% EXECUTIVE ENGINEER (E) BSNL Electrical Division-II, 6th floor, BSNL Bhavan, Adarsh Nagar, Hyderabad. -500063 Tel No: 040- 23224152, Fax No: 23224156 E-mail id: eeediv2bsnl@gmail.com



CORRIGENDUM

NIT No.: 08/BEDH-II/2024-25Dt.: 02/05/2024

<u>Name of work</u>: Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building, Secunderabad FY 2024-25.

The **quantity** and **unit** in the Schedule of quantities on page 6 of this NIT published on 02.05.2024 may be read as follows:

SCHEDULE OF QUANTITIES

Name of Work: Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building, Secunderabad FY 2024-25.

S	DESCRIPTION OF WORK		QTY	RATE	UNIT	AMOUNT		
1	Providing Annual Comprehensive Maintenance Contract of the 1No 8 passengers lifts including monthly inspection, servicing, attending to the breakdown calls, replacement of defective materials including consumables and labour as per the detailed specifications attached in the schedule etc., as	10						
	required.	12	Months		Month			
	Total Net Amount							
	Add GST @ 18% on Net Amount							
			Tot	al includi	ng GST			

All the other terms and conditions remains unchanged.

EXECUTIVE ENGINEER (E)

BSNL Electrical Division-II

Hyderabad.

Copy to:-

(1) The SE (E), BSNL Electrical Zone for kind information please.

Sd/-EXECUTIVE ENGINEER (E)



TENDER DOCUMENT FOR THE WORK

Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building, Secunderabad FY 2024-25.

ELECTRICAL DIVISION - II HYDERABAD-63

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Certified that this tender document contains (43) pages only.

EXECUTIVE ENGINEER (E)
BSNL Electrical Division-II
Hyderabad.



BHARAT SANCHAR NIGAM LIMITED

(A Govt. of India Enterprise)
(Electrical Wing)
/E ENGINEER (E), BSNL Electrical Division-II

% EXECUTIVE ENGINEER (E), BSNL Electrical Division-II, 6th floor, NW wing, BSNL Bhavan, 5-9-25, Hill Fort Road, Adarsh Nagar, Hyderabad. -500063

Tel No: 040-23224152, Fax No: 040-23224156

NOTICE INIVING TENDER

The Executive Engineer (Electrical), BSNL Electrical Division – II, Hyderabad invites on behalf of BSNL sealed item rate tenders for the work of

S. No	Name of work	NIT No	Estimated cost Rs.	EMD Rs.	Tender cost (non- refundable)	Time for completion
1	Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building,					
	Secunderabad FY 2024-25.					Twelve
		<mark>08</mark>	1,01,952/-	<mark>2,039/-</mark>	<mark>590/-</mark>	Month s

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

The Contractors satisfying the following conditions:

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

AND

1.2 The manufacturer or their authorized firms/ OEM of any of the makes of major equipment included in the NIT. The letter of authorization from manufacturer in original / photocopy attested by BSNL Executive will be submitted.

OR

- 1.3 Experience of having successfully completed similar works in BSNL during last 3 years ending last day of month previous to the one in which applications are invited, should be either of the following
 - a) Three similar successfully completed works costing not less than the amount equal to 40% of the estimated cost put to tender.

OB

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

OR

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

OR

1.4 BSNL enlisted contractors in Electrical category of respective class as per their tendering limits

NOTE:

1) The testimonials regarding the list of works satisfactorily completed (at least for the requisite magnitude) should be obtained from an Officer not below the rank of

Executive Engineer in the organization concerned. [For Sl. No. 1.3(a), 1.3(b), 1.3(c) above]

- 2) The estimated cost of one year shall be considered to evaluate the eligibility criteria.
- 3) Similar work means attending AMC contracts of passenger lifts of any capacity

GENERAL CONDITIONS

- (a) Valid Chartered Accountant Certificate with latest returns & Registration certificate with attested copies as applicable along with application on their printed letterheads for purchase of Tenders.
- (b) List of works completed of the requisite magnitude along with attested copies of certificate, testimonials of the satisfactory certificate from the department concerned obtained from an officer not below the rank of Executive Engineer.
- (c) Self-Attested copy of PAN card
- (d) Self-Attested copy of CA certificate for turnover (as applicable).
- (e) Self-attested copy of valid GST registration Certificate.
- (f) Self-attested copy of EPF Registration Certificate & ESI Registration certificate (As applicable)
- (g) Self-Declaration by Agency stating that the firm has not been black listed by GST authorities.
- (h) The Tender shall be submitted in **two sealed covers marked as cover 1**st **and Cover 2**nd, **with mention of Name of work, date of opening of bids on both the covers**. The First cover shall contain Tender cost in the form of **Demand Draft** Only, Earnest Money Deposit in the form of **Demand Draft/**FDR/ BG (As per MODEL FORM OF BANK GUARANTEE)/ CDR of a nationalized/scheduled bank guaranteed by the Reserve Bank of Indiadrawn in favour of **Accounts officer (cash), Main, BSNL, Hyderabad**, Self-Attested certified copies of PAN card, CA certificate for turnover, GST registration Certificate, EPF Registration Certificate & ESI Registration certificate (As applicable), Self-Declaration by Agency stating that the firm has not been black listed by GST authorities, if not certified by the BSNL Executive then original document shall be produced at the time of opening and the second cover should *contain* the tender document. In case the first cover is not annexed with all above mentioned credentials in proper form then second cover containing tenders shall not be opened at all.
- (i) The tender will be received up to 3.00 P.M. on **14/05/2024** and opened at 3.30 P.M. on the same day.
- (j) In case holiday is declared on the opening day, the tenders will be opened on the next working day.

<u>Note:-</u>Tender documents & BSNL EW-8 General conditions of contract work for electrical works can also be downloaded from the website http://www.telangana.bsnl.co.in/tenders_active.php

The firm who quotes on the tender downloaded from the web site shall strictly follow the following procedure:

- 1) Two sealed covers marked as cover 1st and Cover 2nd, with mention of Name of work, date of opening of bids.
- 2) The First envelope containing tender application, tender fee (non-refundable) in the form of separate DD, credentials of the tenderer which also includes authorization letter from dealer if any, self-attested and certified by the BSNL Executive. If not certified by the BSNL Executive then original document shall be produced at the time of opening (As per MODEL FORM OF Declaration shall be attached for tender fee and EMD Second Envelope shall contain duly filled tender document.
- 3) First envelope containing tender fee, EMD and attested document providing fulfillment of eligibility criteria in proper form shall be opened first

- 4) The second envelope shall not be opened in case
 - i) Tender fee and EMD is not submitted in proper form
 - ii) Firm fails to fulfill eligibility criteria on the basis of document submitted in the first envelope
- 5) If any found/discrepancies found in the downloaded tender form, the contents in the hard copy issued from division office shall be final and binding.
- 6) Tenders received by post / courier shall not be accepted.

Executive Engineer (E)

Lr. No. 24(1)/BEDH-II/2024-25/30 Dated: 02-05-2024

- 1) The Chief Engineer (E), BSNL AP Zone, Hyderabad.
- 2) The Superintending Engineer (E), BSNL Electrical Circle, Hyderabad/Vijayawada.
- 3) The Executive Engineer (E), BSNL, Electrical Div. No.I, Hyd./Vijayawada, VSP/TPT/WGL/ATP.
- 4) SDE (E) Electrical Sub Division I, II, III & V, Hyderabad.
- 5) All Eligible Contractors.
- 6) SR SS/SDE (EP)/AO/Cashier/Auditor/Notice Board.

