



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

Office of The Executive Engineer (Electrical),
Electrical Division, 1st Floor,
New Siemens Telephone Exchange
Autonagar, Vijayawada - 520 007
Ph: 0866-2543211 Email: eevijbsnl@gmail.com

TENDER DOCUMENT
(Single Stage Bid – Single stage opening)

NIT NO:27/BSNL/EDV/2020-21, Dt.:26-10-2020

Name of the work: Dismantling ,Shifting of 5 Nos 7 TR Package AC Units from TE Machilipatnam and Installation at NIB, DTAX Building First Floor, Vijayawada

Estimated Cost: Rs.4,09,289/-

Name of the Agency

Address

Telephone No:

This tender document contains 50 (Fifty pages i/c page of Specimen Price Bid only.)

Signature of the Tender issuing Officer

Executive Engineer (E)
BSNL Electrical Division,
Vijayawada
(For and behalf of BSNL)

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Instructions to Bidders **OFFLINE SUBMISSIONS**

A sealed Cover with the *Name of Work and tender due on* clearly written on the top of the cover and containing the following documents shall be dropped in the tender box available at the O/o Executive Engineer (E) Electrical Division, Ist Floor, Siemens Telephone Exchange, Autonagar, Vijayawada-520007 on or before the stipulated time and date as per NIT

- 1 Tender Cost in the prescribed form as per NIT
- 2 EMD in the prescribed form as per NIT
- 3 Self-Attested copies of eligibility credentials fulfilling the eligibility criteria stipulated in the NIT.
- 4 Self attested copy of Chartered accountant certificate for Annual Turnover for the last three years as per NIT.
- 5 Self attested copy of PAN Card
- 6 Self attested copy of GST registration certificate
- 7 Self attested copy of EPF Registration certificate (if applicable).
- 8 Self-attested copy of ESI Registration certificate (if applicable)
- 9 ANNEXURE-IV : Declaration by Contractor
- 10 ANNEXURE-V : Undertaking to abide by EW-6 & EW-8
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Note: 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.

ONLINE SUBMISSION in E-Tender Portal

www.eprocure.gov.in

The following documents shall be digitally signed and uploaded in the E-tender portal www.eprocure.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) Self-Attested copies of eligibility credentials fulfilling the eligibility criteria stipulated in the NIT.**
- 4) Self attested copy of Chartered accountant certificate for Annual Turnover for the last three years as per NIT.
- 5) Self attested copy of PAN Card
- 6) Self attested copy of GST registration certificate
- 7) Self attested copy of EPF Registration certificate (if applicable).
- 8) Self-attested copy of ESI Registration certificate (if applicable)
- 9) ANNEXURE-IV : Declaration by Contractor
- 10) ANNEXURE-V : Undertaking to abide by EW-6 & EW-8
- 11) ANNEXURE-VI : Non relative Certificate
- 12) ANNEXURE-VII : Undertaking regarding EPF Provisions
- 13) ANNEXURE-VIII: Undertaking regarding ESI Provisions
- 14) ANNEXURE IX: Technical Compliance statement
- 15) Digitally signed and rates quoted Price Bid/Financial Bid**

Bharat Sanchar Nigam Limited

(A Govt. of India Enterprise)

NOTICE INVITING e-TENDER(EW-6)

The Executive Engineer (E), BSNL Electrical Division, Vijayawada-520007, Phone: 08662543211, FAX: 08662543214 on behalf of BHARAT SANCHAR NIGAM LIMITED invites **ON LINE BIDS (item rate e-tenders)** from the eligible Firms / Contractors for the following work.

