

<p><b>Office of the Executive Engineer (E) B.S.N.L., Electrical, Division, Top Floor Block no. 35 SDA Complex Kasumpti</b> <b>xenbsnlsml1@gmail.com</b></p>		<p><b>भारत संचार निगम लिमिटेड</b> (भारत सरकार का उपक्रम) <b>BHARAT SANCHAR NIGAM LIMITED</b> (A Govt. of India Enterprise)</p>
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**NAME OF WORK** :- Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS & Exchange Sites Under Shimla BA (HP)

**Tender No.** :- 32/EE/E/BSNL/ED/SML/2023-24

**Name of Agency** :-

**Cost of Tender** :- **Rs 590/-**

**Signature of contractor/authorized representative  
With seal of the firm**

Executive Engineer (E)  
BSNL Electrical Division  
Shimla.

**B**

Name of Work: - Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS & Exchange Sites Under Shimla BA (HP).

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This is certified that this NIT contains 120 pages excluding pages A, & B,

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**CORRECTION SLIP**

Addendum/Modification to BSNL EW -8 & BSNL EW - 6 Forms Conditions of contract-  
Definitions:-

All reference to:-

- i) BSNL EW /Public work department/P&T Department. /D.O.T. /B.S.N.L
- ii) D.G. works/ Additional Chief Engineer BSNL EW /Chief Engineer of Zone.
- iii) Administrative Head of BSNL EW /P&T Department.
- iv) BSNL EW Circles/Civil Circle.
- v) Ministry of works, Housing & supply.
- vi) Government.

In various clauses shall be taken to mean:-

- i) Bharat Sanchar Nigam Limited.
- ii) Chief Engineer (E), Bharat Sanchar Nigam Limited.
- iii) Administrative Head of Bharat Sanchar Nigam Limited.
- iv) Telecommunications Electrical Circle.
- v) Bharat Sanchar Nigam Limited (Ministry of Communications)
- vi) Bharat Sanchar Nigam Limited



**भारत संचार निगम लिमिटेड**  
(भारत सरकार का उपक्रम)  
**BHARAT SANCHAR NIGAM LIMITED**  
(A Govt. of India Enterprise)

## Notice Inviting e- Tenders

**NIT No. 32/EE/E/BSNL/ED/SML/2023-24.**

The Executive Engineer (E) B.S.N.L., Electrical, Division, Top Floor Block no. 35 SDA Complex Kasumpti Email : [xenbsnlsml1@gmail.com](mailto:xenbsnlsml1@gmail.com) invites Offline item rate tenders on behalf of Bharat Sanchar Nigam Limited for the following work (s) :-- **Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS & Exchange Sites Under Shimla BA (HP).**

Estimated Cost - **Rs. 195783/- (INCLUDING GST)**

EMD-**Rs 3916/-**

Cost of Bid Document - **Rs 590/-**

Last date & time of submission of bid – **08.12.2023**(Up to 15.00 hrs).

For further details please visit our Web Site.

[www.hp.bsnl.co.in/](http://www.hp.bsnl.co.in/)

Executive Engineer (E)  
BSNL, Electrical Division  
Shimla.

**BHARAT SANCHAR NIGAM LIMITED.**

(A GOVERNMENT OF INDIA ENTERPRISE)

**NOTICE INVITING E-TENDER SECTION -1-(Summary)****No:- 32/EE/E/BSNL/ED/SML/NIT/2023-24****Dated:- 21.12.2023**

- 1.0** The Executive Engineer (E) B.S.N.L., Electrical, Division, Top Floor Block no. 35 SDA Complex Kasumpti Email: [xenbsnlsml1@gmail.com](mailto:xenbsnlsml1@gmail.com) on behalf of Bharat Sanchar Nigam Limited, invites Offline item rate tenders on behalf of Bharat Sanchar Nigam Limited for the following work (s)

(a)	<b>NAME OF WORK: - Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS &amp; Exchange Sites Under Shimla BA (HP)</b>	
(b)	<b>ESTIMATED COST: - Rs.195783/- (Including GST &amp; GST cess on Goods &amp; Services )</b>	
(c)	<b>EMD: - Rs.3916/-</b>	
(d)	<b>COST OF TENDER DOCUMENT: - Rs. 590/= (inclusive of GST @18%).</b>	
(e)	Validity after award of work: - 12 months.	
(f)	Last date of receipt of application for tender forms	Up to 15.00 Hrs on 01.01.2024
(g)	Last date of issue of tender	At 16.00 Hrs on 01.01.2024
(h)	Last date of Submission of tender	Up to 15.00 Hrs on 02.01.2024
(i)	Date of opening of tender	At 15.30 Hrs on 02.01.2024

The Firms who fulfill the following requirements shall be eligible to bid.

**1.1. ELIGIBILITY CRITERIA:-**

Average annual turnover during the last three years, ending 31<sup>st</sup> march of the previous financial year should be at least 30% of the estimated cost put to tender.

**AND**

BSNL enlisted contractors in Electrical category-IV and above.

**OR**

The Chemical earthing RDSO approved manufacturers. The letter of approval from RDSO has to be provided by the Manufacturer.

**OR**

The dealers authorized by the Chemical earthing RDSO approved manufacturer. The letter of authorization in original from the Chemical earthing RDSO approved manufacturer will be produced by the dealer along with the letter of approval from RDSO has to be provided by the Manufacturer.

**OR****EE(E)****Contr**

Experience of having successfully completed similar works in BSNL during last 7 years ending last day of month previous to the one in which NIT's are invited, should be either of the following: –

Three similar successfully completed works costing not less than the amount equal to **Rs.16000/-**.

OR

Two similar successfully completed works costing not less than the amount equal to **Rs.24000/-**

OR

One similar successfully completed work costing not less than the amount equal to the **Rs.32000/-**.

Note: - Contractor should have a valid Goods and Service Tax Registration Certificate Number eligible for raising GST Tax invoice to BSNL for claiming input tax credit and should further have EPF and ESI registration certificates from appropriate Govt. authorities. The agencies who claim to be exempted from EPF/ESI registration should submit an affidavit on non judicial stamp paper of Rs.10 for the same.

**NOTE: -**

**1. Similar Works means: - Providing Copper Earthing or G.I. Earthing or Chemical Copper or GI Earthing.**

A **Cost of Bid Document:** -Demand draft for tender fee drawn in favor of **AO (Cash), O/o GMTD Shimla or For deposit of tender cost online the bank details** are as under: -

- a) Account No.: - 510101005313782
- b) Account type: -current account
- c) IFSC Code: - UBIN0905755
- d) Bank Branch: - **KASUMPTI SHIMLA 171009**

**EMD:- Rs.3916/-** in the shape of FDR/DD/BG 'OR' online mode in the bank detail given above

The Validity period of EMD shall be 120 days, from the date of opening of tender2

The Bid documents consisting of the detailed plans, complete specifications, the schedule of quantities of the various classes of works to be done and the set of conditions of contract to be complied with and other necessary documents, can be seen and downloaded from website [www.hp.bsnl.co.in](http://www.hp.bsnl.co.in) free of cost, but the Bid can only be submitted after uploading the scanned documents mentioned at Point No. 8 a to m.

3 a The intending bidder must read the terms and conditions of tender documents carefully. He should only submit his bid if he considers himself eligible and he is in possessions of all the documents required.

b) In case of offline submission of financial instruments the **original financial instruments like Demand Draft against cost of Bid document and EMD shall be placed in a sealed envelope super scribed as "Cost of Bid, and EMD" mentioning name of work, due date and time of opening of bids, name of the bidder and shall be submitted in the tender box placed in the office of the Executive Engineer (E), BSNL Electrical Division, Shimla latest by 12.00 hours (as per date mentioned in of above table.) failing which the price bid will not be opened. The documents sent through post/ courier shall not be entertained.**

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- c) If the bidder is a firm in partnership / Limited company or Corporation, then the hard copies of “FORM-A” and partnership deed / Memorandum of Articles of Association and power of attorney / Authorization to the person who signs the tender in case of companies etc. shall also be submitted along with hard copies of other documents as above otherwise the tender shall be summarily rejected.
- d) Any other document in addition to EMD and Tender Cost can be demanded by the tender opening authority **of any participating bidder during the time after submission of technical bid and before opening of financial bid. The contractor is bound to produce the originals/attested copies of the documents on demand for verification at the date & time of opening mentioned by the tender opening authority. If agency fails to do so their tender shall be rejected and financial bid shall not be opened.**

The intending Tenderer must read the terms and conditions of tender document, BSNL EW-6 & EW-8 carefully which can be accessed from web site [www.hp.bsnl.co.in](http://www.hp.bsnl.co.in). He should only submit his tender if he considers himself eligible and he is in possession of all the documents required.