Executive Engineer (E)
BSNL Electrical Division – II
HYDERABAD

SCHEDULE OF QUANTITIES

Name of Work: Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building, Secunderabad FY 2024-25. **DESCRIPTION OF WORK** RATE QTY UNIT **AMOUNT** \mathbf{S} Providing Annual Comprehensive Maintenance Contract of the 1No 8 passengers lifts including monthly inspection, servicing, attending to the breakdown calls, of replacement defective materials including consumables and labour as per the detailed specifications attached in the schedule etc., as required. 1 Job Job Total Net Amount Add GST @ 18% on Net Amount

Total including GST

ELECTRICAL WING

BSNL EW-8

Zone: - BSNL TS Electrical Zone, Hyderabad Division: -BSNL Electrical Division-II, Hyderabad

Tender for the work of Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building, Secunderabad FY 2024-25.

Name of Contractor/firm:....

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 Rates and 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 BSNL within the time specified, as per the 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.
 - A sum of Rs. 2,039/- is hereby forwarded in the form of CDR/FDR/DD or bank guarantee in department's attached format and manner 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.
- 1. Should this tender be accepted, I/ We agree to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered upto maximum of percentage mentioned in clause 12.3 of the tender form and those in excess of that limit at rates to be determined in accordance with provisions contained in clause 12.2.
- 2. 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 letter of Acceptance. I / We agree to keep the Performance Bank Guarantee validity as per relevant clause of Notice Inviting Tenders.
- 3. 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 authorised to communicate the same or use the information in any manner prejudicial to the safety or interest of BSNL.

Signature of Witness

(Required in case thumb impression is given by the contractor in place of signature)
(Name & Postal address)
Occupation of Witness

Date:

Signature of contractor (Seal of Contractor)

Contractor

Page 7 of 44

Executive Engineer (E)

ACCEPTANCE

The above tender (as modified by you as provided accepted by me for and on behalf of BSNL for a sur	
(Rupees	
)	
The letters referred to below shall form part of this	contract Agreement.
a)	
b)	
c)	
Fo	r & on behalf of <i>BSNL</i>
Sig	nature

IMPORTANT INSTRUCTIONS TO TENDERERS DOWNLOADING THE TENDER DOCUMENT FROM WEB SITE

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

- 1. The tenderer should see carefully and ensure that the tender document containing all the pages as per the index has been down loaded for making required entries. The balance pages of Standard BSNL EW 8 forms will be attached with the agreement after the award of work. The contractor shall read the BSNL EW 8 and keep themselves aware of the said Clauses.
- 2. A clear print out of tender document shall be taken on good quality A4 size paper and the printer settings, etc., shall be such that the document is printed as appearing in the web and without any change in format, number of pages, etc., and shall also ensure that no page is missing. Only original computer print out of the document shall be used. Photocopy shall not be accepted.
- 3. In case of any doubt in the downloaded tender, the same shall be got clarified from the Engineer in charge calling the NIT before submission of tenders.
- 4. The name of the tenderer shall be filled on the relevant pages of BSNL EW 6 form etc., and all the pages shall be invariably signed and seal affixed.
- 5. The tenderer shall ensure that the downloaded tender document is properly stitched and sealed with sealing wax before submitting the document. Loose / spiral bound tenders shall not be accepted. Sealing of the tenders with adhesive tapes is not acceptable and the tenders are liable to be summarily rejected.
- 6. There shall be no correction / addition / alteration / omission made in the text of the downloaded tender document. If found otherwise, the same shall be treated as non-responsive and summarily rejected.
- 7. The tenderer shall sign the declaration enclosed before submitting the tender.
- 8. Tenders received by post/courier shall not be entertained.

IMPORTANT INSTRUCTIONS TO THE TENDERERS

Please note that the offers, which do not comply the following, will not be considered and will be summarily rejected. These instructions supersede the BSNL EW 8 clauses in case of any Disparity.

- 1. Tenders with any condition including that of conditional rebates shall be rejected forthwith summarily.
- 2. Insurance, loading, unloading, transportation etc., should be included on works contact basis.
- 3. No Octroi exemption certificate shall be issued by the department nor will the Octroi duty paid by the contractor be reimbursed. Hence Octroi charges shall be included in the offer.
- 4. The price shall be firm and fixed during the currency of the contract. No cost escalation is permitted. Clause 10CC is not applicable.
- 5. The Extension of time for completion of the works is governed by clause 5 of the tender documents.
- 6. No advance payments can be made. The payment is governed by the normal department practice. Stipulations like levy of interest if pay mention to make in specified time is not acceptable.
- 7 The firm should deposit EMD before submission of their offer. The EMD of other works refundable to them cannot be adjusted against this work. The firm's offer shall be liable for rejection without EMD for this particular work.

8) TAXES AND DUTIES

The firm shall quote rates for all the items inclusive of all taxes and duties, inclusive of Octroi, entry tax, work contract tax, Service tax/ GST. No concession form will be issued by the Department. However the agency shall clearly indicate the GST/ Service portion in case of composite works at the time of submission of tender itself for the purpose GST/ service tax calculation.

Tendered rates shall be inclusive of all taxes and levies payable under the respective statutes. However pursuant to the constitution (Forty sixth amendment) Act, 1982, If any further tax or levies imposed by statute, after the date of receipt of tenders and the contractors there-upon necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount so paid, provided such payment, if any in the opinion of Superintending Engineer whose decision shall be final and binding is not attributable to delay in execution of work within the control of the contractor.

The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of Government and further shall furnish such other information/documents as the Engineer-in-Charge may require.

The contractor shall within a period of 30 days of imposition of any further tax or levy pursuant to the constitution (Forty sixth amendment) Act, 1982, give a written notice thereof to, the Engineer-in-Charge that the same is given pursuant to this condition together with all necessary information relating thereto.

Note: No additional condition whatsoever will be accepted for turnover tax/ sale tax on works contract. In case of additional conditions for the payment of such claims by the contractor, the tender may be summarily rejected by the accepting authority.

9) INCREASE / DECREASE OF TENDERED QUANTITY

- a) BSNL will have the right to increase or decrease up to 25% of the Contract value depending upon the requirement of goods and services specified in the schedule of items without any change in the unit price or other terms and conditions at the time of award of contract.
- b) In exceptional situation where the requirement is of an emergent nature and it is necessary to ensure continued supplies from the existing vendors, the purchaser reserves the right to place repeat orders up to 50% of the quantity of goods and services contained in the running tender/contract within a period of

12 months from date of award of work at the same rate or a rate negotiated (downwardly) with the existing vendors considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.

10) CURTAILMENT OF QUANTITY:-

BSNL reserves the right to enforce curtailment in the assigned quantum of work for any contractor on the grounds of defaults/delay in regard to execution of the individual work assigned.

11) **COMPLETION OF WORK**:-

11.1 The time period will be reckoned from the 10th day after the date on which the order of commence the work issued to the contractor. The time allowed for completion of work is One month

12) **EXTENSION OF TIME**:-

If the contractor shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or on any other grounds, he shall apply in writing to the Engineer in charge within 30 days of the hindrance on the account on which he desires such extension as aforesaid, and the Engineer in charge shall if in his opinion reasonable grounds to be shown therefore, authorize such provisional extension of time, if any as in his opinion be necessary are proper.

13) **COMPENSATION FOR DELAY:**

If the contractor fails to maintain the required progress or complete the work and clear the site on or before the contract or extended date of completion, he has to pay the compensation for delay which is limited to 0.5% per week of the tendered value for the first 10 weeks and 0.7% per week for next 10 weeks and thereafter subject to a maximum of 12% of the tendered value for the location where the work is delayed and the firm is found responsible for the same. The clause 2 of BSNL EW - 8 forms stands modified accordingly. Flow chart of the procurement process/ contract shall be supplied by the contractor and approved by Executive Engineer concerned.