1	NIT No.	27/BSNL/EDV/2020-21, Dt.:26-10-2020
2	Name of Work	Dismantling ,Shifting of 5 Nos 7 TR Package AC Units from TE Machilipatnam and Installation at NIB, DTAX Building First Floor, Vijayawada .
3	Estimated Cost put to tender	Rs.4,09,289/-
4	Earnest Money	Rs.8,186/-
5	Cost of Bid Document	Rs.590 /-(Non refundable)
6	e-Tender Processing Fee	As stipulated in the e-tender portal www.eprocure.gov.in
7	Time allowed for completion of work	4 Months
8	Last date & Time of on line submission of Eligibility documents, Technical Bid & Price Bid	Up to 15.00 Hrs. on. 26-10-2020.
9	Last date & Time for submission of Cost of bid document, EMD, and Eligibility documents as per NIT(OFF LINE)	Up to 15.00 Hrs. on.27-10-2020.
10	Time & date of opening of sealed envelope containing EMD, cost of Bid document and Eligibility documents as per NIT of intending bidders in Division office.(OFF LINE)	At 15.30Hrs On 27-10-2020.
11	Time & Date of Opening of the Bid- ON LINE ONLY	At 16.00Hrs On 27-10-2020.
• In case of holiday being declared on the date of opening of tender, the tender will be opened on the next working day.		
A	ELIGIBILITY CRITERIA	
	The Firms who fulfill the following requirements shall be eligible to bid	
	11. Average annual turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost put to tender. AND 2. The manufacturer or their authorized service dealer. The letter of authorization in original from the manufacturer will be produced by the dealer. OR 3. Experience of having successfully completed similar works in State/Central Government/PSUs during last 7 years ending last day of month previous to the one in which applications are invited, should be either of the following: a. Three similar successfully completed works costing not less than the amount equal to 40% of the estimated cost put to tender. OR b. Two similar successfully completed works costing not less than the amount equal to 60% of the estimated cost put to tender. OR c. One similar successfully completed work costing not less than the amount equal to 80% of the estimated cost put to tender. BSNL enlisted contractors in Electrical category of respective class as per their tendering limits. OR 1. BSNL enlisted contractors in Electrical category of respective class as per their tendering limits.	

B. 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, EPF Registration certificate (if applicable) and ESI Registration certificate (if applicable).
3. The intending tenderer shall furnish the cost of Tender document in the form of Demand draft of a Scheduled Bank or Nationalized Bank/ State Bank guaranteed by Reserve Bank of India. The DD for **Rs.590/-** (Inclusive of all Taxes) which is non-refundable, shall be drawn in favour of **"Accounts officer (cash), O/o GMTD,BSNL, VIJAYAWADA."**
4. **Earnest Money amounting to Rs. 8,186/-** in the form of **demand draft/FDR/ BG / CDR** of a nationalized/scheduled bank guaranteed by the Reserve Bank of India, drawn in favour of **"Accounts officer (cash),O/oGMTD,BSNL, VIJAYAWADA,"** must accompany each tender. The Validity period of EMD is 90 days, from the date of opening of tender.
5. 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.
6. Exemption from payment of earnest money and security deposit by any other unit/ department shall not hold good for BSNL.
7. 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.ap.bsnl.co.in and www.eprocure.gov.in **However for quoting the e-Tender visit www.eprocure.gov.in** 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.
8. General conditions of contract for works in BHARAT SANCHAR NIGAM LIMITED (BSNL EW-8) are available on BSNL website http://electrical.bsnl.co.in/BSNL_EW-8.pdf 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 www.eprocure.gov.in For details kindly visit website www.eprocure.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.
11. Contractor can upload documents in the form of JPG format, PDF format and any other format as permissible by the e- tendering portal.
12. 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}.
13. The Technical Bid & Price Bid can only be submitted after uploading the following scanned documents (all documents shall be self-attested)–
 - a) Documentary proof of satisfying eligibility conditions.
 - b) Copy of PAN card, GST registration, CA certificate for turnover, EPF Registration certificate (if applicable),ESI registration Certificate(if applicable)
 - c) Demand draft of cost of tender documents.