5. Tender Cost, EMD & other documents are required to be submitted Online/offline in the o/o **The Executive Engineer (E) B.S.N.L., Electrical, Division, Top Floor Block no. 35 SDA Complex Kasumpti Email: [xenbsnlsml1@gmail.com](mailto:xenbsnlsml1@gmail.com)** up to the Last date and time of submission of EMD, Tender Cost & Other documents. (For details refer EW-06)
6. Tender can only be submitted to eligibility conditions as per point no-1 above up to Last date and time of online submission/ uploading of .
- a. Documentary proof of satisfying the eligibility conditions as per **1.00 above** (Work completion certificate etc as required)
  - b. CA certificate towards turn over & deposition of income tax.
  - c. PAN Card.
  - d. Goods & Service Tax Provisional/Permanent registration certificate.
  - e. EPF and ESI registration certificate.
  - f. Declaration of EW-6 / EW-8 & Relative Certificate
  - g. Undertaking -I & II by contractors
  - h. Demand draft towards Cost of Tender documents.
  - i. EMD/Bid security in prescribed form.
  - j. Power of Attorney & authorization for executing the power of Attorney.
  - k. Self-declaration by the firm for not blacklisted by GST authorities and mentioning of multiple GST numbers, if available
  - l. Tender cost and Earnest money deposit declaration in case of online submission of EMD/Tender Cost as per Annexure-II (Page no-19)
7. The validity of tender shall be for 90 days from the date of opening of tender.
8. The bidding process will be accepted only through e-Tendering platform. As tenders are invited through e-Tendering process, physical copy of the tender document would not be available for sale. Contractor can upload documents in the form of JPG format, PDF format and any other format as permissible by the e- tendering portal.

Executive Engineer (E)  
BSNL Electrical Division  
Shimla

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**Bharat Sanchar Nigam Limited**  
**(A Government of India Enterprise)**  
**Electrical Wing**

Zone: H.P.

Division: Shimla

Circle: Shimla

**NOTICE INVITING TENDERS- SECTION-I- EW-6**  
**(As per Tendering procedure in BSNL revised up to date)**

The Executive Engineer (E) B.S.N.L., Electrical, Division, Top Floor Block no. 35 SDA Complex Kasumpti Email: [xenbsnlsml1@gmail.com](mailto:xenbsnlsml1@gmail.com) on behalf of Bharat Sanchar Nigam Limited, invites offline item rate tenders from eligible contractors for the work and details given below:

GENERAL DETAILS		
1	NIT No.	<b>32/EE/E/BSNL/ED/SML/NIT/2023-24</b>
2	Name of work	<b>Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS &amp; Exchange Sites Under Shimla BA (HP)</b>
3	Estimated cost of the work Inclusive of all taxes	<b>Rs. 195783/- (Including GST)</b>
4	Completion period	<b>15 Days from the date of issue of LOI for individual work and 12 months for issuance of LOI from RC.</b>
5	Earnest Money Deposit (EMD) -	<b>Rs 3916/-</b>
6	Mode of submission of EMD	DD/FDR/TDR/BG of a Nationalized/Scheduled Bank in favour of <b>"AO Cash O/o GMTD BSNL Shimla 'OR' online submission as per detail given at Page no-4</b>
7	Bid Cost (Non Refundable)	Rs 590/-
8	Mode of submission of Bid Cost	DD / Pay Order/ Bankers Cheque of a Nationalized / Scheduled Bank in favour of <b>"AO Cash O/o GMTD BSNL Shimla 'OR' online submission as per detail given above</b>
9	Availability of tender Documents	www.hp.bsnl.co.in
(10)	Last date of receipt of application for tender forms	Up to 15.00 Hrs on 01.01.2024
(11)	Last date of issue of tender	At 16.00 Hrs on 01.01.2024
(12)	Last date of Submission of tender	Up to 15.00 Hrs on 02.01.2024
(13)	Date of opening of tender	At 15.30 Hrs on 02.01.2024
14	Competent authority inviting tender	The Executive Engineer (E) B.S.N.L., Electrical, Division Shimla

The Firms who fulfill the following requirements shall be eligible to bid.

**1.2. ELIGIBILITY CRITERIA :-**

Average annual turnover during the last three years, ending 31<sup>st</sup> march of the previous financial year should be at least 30% of the estimated cost put to tender.

**AND**

BSNL enlisted contractors in Electrical category-IV and above.

**OR**

The Chemical earthing RDSO approved manufacturers. The letter of approval from RDSO has to be provided by the Manufacturer.

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**OR**

The dealers authorized by the Chemical earthing RDSO approved manufacturer. The letter of authorization in original from the Chemical earthing RDSO approved manufacturer will be produced by the dealer along with the letter of approval from RDSO has to be provided by the Manufacturer.

**OR**

Experience of having successfully completed similar works in BSNL during last 7 years ending last day of month previous to the one in which NIT's are invited, should be either of the following: –

Three similar successfully completed works costing not less than the amount equal to **Rs.16000/-**.

**OR**

Two similar successfully completed works costing not less than the amount equal to **Rs.24000/-**

**OR**

One similar successfully completed work costing not less than the amount equal to the **Rs.32000/-**.

Note: - Contractor should have a valid Goods and Service Tax Registration Certificate Number eligible for raising GST Tax invoice to BSNL for claiming input tax credit and should further have EPF and ESI registration certificates from appropriate Govt. authorities. The agencies who claim to be exempted from EPF/ESI registration should submit an affidavit on non judicial stamp paper of Rs.10 for the same.

**NOTE: -**

**1 Similar Works means: - Providing Copper Earthing or G.I. Earthing or Chemical Copper or GI Earthing.**

02. The site for the works is available / shall be made available in parts.
03. The intending Tenderer must read the terms and conditions of BSNL EW-6 & EW-8 . He should only submit his Tender if he considers himself eligible and he is in possession of all the documents required.
04. The intending bidders must have valid Class-III digital signature to submit e-Tender.
05. The time allowed for carrying out the individual work will be **15 Days from the date of issue of LOI for individual work.**
06. The intending bidder has to fill all the details such as Banker's name, Demand Draft/Fixed Deposit Receipt/Pay Order/Banker's Cheque/Bank Guarantee number, amount and date.
  - (i) Earnest Money amounting to **Rs. 3916.00/-** in the form of demand draft / FDR / BG /CDR/TDR of a nationalized/scheduled bank guaranteed by the Reserve Bank of India, drawn in favour of **"AO Cash O/o GMTD BSNL Shimla.** 'OR' online mode as mentioned at page no -4.The Validity period of EMD in case of offline submission shall be 120 days, from the date of opening of tender as stipulated above. However EMD in shape of DD with validity of three months is also acceptable.
  - (ii) Cost of Bid Document (Non Refundable) amounting to **Rs 590/-** (in the form of Demand Draft/Pay Order/Banker's Cheque) drawn in favour of **"AO Cash O/o GMTD BSNL Shimla.** 'OR' online modes as mentioned at page no -4.

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07. a) In case of off line submission the hard copies of the original financial instruments like Demand Draft/FDR/BG/CDR against EMD and Demand Draft towards cost of Bid document shall be placed in a single sealed envelope super scribed as “Earnest Money and Cost of Bid Documents” mentioning name of work and due date of opening of Bid.
- (b) **Works experience certificate must be submitted in proper format & issued not below the rank of Executive Engineer (E).**
- 8 In case the eligibility credentials are not found genuine at any stage i.e. before award of work or during execution of the work or after completion of the work, the contractor will be debarred from tendering in BSNL for three years including any other action under the contract or existing law.
9. After submission of online bid, the contractor can resubmit revised bid any number of times but before last time and date of submission of bid as notified. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rates of all the items).
10. **The EMD of all the unsuccessful tenderers shall be released on issue of award letter to the successful tenderer. This shall be done within one week of award letter.**
11. Exemption from payment of earnest money and security deposit by any other unit/ department shall not hold good for BSNL.
12. The EMD of the successful tenderer will be returned to the contractor without interest only after submission of performance guarantee and commencement of work. The successful tenderer has to extend the validity of EMD as per BSNL requirements.
13. (i) **Performance Guarantee** :  
The contractor 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) in favour of **AO Cash O/o GMTD BSNL Shimla** within two weeks from the date of issue of award letter. The validity period of performance security in the form of performance Bank Guarantee shall be one year from the stipulated date of completion of work and in the event the time of completion of the work gets enlarged, the contractor shall get the validity of performance guarantee extended to cover such enlarged time for completion of work. This amount shall be refunded after successful completion of guarantee period.  
If the contractor fails to furnish the prescribed performance guarantee with in prescribed period, the earnest money is absolutely forfeited to the BSNL automatically without any notice.
- (ii) **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 Tendered value of the work.
- 14 The acceptance of a tender will rest with the Superintending Engineer (E) who does not bind himself to accept the lowest tender or any other tender and reserves to himself the Authority to reject lowest or all the tenders received without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected. Tenders with any condition including that of conditional rebates shall be rejected forthwith summarily.

