engineer

pursuant to the constitution of (Forty sixth amendment) act 1982 give a written notice thereof to the Engineer-in-charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

10. Bye laws Indemnity against liabilities:

- a. The bidder shall comply with all bylaws and regulations of the local and statutory authorities having jurisdiction over the works and shall be responsible for payment of all fees and other charges and giving and receiving all necessary notices and keep the Engineer –in-charge informed about the notices issued and received.
- b. The bidder shall indemnify the department against all claims in respect of patent rights design, trademark or name of other protected rights in respect of any plant, machine, work or materials used for or in connection with the works or temporary works and from and against all claims demands, proceedings, costs, charges and expenses whatsoever in respect of or in relation thereto.
- c. The bidder shall defend all actions arising from such claims and shall himself pay all royalties, License fees, damages, costs and charges of all and every sort that may be legally incurred in respect hereof shall be borne by the bidder.
- d. All liabilities / penal recoveries on matters arising out of tax /levies such as incorrect deductions, discrepancies in the filing of returns, revised assessments by the concerned authorities etc., shall be borne by the bidder.

11. Termination of contract on death of contractor:

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 /GST/ Central Excise/Custom Departments recommend such a course Action will be taken as per the directions of CBI or concerned department.
- 13. As a general notion, the terms and conditions/instructions contained in various pages of this document are addressed assuming the bidder as 'Male'. However, the same shall remain and assumed to be addressed in case of 'Female' bidder also, except for the gender centric words, which shall be 'female' centric at appropriate places.

Contractor Page 12 of 45 Executive Engineer

FORM 'A'

Undertaking to abide by EW 6 & EW 8

<u>Z</u>		
"I	Son/Daughter of	
Resident of	here	eby
5	d the complete bid document and I am aware of all the claus 8 forms and I confirm that I will abide by all the terms a 8 forms.	
(Carl of the Cour)	(Circulations of Didden)	
(Seal of the firm)	(Signature of Bidder)	

Contractor Page 13 of 45 Executive Engineer

FORM 'B'

Undertaking	<u>g regarding</u>	<u> EPF provisions</u>

"I Son /Daughter of
mereby give an undertaking that
* I/We have employed only persons in our establishment and hence the EPF and Miscellaneous provisions Act, 1952 is not applicable to my / our establishment.
* I/ We have registered as per the EPF and Miscellaneous provisions Act, 1952 and our registration no^{**} is We undertake to keep it valid during the currency of contract.
In case at any stage, it is found that the information given by me is false / incorrect, BSNL shall have the absolute right to take any action as deemed fit/without any prior intimation to me".
* strike out whichever is not applicable
**Attach a self-attested photo copy of the above said EPF registration certificate.
(Seal of the firm) (Signature of Bidder)
Undertaking regarding ESI provisions
"I
* I/We have employed only persons in our establishment and hence the ESI and Miscellaneous provisions Act,1948 is not applicable to my / our establishment.
* I/ We have registered as per the ESI and Miscellaneous provisions Act, 1948 and our registration no.** is We undertake to keep it valid during the currency of contract.
In case at any stage, it is found that the information given by me is false / incorrect, BSNL shall have the absolute right to take any action as deemed fit/without any prior intimation to me".
* strike out whichever is not applicable
**Attach a self-attested photo copy of the above said ESI registration certificate.
(Seal of the firm) (Signature of Bidder)

Contractor Page 14 of 45 Executive Engineer

FORM 'C'

Executive Engineer or Equivalent

Performance report of works

1.	Name of Agency
2.	Name of work
3.	Agreement no.
4.	Final Value of Work Done
5.	Date of start of work
6.	Actual date of completion
7.	Performance: Satisfactory / Not Satisfactory

Dated:

Contractor Page 15 of 45 Executive Engineer

						F	ORM 'D'	
	No Nea	<u>r relative wo</u>	<u>rking c</u>	certifica	<u>te</u>			
I	Son	/Daughter	of	Shri			• • • • • • • • • • • • • • • • • • • •	.Resident
of hereby of	certify that	none of my	relative	e(s) as	define	d in the	tender d	locument
is/are employed in BSNL	unit as pe	r details given	in tend	der docur	ment.	In case	at any st	age, it is
found that the information	given by m	e is false/inco	rrect, B	SNL shal	I have	the abs	olute righ	t to take
any action as deemed fit/wit	thout any p	rior intimation	to me.					
(Seal of the firr	n)			(:	Signat	ure of Bi	dder)	

Annexure I MODEL FORM OF BANK GUARANTEE FOR EMD

(For submitting EMD for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station Works wherever the amount of EMD is more than Rs.20,000/-)

Whe		 :ed	for the	work	(hereinaft	er called	"the	e bidder(s)") has submitted
103 10	criaci dat	.cu	_ioi tiic	WOIR				KNOW ALL MEN
by	these	presents	that	WE				OF
		•	havir	ng our	registered	office	at_	
(here	einafter c	alled "the Ba	nk") are	bound ι	unto			(hereinafter called
"the	BSNL") ir	n the sum of			for which	ch paym	ent v	vill and truly to be made of
the s	aid BSNL	. the Bank bi	nds itsel	f, its succ	cessors and a	assians b	v the	ese presents.

THE CONDITIONS of the obligation are:

- 1. If the Bidder(s) withdraws its Tender during the period of Tender validity specified on the Tender Form: or
- 2. If the Bidder(s) having been notified of the acceptance of its Tender by the BSNL during the period of Tender validity.
 - (a) Fails or refuses to execute the Contract.
 - (b) Fails or refuses to furnish security Deposit in accordance with the conditions of Tender document.