14) **PAYMENT TERMS:**-

Monthly / Quarterly Bill shall be submitted after completion of maintenance period along with GST invoice. With each bill, certificate from the contractor that maintenance has been carried out properly and testing etc., required during the period have been performed. This certificate has to be countersigned by SDE(E)/JTO(E).

Note:-

- i. In case of unsatisfactory performance during this period 10 (Ten) percent penalty of the Bill amount shall be imposed and any deficiency in labour or performance of maintenance/repair work shall be penalized. Decision of engineer-in-charge shall be final and binding.
- **ii.** In case of a major accident/ loss on account of negligence on the part of the contractor, the engineer-in-charge may cause the same to be made good by other workmen & deduct the expense from any sums that may be due, or at any time thereafter may become due to the contractor, or from performance guarantee & security deposit or the proceeds of sale there of or of a sufficient portion thereof. The performance guarantee & security deposit of the contractor shall not be refunded before the expiry of twelve months after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.
- **iii.** In case of breakdown calls, if agency fails to send/ arrange people within 24 hrs, then department is at liberty to attend to breakdown and the expenditure incurred will be deducted from the bills due to the agency.

Period of Contract: 12 (Twelve) Months from the date of award letter and extendable by 6 (Six) months under the same terms and conditions.

15) **EPF PROVISIONS:-**

The agency has to comply with the provisions of EPF and miscellaneous provisions Act-1952 and employees provident fund scheme-1952 as amended upto date in respect of labours / employees engaged by them for this work. Any consequence arising due to non- complying of provisions as specified above shall be the sole responsibility of the firm only.

15(a) Agency has to observe all the labour rules & regulation in force. Agency shall be fully responsible for any violation observed at any time.

16 **Inspection of Site and Contract Documents**

For the purpose of inspection of site and relevant documents, the contractor is required to contact E.E (Elect) concerned who shall give reasonable facilities for Inspection of the same. The contractor shall inspect and examine the site and its surroundings and shall satisfy himself before commencement of work as to the form and nature of the site, the quantities and nature of work, materials necessary for completion of the works, the means of access to the site, the accommodation he may require and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his work. No extra charges consequent on any misunderstanding or otherwise shall be allowed.

17 Variation in quantities in respect of unit rates items will be governed by unit rates in the Agreement. This applies to all variations ordered during the currency of the main contract regardless of the quantity of variation. For any item of work not covered by the schedule of work Clause12 of BSNL EW -8 shall apply.

18. **I.S. Standards**:

The entire system shall conform to relevant Bureau of Indian Standards as amended up to date. Where IS standards are not available the British standard(s) shall be followed. In case of conflict, the requirements of these specifications shall be given over-riding priority. The electrical and earthing work shall be carried out as per CPWD specifications for electrical works (internal) and electrical works (external) as amended upto date.

19. Modifications/Alterations.

- 19.1 Modifications or alterations in the design/specifications of any equipment/material will not be permitted by the department as a matter of principle.
- 19.2 However, the department may relax the above stipulation in exceptional circumstance where:
 - a) The same is necessitated due to non-availability of material/component of certain specifications or make.

OR

- b) Such alterations constitute an improvement in the opinion of the contractor.
- 19.3 Prior written approval of the department shall be obtained before execution of such alterations/modifications.

20. **Quality Assurance**

The EI works are to be executed in accordance to the CPWD specifications. The work is considered to be completed only after the successful completion of testing.

21. **Procedure for submission of bills:**

The agency shall clearly indicate the GST/ **service tax number** on the bill copy / invoice. The bill shall contain measurement (work done / supplies) portion and the GST/ service tax portion separately. Bills received without these particulars will not be considered.

22. CURTAILMENT OF QUANTITY:-

BSNL reserves the right to enforce curtailment in the assigned quantum of work for any contractor on the grounds of defaults/ delay in regard to execution of the individual work assigned.

23. Miscellaneous

The firm must meet all statutory obligations towards the labours employed at its own cost.

24. Termination of contract on death of contractor

Without prejudice to any of the rights or remedies under this contract, if the contractor dies the Engineer in charge on behalf of the BSNL shall have the option of terminating the contract without compensation to the contractor.

25. <u>Indulging of contractor on criminal / anti-social activities and cases under investigation/</u> charge sheeted by CBI or any other Government agencies Etc

If the CBI/ Independent External Monitor (IEM) / Income tax/Sales tax/Central Excise /Customs Departments recommends such a course – action will be taken as per the directions of CBI or concerned department.

SPECIFICATION FOR THE WORK OF PROVIDING EI & FANS

- 1. The work shall be carried out in accordance with General specifications for Electrical (Part I-Internal –1972 and Part II External –1974) as amended upto date. All Installations Comply with the requirements of Indian Electricity Rules 1956 as amended upto date.
- 2. All material to be arranged by the contractor for use in the work shall be of approved make and shall be as per relevant Indian Standard Specifications. Where it is Mandatory to use ISI. marked material, the same Shall be arranged by the contractor according.
- 3. Bad workmanship is liable to be rejected in toto.
- 4. The contractor shall get the approval of the Site Engineer /Company or his authorized representative regarding the route of conduits, no. of runs, diameter of conduits, no and size of wires, location of pull boxes, route of cables in ground/wall for electrical /telephone works covered herein.
- 5. The contractor shall employ the technical staff for electrical works separately, during the execution of work.
- 6. All repairs & patch work, if any, shall be neatly carried out to match with the original finish and to the entire satisfaction of the Site Engineer. Any damages to the building due to execution of work shall have to be made good immediately by the contractor at his own cost.
- 7. The contractor shall make his own arrangement at his own cost for all general and special electrical tools and plants required for electrical work. Entire safety precaution during installation shall be taken as per relevant I.S, I.E. Rules and CPWD specifications.
- 8. Adopted boxes, wherever used, shall be of not less than 18 SWG M.S. sheet. M.S. conduits shall be black stove –enameled with 18 SWG wall thickness.
- 9. It will be the contractor's responsibility to get the electrical installation works inspected by the Local Statutory Authorities, fire office and such other officials. No extra payment /claims are allowable on this account.
 - 10. The contractor shall obtain & pay for all permits, licenses & Certificates for approval required by all relevant authorities & organizations. All Work of the contractor shall conform to the requirements of local codes.
 - 11. The work shall be carried out as per Regulations and in best workmanlike manner by licensed persons the names of licensed persons working in the installation shall be furnished to the Site Engineer prior to the commencement of the work.
 - 12. It is brought to the attention of the contractor that:
 - a. All electrical portable tools should be either 240 volts double insulated or 50 volts via Transformer.
 - b. The contractor has to supply all necessary ladders/steps which must be in good safe condition.
 - c. Entire safety precautions during installations shall be taken as per relevant I.S.I.E, Rules and C.P.W.D. Specifications.

13. Sub-Distribution boards shall be equipped with miniature circuit breaker. Miniature circuit Breakers shall have adequately sized terminals for the out-going leads. Distribution boards shall have adequately rated phase and natural bus-bars of high conductivity electrolytic aluminum with adequately sized terminals or clamps for the incoming conductors.

Sub-Distribution Board shall have an earth bar with necessary number of terminals or connecting the earth continuity conductors associated with the various circuits supplied from the board. Each distribution board shall have a circuit schedule pasted or other wise permanently fixed inside the cover stating the designation and details of the circuits controlled and the rating of the miniature circuit breakers. The Board shall be constructed of sheet steel and provided with removable conduit entry plate at top with gasket door arrangement.