18. Canvassing in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.
19. The competent authority on behalf of BSNL reserves himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted.
20. (i) The tenderer should give a certificate that none of his/her relative is employed in BSNL units. 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.  
(ii) 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 :
- a. Members of a Hindu Undivided family
  - b. They are husband and wife
  - c. The one is related to the other in the manner as father, mother, son(s) & son's wife (daughter-in-law), Daughter (s) & daughter's husband (son-in-law), brother (s) & brother's wife, sister (s) & sister's husband (brother-in-law)
- (iii) 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 tenderer 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 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. (The format of the certificate is as per draft on page no.15 in this regard.)
- 15 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 contractor 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 contractor's service.
- 16 The tenders for the work shall remain open for acceptance for a period of 90 days from the date of opening of the tenders.
- 17 If any tenderer withdraws his tender before the said period or makes any modification in the terms and conditions of the tender which is not acceptable to the BSNL shall, without prejudice to any other right of remedy be at liberty to forfeit 50% (fifty percent only) of the said earnest money absolutely. Further tenderer shall not be allowed to participate in the tendering process of the work.
- 18 Extension of validity: In case, where the letter of award of work cannot be placed within the validity period of the tender, the BSNL can request all tenderers 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.
- 19 The contractor should read the tender documents carefully before submitting the online bid. Information & instructions for bidders posted on web site shall form part of bid document.
- 20 Before e-tendering the Contractor shall inspect the site and fully acquaint himself about the condition with regard to accessibility of site and site nature and the extend of grounds, working conditions, including stocking of materials, installation of T&P etc. and condition affecting

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accommodation and movement of labour etc. required for the satisfactory execution of the contract. No claim whatsoever on such account shall be entertained by the BSNL in any circumstances.

21. Agreement shall be drawn with the successful tenderer on prescribed form no. BSNL EW-6 & 8. Tenderer shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.
22. The successful tenderer/contractor on acceptance of his tender by the Accepting authority should sign every page of downloaded tender as available in the website with stamp (seal) of his firm/organization.
23. This down loaded and signed tender consisting of Notice Inviting e-Tender (BSNL EW-6) shall form part of the contract document. The successful tenderer/contractor shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:
  - a) The Notice Inviting e-Tender, all the documents including additional conditions, specifications and drawings, if any forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
  - b) Standard form (BSNL EW-8).
24. General conditions of contract for works in BHARAT SANCHAR NIGAM LIMITED are available on BSNL website [www.hp.bsnl.co.in](http://www.hp.bsnl.co.in) as well as in the Division office (For viewing only).
25. On opening date the contractor can log in & see the bid opening process & after opening of bid he will receive the competitors bid sheets.
26. There shall be no extension of date for submission of Tender for the reason of failure of internet link etc. No such request in this regard from the contractor shall be entertained.
27. The contractors must ensure to quote rate of each item. If any cell is left blank, the same shall be treated as "0".
28. The tenderer should read carefully & understand tender document, procedure for e-tendering etc completely before participating in the e-tender procedure. Participation in the e-tendering, presumes that the Tenderer has/Have read all the conditions, special condition of the contract, schedule of quantity etc & agree/abide by them.
29. The bidding process will be accepted only through e-Tendering platform. As tenders are invited through e-Tendering process, physical copy of the tender document would not be available for sale. Contractor can upload documents in the form of JPG format, PDF format and any other format as permissible by the e- tendering portal.
30. Certificate of Financial Turnover(If applicable): At the time of submission of bid, contractor may upload Affidavit/ Certificate from Chartered Accountant mentioning Financial Turnover of last 3 years or for the period as specified in the bid document and further details if required may be asked from the contractor after opening of technical bids. There is no need to upload entire voluminous balance sheet.
31. Conditional tenders or tender with conditional rebates shall be summarily rejected.
32. Any dispute if any (like payment/site related/Taxation etc) will be resolved by the concerned Executive Engineer (E) under whom the work has to be carried out.
33. If any terms & conditions mentioned here in this tender document are in contravention to General Conditions of Contract, the terms & conditions mentioned here in this tender document shall prevail.

Executive Engineer (E)  
BSNL Electrical Division Shimla.

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## FOLLOWING OFFICERS MAY BE CONTACTED FOR REDRESSAL OF COMPLAINTS

Sr. No.	NAME OF OFFICE	POSTAL ADDRESS	Telephone Numbers	Fax Number
1	CGMT, HP Circle	O/O the Chief General Manager BSNL, HPTC, Block No. 11, SDA Complex, Kasumpati, Shimla 171 009 (HP)	0177-2620220	0177-2625325
2	The Chief Engineer (Elect)	1 <sup>st</sup> Floor Block No.35 Kasumpati, Shimla-171009	0177-2627422	0177-2626814
3	The Vigilance officer HP Telecom Circle	O/O the Chief General Manager BSNL, HPTC, Ground Floor, Block No. 9, SDA Complex, Kasumpati, Shimla 171 009 (HP)	0177-2621213	0177-2622213

**Declaration by Contractor for EW-6, EW-8 & Relative Certificate**

(To be furnished by the firm in Physical form offline)

I / We do hereby undertake to have gone through the terms & conditions / clauses of all the tender documents including Form EW-06, EW-08 being adopted by the BHARAT SANCHAR NIGAM LIMITED (Electrical Wing) & agree to abide by the same. In case of failure to comply as above, our offer will stand withdrawn and our tender documents would not be opened by the tender opening officer. The decision of tender opening officer in this regard shall be final & binding on me.

Signature of contractor/authorized representative

With seal of the firm

**"NO RELATIVE WORKING IN BSNL" CERTIFICATE**

(To be furnished by the firm in Physical form offline)

I \_\_\_\_\_ S/o \_\_\_\_\_

R/o \_\_\_\_\_

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

(i) 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 :

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

(i) 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 tenderer 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 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.

(Dated Signature of contractor)

(Seal of the firm)

**EE(E)****Contr**

**UNDERTAKING –I**

"I \_\_\_\_\_ Son of \_\_\_\_\_  
Resident of \_\_\_\_\_ hereby  
undertake that

\* I/ We have registered as per the EPF and ESI and Miscellaneous provisions Act, 1952 and our registration no is \_\_\_\_\_. We undertake to keep it valid during the currency of contract.

Any consequence arising due to non-complying of EPF &ESI Act provision shall be sole liability of the undersigned contractor. 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

(Seal of the firm)

(Dated Signature of  
Contractor)

**UNDERTAKING- II****VENDOR GST DETAILS**

Sr. No.	Description	Details to be filled in by contractor
A	Vendor Name	
B	Type of vendor i.e. whether registered or unregistered	
C	State wise registration address of the vendor (In case vendor has presence in multiple states)	
D	State of registration along with PIN code	
E	PAN No. of vendor	
F	GSTIN No. of registered vendor (If registered in multiple states, then listing all GSTINs) under which invoices are raised by vendor	
G	Status of vendor i.e. SEZ, EOU, DTA, Government, Local authority	
H	List of goods and services provided by vendor	
I	HSN code for goods/SAC for services supplied by vendor	
J	GST compliance rating (Optional)	
K	Whether supply is exempt/non taxable	
L	Whether reverse charge scheme is applicable. (Yes/No)	
M	Whether compounding scheme applicable (Yes/No). In case purchase is from dealers under composition scheme GST cost will be inbuilt in supply and vendor will not charge GST separately	
N	Whether TDS applicable (Yes/No)	
O	Email address of vendor	
P	Phone Nos. of vendor	

(Seal of the firm)

**EE(E)**

(Dated Signature of Contractor)

**Contr**

**TENDER**

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 Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.
2. I/We hereby tender for the execution of the work specified for the 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. A sum of Rs. 3955.00/- is hereby forwarded in the form of deposit at call receipt/FDR/Bank guarantee of a Nationalized/Scheduled bank as earnest money 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 up to 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 for one year from date of actual completion of work.
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 there from 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.

