

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

INDEX

INDEX.....	1
NOTICE INVITING e-TENDER.....	2
ONLINE SUBMISSION in e-Tender Portal.....	10
ELIGIBILITY CHECK LIST FOR BIDDERS.....	11
INFORMATION FOR BIDDERS (e-TENDER)	13
INSTRUCTIONS FOR BIDDERS (e-TENDER).....	14
GENERAL CONDITIONS.....	19
SCOPE OF WORK.....	23
SPECIFICATION FOR THE WORK OF PROVIDING EI & FANS.....	24
DETAILED SPECIFICATIONS.....	26
SPECIFICATION FOR M.V. PANEL.....	30
PROFORMA OF SCHEDULES.....	36
SCHEDULE OF QUANTITIES.....	39
LIST OF APPROVED MAKES OF BSNL ELECTRICAL WING	41
MODEL FORM OF BANK GUARANTEE (ANNEXURE -I)	43
PERFORMANCE SECURITY GURANTEE BOND (ANNEXURE -II)	44
NO NEAR RELATIVE WORKING CERTIFICATE (ANNEXURE -III)	46
UNDERTAKING REGARDING EPF PROVISIONS (ANNEXURE -IV)	46
UNDERTAKING REGARDING ESI PROVISIONS (ANNEXURE -V)	47
UNDERTAKING TO ABIDE BY EW 6 & EW 8 (ANNEXURE -VI).....	47
COMPLIANCE SHEET (ANNEXURE -VII)	48
COMPUTERIZED MEASUREMENT BOOKS (CMB'S) – ANNEXURE- VIII.....	49

This NIT contains 50 pages only.

Executive Engineer (E)

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

NOTICE INVITING e-TENDER



Bharat Sanchar Nigam Limited
(A Govt. of India Enterprise)

The Executive Engineer (E), BSNL Electrical Division-II, 6th Floor BSNL Bhavan, Adarshnagar, Hyderabad, invites on behalf of the Chairman, BSNL Online item rate e-Tender for the following work from Firms/ contractors in single stage bidding Single stage opening, satisfying the following conditions:

1	NIT No.	37/BEDH-II/2023-24, dt 06/09/2023.
2	Name of Work & Location	SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.
3	Estimated Cost put to tender	Rs.10,44,890/-
4	Earnest Money	Rs.20,898/-
5	Cost of Bid Document	Rs.590/-
6	e-Tender Processing Fee	As stipulated in the e-tender portal https://etenders.gov.in/
7	Period of completion	1 Month
8	Last date & Time of on line submission of Eligibility documents & Bid documents	Up to 15.00 Hrs. on 16/09/2023
9	Last date & Time for submission of EMD, and cost of bid document as per NIT in sealed envelope in Division office. (OFF LINE)	Up to 15.00 Hrs. on 18/09/2023.
10	Time & date of opening of sealed envelope containing EMD, cost of Bid document, processing fee and eligibility documents as per NIT of intending bidders in Division office. (Off Line)	At 15.30 Hrs On 18/09/2023.
11	Time & Date of Opening of the Bid- ON LINE ONLY	At 16.00 Hrs On 18/09/2023.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

A. In case of holiday being declared on the date of opening of tender, the tender will be opened on the next working day.

B. ELIGIBILITY CONDITIONS:

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

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

OR

Experience of having successfully completed similar works in Central Government/State Government /Central Autonomous Body/Central Public sector Undertaking/ State Public sector Undertaking/Reputed Private sector company during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following :-

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

OR

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

OR

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

“Similar works stands for the work executed shall contain COLD AISLE CONTAINMENT as part of the total work”

C. IMPORTANT NOTES:

1. Self-Attested Documentary proof, satisfying the eligibility conditions detailed above shall be submitted.
2. The tenderer should submit self-attested copies of valid GST registration Certificate, A certificate for turnover, PAN card.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

3. Tender Fee **(Rs. 590/-** Inclusive of GST) & EMD **(Rs 20,898/-)**, if applicable, is required to be submitted by the bidder **preferably** through online payment mode as per the Bank/Beneficiary Details provided in the NIT/Tender Enquiry document or in the form of Demand draft/FDR/ BC/ Bank Guarantee of a scheduled Bank or Nationalized Bank / State Bank guaranteed by Reserve Bank of India. ~~In case of MSE (Micro & Small Enterprise) bidder, valid MSE Certificate/ Udyam Registration certificate, broadly covering the tendered equipment/ services, for claiming exemption of Tender Fee / EMD shall be required to be submitted.~~

Beneficiary Bank Details: Name: AO (cash), BSNL

Account No: 053311100003226

Bank: Union Bank (Erstwhile Andhra Bank), Saifabad Branch,

Secretariat Road, Hotel Sarovar Complex, Hyderabad

IFSC Code: UBIN0805335

4. 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.
5. Exemption from payment of earnest money and security deposit by any other unit/ department shall not hold good for BSNL.
6. 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.telangana.bsnl.co.in and <https://etenders.gov.in/>. However for quoting the e-Tender visit <https://etenders.gov.in/>.
7. 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.
8. General conditions of contract for works in BHARAT SANCHAR NIGAM LIMITED (BSNL EW-8) are available on BSNL website <http://www.telangana.bsnl.co.in> as well as in the Division Office.
9. For e-Tendering, BSNL has engaged e-portal maintained by NIC, New Delhi. The agency intending to participate in tendering process shall have to register with <https://etenders.gov.in/> For details kindly visit website <https://etenders.gov.in/>. The intending bidders must have Class-III digital signature to submit the bid.
10. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheet.

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11. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour and moment rate is entered, it turns green. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" {Zero}.
12. 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 condition, including stocking of materials, installation of T&P etc., and conditions affecting 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.
13. The Bid can only be submitted after uploading the following scanned documents (all documents shall be self-attested) : -
 - a) Documentary proof of satisfying eligibility conditions as above.
 - b) Copy of PAN card, valid GST registration, CA certificate for turnover.
 - c) Demand draft of cost of tender documents.
 - d) EMD in prescribed form.
14. The contractor shall submit the DD for cost of Bid documents and EMD in the prescribed form, in a sealed envelope with mention of Name of work, date & time of opening of bids in a sealed bid box in the office of **Executive Engineer (E), BSNL Electrical Division-II, 6th Floor, BSNL Bhavan, Adarshnagar, Hyderabad** up to **15:00 Hrs on 18 - 09 - 2023** and shall be opened at **15.30 Hrs on 18 - 09 - 2023** in presence of AO, SDE [E-P] and contractors present.
15. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose Earnest Money Deposit, Cost of Bid Document placed in the envelope are found in order. Also the scanned uploaded eligibility conditions of bidders meet the criteria.
16. After submission of the bid online the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
17. 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 rate of all the items) but before last time and date of submission of bid as notified.
18. The bid submitted shall become invalid and cost of bid & e-tender processing fees shall not be refunded if:
 - (i) The bidder is found ineligible.
 - (ii) The bidder does not upload all the documents as per check list.
19. Performance Guarantee (PG): -The Firm shall have to furnish Performance guarantee @ 5% of the contract value of the individual contract within two weeks of the date of issue of award letter in the form of Bank guarantee on a Nationalized/Scheduled bank in standard format (Annexure-II)/ CDR/ FDR/ DD. This period can be further extended by

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the Engineer-in-Charge up to a maximum period of two weeks on written request of contractor.

This performance guarantee shall be submitted to the Electrical Division in the name of concerned Accounts officer of the SSA where work is to be executed and shall be valid for 12 months from the date of actual completion of individual work.