Non-flammable insulating barriers shall be provided between poise and phases and all live parts protected with non-flammable insulating shields to prevent accidental contact while replacing or operating the miniature circuit breakers.

14. All Electrical works shall be carried out along with the progress of Civil works. Any debris due to electrical works shall be removed and the site shall be cleared by the Contractor as soon as the work is completed.

GENERAL

Complete electrical installation shall be carried out in strict accordance with Indian Electricity Rules and ISI codes of practices as is also explained in various CPWD specifications and NBC etc. The contractor is expected to keep the latest editions of these books available with him for reference.

DETAILED SPECIFICATIONS FOR AMC OF LIFTS

1. Scope of Maintenance - General

Providing "All Inclusive Comprehensive Maintenance" of Passenger Lift having microprocessor based control, V3F drive, Auto Rescue Device etc., including monthly periodical checking and servicing of the lift and attending to the breakdowns including cost of materials / spares, consumables, labour etc., (No consumables will be supplied by the Department and the rates shall be all inclusive and nothing extra will be paid in this account). The firm shall conduct functional tests of the system by operating the equipment's, controls relays etc., during periodical inspection visits. The functional test conducted during such visits shall be done in the presence of the Engineer-in-charge. The report thereafter shall be jointly signed.

2. Methodology:

It is presumed that contractor shall undertake the stated responsibilities only through qualified and experienced staff. Services are to be maintained round the clock round the year even on holidays. For preventive and break down maintenance the extra specialized labour shall be deployed based on frequency stated in document.

3. Tools & Plants:

All tools and plants required for carrying out various tasks relevant to maintenance have to be arranged by agency at his own cost.

4. Commercial:

- 11 The workers engaged by firm should maintain proper discipline and good behaviour with occupants.
- The firm shall remove such workers from the site whose behavior is found improper, Executive Engineer's decision shall be final.
- Any damage to the installation(s)/ building during the maintenance period due to the carelessness on the part of maintenance staff shall be the responsibility of firm & be replaced/rectified without any extra cost.
- 14 The agency will provide the workers with necessary T&P, Testing and safety equipment's.
- Any accident or damage during maintenance/ operation will be the responsibility of the agency and the BSNL will not entertain any claim, compensation, penalty etc. on this account or on account of non-observation of any other requirement of law relevant to his work.
- 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.
- 17 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.
- Dismantled materials shall be returned to the BSNL except those items for which the replacement is supplied by the agency.

- 19 The BSNL reserves the right to carry out any work at the risk and cost of the agency, if the agency fails to perform any duty as per the contract.
- The tenderer must obtain himself at his own expense all the information necessary for the purpose of tendering.
- Inspect the site and acquaint himself with all the local conditions, means of access to work and nature of work etc. No claims shall be entertained on these accounts.
- The rates quoted must be full and final.
- Nothing extra is payable other than the quoted rates unless specified.
- The contractor shall not sublet the work or part thereof. However, service of specialized agencies for specific work can be obtained.
- While working inside the premises the agency shall be responsible to provide necessities to them as per labour law. However existing facilities like water, toilet and power for bonafide use shall be provided by BSNL. Any workforce not required for carrying out task shall not be permitted to stay in the premises.
- The BSNL reserves the right to terminate the contract by giving show cause notice of one-month duration at any time during the currency of the contract.
- 27 The BSNL reserves the right to extend the contract for a maximum period of Six (6) months at the same rate and conditions.
- 28 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.
- A complaint book as per proforma enclosed shall be kept up to date at site by the firm and the same shall be available for checking and verification.

 After the contract period is over the installation has to be duly handed over to the BSNL. The contractor shall be responsible for any discrepancies vis-à-vis, the status of installation at the start of work plus any modification carried out during the currency of the contract.
- Any defects, shortcoming brought to the notice of the BSNL within the first 15 days shall be the responsibility of the BSNL.
- 31 Firm is responsible to keep workable spares and consumables for due performance of the contract. For critical spare parts firm shall have arrangement with dealers for prompt supply.
- Any material used/replaced by the Firm for the work shall have same specification. Alternate Make shall be allowed only after prior approval of the Engineer in charge.

33 The contractor has to keep all the electro-mechanical equipment's and site neat and clean to avoid any accident and or fire hazards.

<u>NOTE</u>: No additional condition whatsoever will be accepted for turnover tax/gst on works contract. In case of additional conditions for the payment of such taxes by the contractor the tender may be liable to be summarily rejected by the accepting authority. No conditional offer shall be entertained and rejected. (Standing order No.258)

DETAILS TO BE SUPPLIED BEFORE STARTING OF WORK:

Name of the Agency	:	
(With Office address)		
Name of Proprietor/partners	:	
Telephone No.(s) of the firm	:	
Name & address of the Supervisor	:	
24 Hours contact No.	:	
Particulars of the Licence/ Registration	:	

COMPLAINT REGISTER

Sr. No.	Date of complaint	Time of complaint	complaint	Location	Time & Date of attending complaint	Cause of fault	Material used	Signature of complainant

SCOPE OF LIFT MAINTENANCE

2.01. SCOPE OF WORK

- i) This SPECIFICATION provides for complete maintenance coverage including examinations, cleaning, painting, lubrication, adjusting, parts replacement, repairs and testing on all parts of the elevator equipment including, but not limited to the following:
- ii) Machines, including worms, gears, thrust bearings, drive sheaves, drive sheave shaft bearings, brake pulleys and all other components and parts of the machine and brake.
- iii) Hoist and governor ropes, including tension equalization.
- iv) Hoist motors, including motor windings, solid state power conversion drives, motor generators, rotating elements, including commutators, brushes, brush holders and bearings and all other related components and parts.
- v) Motor windings shall be treated as needed with proper insulting compound, which has been approved by the motor manufacturer.
- vi) Controllers, encoders, transducers, selectors and dispatching equipment, including all relays, solid-state components, resistors, capacitors, transformers, contacts, leads, timing devices, computer devices, steel tape (or cable) and mechanical and electrical driving equipment and all other related components and parts.
- vii) Pump units, including motors belts, sheaves or pulleys, valves, seals, mufflers, heating elements, tank, tank oil, exposed pipes, shut-off valves and all other components of the pump unit.
- viii) Plungers, packing, and hydraulic system oil and all above ground piping and connections.
- ix) Governors, governor sheave and shaft assemblies, bearings, contacts, governor jaws, car and counterweight safety mechanism, car and counterweight sheave assemblies, deflectors, 2:1 or secondary sheaves including bearings, car and counterweight buffers, car and counterweight guide rails (excluding replacement), top and bottom limit switches, governor tension sheave assembly, compensating sheave assembly, counterweight guide shoes, rollers and liners, inductors, cams and tapes and all other related components and parts.
- x) Hoistway door interlocks, hoistway door hangers and rollers, bottom door gibs, door closing devices and all other related components and parts.
- xi) Door operators, including door drive chains, sheaves, belts, car door hangers, rollers and upthrusts, car door contacts, door protective devices, bottom door guides and all other related components and parts.
- xii) Load-weighing equipment, car frames, platforms, elevator car roller guides and all other components and parts.