Signature of Witness

(Required in the case of Contractor's thumb impression is given by the contractor in place of signature)

(Name & Postal address)

Occupation of witness & Date

**EE(E)**

**Contr**



(Signature of  
Contractor)  
Seal of Contractor  
Date

### ACCEPTANCE

The above tender as modified by you (contractor) and as provided in the letters mentioned hereunder is accepted by me for and on behalf of the Bharat Sanchar Nigam Limited for sum of

Rs. \_\_\_\_\_

(Rupees \_\_\_\_\_  
\_\_\_\_\_

The letters referred to below shall form part of this contract Agreement:-

- a)
- b)
- c)

**For & on behalf of the B.S.N.L.**

Signature \_\_\_\_\_

Dated \_\_\_\_\_

Designation \_\_\_\_\_

### PROFORMA OF SCHEDULES

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

#### SCHEDULE 'A'

Schedule of quantities (as per BSNL -8)

As Per Page No.18 to 19

#### SCHEDULE 'B'

Schedule of material to be issued to the contractor.

S. 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 stated in schedule of quantities				

**EE(E)**

**Contr**

## SCHEDULE 'D':- appended from page No.23 to 26

SCHEDULE 'D' reference to General conditions of contract	
Name of work:	<b>"Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS &amp; Exchange Sites Under Shimla BA (HP)</b>
Estimated Cost of work:	Rs. 195783/-
Earnest Money Deposit:	Rs. 3916/-
Security Deposit :	10 % of tendered amount
GENERAL RULES and DIRECTIONS:	
Officer inviting tender -	Executive Engineer (E) BSNL, Electrical Division Shimla(HP)
Definitions:	See below
Engineer-in-Charge	Executive Engineer (E) BSNL, Electrical Division Shimla(HP)
Accepting Authority	Executive Engineer (E) BSNL, Electrical Division Shimla(HP)
Percentage on cost of materials and labour to cover all overheads and profits.	10 %
Standard contract Form	BSNL EW 8 modified & corrected up to date
Clause 1 Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance, in days	Not applicable
Clause 2 Authority for fixing compensation under Clause 2.	SE (E)
Clause 5 i) Time allowed for execution of work.	15 Days for individual work from the date of issue of LOI
ii) Authority to give fair and reasonable extension of time for completion of work.	SE (E)
Clause 10CC Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column.	Not applicable
Clause 12	

EE(E)

Contr

12.2 (iii) Schedule of rates for determining the rates for additional, altered or substituted items that cannot be determined under 12.2.(i) & (ii)	DSR 2022
Clause 12 12.2 (iii), plus/minus $\pm$ the % over the rate entered in the schedule of rates	DSR 2022
Clause 12 Deviation Limit beyond which clauses 12.3 shall Apply	50%
Clause 25 Competent Authority for Conciliation	SE (E)
Clause 30.2 Minimum Qualifications and experience required for Principal Technical Representative.	
For works with estimated cost put to tender more than Rs. 2 Lakh but less than Rs.5 Lakh for Elect / Mech. Works	Recognized diploma holder
For works with estimated cost put to tender more than Rs. 5 Lakh for Elect / Mech. Works	Graduate or recognized diploma holder with 3 years experience
Recovery to be effected from the contractor in the event of not fulfilling provision of clause 30.2	Rs.4,000/- p.m. for Graduate Rs.2,000/- p.m. for Diploma holder

**Name of Work:- Rate Contract for the work of Providing Earthing for improvement of Earth resistance value at Various BTS & Exchange Sites Under Shimla BA (HP)**

S.No.	Description of item	Qty		Rate	unit	Amount
1	Earthing with Copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	1	Set		set	
2	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	6	Mtr		mtr	
3	Supply,Installation,Testing and Commissioning of Maintenance free Chemical earth station as per latest RDSO/BSNL specifications consisting of :- a) Copper bonded steel electrode of 3 mtrs long, 17 mm dia with copper bonded thickness of minimum 250 microns and UL listed and marked - 1No. b) Earth enhancing compound minimum 30 Kg. of RDSO/BSNL approved brand supplied in sealed bags of minimum 10 Kg (Make:- RDSO/BSNL approved)	8	sets		Each	
4	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	50	Mtr		mtr	
6	Repairing/treatment of the exiting G.I Plate earthing including excavation & removing the existing earthing plate cleaning the existing plate, riveting or replacement of nut & bolts for rejoining the G.I. strip with the G.I.Plate,relaying the earth plate, refilling the sand,testing of existing earthing system at the BTS or Exchange site including arranging the earth testing meter, arrangement of vehicle for movement from site to site, necessary skilled work force to complete the job and preparing a testing report, and making good the damages complete etc as required	1	Jobs		Job	

EE(E)

Contr

8	Excavation of kacha space for tracing the earth pits including making arrangement for labour & tools required for the job, repairing and making good the damages complete etc as required at site.	5	Jobs		Job
9	Excavation of Pacha space for tracing the earth pits including making arrangement for labour & tools required for the job, repairing and making good the damages complete etc as required at site.	5	Jobs		Job
10	Excavation of Pacha space for laying the new earthing system including making arrangement for labour & tools required for the job, repairing and making good the damages complete etc as required at site.	5	Jobs		Job
11	Providing and making of earthing pit of 450 x 450 mm size along with earth pit cover of size 300 x 300 mm size for the existing Copper Plate/GI plate/Chemical Gel GI earthing and Chemical Gel Copper earthing including supplying of all the material required for earth pit i.e. bricks, cement, sand etc , plastering finishing complete etc as per requirement at site.	5	Jobs		Job
					<b>TOTAL</b>

**IMPORTANT NOTE :-** 1) GST is implemented. The tax will be regulated accordingly and the credit will be transferred to BSNL as per new rules.

2) For claiming GST payment the vendor should raise GST invoice as per point No. 8 (GST invoice) of Vendor Contract Clauses of this NIT.

3) The work is of urgent nature and national important. The agency should visit the sites before quoting the tender and depute the technically qualified staff for preparation, execution and supervision of work. The person should be available at site during the execution of work till the handing over of installation. NO Extension of Time will be granted in this work without any justified reason.

4) The Quantity is tentative and will be executed as per site requirement. The LOI can be issued for work anywhere in SSA Shimla /Hamirpur of any quantity, full quantity or Zero quantity of any item as per the requirement and urgency of the BSNL and the agency /vendor will have no claim in this regard, the agency should quote accordingly.

**EE(E)**

**Contr**

5) The final earth resistance value should be less than 1.0 Ohm. The agency will take all the necessary measures as per the directions of Engineer-in-Charge so that the earth resistance value should be less than 1.0 Ohm and the decision of Engineer-in-Charge is final.

6) The agency should get approved the material from Engineer-in-Charge before execution of work and the decision of Engineer-in-Charge is final.

(Signature with Seal of Firm)

## Annexure-I

**MODEL FORM OF BANK GUARANTEE (ON STAMP PAPER OF Rs. 100/-)****BANK GUARANTEE BOND FOR EMD FOR AIR CONDITIONING, DIESEL ENGINE ALTERNATOR, AMC E/A Sets, Operation and Comprehensive Maintenance of EMS, LIFTS AND SUB STATION WORKS WHEREVER THE AMOUNT OF EMD IS MORE THAN RS. 20,000/-**

Whereas \_\_\_\_\_ (hereinafter called "The Contractor(s)") has submitted its Tender dated \_\_\_\_\_ for \_\_\_\_\_ (Name of work) \_\_\_\_\_ KNOW ALL MEN by these Presents that we \_\_\_\_\_ OF \_\_\_\_\_ having our registered office at \_\_\_\_\_ (hereinafter called "The Bank") are bound unto \_\_\_\_\_ (hereinafter called "The BSNL") in the sum of \_\_\_\_\_ for which payment will and truly to be made of the said BSNL, the Bank binds itself, its successors and assigns by these presents.

THE CONDITIONS of the obligation are:

1. If the Contractor(s) withdraws its Tender during the period of Tender validity specified on the Tender Form: or
2. If the Contractor(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

**EE(E)**

**Contr**

**ANNEXURE- II**  
**PERFORMANCE SECURITY GUARANTEE BOND**

In consideration of the CMD, BSNL (hereinafter called 'BSNL') having offered to accept the terms and conditions of the proposed agreement between \_\_\_\_\_ and \_\_\_\_\_ (hereinafter called the said contractor(s)') for the work \_\_\_\_\_ (hereinafter called "the said agreement"), having agreed to production of a irrevocable Bank Guarantee for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as a security / Guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement .

1. We, (name of the bank) \_\_\_\_\_ (hereinafter referred to as "the bank") hereby undertake to pay to the BSNL an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) on demand by the BSNL.
2. We (name of the bank) \_\_\_\_\_ do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the BSNL stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only)
3. We, the said bank further undertake to pay to the BSNL any money so demanded notwithstanding any dispute or disputes raised by the contractor(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 a valid discharge of our liability for payment there under and the contractor(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 BSNL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the BSNL certified that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.
5. We, (name of the bank) \_\_\_\_\_ further agree with the BSNL that the BSNL shall have 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 contractor(s) from time to time or to postpone for any time from time to time any of the powers exercisable by the BSNL against the said Contractor(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 Contractor(s) or for any forbearance, act of omission on the part of the BSNL or any indulgence by the BSNL to the said contractor(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 due to the change in the constitution of the Bank or the Contractor(s).
7. We, (name of the bank) \_\_\_\_\_ lastly undertake not to revoke this guarantee except with the previous consent of the BSNL in writing.
8. This guarantee shall be valid up to \_\_\_\_\_ unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the \_\_\_\_\_ day of \_\_\_\_\_ for \_\_\_\_\_

(Indicate the name of bank)

**EE(E)**

**Contr**



**PROFORMA FOR AGREEMENT****(ON NON- JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

CONTRACT AGREEMENT FOR THE WORK OF -----

----- DATED ----- Between M/S -----

----- (refer note) in the town of (Address)-----

herein after called the contractor (which term shall unless excluded by or repugnant to be subject or context include its successors and permitted assigns) of the one part and the Bharat Sanchar Nigam Limited herein after called the BSNL (which term shall unless excluded by or repugnant to the subject or context include its successes and assigns) of the other part.

**WHEREAS**

- a. The BSNL is desirous that the execution of (Name of work)-----  
----- at ----- to be performed as mentioned , enumerated or referred to in the tender including press Notice Inviting Tender , General conditions of the contract , Special conditions of the contract , Specifications , Drawing , Plans , Time schedule of completion of jobs , schedule of quantities and rates , agreed variations , other documents , has called for tenders.
- b. The contractor has inspected the site and surroundings of the work specified in the tender documents and has specified himself by carefully examinations before submitting his tender as to the nature of the surface , strata , soil , sub soil and grounds , the form and nature of the site and local conditions the quantities , nature and magnitude of the work , the availability of the labour and materials necessary for the execution of work , the means of access of site , the supply of power and water thereto and the accommodation he may require and has made local and independent enquiries and obtained complete information as to the matters and things referred to or implied in the tender , documents or having any connection therewith and has considered the nature and extent of all the probable and possible situations , delays , hindrances or interferences to or with the execution and completion of the work to be carried out under the contract , and has examined and considered all other matters , conditions and things and probable and possible contingencies , and generally all matters incidental thereto and ancillary thereof affecting the execution and completion of the work and which might have influenced him in making his tender.
- c. The tender documents including the BSNL ,s press notice Inviting Tender , General conditions of Contract , special conditions of contract, Schedule of quantities and Rates , General obligations , Specifications , Drawings , Plans , Time schedule for completion of work. Letter of acceptance of tender and any statement of agreed variations with its enclosures copies which are hereto annexed form part of this contract through separately set out herein and are included in the expression contract wherever herein used.

**AND WHEREAS**

The BSNL accepted the tender of M/S ----- (refer note at page -----  
-----) (contractor) for the Operation & Comprehensive maintenance of EMS ----- at ----- and conveyed vide letter no -----  
----- Dated ----- at the rates stated in the schedule of quantities for the work and accepted by the BSNL (herein after called the schedule of rates ) upon the terms and subject to the conditions of the contract.

NOW THIS AGREEMENT WITNESSTH & IT IS HEREBY AGREED AND DECLARED AS FOLLOW

1. In consideration of the payment to be made to the contract for the work to be executed by him , the contractor hereby convenient with the BSNL that the contractor shall and will duly provide , execute, complete and maintain the said work and shall do and perform all other acts and things in the contract mentioned or described or which are to implied and there from or may be reasonably necessary for the completion of the said works and at the said times and in the manner and subject to the terms and conditions or stipulations mentioned. In the contract and

2. In consideration of the due provisions execution, completion and maintenance of the said work, the BSNL does hereby agree with the contractor that the BSNL will pay to contractor the respective amounts for the work actually done by him and approved by the BSNL at the schedule or rates and such other sum payable to the contractor under provision of the contract, such payment to be made at such time in such manner as prescribed for in the contract.

It is specifically and distinctly understood and agreed between the BSNL and the contractor that the contractor shall have no right , title or interest in the site made available by the BSNL for execution of the works or in the building , structures or works executed on the said site by the contractor or in the goods , articles , materials etc. brought on the said site ( unless the same specifically belongs to the contractor ) and the contractor shall not have or deemed to have any lien whatsoever charge for unpaid bills will not be entitled to assume or retain possession or control of the site or structures and the BSNL shall have an absolute and unfettered right to take full possession of site and to remove the contractor , their servants , agents and materials belonging to the contractor and lying on the site.

In witness where of the parties hereto have here-into set their respective hands and seals in the day and the year first above written.

Signed and delivered for and on behalf of BSNL  
and on behalf  
the Contractor

Signature and delivered for

(BHARAT SANCHAR NIGAM LIMITED)  
OFFICIAL ADDRESS

(CONTRACTOR)

Date  
Place

Date  
Place

IN PRESENCE OF TWO WITNESSES

SIGNATURE  
NAME

SIGNATURE  
NAME

SIGNATURE  
NAME

SIGNATURE  
NAME

**EE(E)**

**Contr**

**GSTN DETAILS OF BSNL**  
**Form GST REG-25**

Sr. No.	Description	Details
A	Legal & trade Name	Bharat Sanchar Nigam Limited
B	Type of vendor i.e. whether registered or unregistered	Registered
C	State wise registration address of the vendor (In case vendor has presence in multiple states)	O/O the Chief General Manager BSNL, HPTC, Block No. 11, SDA Complex, Kasumpati, Shimla 171 009 (HP)
D	State of registration along with PIN code	Himachal Pradesh 171009
E	PAN No. of vendor	AABCB5576G
F	GSTIN No. of registered vendor (If registered in multiple states, then listing all GSTINs) under which invoices are raised by vendor	02AABCB5576G3ZV
G	TIN under VAT	02011200359
H	Service Tax Registration No.	AABCB5576GSD816
I	Corporate Identity Number (CIM)	U74899DL2000GOI107739
J	Status of vendor i.e. SEZ, EOU, DTA, Government, Local authority	Public Sector Undertaking
K	List of goods and services provided by vendor	Telecommunication services
L	HSN code for goods/SAC for services supplied by vendor	HSN CODE 85176230, 85235210 SAC CODES 00440398, 00440229, 00440406
M	GST compliance rating (Optional)	
N	Whether supply is exempt/non taxable	No
O	Whether reverse charge scheme is applicable. (Yes/No)	No
P	Whether compounding scheme applicable (Yes/No). In case purchase is from dealers under composition scheme GST cost will be inbuilt in supply and vendor will not charge GST separately	No
Q	Whether TDS applicable (Yes/No)	No
R	Email address of vendor	<a href="mailto:bsnlgst.hp@gmail.com">bsnlgst.hp@gmail.com</a>

**SCHEDULE "D"**  
**"IMPORTANT NOTE FOR CONTRACTORS"**

The firm shall read carefully the following conditions and shall quote accordingly confirming all the points in their offer.

**1. SUBMISSION AND OPENING OF TENDERS:-**

- a. The tender shall be submitted as prescribed in clause 7 of BSNL EW 6.
  - b. The tenderer are advised not to deviate from the technical specifications / items, commercial terms and conditions of NIT.
2. BSNL does not bind himself to accept the lowest or any tender and reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the quoted.

**3) TAX AND DUTIES: -**

The rates shall be quoted **inclusive of all taxes including GST to and all other taxes of Central / HP State Government with loading, unloading and transportation etc. The rates shall be firm and final. Nothing extra shall be paid on any account & BSNL shall not entertain any claim in this respect.** The invoices raised by the contractor shall indicate GST as a separate component of the gross bill raised. The payment of GST by BSNL to the contractor shall be governed by the rule of the government made in this regard and applicable to BSNL and further as per the rules framed by BSNL in this regard. BSNL shall claim ITC credit for the GST as per rules of BSNL in vogue.

*The contractor shall be solely responsible for timely payment of GST to the concerned department. Any penalty / interest for late submission etc. arising thereupon and as demanded by the concerned department shall be sole responsibility of the contractor and BSNL shall have absolutely no liability whatsoever on this account.*

The deduction at source of such taxes as per rule shall be made while releasing payment of the running/final bills at the rate as applicable. The department shall issue a certificate of the rate and amount of deductions but such taxes shall not be paid/reimbursed to the contractor by the BSNL separately. No concessional form shall be issued by the BSNL. The road permit etc. shall be arranged by the tenderer on his own without any extra cost.