We undertake to pay to the BSNL up to the above amount upon receipt of its first written demand, without the BSNL having to substantiate its demand, provided that in its demand, the BSNL will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force as specified in the Tender Document up to and including Thirty (30) days after the period of the Tender validity and any demand in respect thereof should reach the Bank not later than the specified date/dates.

Signature of the Bank

Signature of the Witness Name of Witness

Address of Witness:

Contractor Page 17 of 45 Executive Engineer

ANNEXURE II PERFORMANCE SECURITY GUARANTEE BOND

In consideration of the CMD, BSNL (hereinafter called 'BSNL') having agreed to exempt (hereinafter called 'the said bidder(s)') from the demand under the terms and
conditions of an agreement/Advance Purchase Order No dated made between and for the supply of
(hereinafter called "the said agreement"), of security deposit for the due fulfilment by the said bidder (s) of the terms and conditions contained in the said Agreement, on
production of the bank guarantee forwe, (name of the bank) (hereinafter refer to as "the bank") at the request of
(bidder(s)) do hereby undertake to pay to the BSNL an
amount not exceeding against any loss or damage caused to or suffered or would be caused to or suffered by BSNL by reason of any breach by the said Bidder(s) of any of the terms or conditions contained in the said Agreement.
2. We (name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the BSNL by reason of breach by the said bidder(s)' of any of the terms or conditions contained in the said Agreement or by reason of the bidders(s)' failure to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee where the decision of BSNL in these counts shall be final and binding on the bank. However, our liability under this guarantee shall be restricted to an amount not exceeding
3. We undertake to pay to the BSNL any money so demanded notwithstanding any dispute or disputes raised by the bidder(s)/supplier(s) in any suit or proceeding pending before any court or tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the bidder(s)/supplier(s) shall have no claim against us for making such payment.
4. We(name of the bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the BSNL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till (office/BSNL) BSNL certifies that the terms and conditions of the said Agreement have been fully or properly carried out by the said bidder(s) and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the expiry of TWO/TWO AND HALF/THREE YEARS (as specified in P.O) from the date hereof, we shall be discharged from all liabilities under this guarantee thereafter.
5. We (name of the bank) further agree with the BSNL that the BSNL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said bidder(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the BSNL against the said Bidder(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Bidder(s) or for any forbearance, act or omission on the part of the BSNL or any indulgence by the BSNL to the said

Contractor Page 18 of 45 Executive Engineer

Bidder(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged du Bidder(s)/supplier(s).	ue to the change in the constitution of the Bank or the
7. We (name of the bank)during its currency except with the previous	lastly undertake not to revoke this guarantee consent of the BSNL in writing.
Dated the day	y of
for	(indicate the name of bank)

Contractor Page 19 of 45 Executive Engineer

Schedule of Work

Name of work:- Comprehensive Maintenance of Electro Mechanical Services for GSM BTS sites under DGM Rural BSS, Chennai for 2022-23- (3 Months) SW:- (Attending EI and AC faults under DE BSS TVR) for 3 Months(Recall)

Sl.no	Description of Item	Qty	Unit	Unit	Unit	Rate per Unit excluding GST	Total Amount Excluding GST (Net cost)	CGST		SGST		IGST	Total Amount including GST		HSN/SAC code
						%	Amount in Rs	%	Amount in Rs	%	Amo	=col.(13=col.			
							Rs.		Rs.		Rs.	Rs.			
1	2	3	4	5	6	7	8=Col. (6 x 7)	9	10=col.(6x 9)	11	12=col.(6*11)		14		
1)	Attending faults in Window/S	l plit Ac un	its			<u> </u>									
	Attending initial faults in the exis specialized manpower and by ar required.														
1	Topping up of gas for 1.5 TR Window/Split Ac units upto required level	6	job												
2	Leak arresting,vacumising and gas charging up to required level	5	job												
3	Rewinding of Indoor/outdoor fan motor	2	job												

	1			1				1	1			1	1
			<u> </u>										
4	Outdoor Fan blade	3	each										
_													
5	Indoor blower fan	2	each										
	Connections of a vitable nation of												
6	Capacitors of suitable rating as per site conditions (Metallic encapsulated capacitors only)	5	each										
	oneapealatea sapaoliere emy)												
7	PCB Board for Window/Split												
	Ac suitable for various model	2	aaab										
	AC units	2	each										
8	Evaporator coil for Window Ac												
	units on buy back arrangement												
	(copper	1	each										
	coil only)												
	Matanagariaina	4.5											
9	Water servicing	15	each										
2)	Attending fault in El & Fans							<u> </u>					
<u> </u>			6 10		P 16			·		c : , ,			,
	Attending breakdown calls and d												/spares as
	per site requirement with suitable	e accesso	ries i/c r	emoving the t	auity items /m	ateriais/s	pares, trar	isportatio	on of materials	to site a	and fixing e	itc as requ.	
1	4 x 25 sq.mm size Al. Armoured	I XI PF											
'	UG cable in the following manne												
	i. Direct in ground	10	mtr										
	i. Direct in ground	10	"""										
	ii. On surface of wall	10	mtr										
					l			<u> </u>]	