20. Security deposit: -A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum will amount to security deposit of 10% (i/c 5% PBG) of the Tendered value of the individual agreement of Supply Portion. This Security Deposit shall be released after an observation period of 12 months after the date of completion of work.
21. The acceptance of tender will rest with **the SE (E) BSNL** Hyderabad who does not bind himself to accept the lowest tender or any other tender & 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.
22. Canvassing in connection with tender is strictly prohibited & the tenders submitted by the contractors who resort to canvassing will be liable for rejection.
23. The BSNL reserves itself the right of accepting the whole or any part of the tender & the tenderer shall be bound to perform the same at the rates quoted.
24. 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 & for partnership firm certificate will be given by all the Directors of the company.
25. 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' 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).
26. 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 & limited company certificate shall be given by the authorized signatory of the firm. Any

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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.

27. 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.
28. The tender for the works shall not be witnessed by the contractor who himself/ themselves has/ have tendered or who may and has/ have tender for the same work. Failure to observe this condition would render tenders of the contractors tendering as witnessing the tender is/are liable for summarily rejection.
29. It will be obligatory on the part of the tenderer to sign each page of the Schedule of work and the tender documents for all the component parts and after the work is awarded he will have to enter into a separate agreement with the officer concerned.
30. Any tender not submitted in proper manner or not as per the directions of ONLINE submission, BSNL will be at liberty to take such action as it may deem fit without any reference to the tenderer.
31. The tenders for the work shall remain open for acceptance for a period of 90 days from the date of opening of the tenders. 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.
32. 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.
33. The contractor should read the tender documents carefully before submitting the tender. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
34. Conditional tenders or tender with conditional rebates shall be summarily rejected.
35. Agreement shall be drawn with the successful Tenderer on prescribed Form No. BSNL EW-6/8, which is available on BSNL website <http://www.telangana.bsnl.co.in>. Tenderer shall quote his rates as per various terms and conditions of the said form.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

36. In case the eligibility credentials are found to be fake or falsified 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.
37. This Notice Inviting Tender shall form part of the Contract document. The successful tenderer/Contractor on acceptance of his tender by the accepting authority shall within 15 days from the stipulated date of start of the work, formally sign the contract consisting of:
- a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender and as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto
 - b) Standard EW-8 form.
38. EPF PROVISIONS: The agency has to comply with the provision of EPF and miscellaneous provisions Act - 1952 and employees Provident Fund scheme-1952 as amended up to date in respect of labours/employees engaged by them for this work. Any consequences arising due to non-complying of provisions as specified above shall be of the sole responsibility of the firm only. The agency shall give an undertaking to this effect as per the prescribed proforma (Annexure IV).
39. The site for the work shall be made available in parts.
40. If any terms and conditions mentioned in this NIT document are in contravention to BSNL EW6/EW 8 General Conditions of Contract, the terms and conditions mentioned in this document shall prevail.

Executive Engineer (E)
For and on behalf of BSNL

Lr .No: NIT/37/BEDH-II/HYD/2023-24/160

Dated: 06-09-2023.

- 1) The Sr. Chief Engineer (E), BSNL Electrical Zone, Hyderabad for kind information.
- 2) The Superintending Engineer (E), BSNL Electrical Zone, Hyderabad.
- 3) The Executive Engineer (E), BSNL, Electrical Div. No. **I** Hyd/WGL.
- 4) All SDE (E)/Notice Board.
- 5) All Eligible Contractors.

Executive Engineer (E)
BSNL Electrical Division **-II**
Hyderabad.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

LIST OF DOCUMENTS FOR SUBMISSION

Originals of bank instruments such as DD or EMBG towards Tender Fee, EMD/ Bid Security respectively (if not submitted through e-payment mode), shall be submitted by bidder to O/o **Executive Engineer (E), BSNL Electrical Division-II, 6th Floor, BSNL Bhavan, Adarshnagar, Hyderabad on any date before or within 5 days of bid submission end date** failing which the tender bid (if already opened on basis of scanned copies uploaded in 1st electronic Envelope i.e. Technical Envelope, shall be rejected.

During tender process, BSNL's tender inviting authority may require the bidder to produce original copy of any document such as Power of Attorney, Integrity Pact, Bid Form, security agreement etc., submitted as scanned copy, in Technical bid part on e-tender portal (1st electronic Envelope), which the bidder will have to comply with.

Further, if the required originals of bank instruments for Tender Fee, EMD/Bid Security (if not submitted through e-payment mode), whose scanned copies are uploaded by bidder & available in 1st electronic Envelope i.e. Technical Envelope, are not received within the stipulated time (any date before or within 5 days of bid submission end date) or any discrepancy found in the original offline document, the same will be brought to the notice of CET/TEC without any delay by the tender inviting sections.

Note:

- 1. The bidder shall seal and properly secure the cover containing the offline submissions. In case of open covers or covers that are closed by stapling or closed with cellophane tape or other adhesive materials, BSNL shall not be responsible for any loss/missing of credentials from such covers.*
- 2. Offline Documents/ Tenders received by post or courier shall not be entertained*

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

ONLINE SUBMISSION in e-Tender Portal

<https://etenders.gov.in/>

The following documents shall be digitally signed and uploaded in the E-tender portal <https://etenders.gov.in/> on or before the stipulated time and date as per NIT.

- 1) Scanned copy of Tender Cost in the prescribed form as per NIT
- 2) Scanned copy of EMD in the prescribed form as per NIT
- 3) Bank Transaction details with UTR Number towards the successful e- payment for EMD (if paid online)
- 4) ~~Valid MSME Registration certificate (if applicable claiming EMD exemption)~~
- 5) Self-Attested copies of eligibility credentials fulfilling the eligibility criteria stipulated in the NIT.**
- 6) Self-attested copy of Chartered accountant certificate for Annual Turnover for the last three years as per NIT.
- 7) Self-attested copy of PAN Card
- 8) Self-attested copy of GST registration certificate
- 9) Undertaking proforma (Page 17 of NIT)
- 10) ANNEXURE-III : Non relative Certificate Declaration by Contractor
- 11) ANNEXURE-IV : Undertaking regarding EPF Provisions
- 12) ANNEXURE-V : Undertaking regarding ESI Provisions
- 13) ANNEXURE-VI : Undertaking to abide by EW-6 & EW-8
- 14) ANNEXURE-VII: Compliance sheet
- 15) Tender Document (To be downloaded from E-Tender portal and digitally signed and uploaded in to the E-Tender Portal**
- 16) Digitally signed and rates quoted Price Bid/Financial Bid**

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

ELIGIBILITY CHECK LIST FOR BIDDERS

Name of Work: "SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works."
 NIT No. [37/BEDH-II/2023-24 dated 06-09-2023.](#)

Sl. No	DESCRIPTION	Submitted/ Uploaded/ Yes/ No
	The Firms who fulfil the following requirements shall be eligible to bid and proof shall be submitted. Please refer EW 6.	
1.1	BSNL enlisted contractors in Electrical category of respective class as per their tendering limits.	
Note: - Copy of Credentials as applicable for proof of eligibility prescribed shall be produced by the firm.		
2.	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	
	a)Cost of Bid Document: Demand draft amounting to Rs. 590/- (inclusive of GST) drawn in favour of " Accounts Officer(Cash), Main, BSNL, Hyderabad " (Demand Draft only)	
	b)EMD -amounting Rs.20,898/- in the prescribed form. Earnest Money should be in the form of Demand draft/FDR/BG (As per format at Annexure-I)/ CDR of a nationalized/scheduled bank guaranteed by the Reserve Bank of India, drawn in favour of " Accounts Officer (Cash), Main, BSNL, Hyderabad " must accompany each tender. The Validity period of EMD is 120 days, from the date of opening of tender.	
	c)e-Tender Processing Fee (As stipulated in the e-tender portal https://etenders.gov.in/)	
3.	Self-attested copy of PAN card.	
4	Self-attested copy of CA certificate for turnover (as applicable).	
5.	Self-attested copy of valid GST registration Certificate	
6.	Undertaking proforma (Page 17 of NIT)	
7.	ANNEXURE-III : Non relative Certificate Declaration by Contractor	
8.	ANNEXURE-IV : Undertaking regarding EPF Provisions	
9.	ANNEXURE-V : Undertaking regarding ESI Provisions	
10.	ANNEXURE-VI : Undertaking to abide by EW-6 & EW-8	

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

11	ANNEXURE-VII: Compliance sheet	
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Notes for Submission of Documents:

- *The bidder shall have to down load the Tender Documents and again shall upload the documents with Digital Signature before the prescribed date and time. (Ref. Notice Inviting Tenders)*
- The bidder shall submit the Original documents of DD towards cost of Bid documents and EMD in the prescribed form, in a sealed envelope mentioning Name of work , date & time of opening of bids along with the name and address of the bidder in the Tender box in the office of **Executive Engineer (E), BSNL Electrical Division-II, 6th Floor, BSNL Bhavan, Adarshnagar, Hyderabad** before the prescribed date and time (Ref. Notice Inviting Tenders)
- Online bid documents submitted by intending bidders shall be opened only in respect of those bidders, whose Earnest Money Deposit and Cost of Bid Document placed in the envelope are found in order.