**4) SECURITY DEPOSIT:-**

Recovery of security deposit at the rate of 10% in accordance with clause 1A of BSNL EW-8 shall be deducted by BSNL from progressive payments made to the firm from all the running bills till the sum along with the sum already deposited as earnest money will amount to security deposit of 10% of the tendered value of the work. This shall be refunded to the contractor as per Clause 17 of BSNL EW-8. This will be released after an observation of 12 months after the date of completion of work along with performance guarantee.

**5) TERMS OF PAYMENT:**

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**Contr**

No advance payment will be made. Payment to the contractor during the contractor during the progress of work is regulated for all the items as below. Stipulations like levy of interest if payment is not made in specified time are not acceptable to the BSNL.

- i) 90% of approved contract value on supply and installation of scheduled items
- ii) 10 % of approved contract value after successful testing & commissioning

**NOTE:-**

- Stipulations like levy of interest if payment is not made in specified time are not acceptable to the BSNL
- In cases where shortage / damages are intimated to the supplier in writing, the balance payment shall be released only after the cases are settled in accordance with the provisions of the P.O.
- No payment will be made for goods rejected at the site on testing. Payment, if made for such items shall be recovered from subsequent bills or other bills.

**6) DATE OF COMPLETION: -**

Date of successful testing & commissioning of system will be considered as the date of completion.

**7) COMPLIANCE OF EPF ACT:**

The firm has to fulfill / compliance of the provisions of EPF & Misc. Provisions Act 1952 & Employees' Provident Fund Scheme 1952. The each claim bill of contractors must accompany the 1) List showing the details of laborers / employees engaged. 2) Duration of their engagement. 3) The amount of wages paid to such laborers / employees for the duration in question. 4) Amount of EPF contributions (both employer's and employee's contribution) for the duration of engagement in question, paid to the EPF authorities. 5) Copies of authenticated documents of payments of such contribution to EPF authorities and 6) A declaration from the contractors regarding compliance of the conditions of EPF Act, 1952.

**8) DECLARATION BY TENDERER**

- 1. To be signed by Proprietor in case of proprietorship firm.
- 2. To be signed by all partners in case of partnership firm.
- 3. To be signed by all the directors in case of the company.

- 1. M/s.....
- S/o .....
- R/o .....

Hereby certify that none of my relatives (\*) as defined below is/are employed in BSNL units(\*\*) as defined below.

In case at any stage it is found that information given by me is false/incorrect, BSNL shall have absolute right to take any action as deemed fit, without any prior intimation to me.

(\*) Definition of Relatives.

- 1. Member of Undivided family.

**EE(E)**

**Contr**

2. They are husband and wife.
3. They are related to the other in the manner as Father, Son(s) and Son's wife (Daughter-in-law, Daughter(s) & Daughter's husband (Son-in-law), Brother & Brother's wife, Sister(s) & Sister's husband (Brother-in-law)).

(\*\*) The company or firm or any person is not permitted to tender for the work in BSNL unit in which his near relative(s) is (are) posted. The unit is defined as

- A. For Non Executive Employees: SSA/Circle/Chief Engineer/Chief Architect/ Corporate Office.
- B. For Executive Employees (including those called as gazetted officer at present): All SSA in Circle office/Chief Engineer / Chief Architect / Corporate Office.

Place: \_\_\_\_\_

Date: \_\_\_\_\_  
tenderer

Signature of

**9) TAX DEDUCTED AT SOURCE: -**

The rates offered by the firm shall be inclusive of VAT as applicable in the state. The BSNL shall deduct TDS from payments due to the firm as per rules of the state Government. Certificate for such deductions shall be issued to the firm by the Accounts officers of the concern division.

**10) GST:-**

The rates offered by the firm shall be inclusive of the GST as applicable. The firm shall claim GST with the bill clearly furnishing the complete details of GST so included. BSNL, under no circumstances, will consider any claim of GST not included in the bill. It will be the firm's responsibility to settle GST with GST authorities.

**11) GUARANTEE AND DEFECT LIABILITY: -**

The guarantee shall be valid for twelve months after Commissioning of the system. The contractor shall guarantee that system shall be free from any defect due to the defective material and / or bad workmanship and also the equipments shall work satisfactorily with performance and efficiencies not less than the guaranteed values. The firm shall visit quarterly during guarantee period and ensure the healthiness of system.

a) Any part found defective during this period shall be replaced free of cost by the contractor. The service of the contractor's personnel if required during this period shall be made available free of cost to the department.

b) The contractor shall depute his representative within 36 hours of notification of the defect by the department.

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c) A joint report shall be prepared by the representative of department and firm regarding nature of defects and remedial action required. Time schedule for such action shall be also finalized.

d) In case the contractor fails to depute his representative within 36 hours of notification of the defect or fails to cause remedial measure within reasonable time as decided during joint inspection, the department may proceed to do so at the contractor's risk and expenses and without prejudice to any other right.

## 12) TESTING AT SITE: -

The contractor will have to give the following tests at his cost and intimate test results before commissioning. Nothing extra will be paid to him on this account.

- Megger test between Phases, Neutral and Earth.
- Earth test.
- Polarity test.

## 13) Operation of agreement shall be governed as follows:

1. BSNL will have the right to increase or decrease up to **25 %** of the contract value depending upon the requirement of goods & services specified in the schedule of items without any change in the unit price or other terms & conditions at the time of award of contract.
2. The ordering quantity can be increased up to the extent of **25 %** (deviation limit) without the consent of the firm. The firm shall execute such quantities at the rate quoted in the tender without any change in terms and conditions of the contract.
3. The agreement shall be signed between the firm and Executive Engineer (E) BSNL Electrical Division, Shimla, within a fortnight from the date of approval.
4. Formal work contract agreement will be made between the Executive Engineer (E) & the firm on the basis of specimen agreement & the schedule of work. The date of commencement shall be reckoned from the 10th day after the date of award letter.
5. The period of completion shall be **One Month after completion of Civil Work.**

## 14) MISCELLANEOUS

1. The workers engaged by firm should maintain proper discipline and good behavior with occupants. The firm shall not depute such workers at the site, whose behavior is found improper. Executive Engineer's decision shall be final.
2. All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not

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3. The agency will provide the workers with necessary Tools & Plant, Testing and safety equipments.
4. Agency has to observe all the labour rules and regulations in force and indemnify BSNL against any claims whatsoever, either from this clause or any other clause in the contract.
5. Firm shall issue ID card to their workforce whenever they enter premises for bonafide work. Nobody shall be allowed entry without work and nobody will be allowed overnight stay without work. The workers should wear proper uniform with detachable badge indicating the name of person & firm.
6. Dismantled materials shall be returned to the BSNL except those items for which the replacement is supplied by the agency.
7. The contractor has to keep all the units, neat and clean to avoid any accident and / or fire hazards.
8. Firm should have round the clock contact telephone number. In case of Emergency, contractor and authorized engineer supervisor shall be available at site on short notice from engineer-in-charge and make all efforts to make the situation normal at the earliest.

#### **.15) PACKING, FORWARDING AND STORAGE AT SITE**

Before dispatch to site, the equipment / component / materials shall be properly packed so as to afford protection against transit damages and damages against storage in open areas either at transporter's premises or at work site. When storage in open area is inevitable proper waterproof covering shall be provided to protect damages on account of rainwater etc. However, damaged items shall be replaced as per the direction of Engineer-in-Charge.

All the stores and materials required for satisfactory completion of the work shall be arranged at work site by the contractor from his own sources. However, safe custody of the material stored at site will be the responsibility of the contractor.

#### **16) CO-ORDINATION AT SITE:-**

At the site of work more than one agency may be working full cooperation shall be extended to other agencies during progress of work. Further, work shall be carried out in such a way so that it may not cause abnormal noise and hindrance to the officers of the department engaged in erection as well to the normal routine work.

#### **17) BYE-LAWS INDEMNITY AGAINST LIABILITIES**

1. The contractor shall comply with all bye-laws and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for payment of all fee and other charges and giving/receiving all

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necessary notices and keep the Engineer-in-Charge informed about the notices issued and received.

2. The contractor shall indemnify BSNL against all claims in respect of patent rights, design, trade mark 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 thereon. The contractor shall defend all actions arising from such claims and shall himself pay all royalties.
3. License fees, damages, cost and charges of all and every sort that may be legally incurred in respect thereof shall be borne by the contractor.
4. All liabilities / penal recoveries on matters arising out of tax/excise/levies such as incorrect deductions, discrepancies in the filling up returns, revised assessments by the concerned authorities etc. shall be borne by the contractor.
5. It is contractor's liability to follow all safety procedures in accordance with relevant I.S. amended upto date during execution of work at site.