Contractor Page 21 of 45 Executive Engineer

	iii. In existing pipe	10	mtr						
	iv. In loose looping	15	mtr						
2	4 x 16 sq.mm size Al. Armoured UG cable in the following manner			1					
	i. Direct in ground	10	mtr						
	ii. On surface of wall	10	mtr						
	iii. In existing pipe	10	mtr						
	iv. In loose looping	15	mtr						
3	40mm dia HDPE pipe of 8 Kgf/d the following manner for cable p	cm ² in rotection			1				
	i. Direct in ground i/c excavation, refilling and making good the surface	5	mtr						
	ii. On surface of wall with suitable size clamp	5	mtr						
	iii. In bitumen/Cement concrete road i/c road cutting and plastering with cement	5	mtr						

Contractor Page 22 of 45 Executive Engineer

4	End termination with brass compression gland and aluminium lugs for 4x 25 sq.mm (28mm) PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade	6	set									
5	End termination with brass compression gland and aluminium lugs for 4x 16 sq.mm (28 mm) PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.	6	set									
6	Overhead Service connection ar	rangemen	t with 4	x 16 sq.mm s	ize PVC insul	ated Al. c	onductor v	vire in the	following ma	nner		
	i. With 2 runs of stay wire and insulators	4	mtr									
	ii. In loose looping/existing pipe	4	Mtr									
7	Overhead Service connection ar	rangemen	t with 2	x 16 sq.mm s	ize PVC insul	ated Al. c	onductor w	vire in the	e following ma	nner	L	
	i. With 1 run of stay wire and insulators	5	mtr									
	ii. In loose looping/existing pipe	5	mtr									

Contractor Page 23 of 45 Executive Engineer

8	Prdg. Manpower services towards liasoning with TANGEDCO offices located in Chennai Telephones area for reduction of contract demand/obtaining refund of EB deposit for closed BTS sites etc., i/c collecting necessary documents from Electrical Division/Subdivision & %SDE BSS and handing over the same at respective EB office and vice versa etc complete as required.	5	Job									
9	40 mm dia 'B' class GI pipe with suitable accessories for supporting OH service connection arrangement by fixing on ground with suitable cement concrete	5	mtr									
10	Straight through joint with heat sl cable of 1.1 KV grade as require				ng mater	ials for foll	lowing siz	ze of PVC insu	ulated a	nd PVC she	eathed/XLPE AI.	conductor
	i. 4 x 25 Sq.mm	1	each									
	ii. 4 x 16 Sq.mm	1	each									

Contractor Page 24 of 45 Executive Engineer

11	4 x 10 sq.mm PVC insulated copper wire for interconnections i/c making end termination with suitable size lugs	6	mtr					
12	4 x 6 sq.mm PVC insulated copper wire for interconnections i/c making end termination with suitable size lugs	6	mtr					
13	63 A Rewirable fuse cutout with base	6	each					
14	Following rating isolator/MCBs in existing DB/Meter box							
i	40 A, Double Pole Isolator	1	each					
ii	63A Four Pole Isolator	1	each					
iii	5 - 32 A 'C' Series Single Pole MCB	1	each					
iv	32 A TP MCB	1	each					
15	Neutral/earth link in existing meter box/DB i/c making connections	6	each					

Contractor Page 25 of 45 Executive Engineer

16	SMC sheet outdoor type service connection board with IP-65 protection of size not less than 520 mm x 420 mm x 190 mm on existing MS angle iron/surface of wall (Make:-SINTEX or SS)	1	each					
17	9 mm thick hylam sheet for meter board including cutting, drilling etc.	0.20	S.mtr					
18	Attending and solving minor electrical issues at BTS sites with suitable tools i/c transportation etc.,	5	job					
19	Attending and solving minor electrical issues at BTS sites i/c Coordination with TNEB authorities for replacement of energy meter/Cable termination at EB pillar/post with suitable tools i/c transportation etc.,	3	job					
20	Dismantling of indoor unit of existing 4.0TR faulty space maker AC unit and keeping the same inside the shelter along with copper pipe and other accessories using suitable T&P etc as required.	3	job					

Contractor Page 26 of 45 Executive Engineer

21	Providing and fixing fresh air inlet arrangement of size 950 mm x 670 mm (app) with 18 SWG powder coated MS louvers outside to prevent rain water seepage, and suitable size PVC coated weld mesh inside the shelter, including making suitable modification in the existing opening to suit the above louvers i/c fixing with suitable screws/rivets, providing water leak proof sealing arrangement, etc. complete as required.	1	job					
22	Providing and fixing of (Fresh air inlet arrangements for 2 Nos of size 450 mm x 600 mm / 1 No. of 900 mm x 450 mm (approx size to be matched for W/T or Space maker) each with 20 SWG powder coated ms louvers PPGI/PPGL S type louvers with suitable fixing arrangement from inside room/shelter, to prevent rain water seepage, and suitable size aluminium perforated sheet inside the shelter,	3	job					

Contractor Page 27 of 45

	including making suitable modification in the existing opening (after disconnecting and removing the existing WT AC / Space maker units if available) to suit the above louvers i/c fixing with suitable rivets, providing water leak proof sealing arrangement, etc. complete as required.												
23	S/F of following size MS Ang	le arran	gement	s suitable fo	r fixing existi	ng EB I	Meter box	with ne	cessary acce	essories	s etc as re	qd.	
a)	40 mm x 5 mm MS flat	5	Mtr										
b)	40 x 40 x 5mm MS Angle	5	Mtr										
24	Providing & Fixing GI Busb connections etc as reqd.	ar Arran	gement	with the foll	owing items	inside t	he Shelter	for prop	per earthing	includii	ng making	holes, cutting	g, making
	a) 25mm x 3mm GI Strip (Approx Length - 300mm - 2 Nos)												
	b) Insulator - 2 Nos												
	c) 10mm Bolts & Nuts - 6 Nos												
	// All the above consists of // - 1 Job	2	job										