- xiii) Alarm bells, emergency stop switches, emergency car lights and batteries and all other related components and parts.
- xiv) Car fans or exhaust blower, car and corridor signals and fixtures including lights, pushbuttons, contact assemblies, key switches, dials, voice annunciation systems, read-out indicators and audible signaling devices.
- xv) Car, hoistway and machine room wiring including traveling cables.
- xvi) All operating features and functions, including firefighters service, emergency power operation and Independent Service, including the operating switches for those features and functions.
- **XVII) EXCLUSIONS:** Only following items shall not be included in this contract.
 - a. Elevator car enclosure.
 - b. Elevator car and landing door panels/gates
 - c. Bulbs (including indicator bulbs, fluorescent tubes) and alarm bell/buzzer.
 - d. Cabin fans
 - e. Incoming electrical wiring up to main switches in the machine room.
 - f. Main switches in the machine room.
 - g. Dry cells, batteries and LCD's

2.02. SCHEDULED MAINTENANCE:

- i) All preventive maintenance performed by the Contractor shall be scheduled elevator by elevator prior to commencement of the contract and subject to final approval of the Engineer In charge. Minimum preventive maintenance frequency visits shall be weekly for gearless equipment, semi-monthly for geared equipment, monthly for hydraulic equipment.
- ii) The preventive maintenance schedule, as prepared by the Contractor, shall show building name, lift serial numbers, examination frequency, and examination hours and be keyed to a preventive maintenance schedule prepared for the specific equipment covered by this SPECIFICATION.
- iii) Maintenance schedules shall be permanently located in the equipment rooms for each lift. The schedules shall be accessible by Engineer In-charge for monitoring. Schedules shall be maintained by indicating the work performed, signature of the mechanic performing the work and dated the day the work was performed.
- iv) Removal of lift from service shall be coordinated with and approved by the Engineer in-charge. To the extent possible all preventive maintenance that requires removal of lift from service shall be scheduled during off peak hours of building operation. No lift shall be taken out of service during the normal business day without prior notification to the Engineer In-charge except under emergency conditions. Contractor shall not remove from service more than one lift at a time in any bank of lifts (except in emergencies). Emergency circumstances are understood to be those which pose imminent possibility of equipment damage or passenger injury as judged by the

Contractor's employees. Lift taken out of service shall be identified by placing signage at every floor indicating elevator is out of service. Signs shall be removed after service is restored.

MINIMUM PREVENTIVE MAINTENANCE FREQUENCY AND TASK

The following preventive maintenance frequency and task lists are not inclusive of all required maintenance points for the variety of equipment available throughout the elevator industry. These maintenance frequency and task lists are designed to be examples of the preventive maintenance quality level required by this SPECIFICATION. The contractor is required to submit specific preventive maintenance frequency and task lists for each type of equipment prior to commencement of contract for BSNL as stated in paragraph 2.02 - Scheduled Maintenance. **The work shall be carried out as per the manufacturer's specification.**

3. GEARED & GEARLESS PASSENGER AND SERVICE:

I. Each Visit (for breakdown call/monthly visit):

- i) Ride each elevator and observe performance, levelling, floor stops, door opening and closing operation and noise.
- ii) Test safety edges, photo eyes, detectors, door open buttons, and alarm bell.
- iii) Check for proper car and hall button operation and all indicator illuminations and lantern operations.

II. Monthly:

- i) Clean and inspect machine, controller, selector, motor, motor generator/SCR and governor.
- ii) Clean and inspect car top, operating switches, door operator and controls, car door hangers, gibs, detectors and/or photo eyes and safety edges. Lubricate and adjust door operator and door accessory equipment.
- iii) Clean and inspect hoist way door hangers, interlocks, linkage, pick up assembly, door gibs, non-vision wing and hoist way switches.
- iv) Clean and inspect governor tension sheave, car and counterweight buffers, compensating sheave assembly. Clean pit and check safety plank and travel cable loops.
- v) Clean machine room, check commutators and brushes, clean and adjust controller and selector contacts and relays.
- vi) Check car and hall fixture lamps, levelling and floor stops, alarm bell and emergency stop, inspect travel cable.

III. Quarterly:

- i) Inspect rope shackles, car and counterweight guides, TM and Slow Down switches, adjust and lubricate as required, check emergency light.
- ii) Check and adjust brake. Inspect and lubricate pivot pins.
- iii) Clean and adjust controller and selector components including contacts, relays and timers. Check transformers and rectifiers. Vacuum or brush all controller and selector parts.
- iv) Check out complete safety circuit.
- v) Check selector cables and/or tapes. Lubricate selector drive worm. Inspect selector drive.
- vi) Clean, inspect and lubricate governor linkage.
- vii) Inspect, rotate and equalize hoist cables. Inspect cable shackles and fastenings.
- viii) Check adjustment of roller/slide car and counterweight guides. Check bearings/liners and fastenings.
- ix) Inspect TM, slowdown, levelling and/or limit switches.
- x) Clean and inspect all car and hoist way door contacts and interlocks.
- xi) Check door closing force. Check car and hoist way hangar rollers and adjust up thrusts.
- xii) Inspect door operator bearings and cams.
- xiii) Clean and inspect governor tail sheave, compensating sheaves, compensation ropes and hitches and/or compensating chains, guides and hitches.
- xiv) Clean and inspect car and counterweight buffers. Check buffer oil level and operation.

IV. Semi Annual:

- i) Check control and main line fuses, voltage readings, motor and motor generator wire connections, overloads, armature clearance and brake cores.
- ii) Check motor overload devices, resistor and resistance connections.
- iii) Check car safety mechanism and governor rope hitch.

V. Annual:

- i) Drop brake shoes, clean, lubricate and adjust. Flush and replace worm gear oil.
- ii) Check all controller and selector terminals. Check and clean all fuse holders.
- iii) Check car frame, overhead, car and counterweight sheaves, sills and pit.
- iv) Annual lubrication of motor, motor generator and machine bearings, deflector, compound and compensating sheaves and governor tension sheave bearings. Check all fastenings.
- v) Annual car safety test. Clean, inspect and lubricate governor and safety mechanisms. Check buffer oil level.
- vi) Adjust motor control and perform logic systems operation check.

Clean hoist way and hoist way equipment including guide rails, counter weights, hoist way door hangars, interlocks, closers, headers and related devices. Check all fastenings on guide rails, brackets and entrances. Check traveling cables.

PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities: Appended from page 5-8

SCHEDULE 'B' Schedule of materials to be issued to the contractor.

Sr. No.	Description of item	Quantity	Rates in figures and words at which the material will be charged to the contractor	Place of Issue		
1	2	3	4	5		
	NIL					

SCHEDULE 'C'

Tools and plants to be hired to the contractor

Sr. No.	Description of item	Hire charges per day	Place of Issue		
1	2	3	4		
NIL					

SCHEDULE 'D'

Extra schedule for specific requirements/ document for the work, if any.

I. Model form of bank guarantee: Appended from page 19

SCHEDULE 'E'

Schedule of component of Cement, Steel, other materials, Labour etc. for price escalation.