**18) Works to be arranged by the BSNL:**

Unless and otherwise specified in the tender documents, the following works shall be arranged by the BSNL:

- (i) Supply of materials to the contractor as stipulated in the tender documents.

**19) Works to be done by the contractor:**

Unless and otherwise mentioned in the tender documents, the following works shall be done by the contractor, and therefore their cost shall be deemed to be included in their tendered cost:-

- a) Foundations for equipment's and components where required, including foundations bolts.
- b) Cutting and making good all damages caused during installation and restoring the same to their original finish.
- c) Sealing of all floor openings provided by him for pipes and cables, from fire safety point of view, after laying of the same.
- d) Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/distribution gear items, cubicle switchboard etc. Damages to finished surfaces of these items while handling and erection, shall however be rectified to the satisfaction of the Engineer-in-Charge.
- e) Testing and commissioning of completed installation.
- f) Storage space for all equipment's, components, and materials for the work

**20) Conformity to IE act, IE Rules, and standards:**

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All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and Indian Electricity Rules, 1956 amended up to date (Date of call of tender unless specified otherwise). List of rules of particular importance to electrical installations under these General Specifications is given in Appendix C of CPWD general specifications for electrical works part-1 internal 2007, for reference.

**21) Conformity to standards:**

All components shall conform to relevant Indian Standard Specifications wherever existing. Materials with ISI certification mark shall be preferred.

Relevant Indian Standards including amendments or revisions thereof up to the date of tender acceptance shall be applicable in the respective contracts for respective items, firm to ensure its compliance.

**22) Workmanship:**

- a. Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- b. Proper supervision/skilled workmen: The contractor shall be a licensed electrical contractor of appropriate class suitable for execution of the electrical work. He shall engage suitably skilled/licensed workmen of various categories for execution of work supervised by supervisors / Engineer of appropriate qualification and experience to ensure proper execution of work. They will carry out instruction of Engineer-in-charge and other senior officers of the Department during the progress of work.
- c. Use of quality materials: Only quality materials of reputed make as specified in the tender will be used in work.
- d. Fabrication in reputed workshop: Switch boards and LT panels shall be fabricated in a factory/workshop having modern facilities like quality fabrication, seven tank process, and powder/epoxy paint plant, proper testing facilities, manned by qualified technical personnel. These shall be as per make / item approved.

**23) Care of buildings:**

Care shall be taken by the contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove, at his costs, all unwanted and waste materials arising out of his work, from the site. Any expenditure incurred by the BSNL in this condition shall be recovered from the contractor and decision of the Engineer-in-Charge about recovery shall be final

## **SPECIFICATION FOR EARTHING**

### **1.0 SCOPE:-**

This chapter covers the essential requirement of earthing system components and their installation. This shall be read with which lays down criteria for their design. For details not covered in these specifications, IS Code of Earthing (IS : 3043-1987) shall be referred to.

### **1.1. APPLICATION: -**

- (i) The electrical distribution system in the department is with earthed neutral (i.e., neutral earthed at the transformer/generator end). In addition to the neutral earthing, provision is made for earthing the metallic body of equipment's and non-current carrying metallic components in the sub-station, as well as in the internal/external electrical installations.
- (ii) Earthing system is also required for lightning protection, computer installations and for functional reasons.
- (iii) Earthing requirements are laid down in Indian Electricity Rules,1956, as amended from time to time, and in the Regulations of the Electricity Supply Authority concerned. These shall be completed with.
- (iv) Though this chapter form part of the Specifications for Internal EI works, these requirements shall be complied with in works of earthing for other applications also.

### **1.2. MATERIALS.**

#### **1.2.1. EARTH ELECTRODES.**

##### **1.2.1.1. TYPES:-**

The type of earth electrode shall be any of the following, as Specified (For selection criteria in designs

1. Pipe earth electrode.
2. Plate earth electrode.
3. Strip or conductor earth electrode.

##### **1.2.1.2. Electrode materials and dimensions: -**

- a) The materials and minimum sizes of earth electrodes shall be as per table VIII.
- b) GI pipe electrodes shall be cut tapered at the bottom, and provided with holes of 12mm dia, drilled not less than 7.5cm from each other up to 2m of length from the bottom.

- c) The length of the buried strip or conductor earth electrode shall be not less than 15m. This length shall suitably be increased if necessary, on the basis of the information available about soil resistance, so that the required earth resistance is obtained. Prior approval of the Engineer-in-charge shall be taken for any such increase in length.

**1.2.2. EARTHING CONDUCTOR: -**

- a) The earthing conductor (protective conductor from earth electrode upto the main earthing terminal/earth bus, as the case may be) shall be of the same material as the electrode, viz, GI or copper, and in the form of wire or strip as specified.
- b) The size of earthing conductor shall be specified, but this shall not be less than the following (For calculating the size of the earthing conductor in design).
- c) 5mm dia (6SWG) for GI, or 4mm dia (8SWG) for copper wire.
- d) 25mmx4mm in the case of GI strip, or
- e) 20mmx3mm in the case of copper strip.
- f) Earthing conductor larger than the following sectional areas need not be used, unless otherwise specified.
- i. 150 Sq.mm. in case of GI in case of GI,  
or,
  - ii. 100 Sq.mm. in the case of copper strip.

**1.2.3. EARTH BUS: -**

- (i) Two copper strips, each of size 50mmx5mm shall be provided as earth bus in a 11KV sub-station and/or diesel generating station irrespective of the capacity of the transformer or the D.G. set. Each of these strips shall be connected to an independent earth electrode. The two earth leads from the body of each transformer/panel/generating set etc. shall be connected to these two strips of earth bus. The two strips of the earth bus shall be bonded together.
- (ii) The neutral earth leads of the transformer and/or generator alternator shall not be connected to this earth bus. They shall be connected directly to individual earth electrodes.

**1.2.4. HARDWARE ITEMS: -**

All hardware items used for connecting the earthing conductor with the electrode shall be of GI in the case of GI pipe and GI Plate earth electrodes, and forged tinned brass in case of copper plate electrodes.

**1.2.5. PROTECTIVE (Earth continuity Loop Earthing) CONDUCTOR: -**

1. The material and size of protective conductors shall be as specified.(For criteria in design of these
2. The minimum cross sectional area of a protective conductor (not contained within a cable or flexible cord) shall be:-
  - a) 2mm dia (14 SWG) in case of copper.
  - b) 2.5 mm dia (12 SWG) in case of GI,or.
  - c) 2.24 mm dia (13 SWG) in case of Aluminum.
3. Unless otherwise specified,GI conductor should not be ordinarily used as protective conductor within any circuit, beyond a DB downstream.

### **1.3. LOCATION FOR EARTH ELECTRODES: -**

- a) Normally an earth electrode shall not be located closer than 1.5 m from any building. Care shall be taken to see that the excavation for earth electrode does not affect the foundation of the building, in such cases, electrodes may be located further away from the building, with the prior approval of the Engineer-in-charge.
- b) The location of the earth electrode will be such that the soil has a reasonable chance of remaining moist as far as possible. Entrances, payments and road ways, should be avoided for locating earth electrodes.

### **1.4 INSTALLATION.**

#### **1.4.1. ELECTRODES.**

##### **1.4.1.1. Various types of electrodes:-**

- I. Pipe electrode shall be buried in the ground vertically with its top at not less than 20cm below the ground level.
- II. In locations where the full length of pipe electrode is not possible to be installed due to meeting a water table, hard soil or rock, the electrode may be to reduced length, provided the required earth resistance result is achieved with or without additional electrodes, or any alternative method of earthing may be adopted, with the prior approval of the Engineer-in-charge. Pipe electrodes may also be installed in horizontal formation in such exceptional cases.
- III. Plate electrode shall be buried in ground with its faces vertical, and its top not less than 3 m below the ground level.
- IV. When more than one electrode (plate/pipe) is to be installed a separation of not less than 2m shall be maintained between two adjacent electrodes
- V. The strip or conductor electrode shall be buried in trench not less than 0.5m deep.
- VI. If conditions necessitate the use of more than one strip or conductor electrode, they shall be laid as widely distributed as possible, in a single

straight trench where feasible, or preferably in a number of trenches radiating from one point.

- VII. If the electrode cannot be laid in a straight length, it may be laid in a zig-zag manner with a deviation upto 45 degrees from the axis of the strip. It can also be laid in the form of an arc with curvature more than 1m or a polygon.