Seal of the firm

Signature of the Bidder

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INFORMATION FOR BIDDERS (e-TENDER)

1. For e-Tender hosting purpose, BSNL has engaged e-portal maintained by <https://etenders.gov.in/>. The agency intending to participate in tendering process shall have to register with <https://etenders.gov.in/>
2. Those Contractors not registered on the website mentioned above, are required to get registered beforehand. The intending bidder can get registered with <https://etenders.gov.in/> by making online payment of required amount with registration particulars. For details kindly visit website <https://etenders.gov.in/> or contact Executive Engineer.
3. The intending bidder must have valid **class-III digital signature** to submit the bid.
4. The intending bidder should read carefully and understand the tender document, procedure for e- tendering etc. completely before participating in the e-tender procedure. Participation in the e-tendering, presumes that the bidder (s) has/have read all the conditions, Special Conditions of the contract, Schedule of quantity etc. and agree/abide by them. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
5. The bid document consisting of BSNL EW 6, Specifications, Schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be compiled with and other necessary documents can be seen and downloaded from <https://etenders.gov.in/> or www.telangana.bsnl.co.in free of cost.
6. The bid can only be submitted after uploading the mandatory scanned documents as per NIT
7. Information and instructions for bidders posted on website shall form part of bid document.
8. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
9. Contractor can upload documents in the form of JPG format or PDF format.
10. Certificate of Financial Turnover: 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`. There is no need to upload entire voluminous balance sheet.
11. Contractor must ensure to quote rate of each item. If any cell is left blank the same shall be treated as "0" (ZERO).
12. The intending bidder should see all the conditions of contract uploaded in the website including Corrigendum if any, till the last date of submission of bid.
13. BSNL reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

INSTRUCTIONS FOR BIDDERS (e-TENDER)

Submission of Tender through online process is mandatory for this e-Tender.

e-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. For conducting electronic tendering, BSNL Electrical Zone has decided to use the portal <https://etenders.gov.in/> through e-procurement portal, a Government of India portal. It supports all activities of tendering based on proactive work flow concept. Fine details of tendering like vendors registration, tender announcement and corrigendum, tender form processing, opening, negotiation and tender awarding are supported in a real time interactive environment.

1. Tender Bidding Methodology:

Electronically Sealed Bid System – “Single Stage - Two Envelopes Electronic bid system”. In this case of two electronically sealed envelopes bid system, the Eligibility documents as per NIT [Envelope-I] & Financial Bid [Envelope-II] shall be submitted by the bidder at the same time.

2. Broad outline of activities from Bidders prospective:

- a) Procure a Digital Signing Certificate (DSC).
- b) Register on etenders.gov.in (e-Tender)
- c) Create Users and assign roles on e-Tender
- d) View Notice Inviting Tender (NIT) on e-Tender
- e) Download Official Copy of Tender Documents from e-Tender
- f) Clarification to Tender Documents on e-Tender
- g) Query to BSNL (Optional)
- h) View response to queries posted by BSNL, as addenda.
- i) Bid-Submission on e-Tender
- j) Attend Public Online Tender Opening Event (TOE) on e-Tender Opening.
- k) View/Post-TOE Clarification posted by BSNL on e-Tender (Optional)- Respond to BSNL’s Post-TOE queries

For participating in this tender online, the following instructions need to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the e-Tender.

3. Digital Certificates:

For integrity of data and its authenticity/ non-repudiation of electronic records, and be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC). also referred to as Digital Signature Certificate (DSC), **of Class 3**, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

4. Registration:

To use the Electronic portal (<https://etenders.gov.in/>), vendor needs to register on the portal (if not registered earlier). Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In e-TENDER terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal (<https://etenders.gov.in/>), by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.

5. Bid related Information for this Tender (Sealed Bid)

The entire bid-submission would be online on e-TENDER. Broad outline of submissions are as follows:

Submission of Cost of bid document, Earnest Money Deposit (EMD), and Eligibility documents as per NIT, Submission of digitally signed copy of Tender documents/Addendum/addenda (Envelope-I) in Online

Submission of duly filled Financial bid (Envelope-II) in Online

6. Offline Submissions: (As per page 9) The contractor shall submit the DD for cost of Bid documents, EMD in the prescribed form, GST registration certificate and Eligibility documents as per NIT in a sealed envelope mentioning Name of work, NIT no, date & time of opening of bids in the tender box available in the office of **Executive Engineer (E), BSNL Electrical Division-II, 6th Floor, BSNL Bhavan, Adarshnagar, Hyderabad** before the prescribed date & time as notified and same shall be opened in presence of AO, SDE [EP] (or any other authorized BSNL Executive) and contractors present (Ref EW6).

7. Public Online Tender Opening Event (TOE): E-Tender offers a unique facility for "Public Online Tender Opening Event (TOE)". Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. For this purpose, representatives of bidders (i.e. Supplier organization) dully authorized are requested to carry a Laptop and Wireless Connectivity to Internet.

The following **KEY INSTRUCTIONS** for BIDDERS must be assiduously adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on <https://etenders.gov.in/>E-tender Site or any Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA).
2. Register your organization on <https://etenders.gov.in/>e-tender site well in advance of your first tender submission deadline on etenders.gov.in e-tender Site (<http://etenders.gov.in>)

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

3. Get your organization's concerned executives trained on <https://etenders.gov.in/e-tender> Site well in advance of your first tender submission deadline on <https://etenders.gov.in/e-tender> Site
4. Submit your tender well in advance of tender submission deadline on <https://etenders.gov.in/e-tender> site as there could be last minute problems due to internet timeout, breakdown, etc. While the first three instructions mentioned above are especially relevant to first-time users of <https://etenders.gov.in/e-tender> Site, the fourth instruction is relevant at all times.
5. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24 x 7 CPP Portal Helpdesk. The contact number for the helpdesk is 0120-4200462, 0120-4001002, 0120-4001005.

Important Note: Before submitting on line tender document, contractor must verify the check list properly for offline submission of required documents & uploading of their scanned copies as per instructions.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

ELECTRICAL WING

EW-8

Tender for the work of :- SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

Name of Contractor/firm:.....