CLAUSE 10 CC

Component of Cement expressed as per cent of total value of work	Xc	%	
Component of Steel expressed as per cent of total value of work	Xs	%	
Component of civil(except cement and steel) / Electrical construction Materials expressed as per cent of total value of work	Xm	%	Not Applicable
Component of Labour expressed as per cent of total value of work	Y	%	

SCHEDULE 'F'	
Reference to General Conditions of	
contract.	
Name of work:	Annual Maintenance Contract for 1no. 8 passenger lift at CTO Building, Secunderabad FY 2024-25
Estimated cost of work:	Rs 1,01,952 /-
i) Earnest money :	Rs 2,039/-
ii) Performance Guarantee :	5% of tendered value of work.
iii) Security Deposit :	5 % of the tendered value of the work.(Total SD is 10% with i/c 5% of performance Guarantee)
GENERAL RULES and DIRECTIONS:	
Definitions:	See below
2(v) Engineer-in-Charge	Executive Engineer (E) – BSNL Electrical Division- II, Hyderabad.
2(viii) Accepting Authority	Executive Engineer (E), BSNL Electrical Division-II, Hyderabad.
2(x) Percentage on cost of materials and labour to cover all overheads and profits.	10%
2(xi) Standard Schedule of Rates	
2(xii) Department	BSNL
9(ii) Standard contract Form	BSNL EW-8 as modified and corrected upto date.
 Clause 1 i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance, in days. ii) Maximum allowable extension beyond the period provided in I) above in days 	15 Days (As per Tender)

	ise 2 nority for fixing compe	ensation under	_	erintending Engineer (E), L Electrical Zone, Hyderabad.		
	se 2.		DOIN	Bowl Bleetrear Zone, my derubad.		
Clau	ise 5					
Num	ber of days from the	date of issue of	10 d	lays		
award letter of acceptance for reckoning						
date of start Milestone(s) as per table given						
belo	W:-					
		Table	of M	ile Stone(s)		
Sl.	Description of	Time allowed	Amo	ount to be with-held in case of non-achievement of		
No.	Milestone	in days (from	mile	stone		
	(Physical)	date of start)				
1						
2			Not A	Applicable		
			C	OR .		
Sl.	Financial Progress	Time allowed (fr	om	Amount to be with-held in case of non-		
No.		date of start)		achievement of milestone		
1	1/8 th (of whole	1/8 th (of whole				
2	3/8 th (of whole	1/2 (of whole				
	work)	work)				
	_			Not Applicable		
3	3/4 th (of whole	3/4 th (of whole				
	work)	work)				
4	Full	Full				
Time	e allowed for execution	n of work.		Twelve Months		
Auth	nority to give fair and i	reasonable extens	ion	EE(E), SE(E)		
of ti	me for completion of v	vork.				
Clau	ise 7					
	s work to be done			As Applicable.		
	nent/ adjustment of					
	ected, if any, since the		t for			
	g eligible to interim pa	ayment.				
	se 10CC		_	NOT APPLICABLE		
	se 10CC to be applic					
_	ılated period of com		g the			
_	od shown in next colu	mn.				
	ise 11	1.0	c			
	Specifications to be followed for execution of			Specifications as appended with Schedule of		
work (separately for each component of work)			work.			
Clause 12			50%			
12. 2& 12.3 Deviation Limit beyond which						
clauses 12.2 and 12.3 shall apply			NOT ADDITCADI E			
12.5 Deviation Limit beyond which clauses 12.2 and 12.3 shall apply for foundation			NOT APPLICABLE			
		n apply for founda	เนบท			
	work Clause 16			Superintending Engineer (E), BSNL Electrical		
Ciau	13C 1U			Zone, Hyderabad.		
				Lone, my derabad.		

Competent Authority for deciding reduced rates.	
Clause 30 (i) Minimum Qualifications and experience required for Principal Technical Representative.	
a) For works with estimated cost put to tender more than Rs. 5 Lakhs for Elect/Mech. Works b) For works with estimated cost put to tender more than Rs. 2 lakh but less	Graduate Engineer(Electrical) or Diploma Holder in Electrical With 3 Years Experience. NA
than Rs.5 Lakhs for Elect/ Mech. Works	
c) Discipline to which the Principal Technical Representatives should belong.	Elect./Mech.
d) Minimum experience of works	Three (3) years
e) Recovery to be effected from the contractor in the event of not fulfilling provision of clause 30(i)	Rs.4,000/- p.m. for Graduate Rs.2,000/- p.m. for Diploma holder

MODEL FORM OF BANK GUARANTEE

(Bank Guarantee bond for EMD for Air Conditioning, Diesel Engine Alternator, Lifts and Substation works, Wherever the amount of EMD is more than Rs.20,000/=)

Whereas(hereinafter called "the contractor(s)") has submitted its Tender dated for the 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

UNDERTAKINGS TO BE FURNISHED BY THE TENDERER

NO NEAR RELATIVE WORKING CERTIFICATE

Son of Shri		
	firm, certificate will be given by the proprietor & for e will be given by all the Directors of the company	
(Seal of the firm)	(Signature of Bidder)	
<u>UNDERT.</u>	AKING REGARDING EPF PROVISIONS	
	Son of hereby give an	
Miscellaneous provisions Act, 1952 i I/ We have registered as per the l registration no is We u In case at any stage, it is found that t the absolute right to take any action Strikeout whichever is not applical	er persons in our establishment and hence the EPF and its not applicable to my / our establishment. EPF and Miscellaneous provisions Act, 1952 and our indertake to keep it valid during the currency of contract. The information given by me is false / incorrect, BSNL shall have as deemed fit/without any prior intimation to me". The ole of the above said EPF registration certificate.	
(Seal of the firm)	(Signature of Bidder)	

UNDERTAKING REGARDING ESI PROVISIONS

"I	Son of	
Resident of		hereby give an
undertaking that		
Miscellaneous provision I/ We have registere registration no is In case at any stage, it is the absolute right to tak Strikeout whichever is	ns Act, 1948 is not applicable d as per the ESI and Miscella We undertake to kee s found that the information as deemed fit/ver applicable	ar establishment and hence the ESI and e to my / our establishment. Ineous provisions Act, 1948 and our p it valid during the currency of contract. given by me is false / incorrect, BSNL shall have without any prior intimation to me". d ESI registration certificate.
(Seal of the firm)		(Signature of Bidder)
	UNDERTAKING TO AB	(DE BY EW 6 & EW 8
"I	Son o	f
Resident of undertaking that I have clauses of BSNL EW 6	read the complete bid docu	ment and I am aware of all the clauses and sub at I will abide by all the terms and conditions
(Seal of the firm)		(Signature of Bidder)

COMPLIANCE SHEET

conditions as mentioned in bid Docume I/We state to comply in full manner with financial conditions of the tender docum	(Name of firm) have read/Understood all the terms and ent and accept the same unconditionally. th all the General, Commercial, Technical and Operating ment for the work "Annual Maintenance Contract for 1no. 8 of FY 2024-25." with out any reservation and deviation.
(Seal of the firm)	(Dated Signature of Contractor)
,	Form is available at http://www.telangana.bsnl.co.in for

Declaration by Contractor

(To be given by tenderers downloading the tender document from the web)

This is to certify that:

- 1) I / We have submitted the tenders in the proforma as downloaded directly from the web sites which are same as available in the web site and there is no change in the format, no. of pages, etc.
- 2) I / We have not made any modifications / corrections / additions etc., in the tender documents downloaded from web by me / us.
- I / We have checked that no page is missing and all pages as per the index are available and that all pages of tender document submitted by us are clear and legible.
- 4) I / We have signed (with stamp) all the pages of tender document before submitting the same.
- 5) I / We have stitched and wax sealed the tender documents properly before submitting the same.
- 6) I / We have submitted the cost of the tender along with EMD in the first cover as prescribed.
- 7) I / We have read carefully and understood the 'Important instructions to contractors', 'important instructions to tenderers downloading the tender documents from web site' and entire standard BSNL EW 8 clauses and proforma form available in division office.
- 8) In case at later stage, it is noticed that there is any difference in my / our tender documents with the original documents, BSNL shall have the right to cancel the tender / work, forfeit the Earnest Money / Security Deposit, take appropriate action as per the prevailing rules in force and BSNL shall not be bound to pay any damages to me / us on this account.

Dated	(CONTRACTOR)
(SIGN WITH SEAL)	

COMPUTERISED MEASUREMENT BOOK

CLAUSE 6A

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Divisional Office records, and allotted a number as per the Register of Computerized MBs. This should be done before the corresponding bill is submitted to the Division Office for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.