Contractor Page 28 of 45 Executive Engineer

25	S/L of 20 mm dia PVC Pipe for the protection of GI wire Earth wire i/c necessary accessories etc as reqd	5	Mtr					
26	P/F of 300 mm x 300mm size masoary enclosure cover for the existing earth pit to protect the earth pit from damage etc as reqd.	1	job					
27	S/F of 3 No of 63 A HRC fuses in the existing 63 A SFU including removing the blown out fuses, fixing the new one, testing and commissioning etc as reqd.	2	Set					
28	S/F of PVC Blanking plate suitable for SPMCB slot in the existing DB, including checking of proper fitting etc as reqd	2	Each					
29	Supplying and fixing of 32, 'C' curve Double pole MCB in the existing MCB DB complete with connections, testing and commissioning etc as required.	1	Each					

Contractor Page 29 of 45 Executive Engineer

20			I		1	1			
30	Supplying and fixing of								
	PVC coated 1/2"x1/2" wire								
	mesh (approximate size								
	1.3mtr x 0.95mtr) inside								
	the BTS shelter i/c removal								
	of window AC units and	1	job						
	keeping inside the shelter		1						
	and fixing of wire mesh								
	with suitable screws,								
	washers etc complete as								
	required.								
31	Supplying and fixing of SMC								
	sheet junction box of size								
	320x260x165 mm on surface								
	1	2	job						
	of wall for protection of 4-pole		_						
	isolator i/c transportation etc.,								
	complete as required.								
32	Supplying and fixing of 4								
	Way - SPN DB complete		Each						
	with connections, testing	1	Lacii						
	and commissioning etc as								
	required.								
33	Supplying and fixing of								
	32A, 'C' curve Four Pole								
		2	Each						
	I — — — — — — — — — — — — — — — — — — —								
33	and commissioning etc as required. Supplying and fixing of	2	Each						

Contractor Page 30 of 45 Executive Engineer

Providing and laying earth connection from earth electrode with 6 SWG GI wire in 15mm dia GI pipe from earth electrode including connection with GI thimble excavation and refilling as reqd	5	Mtr								
Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ sub main wiring/ cable as required.	5	Mtr								
Total ex	Total i/c GST Rs.									

IMPORTANT NOTES:-

•	
1	The firm shall be responsible to ensure that GST shown in the above columns is correct & Input Tax Credit for the amount shown above is
	admissible as per GST Act as amended up to date".
2	Invoice /Bill should be pre-printed as per the GST format.
3	The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST
4	The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the terms as specified in the scope of work.

Executive Engineer

No advance payments can be made. Stipulations like levy of interest if payment is not made in a specified time are also not acceptable and the payment is governed by the normal BSNL practice.

Contractor Page 32 of 45 Executive Engineer

SPECIFICATIONS A. GENERAL

1.0SCOPE OF WORK

- 1.1 Attending of faults in the electromechanical services in Technical installations of BSNL, as applicable in this contract means that all Services included in the schedule of work are kept in healthy, clean and working condition. Specific details of activities required with regard to each service are detailed under sections pertaining to those service/technical specifications.
- 1.2 Attending of faults in the electromechanical services shall be carried out as per instructions contained herein. However all other forms & instructions to be used shall be as per works instructions / forms & checklists etc., issued from time to time.
- 1.3 The Agency has to make own arrangement to obtain key from concern SDE BSS incharge for attending faults and return back the key to the same place. No extra payment will be made.

2.0 METHODOLOGY

- 2.1 It is presumed that contractor will provide qualified staff at the site, which will be adequate to perform Attending faults in Window type /Split Type(or) any other type of AC units and all Electro mechanical services,.
- 2.2 In case of faults beyond the capacity of the staff provided as above, contractor shall immediately provide extra-specialized work force so as to attend to the fault in minimum reasonable time without any extra cost.
- 2.3 If during the period of contract, any of the inventory are added/ altered, all inclusive of the same shall be done by the firm.

3.0 MATERIALS AND TOOLS & PLANTS

- 3.1 While attending the faults the replacement of material shall be with the same rating and make as that of the original. The firm may also replace an item with energy efficient item wherever the same is available with the approval of Engineer in charge. However, in case of non-availability of a particular make, Engineer-in-charge will approve the alternate make.
- 3.2 Dismantled and unserviceable items for which a replacement is supplied, shall be removed from the site under intimation to the JTO(E)/SDE(E).
- 3.3 All materials shall be of approved make, model and capacity and shall be matching to the system.
- 3.4. All tools and plants, testing & safety equipments required for carrying out various tasks relevant to fault attending have to be arranged by firm at its own cost.
- 3.5 The firm shall possess sufficient quantity of tools such as screw driver, tester, cutting pliers, tools and meters such as clamp meter, earth megger, insulation tester ,digital thermometer, anemometer etc., of sufficient quantity for carrying out the attending the faults activity.

Contractor Page 33 of 45 Executive Engineer

- 3.6 The firm shall also coordinate with the JTO (E) / SDE (E) for carrying out energy audit/capacity test at site with respect to AC units.
- 3.7 The Firm/Contractor will provide the workers with necessary Safety Equipments.