UNDERTAKING

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.
4. A sum of **Rs. 20,898/-** 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 upto maximum of percentage mentioned in clause 12.3 of the tender form and those in excess of that limit at rates to be determined in accordance with provisions contained in clause 12.2.
6. I/ we agree to furnish to BSNL Deposit at call receipt/ FDR/ Bank guarantee of a Nationalized/ Scheduled Bank for an **amount equal to 5% of the contract value in** a standard format within two weeks from the date of issue of letter of Acceptance. I/ We agree to keep the Performance Bank Guarantee validity as per relevant clause of Notice Inviting Tenders.
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 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

Signature of contractor
(Seal of Contractor)

Date:

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

A C C E P T A N C E

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of BSNL for a sum of Rs. _____

(Rupees _____
_____)

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

- a)
- b)
- c)

For & on behalf of **BSNL**
Signature

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

GENERAL CONDITIONS

1. EARNEST MONEY

Firm has option to deposit Earnest Money in the form of CDR/ FDR/ DD or bank guarantee of a scheduled Bank or Nationalized Bank/ State Bank guaranteed by Reserve Bank of India in department's attached format and manner (Annexure-I). If the firm fails to start or withdraws from agreement, then as per relevant clause of the agreement, EMD @ 2% of the amount of agreement shall be forfeited from EMD available with the agreement or from any money due to the firm by the department under this contract or on any other account. Validity period of earnest money deposit shall be 30 days beyond the tender validity.

- (i) The EMD of all the unsuccessful tenders shall be released on issue of award letter to the successful tender.
- (ii) The EMD of the successful tenderer will be returned to the contractor without interest only after submission of performance guaranty of last LOI. The successful tenderer has to extend the validity of EMD as per BSNL requirements.

2. BID PRICES, TAXES AND DUTIES

The bidder shall give the total composite price inclusive of all Central and State's Levies & Taxes i.e. GST (applicable CGST/ SGST/ IGST) material, labour etc., except octroi/ Entry Taxes. Octroi/ Entry Taxes will be paid extra, as per actuals, wherever applicable on production of proof of payment/ relevant invoices/ documents.

The price approved by BSNL for procurement will be inclusive of levies and taxes, Packing, Forwarding, Freight and Insurance etc. except octroi/ Entry Taxes.

- (a) The total composite price shall comprise of unit price and all other components of price need to be individually indicated/ quoted against the goods/ material/ service, it proposes to supply under the contract in the following manner :
 - (i) The Basic Unit price (Ex-Factory Price) of the goods/ services/ materials, GST payable by the supplier shall be quoted separately.
 - (ii) The liability to pay all taxes, levies etc. shall be of contractor and BSNL will not entertain any claim whatsoever in this respect.
- (b) Input Tax credit to BSNL :
 - (i) The firm shall furnish correct HSN/ SAC codes in GST challans/ invoices for availing Input Tax credit by BSNL
 - (ii) Vendors should furnish the correct taxes and cess under GST tariff head in the price Schedule. If the input tax credit for the Duties and Taxes under GST ACT 2017 is found to be not admissible at any stage subsequently owing to wrong furnishing of tariff Head, then the vendors will be liable to refund such non-admissible amount, if already paid along with penalty if charged by the concerned authority.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

- (iii) In case where the input tax credit is not offered by the vendor as per the quotes indicated in the price schedules and subsequently at any stage it is found that input tax credit is admissible as per GST ACT 2017 then the vendors will be liable to refund the amount equivalent to such Duties & Taxes if already paid to them. However the purchaser may allow the supplier to submit necessary documents in this regard which may enable the purchaser to avail the input tax credit provided such credit is still available for the amount so paid as per GST ACT 2017.
- (iv) The purchaser reserves the right to ask the bidders to submit documentary proof confirming the correct Tariff Head from the GST authority where the tariff head furnished against the particular tendered item by different bidders differs from each other or the same is found apparently not furnished in accordance with GST ACT.
- (v) If the supplier fails to furnish necessary supporting documents for input tax credit the amount pertaining to such duties/taxes will be deducted from the payment due to the firm.
- (vi) Invoice should clearly indicate name, address and GSTIN of the supplier, date, name address and GSTIN of the recipient, Place of supply along with name of state, HSN code of Goods or Service Accounting code (SAC), breakup details of composite price i.e. basic unit price (Ex-Factory price) of the goods/ services/ materials, etc., rate of GST such as CGST/ SGST/ IGST or any other duties and taxes.
- (vii) In case of any statutory variation in regard to Input tax credits ,within the currency of individual agreement including extension of time period, the same shall be admissible as per actual Input tax credits only, subject to the condition that the reason for such extension of time period is not attributable to the agency.

3. EVALUATION OF BIDS

The evaluation and comparison of responsive bids shall be done on the basis of **net cost to BSNL** on the prices of all items included in schedule of work offered inclusive of packing, forwarding, freight and insurance charges but excluding input tax credit & GST. The Octroi/ Entry Taxes are not to be included in the composite price and hence the same will not be considered for the purpose of evaluation and comparison of responsive bids. However, Octroi/ Entry Taxes will be paid extra, as per actual, wherever applicable, on production of proof of payment/ relevant invoices/ documents.

4. 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 (of a Nationalized/ Scheduled Bank in a standard format)/ CDR/FDR/DD within two weeks from the date of issue of award letter. The validity period of the performance security in the form of performance bank guarantee shall be one year from the date of actual completion of work.

5. 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 along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

6. Increase/ Decrease of tendered quantity:

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.

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 order up to 50% of the quantities of goods and services contained in the running tender/ contract within a period of twelve 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.

7. Completion of work:

The work should be completed as per the time schedule mentioned in the table of mile stones in proforma of schedules.

8. 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 ground, 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 or proper.

9. 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 work order 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 work order value for the location where the work is delayed and the firm is found responsible for the same. Flow chart of the procurement process/ contract shall be supplied by the contractor and approved by Executive Engineer concerned.

10. Payment Terms:

Payment to the contractors during progress of work is regulated for all items as below

- a. **80% of the price shall be paid on the receipt of goods at site by the consignee (for major items only).**
- b. **The balance 10% payment shall be released after satisfactory installation.**
- c. **The balance 10% payment shall be released after satisfactory commissioning, Testing and handing over of the work.**

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.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

11. 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.

12. Miscellaneous

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

13. TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR:

Without prejudice of any of the rights or remedies under this contract, if the contractor dies, the Engineer in charge on behalf of the BSNL shall have the option of terminating the contract and the agreement will be closed immediately, the due payments will be issued to the legal heirs of the agency after producing the proof of the same along with death certificate of the agency.

14. INDULGING OF CONTRACTOR IN CRIMINAL/ ANTISOCIAL ACTIVITIES AND CASES UNDER INVESTIGATION/ CHARGE SHEETED BY CBI OR ANY OTHER GOVERNMENT AGENCIES ETC.:

If the CBI/ Independent External Monitor (IEM)/ Income tax/ GST/ Central Exercise/ Custom Departments recommends such a course-action will be taken as per the directions of CBI or concerned department.

15. VARIATION IN GST:

In case of any statutory variation in regard to Input tax credit, within the currency of individual agreement including extension of time period, the same shall be admissible as per actual Input tax credit only, subject to the condition that the reason for such extension of time period is not attributable to the agency.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

SCOPE OF WORK

SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH: - Providing Cold Aisle Containment, SA Grills and OC works

1. Providing Cold Aisle Containment Using Fire Retardant Clear Polycarbonate UL V-0 fixed type of 4 mm thickness with all side Aluminum Frame to form the top and side Panels as reqd.
2. Providing Aisle Doors made of Double door two halves sliding on either sides semi-automatic Sliding doors mechanisms etc., as reqd.
3. Providing of clear Polycarbonate UL V-0 Glass Sheet of 10mm sheet for existing doors etc., as reqd.
4. Providing of 2 U blanking panel (if required) etc., as reqd.
5. Transportation, Installation, testing and commissioning of above Cold Air Containment System i/c cutting, jointing, welding complete as required.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

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.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

- 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 otherwise permanently fixed inside the cover stating the designation and details of the circuits controlled and the rating of the miniature circuits 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 phase 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.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

DETAILED SPECIFICATIONS

SECTION-I : - CONDUIT INSTALLATION (GENERAL)

PVC conduits and accessories shall be used as required.