- d) Scanned copy of EMD in prescribed form.
14. The contractor shall submit the DD for cost of Bid documents, EMD in the prescribed form, and Eligibility documents as per NIT in a sealed envelope with mention of Name of work, date & time of opening of bids in a sealed bid box provided in the **Office of Executive Engineer (Electrical), BSNL Electrical Division, Vijayawada up to 15.00Hrs on 27-10-2020** and shall be opened on the same day at 15.30 Hrs 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 Cost of Bid Document, Earnest Money Deposit, and Eligibility documents as per NIT 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. The bid submitted shall become invalid and cost of bid & e-tender processing fees shall not be refunded if the bidder is found ineligible or if the bidder does not upload all the documents as per para-16 above or In case the agency fails to start any awarded work Performance Guarantee for the awarded amount shall be forfeited.
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.
 18. Agreement shall be drawn with the successful Tenderer on prescribed Form No. **BSNL EW-6/8**, which is available on BSNL website http://electrical.bsnl.co.in/BSNL_EW-8.pdf for www.eprocure.gov.in Tenderer shall quote his rates as per various terms and conditions of the said form.
 19. The time allowed for carrying out the work will be as mentioned above.
 20. 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.
 21. **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-III)/ CDR/ FDR/ DD. This period can be further extended by the Engineer-in-Charge upto 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.**
 22. 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.
 23. The acceptance of a tender will rest with the **Superintending Engineer (E), O/o CE(E), BSNL, A.P. Electrical Zone, Vijayawada** who does not bind himself to accept the lowest tender or any other tender and reserves to himself the Authority to reject lowest or all the tenders received without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.
 24. Canvassing in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

25. The BSNL reserves itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted.
26. The tenderer should give a certificate that none of his/her relative is employed in BSNL units. In case of proprietorship firm, certificate will be given by the proprietor and for partnership firm certificate will be given by all the partners and in respect of a limited company by all the Directors of the company.
27. Near relatives of all BSNL employees either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of BSNL. The near relatives for this purpose are defined as:
 - a) Members of a Hindu Undivided family.
 - b) They are husband and wife.
 - c) The one is related to the other in the manner as father, mother, son(s) & son's wife(daughter-in-law), Daughter(s) & daughter's husband(son-in-law), brother(s) & brother's wife, sister(s) & sister's husband(brother -in-law).
28. The Company or firm or any other person is not permitted to tender for works in BSNL Unit in which his near relative(s) is (are) posted. The unit is defined as SSA/Circle/Chief Engineer/Chief Archt./Corporate office for non-executive employees and all SSA in a circle including circle office/Chief Eng./Chief Archt./Corporate office for executive employees (including those called as Gazetted officers at present). The tenderer should give a certificate that none of his/her such near relative is working in the units as defined above where he is going to apply for tender/work, for proprietorship, partnership firms and limited company certificate shall be given by the authorized signatory of the firm. Any breach of these conditions by the company or firm or any other person, the tender/work will be cancelled and earnest money/performance guarantee will be forfeited at any stage whenever it is so noticed. BSNL will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit. The format of the certificate to be given is enclosed (Annexure-IX).
29. 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 contractors' service.
30. The tender for the works shall not be witnessed by the contractor or contractors 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.
31. 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.
32. 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.
33. 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.
34. **Extension of tender 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.
35. 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.

36. 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, sign the contract consisting of :-
- The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any forms the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - Standard BSNL EW-8 form.
37. 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 X).
38. The site for the work shall be made available in parts.
39. 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.

Lr .No: 24(1)/EE(E)/BSNL/EDV/2020/141

Dated: 15-10-2020.

- The Chief Engineer (E), BSNL AP Zone, Vijayawada for kind information.
- The Superintending Engineer (E), % CE E , BSNL AP Zone, Vijayawada for kind information.
- The Executive Engineer (E), BSNL, Electrical Div. VSP/TPT/Kurnool for information
- All SDE (E)'s under this circle
- All Eligible Contractors.
- Sr.TOA/AO/Auditor/Notice Board.

Executive Engineer (E)

CHECK LIST FOR THE TENDERER

IMPORTANT NOTE: Before on line submitting the tender document, contractor must verify the check list properly