4.0 **COMMERCIAL**

- 4.1 The tenderer must obtain himself on his own expenses, all the information necessary for the purpose of tendering, inspect the site and acquaint himself with all the local conditions, means of access to work and nature of work etc. No claim shall be entertained on this account.
- 4.2 The workers engaged by firm should maintain proper discipline and good behavior with occupants.
- 4.3 The firm shall remove such workers from the site whose behaviour is found improper. Executive Engineer's decision in this matter shall be final.
- 4.4 Any damage to the installation (s) / building during the attending the faults period due to the carelessness on the part of maintenance staff shall be the responsibility of firm & be replaced / rectified without any extra cost.
- 4.5 Any accident or damage during attending the faults will be the responsibility of agency & BSNL will not entertain any claim, compensation, penalty etc. on this account or on account of non-observance of law to the work.
- 4.6 Agency has to observe all the labour rules & regulations in force.
- 4.7 Dismantled materials shall be returned to the department except those items for which the replacement is supplied by the agency.
- 4.8 The BSNL reserves the right to carry out any work at the risk and cost of the agency, if the agency fails to perform any duty as per the contract.
- 4.9 The tenderer must obtain himself at his own expense all the information necessary for the purpose of execution, before tendering.
- 4.10 The agency should inspect the site & acquaint itself with all the local condition, means of access to work & nature of work etc. No claim shall be entertained on these accounts.
- 4.11 The contractor shall not sublet the work or part thereof. However, services of specialised agencies for specified work can be obtained.
- 4.12 The firm shall maintain the installation(s) in such a way as to provide uninterrupted required conditions in air conditioned rooms.
- 4.13 The BSNL reserves the right to terminate the contract by giving show-cause notice of one month duration at any time during the currency of the contract.
- 4.14 The BSNL reserves the right to extend the contract as per the provisions of agreement at the same rate & conditions.
- 4.15 The contractor has to keep all the Electro mechanical equipment at site neat and clean to avoid any accident and fire hazard.
- 4.16 Firm should have the round the clock contact number. In case of emergency contractor and authorized engineer / supervisor shall be available at the site on short notice from engineer-in-charge and make efforts to take situation to normal at the earliest.
- 4.17 The contractor agrees that he shall at all times indemnify BSNL against all claims for compensation under the provisions of any law for the time being in force or in respect of any person employed by it in carrying out the contract. Further, such staff has no right to claim employment in BSNL.

Contractor Page 34 of 45 Executive Engineer

- 4.18 Contractor has to observe all the labour rules and regulations in force & BSNL shall not be liable for any default.
- 4.19 The Firm/Contractor will provide the workers with necessary Testing and Safety Equipment.
- 4.20 BSNL is having right to pre close the agreement in special cases with one month notice without assigning any reason.
- 4.21 BSNL is having the right to curtail the quantity according to the requirement.
- 4.22 The rates quoted must be full & final. Nothing extra is payable other than quoted rates. Clause10-CC shall not be applicable for this account.

5.0 DAMAGES TO BSNL INSTALLATION:

- 5.1 Any damage to the installation(s)/building While attending the faults due to the carelessness on the part of maintenance staff shall be the responsibility of firm/contractor & shall be replaced/rectified by the firm without any extra cost.
- 5.2 Any accident or damage during attending the fault period will be the responsibility of the firm/contractor & BSNL will not entertain any claim, compensation, penalty etc. on this account or on account of non observance of any other requirement of law relevant to his work.

6.0 CURRENCY OF CONTRACT:

- 6.1 The currency of contract shall be **4 months**. BSNL reserves the right to terminate the contract by giving show cause notice of one-month duration at any time during the currency of the contract.
- a. The BSNL reserves the right to curtail any quantity during the currency of contract without assigning any reason.
- 6.2 The BSNL reserves the right to extend the contract for a maximum period of Two months (Two months at a time) at the same rates & conditions, without the consent of the firm and beyond this period with mutual consent.

7.0 TERMINATION OF CONTRACT:

- 7.1 Right is reserved by BSNL for terminating the contract due to serious default. This includes major break down or accident or loss due to negligence on the part of firm, failure to attend breakdown, disobedience and abandoning the site etc. In such a case, Full Performance Guarantee shall be forfeited to BSNL. The decision of Executive Engineer (E) in this regard shall be final and binding.
- 7.2 Right is reserved by BSNL for closure of the contract at any time by giving one month's notice without assigning any reasons. The decision of Executive Engineer shall be final and binding on the contractor for closure of contract and for which BSNL shall not entertain any claim.

8. GENERAL CONDITIONS:

- 1.1. The contractor shall not sublet the work. However, services of specialized agencies for specific work can be obtained.
- 1.2. The contractor agrees that he shall at all times indemnify BSNL against all claims for compensation under the provisions of any law for the time being in force or in respect of any person employed by it in carrying out the contract. Further, such staff has no right to claim employment in BSNL.
- 1.3. The Contractor will provide the workers with necessary T & P, Testing & safety equipments.

Contractor Page 35 of 45 Executive Engineer

- 1.4. Contractor has to observe all the labour rules and regulations in force & BSNL shall not be liable for any default.
- 1.5. Firm is responsible to keep workable spares and consumables for due
- 1.6. As service such as Air-conditioning services are of critical nature, the firm will ensure that the labors engaged are well trained to take responsibility and initial steps under emergency situation.
- 1.7. In case of Emergency, contractor and/or his authorized engineer or supervisor shall be available at short notice from Engineer-in-charge and make all efforts to make the situation normal at the earliest.