Conduits shall have draw-in boxes for every 10 M of straight length or for every 7.5M of run containing bends or for every third bend.

Conduits shall be installed in such a manner that all cables/wires can be drawn-in-after erection with ease by means of a pull wire.

SECTION-II :- SYSTEM OF INTERNAL WIRING

The system of internal wiring shall consist of PVC insulated stranded copper conductor wire of 1.1 KV grade in conduits. The point wiring shall be done in the 'Looping System'. The phase shall be looped at the switch box and neutral may be looped from one point to another point ceiling/wall. The looping shall however not be permitted in the switch or fixture-terminals but through approved insulated mechanical connectors. Rate of wiring is inclusive of cutting chases in wall, RCC for laying conduit and repairing the wall with CM 1:4 (1 cement: 4 sand). No extra to be paid on this account.

Lights and fans shall be wired on a common circuit subject to a maximum load of 800 watts per circuit or 8 points whichever is less.

SECTION-III :- SWITCHES, SOCKETS AND FIXTURES

Lighting Switches & Socket Outlets:

Light switches shall comply with IS 3854-1966 and IS5987-1970. These shall be rated 5Amp and shall be one way, two way as detailed.

Sockets outlets shall be in accordance with IS1293-1967 AND S4615-1968.

All switches, bell pushes and socket outlets shall as per specific requirements in the Bill of Quantities.

Where several switches on one phase are shown adjacent they will installed in composite ganged units. Different phases or circuits shall not be ganged in one box.

All 240 V outlets shall be 3 pin type with earth contact effectively connected to earth in all cases. The earthing terminal fixed to the metal box. From this earth terminal the contractor shall install an earthing fly lead of 2.00 sq.mm copper earth conductor to the socket outlets terminal. The fly lead shall be of sufficient length to facilitate the case of removal during maintenance.

All MS boxes for switches, socket outlets etc. shall be of 18 SWG.

For finding the exact location for fixing switchboxes or sockets shown on the electrical layout plan, a small arrow-mark is given near a group of such sockets. The contractor shall follow this mark for deciding the location on the horizontal plane.

SECTION-IV: - CIRCUITING & CONDUITING

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

The power circuits for 15 Amp sockets shall be wired on one circuit.

Prior to laying and fixing of conduits, the contractor shall prepare shop drawings indicating the number and sizes of conduits, location of junction boxes, sizes and location of switchboxes and other relevant details. The shop drawings shall be for approved by the Site Engineer the actual laying of the conduits.

Only four sizes of conduits should be used 20 mm, 32 mm and 40mm dia. The 25mm dia conduits shall carry maximum of two nos. of power circuits and three nos. of lighting circuits while 20 mm dia conduits shall carry one of lighting circuit run between first switchbox to the next switchbox on the same circuit, two mm dia conduits shall carry maximum of four no's of independent telephone circuits each of 2 pair 0.61 mm dia telephone wire. The 32 mm & 40 mm dia conduits are generally meant only for sub mains.

Colour code shall be maintained for the entire wiring installation; Red, yellow and Blue for the three phases and Black for neutral. The insulation colour of wires shall therefore be selected accordingly while ordering these wires.

SECTION V: - DISTRIBUTION BOARDS FOR WIRING CIRCUITS (DBs)

The enclosures shall have all necessary accessories like DIN channels, neutral links, earthing terminals and requisite number of knock-outs at the top and bottom (removable) plate with knock-outs at the top and bottom shall be preferred rather than knock-outs on the casing itself) MCB boxes of local make will not be accepted.

MCBs shall be flush mounted and shall be provided with trip-free manual operating level and on and off indications. The contacts shall be provided to quench the arc immediately. MCB shall be provided with magnetic thermal release for over current and short circuit protection. The overload or short circuit device shall have a common trip bar in the case of DP and TP miniature circuit breakers.

Engraved PVC labels shall be provided on all incoming and outgoing circuits. Circuits diagram showing the arrangements of circuit inside the distribution n board shall be passed on inside of the panel door and covered with transparent plastic sheet.

In wiring a distribution board, it shall be ensured that total load is divided evenly between the three phases and number of ways.

SECTION-VI: - EARTHING

All the non-current carrying metal parts of electrical installation shall be earthed property. All distribution boards, light fittings and all others parts made of metal shall be bonded together and connected by means of specified earthing in conformity with Indian Electricity Rules (1956) and IS 3043-(1987)

Earthing conductors shall be of copper or as specified at various places and against the items in the bill of quantities.

Neutral conductors water pipes, structural steel work metallic enclosures, metallic conduits and lighting protection system conductors shall not be used as link in an earthing system. The electrical resistance measured between earth connection at the main switch board and any other point on the completed installation shall be low enough to permit the passage of current necessary to operate the miniature circuit breakers, and shall not exceed 1 OHM.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

The contractor shall make all necessary tests, both as the installation proceeds and on completion to ensure effectiveness of the earthing system and compliance with the (S) regulations.

SECTION VII: - SPECIFICATION FOR CABLE LAYING

1. The work will be carried out as per current CPWD specifications and Indian Electricity rules amended time to time.
2. The work will be supervised by qualified supervisor from the contractor side.
3. The layout of the work will be given by the Engineer in charge or his duly authorized representative at site of work and the route for the cable laying should be got approved by the Engineer in charge.
4. All necessary tools & plants shall be arranged by the contractor at his own cost and risk.
5. The contractor will be held responsible for any damage to the building or equipment at the time execution of work.
6. The cable shall be as per the relevant IS amended from time to time, Test certificate should be submitted by the contractor for the cables supplied by him. The whole work shall be guaranteed for the period of one year from the date of completion .The cable should be tested on load after laying the same.
7. The tenderer should specifically mention the make of the cable proposed to be used by him. Entire materials intended for use should be got approved by the Engineer in charge before the actual use. The rejected materials shall be removed immediately from the site of work.
8. The cable laying, cable jointing shall be carried out in the presence of Engineer in charge or his duly authorized representative. In making connection on switches and other terminals no strand of conductor shall be cut to facilitate entry of conductor, but by use electrically equivalent copper conductor.

SECTION-VIII: - TESTING

On completion of work, the entire installation shall be subject to the following tests:

1. Wiring Continuity test
2. Insulation resistance test
3. Earth continuity test
4. Earth resistance test.
5. Polarity test for switches.

Besides the above, any other test specified by the local authority shall also be carried out. All properly tested and calibrated instruments for testing, labour, materials, and

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

incidentals necessary to conduct the above test shall be provided by the contractor at his own cost.

The tests shall be carried out as per national Electrical Code and completion report shall be furnished as per of National Building code of India.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

SPECIFICATION FOR M.V. PANEL

1. SCOPE:

1.1.1 This specification covers the design, manufacture, assembly, testing, supply and delivery of L.T. panel board with all accessories required for complete installation.

1.2 STANDARDS:

The design, manufacture, identification, installation, testing and commissioning of the equipment and materials covered by this specification shall conform to the latest editions (amended up to date) of the following standards unless otherwise stated in this specification.

- 1 IS:3043 Code of practice for earthing.
- 2 IS:4237 General requirements for low voltage switchgear and control gear assemblies.
- 3 IS:8623 Specification for low voltage switchgear and control gear (Part-1) assemblies.
1993
- 4 IS:2147 Degree of protection provided by enclosures for L.V. switchgear.
- 5 IS:375 Marking and arrangements for switchgear bus- bars, main connections and auxiliary wiring.
- 6 IS:2208 H.R.C. Cartridge fuses.
- 7 IS:1554 Part – I: PVC Insulated cables.
- 8 IS:3016 Code of practice for selection installation and maintenance of fuses (voltage not exceeding 600v)
- 9 IS:732 Code of practice for electrical wiring installation (system voltage not exceeding 650 volts).
- 10 IS:3646 Code of practice for interior illumination Part-I and II.
- 11 IS:694 Specification for PVC Cables and codes for electrical power and lighting for working voltages upto and including 650 volts to earth.
- 12 IS:1567 Specification for metal clad switches (current rating not exceeding 100 Amps)
- 13 IS:1913 General and Safety requirements

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

- 14 IS:4047 Specification for heavy-duty air-break switches and composite units of Air-break switches and fuses for voltages not exceeding 1000 volts.