**1.4.1.2. Artificial treatment of soil: -**

When artificial treatment of soil is to be resorted to, the same shall be specified in the schedule of work. The electrode shall be surrounded by charcoal/coke and salt as indicated. In such cases, excavation for earth electrode shall be increased as per dimensions indicated in these figures.

**1.4.1.3. Watering arrangement: -**

- (i) In the case of plate earth electrodes, a watering pipe 20mm dia, medium class pipe shall be provided and attached to the electrodes as shown in gif. 4 and 5. A funnel with mesh shall be provided on the top of this pipe for watering the earth.
- (ii) In the case of pipe electrodes, a 40mm x 20mm reducer shall be used for fixing the funnel with mesh.
- (iii) The watering funnel attachment shall be housed in a masonry enclosure of size not less than 30cm x30cmx30cm.
- (iv) A cast iron/MS frame with MS cover, 6mm thick, and having locking arrangement shall be suitably embedded in the masonry enclosure.

**1.4.2. EARTHING CONDUCTOR (Main earthing lead): -**

- i. In the case of plate earth electrode, the earthing conductor shall be securely terminated on to the plate with two bolts, nuts, check nuts and washers.
- ii. In the case of pipe earth electrode, wire type earthing conductor shall be secured using a through bolt, nuts and washers and terminating socket.
- iii. A double C-clamp arrangement shall be provided for terminating tape type earthing conductor with GI watering pipe coupled to the pipe earth electrode. Galvanized "C" shaped strips, bolts, washers, nuts and checkouts of adequate size shall be used for the purpose.
- iv. The earthing conductor from the electrode upto the building shall be protected from mechanical injury by a medium class, 15mm dia. GI pipe in the case of wire, and by 40mm dia, medium class buried at least 30cm deep (to be increased to 60cm in case of road crossing and pavements). The portion within the building shall be recessed in walls and floors to adequate depth in due co-ordination with the building work.
- v. The earthing conductor shall be securely connected at the other end to the stub/earth bar provided on the switch board by:

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- a. Soldered or preferably crimped lug, bolt, nut and washer in the case of wire, and,
  - b. Bolt, nut and washer in case of strip conductor.
- vi. In the case of substations or alternators, the termination shall be made on the earthing terminal of the neutral point on the equipment and/or the earth bus, as the case may be.

#### **1.4.3. EARTH BUS AND MAIN EARTHING TERMINAL: -**

1. In the case of substations and generating stations, two numbers copper/GI (as specified) earth bus shall provide, duly connected to two numbers of independent electrodes, exclusively for equipment (body) earthing of substation or generating station equipments.
2. In all other installations, main earthing terminal shall be provided at the main switch board. This may be in the form of earth stud or single earth bar depending on the type of the switch board.
3. Following conductors shall be terminated on to the main earthing terminal.
  - a. Earth connection from electric supply company (where provided).
  - b. Earthing conductor from electrode.
  - c. Protective conductors.
  - d. Equipotential bonding conductors.

#### **1.4.4. PROTECTIVE (Loop earthing/earth continuity) CONDUCTOR:-**

1. Earth terminal of every switch board in the distribution system shall be bonded to the earth bar/terminal of the upstream switch board by protective conductor (s).
2. Two protective conductors shall be provided for a switch board carrying a 3 phase switch gear thereon.
3. All the mountings of industrial type switch boards shall be bonded to the earth stud/earth bar using a protective conductor looping from one to another. Loop earthing of individual units will not be however necessary in the case of cubicle type switchboards.
4. The earth connector in every distribution board (DB) shall be securely connected to the earth stud/earth bar of the corresponding switch board by a protective conductor.
5. All metallic switch boxes and regulator boxes and regulator boxes in a circuit shall be connected to the earth connector in the DB by protective conductor (also called circuit protective or loop earthing conductor), looping from one box to another up to the DB.
6. The earth pin of socket outlets as well as metallic body of fan regulators shall be connected to the earth stud in switch boxes by protective conductor. Where the switch boxes are of non-metallic type, these shall be looped at

the socket earth terminals, or at an independent screwed connector inside the switch box. Twisted earth connections shall not be accepted in any case.

7. Double earthing strips in rising mains, bus trucking etc. shall be securely connected to the earth bar/earth stud at the sending end switch board. In the case of overhead busbar systems, protective conductor shall be provided in addition to feeder cable armoring connection.

#### **1.5. EARTH RESISTANCE:-**

1. The earth resistance at each electrode shall be measured. No earth electrode shall have a greater ohmic resistance than 5 ohms as measured by an approved earth testing apparatus. In rocky soil the resistance may be up to 8 ohms.
2. Where the above stated earth resistance is not achieved, necessary improvement shall be made by additional provisions, such as additional electrode (s), different type of electrode, or artificial chemical treatments of soil etc., as may be directed by the Engineer-in-charge.
3. In addition to the above (I) The earthing is to be got A/T'ed in the presence of representatives of A/T wing or any other nominated authority as per A/T Schedule till the final results are achieved. The testing equipment required that at site shall be arranged by the contractor without any extra charges.

#### **1.6 MARKING:-**

1. Earth bars/terminals at all switch boards shall be marked permanently, either as "E" or as.
2. Main earthing terminal shall be marked "SAFETY EARTH- DO NOT DISCONNECT".

#### **1.7. USE OF RESIDUAL CURRENT DEVICES (RCDs):-**

An extract on selection and application of RCDs ( also known as RCBs) from IS:12640-1988 is given Appendix H. Provision of RCD shall be specified in individual cases keeping in view the type, use, importance, system of earthing and nature of electrical installations to be protected by the RCCBs, requirements of the local electric supply company, etc. The sensitivity shall be 30mA, 100mA, 300mA, or 500mA as specified.

#### **TABLE VIII**

#### **MATERIALS AND SIZES OF EARTH ELECTRODES**

[Clause 1.2.1.2(i)]

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Type of Electrode	Material	Size
Pipe	GI Medium Class	40 mm dia 4.5 m long(Without any joint)
Plate	(i) GI	600 mm x 600 mm x 6 mm thick
	(ii) Copper	600 mm x 600 mm x 3 mm thick
Strip	(i) GI	100 Sq.mm section.
	(ii) Copper	40 Sq.mm section
Conductor	(i) GI	5 mm dia (6 SWG)
	(ii) Copper	4 mm dia (8 SWG)

Note:- Galvanization of GI items shall conform to class IV of IS: 4736-1986

SANCHAR NIGAM LIMITED

LIST OF APPROVED MAKES- BSNL ELECTRICAL WING (As on 29.02.2016)

Sr. No.	Item	Make
1	Engine	Ashok Leyland /Cummins/ Cater pillar /KOEL / Volvo Penta / Mahindra & Mahindra (up to 200 KVA) /Escorts (up to 30 KVA)/ Eicher (up to 35 KVA)
2	Alternator(Brushless)	Crompton Greaves (AL. series) / KEC / Leroy Somer / Stamford/Jyoti Ltd
3	Battery (Lead Acid / Mntc. Free)	Amara Raja / AMCO / Farukawa / Hitachi / Exide/ Prestolite / Standard
4	HV Switchgear (Vacuum CircuitBreaker/SF6 )	Biecco Lawrie / Crompton / Kirloskar /MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type)	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO/ Kirloskar/ Siemens
	a) Above 400 KVA	
	b) Up to 400 KVA	In addition to above makes, Uttam/ 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

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Sr. No.	Item	Make
14	Digital/ KWHr meter	Schneider Electric/ AE/ Digitron / IMP/ Meco / Rishabh /Universal/HPL/L&T/ABB/Yokins
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
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 / Pilkington / 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/System Sensor
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

Sr. No.	Item	Make
43	Fire Extinguisher	ISI mark
44	Lift	OTIS/ Kone/ Mitsubishi/ Schindler/Johnson/ThyssenKrupp Elevators(India)
45	High Precision Air Conditioners (HPAC units)	Units Manufactured by 1. M/s Emerson Network Power India(P) Ltd, Thane 2. M/s Sidwal Refrigeration Ind.(P) Ltd, New Delhi 3. M/s Stulz CHSPL India(P) Ltd, Mumbai 4. M/s Schneider Electric IT Business(I) Pvt Ltd, Gurgaon(formerly M/s Uniflair India(P) Ltd.
NOTE- In addition to above, the items having valid approval of BSNL Elect Zone HP Shimla shall also be used.		

## NOTE:

- In case of External / PMC works, the list of approved makes may be modified as per client's requirement.
- 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 equipment's are also acceptable in addition.
- Any additional makes may be approved by concerned PCEs/Sr. CEs/CEs (Elect) for the works under his jurisdiction as already accorded vide letter No. - 3-2-5/EW/VEP-1/2007 Dated 5-7-2007.