9.TEST CHECK BY THE FIELD ENGINEERS:

✓ For the purpose of assessing the quality of service rendered by the firm against the above contract, the SDE & JTO shall carryout inspection & test checks of the service/work under the contract periodically.

10.0 Guarantee and Defect Liability

- 13.1 The guarantee for replaced components / equipments/spares shall be valid for twelve months from date of replacements. The contractor shall guarantee that all replaced components / equipments/spares are free from any defects and also the equipments work with satisfactory performance and efficiency not less than the guaranteed values.
- 13.2 In case the contractor fails to depute his representative to attend the fault within the time frame stipulated in various clauses or fails to cause remedial measure within reasonable time, BSNL may proceed to do so at the contractor's risk and expenses and without prejudice to any right of the BSNL to recover such expenses.
- 13.4. Wherever AC units/ components of other services are replaced by BSNL, the firm shall take over such units/services immediately on expiry of guarantee period.

Contractor Page 36 of 45 Executive Engineer

SPECIFICATIONS FOR EI & FANS

The work shall be done as per current CPWD Specification. For Electrical works amended from time to time & Indian Electricity Rules as attended up to date.

The work shall be supervised by qualified technical staff of the Contractor.

The layout of the work will be given by the Engineer in charge or his duly authorized representative at the site of work.

The following wiring shall be done in separate conduits:-

- A) Power plug wiring.
- B) Light & Fan point wiring.
- C) Emergency Light point wiring (AC Supply/DC Supply)
- D) Telephone wiring.
- E) Clock wiring.
- F) AC Unit wiring.

The number of power plug points, and emergency light points fed from DC supply shall not exceed two per circuit in any of the cases.

The earthing sets shall be provided in presence of engineer in charge or his authorized representative.

Sample of all the materials, fittings, accessories, IC switch gears etc., shall be got approved from the Engineer in-charge before using the same on work. The rejected materials shall be removed immediately from the site of work.

The Contractor will be have to carry out the following tests at his cost and intimate test results before final bills are paid. Nothing extra will be paid to him on this account.

- A) Earth Test b) Polarity test c) Insulation test
- d) Earth continuity test of the surface/recessed conduits.

Any damage done to the building, by the Contractor during the execution of work shall have to be made god at his cost and risk. If he does not do it himself within a reasonable time determined by the Engineer In-charge the same will be got done at his cost departmentally after notice given to him.

The outlet boxes, IC BOXES for Switches and end of conduits etc. of different types of electrical wiring as mentioned in clauses above shall be painted inside/outside with different colours each signifying the different categories mentioned so as to avoid mixing of various circuits and their wiring and nothing extra will be paid for this.

Contractor Page 37 of 45 Executive Engineer

At the time of laying conduit pipe in the slab in recess, the contractor should keep fish wire of 16 SWG GI wire throughout conduit pipe and will have to take special care so that the conduit do not cross through AC ducts, grills, etc.

The contractor should recess the conduits in the walls before they are plastered and in coordination with progress of building works. The conduit should be mechanically and Electrically continues.

All the Switch board, SDB and DB shall be clearly sign written indicating the number/type of load/Circuit Nos. etc.

Under ground cables of both 1.1 KV and 11 KV should be subject to pressure/insulation tests before and after laying the same.

While making end connections of wore, no strand shall be cut and termination of wire shall be done with necessary lugs without any extra cost.

The termination of conduits etc. in the junction box should be done by making proper holes instead of cutting the box.

Rs.1/- per empty box for the ceiling fans, fittings and other items supplied by the Department will be recovered from Contractor irrespective of the size of box.

The Contractor will have to make arrangements to take the materials to site of work at his own risk and cost.

If any conduits are laid before the award of work, the same shall be recovered at rate mentioned in SR-94 (Internal) enhanced by abatement of similar items in the tender.

ALL MATERIALS SHALL BE "ISI" MARKED OR APPROVED BY THE BSNL.

Contractor Page 38 of 45 Executive Engineer

Specification for A/C works

- 1. The work shall be done as per latest C.P.W.D. specifications for electrical works and Indian Electricity Rules as amended from time to time.
- 2. The layout of the work, will be given by the Engineer-in-charge or his duly authorized representative, at site of work.
- 3. The work shall be done in accordance to schedule of work and specification.
- 4. Any damage to the building during execution of the work shall have to be made good by the contractor at his own cost and risk.
- 5. The contractor shall arrange all tools and plants for execution of work and nothing extra will be paid on this account.
- 6.All material shall be provided as per department product list/specification unless otherwise specified or as approved by engineer in charge
- 7. Pressure test, vacuum test and performance test of compressor for two days shall be done in presence of engineer in charge or his authorized representative and test report shall be submitted along with bill.
- 8. Original bill / invoice of the compressor shall be produced at the time of payment.
- 9. The warranty period of compressor shall be one year from date of successful performance test.
- 10. All the electrical works shall confirm to various standards amended up to date wherever applicable.
- 11.It is contractor's liability to follow all safety procedures in accordance with relevant I.S. amended up to date during execution of work at site.
- 12. Materials provided by the contractor shall be of makes already existing at site. If any change is required, the EE (E) based on approved product list of department shall approve the same
- 13. The agency will provide the workers with necessary T&P, Testing and safety equipments.

Contractor Page 39 of 45 Executive Engineer

14Agency has to observe all the labour rules and regulations in force.