In addition to the above, the L.T. Panel board cubical shall meet all applicable Indian Electricity Rules. Fire Insurance regulations and other local statutory codes. All requirement and its components shall be new and of superior quality in all respects. All works shall be done with a neat workmanship acceptable to BSNL.

1.3 GENERAL DESIGN OF SWITCH BOARD CUBICLE:

- 1.3.1 The L.T. Panel board cubicle shall be of metal clad, totally enclosed, sheet steel cubicle, indoor floor mounting, and free-standing type. It shall be completely dust-tight, weather & vermin proof and highly corrosion-resistive. Neoprene/ Synthetic rubber gasket shall be provided between adjoining surfaces of the doors and enclosures to make the switchboard dust-tight and vermin proof. The panel will be suitable for IP-5X degree of protection. The panel shall be with basic standard components of cubicle like; space heaters with thermostat, & switch and 15A, multi pin power supply socket & switch.
- 1.3.2 The sheet steel parts shall be subjected to finishing process of chemical degreasing, pickling, phosphate coating, a primer coat and finally a two-tone finishing shall be given by using two shades of synthetic enamel of light grey shade colour as per shade 631 of IS:5, The finishing shall be elegant and enduring. The colour scheme shall be subject to purchaser's approval.
- 1.3.3 The L.T. Panel board shall be of unit type in construction, compact in size and neat in appearance. They shall be capable of being easily extended on either side and shall have a high degree of flexibility. The design of feeder units shall be such as to minimize the floor area required. The overall dimensions of the L.T. Panel board cubicle shall be as near as possible but not less than the width = 1600 mm, Height = 2000 mm and breadth = 350 mm with ± 10 mm tolerance.
- 1.3.4 The feeder units shall be arranged in individual compartments in vertical section and a vertical wire way shall be provided to accommodate all control cables. Wire way shall be so designed that even if the doors of wire way is opened, there is no access to the bus bars. The wiring layout shall be planned for easy screw and quick circuit tracing. Wiring shall be properly bunched and arranged in such a way that there shall be no sag. Each compartment shall be covered with sheet steel hinged door having

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

rounded edges and maintenance to be carried out from the front. Inspection as well as maintenance shall be done safely and easily without affecting the other feeders. All switches and switch fuse units shall be front operated type and shall be interlocked with the hinged doors. The sheet steel used shall be not less than 2mm thick for all sides. Aluminum bus bars links/ multicore copper wire braided of adequate size shall be used for connections from Main Bus bar to respective switches of incoming / outgoing feeders & the size of the same shall be stated on the drawing.

- 1.3.5 The bus-bars of 25 mm x 10 mm of EC grade copper, arranged vertically & supported by non-hygroscopic non-combustible, track resistant and high strength type polyester fiber glass moulded insulators.
- 1.3.6 The cable box chamber shall have adequate space to accommodate cable boxes, glands packing glands and incoming and outgoing power and control cables. Outgoing feeder terminals shall be brought out into the cable box chamber for easy connection of cables. Crimp type tinned copper lugs terminal arrangement according to the rating of the feeders and associated cable shall be provided. Cable entries shall be arranged from top.
- 1.3.7 Earthing bus-bar of EC Grade copper of 25mm x 6mm shall be provided running through the entire length at the bottom of each control center with the arrangement for connection to earthing strip of 25 mm x 6 mm.
- 1.3.8 Adequate illumination shall be provided for interior of the cubicle by providing 1 (One) No. of 14W CFL with door switch, Control fuse and Link in each cable alley.
- 1.3.9 Indicating instruments 12Nos [Ammeter LED type indicating lamps for supply 'ON' indication] shall be mounted on the front, on the outgoing side of the main incoming switch, and outgoing switches, Ammeters shall be of flush mounting type and preferably of 144sqm in size. Ammeter shall be electronic type. The switchboard panel shall be, completely wired, ready for connecting the load. Nameplate with required details shall also be provided on the front.
- 1.3.10 Wiring shall be done with 1.1KV PVC copper conductors of suitable size.
- 1.3.11 Multi-function meter:
Meter shall be 3phase, 4 W, 415 V, 50 Hz suitable for unbalanced load. It shall be provided with display arrangement, 2Nos for both incoming side 400Amp rated (MCCB) feeder the meters shall be flush mounted.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

1.3.11.1 Current Transformers: Ring Type / tape insulated.

- i) C.T. shall be ring type / tape insulated as per IS: 2705 of latest version for CT operated Energy meters.
- ii) C.T. shall have a short circuit current 3.0 KA (rms) for 1.0 second and dynamic peak current 7.5 KAm (shall not be less than 2.5 times rated thermal current).
- iii) The C.T.s. shall have following characteristics:

1	No of core	One for metering
2	Class of accuracy	0.5
3	Burden	10VA
4	ISF	5
5	C.T ratio	630/5 (primary/ secondary) and 100/5 Amp (Primary/ secondary)
6	Rated service voltage	660 Volts
7	Frequency	50Hz
8	One minute P.F voltage withstand test on winding	3kv (rms) for 1.0 minute
9	Tests	All routine and type tests as per IS 2705 of latest version.

1.3.11.2 CTs: Required for metering and instrumentation shall be within the scope of supply. All wiring required for current and potential terminals of the C.T. operated kWh meter shall be provided.

Note: Each C.T. shall have sleeved secondary heads with tinned copper crimping pins of required length for connecting directly to kWh meter of the L.T. Panel.

1.4 MAIN BUS:

1.4.1 The main bus bar shall be rated for 500V, 630 Amps continuous current. The short time current rating shall be 16KA for 3 sec. All bus- bar connections shall be silver-plated and the bus bar shall be made of high conductive Aluminium. Bus bars shall be suitably insulated by means of insulating colour sleeves of 0.5 KV rating. The chemical and electrical characteristics of the insulating tape compound shall be clearly brought out in the tender. The temperature of bus bar and bus bar connections when carrying rated current at rated frequency shall not exceed 90°C for a maximum ambient temperature of 50°C.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

1.5 MOULDED CASE CIRCUIT BREAKER:

The breaker shall be current limiting type, double break contact design they shall be made of high strength heat resistant and flame retardant thermosetting insulating material, it should have provision for shunt and under voltage release. Suitable for operation on 440/415/380 V, 50Hz, 3 phase, 3 wire supply Should be quick make/break, trip free type having suitable ON, OFF and trip positions, The MCCB shall have overload and short circuit protection releases adjustments from the front.

The thermal rating of MCCB should be greater than or equal to the equipment full load current. The magnetic threshold setting of the MCCB should not result in nuisance tripping during starting of the equipment.

The terminals should be bolted type for all incoming and outgoing cables, spreader terminals shall be used where ever necessary.

1.6 SWITCH FUSES UNITS:

1.6.1 Switch Fuse units shall be 3 pole units for A.C. capable of breaking of the associated circuit. Switches shall be quick make and quick break design. Switch contacts shall be silver-plated and contact spring shall be of stainless steel. Compartment doors shall be interlocked with the operating handle of the switch so as to prevent opening of the door when the switch is in ON position. Switch handles shall have provision for locking in both fully open and fully closed position.

1.6.2 Fuses shall be H.R.C. type. They shall be provided with visible indicators to show that they have operated the final steady state temperature of the fuse link contacts when carrying their rated current shall not exceed 100°C. The fuse rating shall be according to the load of the circuit.