The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered alongwith two spare copies of the bill. Thereafter, this bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in-the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard, method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the "Same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent, in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall Inapplicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

1. As per the CPWD Works Manual 2014

7.1Computerised Measurement Books (CMB's) and Bills to be submitted by the contractor 7.2 Application and format of the Computerised M.B.

(1) Irrespective of value of the work the conventional Measurement Books shall be replaced by a bound volume of computerized measurements to be furnished by the contractor, duly machine numbered for the pages, and with an MB number given by the Division Office. The pages of these Measurement Books shall be of A-4 size. All these Measurement Books belonging to a Division shall be serially numbered and a record of these Computerised Measurement Books shall be maintained in a separate

Register in Form CPWA 92.

(2) The same format as in existing Measurement Books shall be used for the Computerised Measurement Books. The measurements shall be carried forward from the previous recorded measurements as per the existing procedure.

7.3 Mode of measurements

(1) The measurements shall be recorded and entered in computerised format in the first instance by the contractor, and a hard copy shall be submitted to the Department. All entries shall be made exactly as per the existing procedure.

- (2) These measurements shall then be 100% checked by the Junior Telecom Officer (E)If Junior Telecom Officer (E) is not available, the Sub-Divisional Engineer(E) shall perform 100% check of the measurements. The contractor shall incorporate all such changes or corrections, as may be done during these checks, to his draft computerised measurements, and submit to the department the corrected computerized measurements in the form of a book, duly hard bound in red colour on the lines of the conventional Measurement Books now in use, and with its pages machine numbered.
- (3) The Sub-Divisional Engineer (E) and the Executive Engineer(E) shall test check these computerized measurements as per the existing instructions. This book shall be treated as a Computerised Measurement Book.
- (4) The Junior Telecom Officer (E), Sub-Divisional Engineer (E) and the Executive Engineer (E) shall record the necessary certificates for their checks and test checks as per the existing procedure in this Computerised Measurement Book.
- (5) The Computerised Measurement Book shall be allotted a serial number as per the Register of Computerised Measurement Books.

7.4. Cutting or over-writing in the computerised M.B. not allowed

- (1) The Computerized Measurement Book given by the contractor, duly bound, with its pages machine numbered, shall have no cutting or over-writing.
- (2) It is the responsibility of the Junior Telecom Officer (E) or the Sub-Divisional Engineer (E) as the case may be to ensure that the checks and test checks done by them in the initial draft measurements are correctly incorporated in the Computerized Measurement Book before they record their certificates.
- (3) In case of any error, the Computerised Measurement Book shall be cancelled, and the contractor shall re-submit a fresh Computerized Measurement Book. This should be done before the corresponding computerised bill is submitted to the Division for payment.
- (4) The contractor shall submit as many copies of Computerised Measurement Books as may be required, and as are specified in the NIT/contract, for the purpose of reference and record in the various offices of the department.

7.5. Computerised Bill to be submitted by the contractor

- (1) The contractor shall submit his running and final bills in a computerised form in the same format as the existing conventional bills, with all the pages machine numbered, and hard bound, and with all the entries made as per the existing procedure.
- (2) The contractor shall submit as many copies of the computerized bills as may be required for the purpose of reference and record in the various offices of the department.
- (3) The bill shall be carried forward from the previous running account bill as per the existing procedure.
- (4) These computerised bills shall be processed by the various offices for payment, as per the existing procedure.

7.6. Review of Measurement Books

(1) The Measurement Books are required to be reviewed by Divisional Accountant under the supervision of Executive Engineer (E). The Sub-Divisional Engineer(E)s are required to submit the Measurement Books in use in the Sub-Divisions to the Divisional Office, from time to time, so that at

least once a year the entries recorded in each of the Books are subjected to a percentage check. The Divisional Officer should ensure that this annual review is conducted regularly and positively every year.

- (2) The review by the Divisional Accountant shall be in the following respects:-
- (i) To compare the books in use with part I of the Register of Measurement Books maintained in CPWA Form 92, and to note necessary corrections in the Register.
- (ii) To see that no original sheet is torn out of a Measurement Book, nor any entry erased or disfigured, and that the corrections made therein are initialed.
- (iii) To see that pencil entries are not inked over.
- (iv) To test check the accuracy of calculations, and to ensure that the instructions regarding writing of Measurement Books, recording of measurements, and their test check are being followed properly.
- (3) On receipt of the Measurement Books in the Divisional Office, the Executive Engineer (E) should indicate in column 2 of the "Review Notes" in each Measurement Book as referred to in para 7.6(5) below as to which of the calculations are to be test checked by the Divisional Accountant. The extent of this check will be determined by the Executive Engineer (E) having regard to the result of the last review, and should cover complete set of measurements.
- (4) Payments based on the entries reviewed should be traced into various accounts and verified. Similarly, supplies or issue of materials should be traced into the various accounts, contractor's ledger, etc. and verified.

(5) Communication of discrepancies

The defects, discrepancies, etc. noticed should be communicated to the Sub-Divisional Engineer (E) concerned and summarized in the following form in the Measurement Book that has been test audited:

Review Notes by Divisional Accountant

Review Notes by Divisional Recountaint					
Pages reviewed generally	Calculations selected by Divisional Officer for re-check		Defects and discrepancies	Dated initials of	
	Pages	Dated initials	noticed	Divisional Accountant	Divisional Officer
1	2	3	4	5	6

(6) The Measurement Book completed and returned for record during the year should also be similarly examined prior to their final record in the Divisional Office.

7.7. Loss of Measurement Books

- (1) When a Measurement Book is lost, an FIR should be lodged with the police.
- (2) An immediate report of the facts of the case together with an explanation of all parties concerned responsible for the loss should also be made promptly to the Chief Engineer, who is empowered to

sanction the write off of the lost Measurement Books. In case of theft or loss of a blank Measurement Book, the Superintending Engineer shall be the competent authority to write off the loss.

- (3) Such losses for write off should be reported in the proforma as at Appendix 10.
- (4) It is also necessary that the measurements in the lost Measurement Book should be reconstructed at the earliest.
 - 2. The M.B. movement Register is opened in the Sub Division and all other routine procedures followed in case of normal Measurement books are also followed in computer Measurement Books also.

TECHNICAL SPECIFICATIONS

- 1. The work shall be carried out as per current CPWD specifications for Electrical works as amended from time to time and Indian Electricity Rules as amended up to date.
- 2. The work shall be supervised by a qualified technical staff.
- 3. Layout of the work will be given by the Engineer in charge or his duty authorized representative at the site of work.
- 4. Following categories of wiring shall be done on separate conduits.
 - a) Power plug
 - b) Light and fan wiring
 - c) Emergency light point wiring
 - d) Telephone wiring
 - e) AC unit wiring.
- 5. The No. of power plug points and emergency light point (fed from DC supply) shall not exceed 2 per circuit.
- 6. Earthing sets work shall be carried out in the presence of the Engineer-in-charge or his authorized representative.
- 7. Samples of all the materials, fittings accessories switch gears etc., shall be approved from the Engineer-in-charge before using the same on the work. Rejected material shall be removed immediately form the site of work.
- 8. The contractor will have to carry out the following test at his cost and intimate test results before final bills are paid. Nothing extra will be paid to him on this account.
 - 1) Earth test
 - 2) Polarity test
 - 3) Insulation test
 - 4) Earth continuity test of the surface recessed conduit pipes.
- 9. Any damages done to the building by the contractor during the executing of the work shall have to be made good at his cost and risk. If it is not done within a reasonable time determined by the Executive Engineer (E) then the same will be got done at his cost departmentally after giving notice to him.
- 10. The outlet boxes, IC boxes for switch gears and ends of conduit etc., for different categories of conduit runs catering for different types of electrical wiring as mentioned in clause above shall be painted inside/outside with different colours satisfying different categories mentioned so as to avoid mixing of various circuits and their wiring and nothing extra will be paid for this.
- 11. At the time of laying conduit pipes in the slab and in recess the contractor will keep wire of 15 SWG GI throughout the conduit pipe and will have to take special care so that the conduit does not pass through air conditioning ducts, grills columns, beams etc. If any such necessity is foreseen special written permission of Executive Engineer (Electrical) should be obtained before such work is carried out. In case of failure the contractor will not be paid on this account. The contractor should recess the conduit in the walls before they are plastered and co-ordination with the progress of building work. Any damages thus done will have to be made good at the cost of the contractor. The conduit pipes should be mechanically and electrically continuous.
- 12. The Bakelite covers for the switches; plug sockets etc., shall not be removed or broken for taking connections which shall be done at their back by providing suitable wooden reaper in