LIST OF APPROVED MAKES- BSNL ELECTRICAL WING

S. No.	Item	Makes
1	Engine	Ashok Leyland /Cummins/ Cater pillar / KOEL/ Volvo Penta / Mahindra & Mahindra (up to 40 KVA) /Escorts (up to 30 KVA)/ Eicher (up to 20 KVA)
2	Alternator(Brushless)	Crompton Greaves (AL. series) / KEC / Leroy Somer / Stamford/Jyoti Ltd
3	Battery (Lead Acid / Maint. Free)	Amara Raja / AMCO / Farukawa / Hitachi / Exide/ Prestolite / Standard
4	HV Switchgear (Vacuum Circuit Breaker/SF6)	BieccoLawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type) a) Above 400 KVA	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO / Kirloskar / Siemens
	b) Up to 400 KVA	In addition to above makes, Uttam/Automatic Electric Gear(AEG)/Patson/Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T/ Schneider Electric / Siemens
7	MCCB(Ics=Icu)	L&T/ Schneider Electric / Siemens
8	SDF units	L&T/ Schneider Electric / Siemens/ HPL/Havells
9	Power Contactors	L&T/ Schneider Electric / Siemens/ Lakshmi(LECS)
10	Change Over Switch	HPL / Havells / H-H Elcon
11	Intelligent APFC Relay	L&T/EPCOS(Siemens)/ Schneider Electric / Neptune Ducati/Syntron/ABB
12	Bus Bar Trunking/ Sandwiched Bus Duct	Moeller/L&T/Schneider Electric/ABB/Legrand/Zeta
13	Power Capacitors (MPP/APP)	L&T/EPCOS(Siemens)/ABB/Crompton/ Schneider Electric/Neptune Ducati
14	Digital/ KWHr meter	Schneider Electric/ AE/ Digitron / IMP/ Meco / Rishabh / Universal/HPL/L&T/ABB
15	Cold shrink HT/LT Cable Joint	Denson / 3M(M-Seal)/ Raychem
16	Rubber Matting	ISI mark
17	MCB/ Isolator /ELCB/RCCB/ Distribution Board	Crompton / Havells / Indokopp / MDS Legrand/ L&T / Schneider Electric/ Siemens / Standard/ C&S/ABB/HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/Bharti/Ratan/Slotco/Profab

Contractor Page 40 of 45 Executive Engineer

20	HT/LT Cables	ISI mark
21	PVC insulated copper conductor wire	ISI mark
22	Centrifugal Pump	Amrut / BE / Beacon / Batliboi / Crompton / Jyoti / Kirloskar / KSB / Mather &platt / WASP/Grundfos
23	Submersible Pump	Crompton/Amrut / BE / Calama / Kirloskar / KSB
24	Motors	ABB/ Bharat Bijlee / Crompton Greaves / Schneider Electric / HBB / KEC / Siemens/Jyoti Ltd
25	Fresh Air Fans	GE / Khaitan/Almonard/Crompton
26	Starter	ABB / BCH / Schneider Electric / L&T / Siemens /
27	Single Phase Preventer	L&T / Minilec / Siemens / Zerotrip
28	GI/MS Pipe	ATC / ATL / BST / GSI / ITC / ITS / IIA / JST / Jindal /TTA / Tata/Zenith
29	Foot Valve	ISI mark
30	Gate Valve	Advance/Audco/Johnson Controls/Zoloto/Annapurna / Fountain / Kirloskar / Leader / Sant / Trishul
31	Compressors	Carrier/Emerson copeland/York/Danfoss (for chillers only)
32	Resin Bonded Glass wool	Fibre Glass / Pilkingston / UP Twiga
33	Expanded Polystyrene	BASF(India) Ltd.
34	Gauge	Feibig / H.Guru / Pricol
35	Controls	FLICA / Honeywell / Indfoss / Penn-Danfoss / Ranco / Ranutrol / Sporland
36	Fine Filters	Anfiltra Effluent / ARW / Athlete/ Airtake/ Dyna / Kirsloskar/ Puromatic/ Purafill/ Purolator / Tenacity
37	GI Sheet	HSU Jindal / National / Nippon Denro / Sail / Tata
38	Heat Detector	Appollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton /System Sensor/ Wormald/Honeywell Essar/Notifier
39	Ionization Detector	Appollo / Cerebrus / Edward/ /Fenwal / Hochiki / Nitton / System Sensor / Wormald
40	Photo Electric Smoke Detector	Appollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald
41	Fire Panel (Microprocessor based)	Agni Instruments / Agni Devices/ Aruna Agencies/ Carmel Sensor / Ravel Elect./Honeywell Essar/Notifier/Navin Systems
42	Sprinkler/ Hose Reel & Hose Pipe	ISI mark
43	Fire Extinguisher	ISI mark
44	Lift	OTIS, Kone, Mitsubishi , Schindler, Johnson

NOTE:

- The accessories such as CT/PT/measuring instrument/relays provided by approved make in respect
 of Transformer/HT Panel/DG /AC Package Units as supplied by approved manufacturer along with
 the equipments are also acceptable in addition.
- 2. Any other makes which are approved by BSNL CO up to the last date of sale of tender can also be used in this contract.