1.7 TESTS:

1.7.1 ROUTINE TEST

Routine tests shall be performed in compliance of relevant ISS to ensure that the equipment comply with the requirements of this specification.

1.7.2 The routine test certificates shall be submitted to the purchaser for his approval prior to the dispatch of the equipment.

1.8 DRAWINGS :

1.8.1 Drawings in triplicate incorporating the following particulars shall be submitted by the Bidder with the tender to the purchaser for preliminary study.

General outline drawing showing dimensions, weights etc.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

1.8.2 The Bidder may submit any other drawings found necessary in addition to the drawings stated above.

1.8.3 On receipt of order the supplier shall have to get approval of the following drawings.

- 1) G.A.D. showing front elevation, side elevation and plan of the L.T. Panel board with detailed dimensions (Dimensions shall be in metric units only).
- 2) Detailed drawing of mounting arrangement.
- 3) Outline drawing of internal wiring and cabling arrangement.

1.9 FEEDERS :

1.9.1 The L.T. Panel Board suitable for A.C. system voltage of 500V, 3-phase, 50 Hz. shall comprise of the following feeders :

- i) 400 Amps. rated, MCCB, 4pole, 36kA rating as incomer (3Nos one as bus coupler) with relay range of 320-400A, with all safety provisions like shunt release, undervoltage, mechanical and electrical locking etc., complete with cable box suitable for interconnecting 3½ core, 400mm² PVC cable. Lamps indicating supply 'ON' position shall also be provided.
- ii) 100 Amps. rated, 12-outgoing switch fuse unit feeders (TPN) each having 100 Amps. quick make, quick break switch fuse unit equipped with 3Nos 100 Amps. H.R.C. fuses and a neutral link complete with links suitable for connecting PVC cable.

1.10 FIRE PROTECTION:

Suitable provision (wago connector) shall be made for connecting the cable from fire panel, wiring shall be made in such a way that in case of fire supply to the entire panel shall be cut off.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities: Appended from page **39 to 40**

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. INFORMATION FOR BIDDERS (e-TENDER): Appended in **page 13**
- II. INSTRUCTIONS FOR BIDDERS (e-TENDER): Appended in **page 14.**
- III. Model form of bank guarantee: Appended in **Page 35**

<u>SCHEDULE 'E'</u> Reference to General Conditions of contract.	BSNL EW8 amended up to date (taxes mentioned in the EW8 may be read in conjunction with the GST-2017 rules)
Name of work:	SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works..
Estimated cost of work:	Rs.10,44,890/-
i) Earnest money :	Rs.20,898/-
ii) Performance Guarantee :	5% of tendered value of work.
iii) Security Deposit :	5 % of the tendered value of the work.
<u>SCHEDULE 'F'</u> GENERAL RULES and DIRECTIONS:	
Definitions:	See below
2(v) Engineer-in-Charge	Executive Engineer (E) – BSNL Electrical Division- II , Hyderabad.
2(vi) Accepting Authority	Superintending Engineer (E), BSNL Electrical Zone, Hyderabad.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

2(x) Percentage on cost of materials and labour to cover all overheads and profits.	10%
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)
Clause 2 Authority for fixing compensation under Clause 2.	Superintending Engineer (E), BSNL Electrical Zone, Hyderabad.
Clause 5 Number of days from the date of issue of award letter of acceptance for reckoning date of start Milestone(s) as per table given below:-	10 days

Table of Mile Stone(s)			
Sl. No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be with-held in case of non-achievement of milestone
1	Not Applicable		
2			
OR			
Sl. No.	Financial Progress	Time allowed (from date of start)	Amount to be with-held in case of non-achievement of milestone
1	1/8 th (of whole Work)	1/8 th (of whole work)	Not Applicable
2	3/8 th (of whole work)	1/2 (of whole work)	
3	3/4 th (of whole work)	3/4 th (of whole work)	
4	Full	Full	
Time allowed for execution of work. Authority to give fair and reasonable extension of time for completion of work.			1 Month EE(E), SE(E)
Clause 7 Gross work to be done together with net payment/ adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment.			As Applicable.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

Clause 10CC Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column.	NOT APPLICABLE
Clause 11 Specifications to be followed for execution of work (separately for each component of work)	Specifications as appended with Schedule of work.
Clause 12 12.2 & 12.3 Deviation Limit beyond which clauses 12.2 and 12.3 shall apply	50%
12.5 Deviation Limit beyond which clauses 12.2 and 12.3 shall apply for foundation work	NOT APPLICABLE
Clause 16 Competent Authority for deciding reduced rates.	Superintending Engineer (E), BSNL Electrical Zone, Hyderabad.
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	Graduate Engineer(Electrical) or Diploma Holder in Electrical With 3 Years Experience.
b) For works with estimated cost put to tender more than Rs. 2 lakh but less than Rs.5 Lakhs for Elect/ Mech. Works	NA
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

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

SCHEDULE OF QUANTITIES

Name of Work:- SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

S	DESCRIPTION OF ITEM	QTY	UNIT	RATE	AMT
1	SUB HEAD-I: COLD AISLE CONTAINMENT TOP CONTAINMENT:- Supply of polycarbonate UL V-0 Plastic ceiling panel of 4 mm thick transparent sheet or equivalent, with aluminum frame with Black powder coated of aluminum sections of 1.2 mm thick and the frame should be made up of rectangular box section of 48mmx25 and L sections of size 25x25 mm for fixing of panels, or equivalent support structure along with required accessories.	350	Sq Ft	Sq Ft	
2	Double Leaf Sliding Doors with Door Closer:- Double sliding door with auto closer kit in 27mm x 60mm Jindal 16 gauge section, with 10 mm thick solid polycarbonate sheet i/c all accessories and fittings. The frame work for door will be aluminium section of 63.5mm x 38mm of 16 gauge thickness. (Size 1200mm x 2150mm)	4	Nos	Each	
3	Double Leaf Sliding Doors with Door Closer:- Double sliding door with auto closer kit in 27mm x 60mm Jindal 16 gauge section, with 10 mm thick solid polycarbonate sheet i/c all accessories and fittings. The frame work for door will be aluminium section of 63.5mm x 38mm of 16 gauge thickness. (Size 1800mm x 2150mm)	2	Nos	Each	
4	Single Leaf Sliding Doors with Door Closer:- Single sliding door with auto closer kit in 27mm x 60mm Jindal 16 gauge section, with 10 mm thick solid polycarbonate sheet i/c all accessories and fittings. The frame work for door will be aluminium section of 63.5mm x 38mm of 16 gauge thickness. (Size 1200mm x 2150mm)	2	Nos	Each	

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

5	<p>Dummy Panels:- Customized Fire Retardant Rigid panel at location where rack is absent / for future use. UL V-0 Polycarbonate Plastic 4 mm sheet cut in accordance to the rack for the said cold aisle enclosure with support taken from the Top Panel and false floor. Aluminium Frame of size 40 x 18 mm handle with Powder coating along the perimeter with suitable size. Non Scratch resistant.</p>	50	Sq Ft		Sq Ft
6	<p>Top Panel Raiser:- 25 mm x 50 mm Hollow Pipes to raise top containment.</p>	150	Mtrs		Mtr
7	<p>SH-II:- Supply Air Grills, Return Air Grill, COWL & PAC unit motorised dampers) SUPPLY AIR GRILLS:- Supplying and fixing of floor mounted Supply Air Grills of size 600mm x 600mm with 1. 5mm thick aluminum louvers and 30degree slant and properly powder coated in matching with the colour of false floor and having adequate strength for 500kg weight along with volume control dampers flush mounted on false floor. The outer frame should be min 3mm thick MS plate construction and be free of rough edges and louvers must not project out of MS frame, complete assembly is to fit seamlessly in the existing tile etc., as required. Minimum 60% area of floor grill should be supply air area. The air leakages through closed damper should not exceed 5% of fully opened air quantity. The setting should not get disturbed by flow of air through it. The grills must have two removable and reversible quadrants so as to facilitate air flow on both sides without disturbing the tile. The tile should have two lifting hooks on both sides, which go inside the tile, when resting on the floor.</p>	20	Nos		Each