- the IC boxes where found necessary. All wooden boxes for switches, plug, regulator etc., shall be provided with 1/8" thick Bakelite sheet covers.
- 13. The runs of various circuits wiring at various places shall be kept minimum by taking the runs on walls where cross of columns is not necessary. This has to be decided before casting of slab so that unnecessary length of conduit is not laid there in.
- 14. All the IC distribution sub-main board and corresponding switch near shall be sign-written clearly indicating the No. of distribution boards, type of load it is serving and the number of circuits contained in the distribution box. Details of the routes led from a particular distribution box shall be placed in tabular from on the reverse of the cover of the distribution box.
- 15. Underground cables both of 11KV and 1.1 KV grade should be subjected to pressure of insulation tests before and after laying the same in the ducts. In case of unsatisfactory tests, the cost of all repairs and replacement and all extra works of removal and relaying will have to be made good by the contractor at his own risk.
- 16. While making the end connections of wires, no strand shall be cut and the termination of wires shall be done with necessary lugs and ferrules without any extra payment.
- 17. The bus bars of the single-phase distribution box shall be of solid aluminium strip instead of sheet metal.
- 18. Lugs should be provided while terminating 8 SWG GI wire for earth continuity without any extra payment.
- 19. The termination of conduit etc., in the junction box to be provided above DBs should be done by making proper holes knockouts instead of cutting the box.
- 20. The contractors will have to make arrangements to take the materials to site of work at his own cost and risk. Octroi, if paid by the contractor for the materials supplied by the Department can be claimed by his against the original vouchers.
- 21. If any conduits were laid before award of this work the recovery for the same will be made from the contractor at rates specified in the SR 94 (internal) plus abatement of tender.
- 22. The contractor shall submit the completion plan as required vide general specifications for electrical works. Part-I (internal) & part II (external) as applicable within 30days the completion of the work. In case of contractor fails to submit the completion plan as aforesaid he shall be liable to pay sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs. 2500/- as may be fixed by the S.E. (E).

LIST OF APPROVED MAKES- BSNL ELECTRICAL WING

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

24	Motors	ABB/ Bharat Bijlee / Crompton Greaves / Schneider Electric / HBB / KEC / Siemens/Jyoti Ltd		
25	Fresh Air Fans	GE / Khaitan/Almonard/Crompton		
26	Starter	ABB / BCH / Schneider Electric / L&T / Siemens		
27	Single Phase Preventer	L&T / Minilec / Siemens / Zerotrip		
28	GI/MS Pipe	ATC / ATL / BST / GSI / ITC / ITS / IIA / JST / Jindal /TTA / Tata/Zenith		
29	Foot Valve	ISI mark		
30	Gate Valve	Advance/Audco/Johnson Controls/Zoloto/Annapurna / Fountain / Kirloskar / Leader / Sant / Trishul		
31	Compressors	Carrier/Emerson copeland/York/Danfoss (for chillers only)		
32	Resin Bonded Glass wool	Fibre Glass / Pilkingston / UP Twiga		
33	Expanded Polystyrene	BASF(India) Ltd.		
34	Gauge	Feibig / H.Guru / Pricol		
35	Controls	FLICA / Honeywell / Indfoss / Penn-Danfoss / Ranco / Ranutrol / Sporland		
36	Fine Filters	Anfiltra Effluent / ARW / Athlete/ Airtake/ Dyna /		
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 /		
40	Photo Electric Smoke Detector	Appollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald		
41	Fire Panel (Microprocessor based)	Agni Instruments / Agni Devices/ Aruna Agencies/ Carmel Sensor / Ravel Elect./Honeywell Essar/Notifier/Navin Systems		
42	Sprinkler/ Hose Reel & Hose	ISI mark		
43	Fire Extinguisher	ISI mark		
44	Lift	OTIS, Kone, Mitsubishi ,Schindler,Johnson		

NOTE:

- 1. In case of External / PMC works, the list of approved makes may be modified as per client's requirement.
- 2. The accessories such as CT/PT/measuring instrument/relays provided by approved make in respect of Transformer/HT Panel/DG /AC Package Units as supplied by approved manufacturer along with the equipments are also acceptable in addition.
- 3. Any additional makes may be approved by concerned PCEs/Sr CEs/CEs(Elect) for the work under his jurisdiction as already accorded vide letter no. 3-2-5/EW/VEP-1/2007 dated 05-07-2007.

ANNEXURE

LIST OF INDIAN STANDARDS

- I.S.277 Galvanized steel sheets.
- I.S.325 Three Phase Induction Motors
- I.S.655 Metal Air Ducts
- I.S.732 Code of Practice for Electrical Wiring and fittings for Buildings.
- I.S.778 Gun Metal Gate, Globe and Check Valves for general purposes.
- I.S.900 Code of Practice for Installation and Maintenance of Induction Motors.
- I.S.996 Single Phase small AC and Universal Motors.
- I.S.1239 Mild Steel Tubes, G.I. Pipes, Tubular and other wrought steel fittings.
- I.S.1248 Direct Acting Electrical Indicating Instruments.
- I.S.1520 Horizontal Centrifugal Pumps for clear, cold and fresh water.
- I.S.1554 PVC Insulated (heavy duty) Electrical Cables
- (Part-I) for working voltages up to and including 110 volts.
- I.S.2372 Timber for cooling towers.
- I.S.2516 AC Circuit Breakers.
- I.S.2592 Recommendation for Methods of Measurements of Fluid flow by
- Means of Orifice Plates and Nozzles.
- I.S.1822 Motor Starters of Voltage not exceeding 1000 volts.
- I.S.2208 HRC Cartridge Fuse Links up to 650 volts.
- I.S.3589 Electrically welded steel pipes for water, gas and sewage.
- I.S.3624 Bourden Tube Pressure and Vacuum Gauges.
- I.S.4047 Heavy Duty air break switches and composite units of air break

Switches and fuses for voltage not exceeding 1000 volts.

- I.S.6392 Steel Pipe Flanges.
- I.S.7403 Code of Practice for Selection of Standard Worm and Helical Gear

Boxes.

I.S.8148 Specification for packaged air conditioning.

IMPORTANT NOTE

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

ANNEXURE

LIST OF SAFETY STANDARDS

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

INDIAN ELECTRICITY RULES 1956

<u>Note:</u>-Tender documents & BSNL EW-8 General conditions of contract work for electrical works can also be downloaded from the website

http://www.telangana.bsnl.co.in/tenders active.php