Contractor Page 41 of 45 Executive Engineer

LIST OF INDIAN STANDARDS

	I.S.277	Galvanized steel sheets.	
	I.S.325	Three Phase Induction Motors	
	I.S.655	Metal Air Ducts	
	I.S.732	Code of Practice for Electrical Wiring and fittings for Buildings.	
	I.S.778	Gun Metal Gate, Globe and Check Valves for general purposes.	
	I.S.900	Code of Practice for Installation and Maintenance of Induction Motors.	
	I.S.996	Single Phase small AC and Universal Motors.	
	I.S.1239	Mild Steel Tubes, G.I. Pipes, Tubular and other wrought steel fittings.	
	I.S.1248	Direct Acting Electrical Indicating Instruments.	
	I.S.1520	Horizontal Centrifugal Pumps for clear, cold and fresh water.	
	I.S.1554	PVC Insulated (heavy duty) Electrical Cables	
(Part-I) for working voltages upto and including 110 volts.			
	I.S.2372	Timber for cooling towers.	
		AC Circuit Breakers.	
	I.S.2592	Recommendation for Methods of Measurements of Fluid flow by	
means of Orifice Plates and Nozzles.			
		Motor Starters of Voltage not exceeding 1000 volts.	
		HRC Cartridge Fuse – Links upto 650 volts.	
		Electrically welded steel pipes for water, gas and sewage.	
	I.S.3624	Bourden Tube Pressure and Vacuum Gauges.	
		Heavy Duty air break switches and composite units of air break	
switches and fuses for voltage not exceeding 1000 volts.			
		Steel Pipe Flanges.	
		Code of Practice for Selection of Standard Worm and Helical Gear	
	Boxes.		
	I.S.8148	Specification for packaged air conditioning.	

IMPORTANT NOTE

All references to I.S.I. appearing in this specification may be read as Bureau of Indian Standards, Latest amended versions.

CPWD General Specifications for Heating, Ventilation & Air conditioning (HVAC)-2004

LIST OF SAFETY STANDARDS

- I.S.618 Code of Practice for safety and health requirements in Electrical and Gas Welding and Cutting Operations.
- I.S.659 Safety code for Air Conditioning.
- I.S.660 Safety code for Mechanical Refrigeration.
- I.S.3016 Code of Practice for Fire precautions in welding and cutting operations.
- I.S.3210 Code for Safety procedures and practices in Electrical works.
- I.S.3696 Safety for Scaffolds and Ladders.

Contractor Page 42 of 45 Executive Engineer

PROFORMA OF SCHEDULES

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

SCHEDULE 'A'

Schedule of quantities: Attached

SCHEDULE 'B'

Schedule of materials to be issued to the Nil

bidder:

SCHEDULE 'C'

Tools and plants to be hired to the Nil

bidder:

SCHEDULE 'D'

Extra schedule for specific Nil

requirements/documents for the work, if any:

SCHEDULE 'E'

Schedule of components of Materials, Labour etc. N

for escalation:

SCHEDULE 'F'

Reference to General Conditions of contract:

Competent authority for conciliation:

Name of work:	
Estimated cost of work:	As now NIT notification nage
Earnest money:	As per NIT notification page
Security Deposit and performance Guarantee	
General Rules & Directions: Officer inviting	Executive Engineer (E)
tender:	Electrical Division-IChennai
Definitions:	
2(v) Engineer-in-Charge	Executive Engineer (E)
	Electrical Division-IChennai
2(vi) Accepting Authority	Executive Engineer (E)
	Electrical Division-I Chennai
2(x) Percentage on cost of materials and	
labour	10% (TEN)
to cover all over heads and profits	
CLAUSE 5	
Time allowed for execution	Three Months
Time allowed for execution	Three Months
Authority to give fair and reasonable extension	
of time for completion of work:	Executive Engineer (E)
·	
Competent Authority for deciding reduced rates:	Executive Engineer (E)
Clause 25	

Contractor Page 43 of 45 Executive Engineer

Executive Engineer (E)

BSNL EW-8

Bharat Sanchar Nigam Limited Electrical Wing

Electrical Division: **ED-I, Chennai** Sub Division: **ESD-GSM-II**

- 1. I/we have read and examined the notice inviting tender, schedule, specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, special conditions, Schedule of Rates and other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.
- I/We hereby tender for the execution of the work specified for BSNL within the time specified, schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions and other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.
- 3. I/We agree to keep the tender open for ninety (90) days from the due date of submission thereof and not to make any modifications in its terms and conditions.
- 4. If I/We, fail to commence the work specified, I/We agree that the said BSNL shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely and the same may at the option of the competent authority on behalf of BSNL be recovered without prejudice to any other right or remedy available in law out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/us under this contract or otherwise.
- 5. Should this tender be accepted, I/We agree to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered upto maximum of percentage mentioned in clause 12.3 of the tender form and those in excess of that limit at rates to be determined in accordance with provisions contained in clause 12.2.
- 6. I/we agree to furnish to BSNL, Deposit at Call receipt/FDR/ Bank guarantee of a Nationalized/ Scheduled Bank for an amount equal to 5% of the contract value in a standard format within two weeks from the date of issue of award letter. I/We agree to keep the performance bank guarantee valid as per the BSNL terms and conditions.
- 7. I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived therefrom to any person other than to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety or interest of BSNL.

Contractor Page 44 of 45 Executive Engineer

Signature of Witness (required in case of bidder's thumb impression given by the bidder in place signature) Occupation of Witness:							
	Seal of Bidder						
	Date:						
Acceptance of Tender							
The above tender (as modified by you as provided in the letters mentioned hereunder)							
is accepted by me for and on I	behalf of BSNL for a sum of Rs						
(Rupees)						
The letters referred to below shall form part of this contract Agreement.							
a)							
b)							
	For & on behalf of BSNL						

Contractor Page 45 of 45 Executive Engineer

Signature:

Designation:

Dated