Total

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

LIST OF APPROVED MAKES OF BSNL ELECTRICAL WING

S. No.	Item	Makes
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 / manufacture approved make in case battery is of same make as that of Engine and supplied by the Manufacturer only (Kirloskar, Cummins pulse etc.,)
4	HV Switchgear (Vacuum Circuit Breaker/ 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/ Automatic Electric Gear(AEG)/ Patson/ Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T/ Schneider Electric/ Siemens
7	MCCB (Ics=Icu)	L&T/ Schneider Electric/ Siemens
8	SDF units	L&T/ Schneider Electric/ Siemens/ HPL/Havells
9	Power Contactors	L&T/ Schneider Electric/ Siemens/ Lakshmi(LECS)
10	Change Over Switch	HPL / Havells/ H-H Elcon
11	Intelligent APFC Relay	L&T/ EPCOS (Siemens)/ Schneider Electric/ Neptune Ducati/ Syntron/ABB
12	Bus Bar Trunking/ Sandwiched Bus Duct	Moeller/ L&T/ Schneider Electric/ ABB/ Legrand/ Zeta
13	Power Capacitors (MPP/ APP)	L&T/ EPCOS (Siemens)/ ABB/ Crompton/ Schneider Electric/ Neptune Ducati
14	Digital/ KWHr meter	Schneider Electric/ AE/ Digitron / IMP/ Meco / Rishabh/ Universal/ HPL/ L&T/ ABB
15	Cold shrink HT/LT Cable Joint	Denson/ 3M(M-Seal)/ Raychem
16	Rubber Matting	ISI mark
17	MCB/ Isolator/ ELCB/ RCCB/ Distribution Board	Crompton / Havells / Indokopp / MDS Legrand/ L&T / Schneider Electric/ Siemens / Standard/ C&S/ ABB/ HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/ Bharti/ Ratan/ Slotco/ Profab
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

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

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 Sensors
41	Fire Panel (Microprocessor based)	Agni Instruments / Agni Devices/ Aruna Agencies/ Carmel Sensor / Ravel Elect./Honeywell Essar/Notifier/Navin Systems
42	Sprinkler/ Hose Reel & Hose Pipe	ISI mark
43	Fire Extinguisher	ISI mark
44	Lift	OTIS, Kone, Mitsubishi,Schindler, Johnson, Thyssenkrupp Elevator(India)

NOTE:

1. Any other make approved by BSNL EW, corporate office till the last date of opening of tender is also acceptable.
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 equipment's are also acceptable in addition.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

**MODEL FORM OF BANK GUARANTEE (ANNEXURE -I)
(for submitting EMD)**

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

PERFORMANCE SECURITY GURANTEE BOND (ANNEXURE -II)

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

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

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 or 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)/supplier(s).
- 7. We (name of the bank) _____ lastly undertake not to revoke this guarantee during its currency except with the previous consent of the BSNL in writing.

Dated the _____ day of _____

for _____

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

NO NEAR RELATIVE WORKING CERTIFICATE (ANNEXURE -III)

I _____ Son of Shri _____
Resident of _____ hereby certify that none of my relative(s)
as defined in the tender document is/are employed in BSNL unit as per details given in
tender document. 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.

(Seal of the firm)

(Signature of Bidder)

UNDERTAKING REGARDING EPF PROVISIONS (ANNEXURE -IV)

"I _____ Son of _____
Resident of _____ hereby give an undertaking that
* I/We have employed only _____ persons in our establishment and hence
the EPF and Miscellaneous provisions Act, 1952 is not applicable to my / our establishment.
* I/ We have registered as per the EPF and Miscellaneous provisions Act, 1952 and our
registration no is _____. We undertake to keep it valid during the currency
of contract.

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

* strike out whichever is not applicable

** Attach a self-attested photo copy of the above said EPF registration certificate.

(Seal of the firm)

(Signature of Bidder)

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

UNDERTAKING REGARDING ESI PROVISIONS (ANNEXURE -V)

"I _____ Son of _____
_____ Resident of _____ hereby give
an undertaking that

* I/We have employed only _____ persons in our establishment and hence the ESI and Miscellaneous provisions Act,1948 is not applicable to my/ our establishment.

* I/ We have registered as per the ESI and Miscellaneous provisions Act, 1948 and our registration no is _____. We undertake to keep it valid during the currency of contract.

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

* strike out whichever is not applicable

** Attach a self-attested photo copy of the above said ESI registration certificate.

(Seal of the firm)

(Signature of Bidder)

UNDERTAKING TO ABIDE BY EW 6 & EW 8 (ANNEXURE -VI)

"I _____ Son of _____
_____ Resident of _____
_____ hereby give an undertaking
that I have read the complete bid document and I am aware of all the clauses and sub clauses of BSNL EW 6 & 8 forms and I confirm that I will abide by all the terms and conditions available in original standard BSNL EW 6 & 8 forms.

(Seal of the firm)

(Signature of Bidder)

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

COMPLIANCE SHEET (ANNEXURE -VII)

I/ We _____ (Name of firm) have read/ Understood all the terms and conditions as mentioned in bid Document and accept the same unconditionally.

I/ We state to comply in full manner with all the General, Commercial, Technical and Operating financial conditions of the tender document for the work "**SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works**" without any reservation and deviation. It is certified that the Tender Document i/c all credentials has been re uploaded with Digital Signature.

(Seal of the firm)

(Dated Signature of Contractor)

IMPORTANT NOTE:

The BSNL EW 8 Form is available at <http://www.telangana.bsnl.co.in> as well as in the Division Office for ready reference and download.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

COMPUTERIZED MEASUREMENT BOOKS (CMB'S) – ANNEXURE- VIII

Bills to be submitted by the contractor

➤ Application and format of the Computerized M.B.

- (1) 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 Computerized 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 Computerized Measurement Books. The measurements shall be carried forward from the previous recorded measurements as per the existing procedure.

➤ Mode of measurements:

- (1) The measurements shall be recorded and entered in computerized format in the first instance by the contractor, and a hard copy shall be submitted to the BSNL. All entries shall be made exactly as per the existing procedure.
- (2) These measurements shall then be 100% checked by the Junior Telecom Officer. If Junior Telecom Officer is not available, the Sub Divisional Engineer 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 computerized measurements, and submit to the BSNL 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 and the Executive Engineer shall test check these computerized measurements as per the existing instructions. This book shall be treated as a Computerized Measurement Book.
- (4) The Junior Telecom Officer, Sub Divisional Engineer and the Executive Engineer shall record the necessary certificates for their checks and test checks as per the existing procedure in this Computerized Measurement Book.
- (5) The Computerized Measurement Book shall be allotted a serial number as per the Register of Computerized Measurement Books.

➤ Cutting or over-writing in the computerized 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.

Name of work: SITC of (4+2) x 14 TR High Precision Package type AC units for Mini DC, GR site and NMS under Phase IX.2 of 4G Project at 7th floor, Telephone Bhavan, Saifabad, Hyderabad. SH:- Providing Cold Aisle Containment, SA Grills and OC works.

(2) It is the responsibility of the Junior Telecom Officer or the Sub Divisional Engineer 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 Computerized Measurement Book shall be cancelled, and the contractor shall re-submit a fresh Computerized Measurement Book. This should be done before the corresponding computerized bill is submitted to the Division for payment.

➤ Computerized Bill to be submitted by the contractor

(1) The contractor shall submit his running and final bills in a computerized 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 bill shall be carried forward from the previous running account bill as per the existing procedure.

(3) These computerized bills shall be processed by the various offices for payment, as per the existing procedure.