Sl.No	NAME OF THE VENDOR	Description	Submitted/Upl oaded Yes/No
1		The Firms who fulfill the following requirements shall be eligible to bid	
		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 for the following documents	
3		c) EMD - amounting Rs.8,186/- in the prescribed form as above. Earnest Money should be in the form of demand draft/FDR/ BG (As per format at Annexure)/ CDR of a nationalized/scheduled bank guaranteed by the Reserve Bank of India, drawn in favour of "Accounts Officer (cash),O/O GMTD, BSNL , Vijayawada " must accompany each tender. The Validity period of EMD is 120 days, from the date of opening of tender.	
4		Self-attested Copy of PAN card.	
5		Self-attested Copy of valid GST registration	
6		Self-attested Copy of CA certificate for turnover.	
7		Self-attested copy of EPF Registration certificate (if applicable).	
8		Self-attested copy of ESI Registration certificate (if applicable).	
9		Declaration by Contractor(As per annexure-IV)	
10		Duly filled and signed Undertaking and to abide by EW6 and EW 8 (As per annexure-V).	
11		The tenderer should give a certificate that none of his/her relative is employed in BSNL units. In case of proprietorship firm, certificate will be given by the proprietor and for partnership firm certificate will be given by all the partners and in respect of a limited company by all the Directors of the company(As per annexure-VI)	
12		Duly filled and signed undertaking regarding EPF Provisions (As per annexure-VII)	
13		Duly filled and signed undertaking regarding ESI Provisions(As per annexure-VIII)	

Notes for Submission of Documents:

- 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 (Electrical), BSNL Electrical Division ,Vijayawada 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.

INFORMATION FOR BIDDERS (e-TENDER)

1. For e-Tender hosting purpose, BSNL has engaged e-portal maintained by eprocure.gov.in. The agency intending to participate in tendering process shall have to register with www.eprocure.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 eprocure.gov.in by making online payment of required amount with registration particulars. For details kindly visit website <https://www.eprocure.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 www.eprocure.gov.in or www.ap.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.

E-Tendering Instructions to Tenderers (General)

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-II has decided to use the portal www.eprocure.gov.in through e_procurementportal, 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 bidsystem”. In this case of two electronically sealed envelopes bid system, the Eligibility documents as per NIT [Envelope-I] & Tender Document [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 eprocure.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>].

4. Registration:

To use the Electronic portal (www.eprocure.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://www.eprocure.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 (Envelope-I)
- Submission of digitally signed copy of Tender Documents/Addendum/addenda.(Envelope-II)

6. Offline Submissions:

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, date & time of opening of bids in the tender box available in the office of Executive Engineer

(Electrical), BSNL Electrical Division, Vijayawada 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) duly 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 eprocure.gov.in E-tender Site or any Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA).
2. Register your organization on **eprocure.gov.in**-tender site well in advance of your first tender submission deadline on eprocure.gov.in e-tender Site (<http://eprocure.gov.in>)
3. Get your organization’s concerned executives trained on eprocure.gov.in e-tender Site well in advance of your first tender submission deadline on eprocure.gov.in e-tender Site
4. Submit your tender well in advance of tender submission deadline on eprocure.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 eprocure.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.

TENDER SUBMISSION FORMAT (For e-Tender)

To,
The Executive Engineer (E),
BSNL Electrical Division,
Vijayawada

Subject: Submission of e-Tender for the work of **Dismantling ,Shifting of 5 Nos 7 TR Package AC Units from TE Machilipatnam and Installation at NIB, DTAX Building First Floor, Vijayawada**

As per tender publication advertised by your office and display of Notice Inviting Tender on web site www.ap.bsnl.co.in and www.eprocure.gov.in/eprocure/app. We are hereby submitting the following documents duly self-attested.

ENVELOPE – I

S.N.	DOCUMENTS	DETAILS
1	Tender due on	
2	Tender Cost.	
a.	Demand Draft No.	
b.	Demand draft Date	
c.	Amount (Rs.590/-)	
d.	Name of Bank and Branch	
e.	In favor of	AO (cash), O/o GMTD, BSNL, Vijayawada
3.	Earnest Money Deposit	
a.	DD / FDR / CDR /BG No.	
b.	Date	
c.	Amount (Rs.8,186/-)	
d.	Name of Bank and Branch	
e.	In favor of	AO (cash), O/o GMTD, BSNL, Vijayawada
4.	Details of firm / Company	
a.	Name of firm / Company, e-mail address (mandatory)	
b.	Name of Proprietor / Partner / Managing Director	
c.	Address	
d.	Pin Code	
e.	Telephone	
f.	E- mail address (MANDATORY)	
g.	Address of Branch / Head Office Name	
5.	Income Tax returns / Chartered Accountant Certificate Date	
6.	Works Contract Registration No. & Date Valid up to	
7.	GST No.	
8.	EPF Registration No.	
9.	ESI Registration No.	
10.	Bank details of agency for RTGS/online payment	
a	Bank Account No:-	

b	Bank Name & Branch:-	
c	IFSC code:-	

I, _____ proprietor/ duly authorized representative of
M/s. _____ hereby certify that the information
given above is true to the best of my knowledge and belief. I have been duly authorized to sign and
certify the documents. I understand that any wrong information/suppression of facts will disqualify us
from being considered for the tender participation.

Place _____ Yours sincerely
Date _____
Seal _____
(Signature) _____

(Name in block letter)

Bharat Sanchar Nigam Limited

**Tender for the work of: Dismantling ,Shifting of 5 Nos 7 TR Package AC Units from TE
Machilipatnam and Installation at NIB, DTAX Building First Floor, Vijayawada**

Name of Contractor/firm:.....

UNDERTAKING

- 1) I/we have read and examined the Notice inviting tender, Important note for the contractors, Schedule of quantity, Data sheet, Specifications applicable drawings & designs, conditions of contract and all other contents in the tender document for the work.
- 2) I/we have read and examined the General Rules and Directions & Clauses of EW-8.
 - i) The name of work, time allowed for work, estimated cost, tender cost, mode & amount of EMD etc wherever appearing in EW-6/8 shall be as per the notice inviting tender available on the web-site.
 - ii) In condition no. 17 of the EW – 6, the amount of EMD which can be forfeited is 50 %.
- 3) I/We hereby tender for the execution of the work specified for BSNL within the time specified, as per 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.
- 4) 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.
- 5) A sum of **Rs.8,186/-** is hereby forwarded in the form of CDR/FDR/DD or bank guarantee in department's attached format and manner (Annexure-I) as earnest money. If I/We, fail to commence the work specified I/We agree that the said BSNL or his successors in office 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.

- 6) 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, as per condition no. 4 of “Important note for the contractors.”
- 7) I/We agree that the said EW-6/8 shall be made a part of the contract while entering into the agreement. (CAN BE DOWN LOADED at http://electrical.bsnl.co.in/BSNL_EW-8.pdf)
- 8) I / we agree to furnish to BSNL Deposit at call receipt / FDR / Bank guarantee of a Nationalised / 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.
- 9) I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than to whom I / We am / are authorized to communicate the same or use the information in any manner prejudicial to the safety or interest of BSNL.

(Seal of the contractor)
(Postal address)

(Signature of contractor)
Dated

ACCEPTANCE

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

GENERAL RULES AND DIRECTIONS

1. All works proposed for execution by contractor will be notified in a form of invitation to tender displayed on Notice Board in select BSNL offices and signed by the officer inviting tender or by publication in Newspapers/internet (designated web page) as the case may be.
2. This form will state the work to be carried out, as well as the date of submitting and opening tenders and the time allowed for carrying out the work; also the amount of earnest money to be deposited with the tender, and the amount of performance guarantee to be deposited by the successful tenderer(s). Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the Officer inviting tender shall also be open for inspection by the contractor at the office of Officer inviting tender during office hours.
3. In the event of the tender being submitted by a firm it must be signed by the authorized signatory.
4. Receipts for payments made on account of work when executed by a firm, must also be signed by authorized signatory.
5. Any person who submits a tender shall fill up online tender at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any conditional rebates will be summarily rejected. However, tenders with unconditional rebate will be acceptable. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tenders shall have the name and number of the works to which they refer written on the envelopes. The rates(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and considering more than fifty paise as rupee one.
6. The Officer inviting tender or his duly authorized assistant will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a Comparative Statement in a suitable form. In the event of a tender being accepted a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule 1. In the event of a tender being rejected, the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor remitting the same without any interest.
7. The officer inviting tenders shall have the right of rejecting all or any of the tenders, and, will not be bound to accept the lowest or any other tender.
8. The memorandum of work tendered for and the schedule of materials to be supplied by BSNL shall be filled and completed in the office of the Officer inviting tender before the tender form is issued.
9. The tenderer shall sign a declaration under the officials Secret Act, 1923 for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.
10. All rates shall be quoted on the tender form only.
11. Procedure for dealing with ambiguities in rates: if on check there are differences between the rates given by the contractor in words and in figures or in amount worked out by him, the following procedure shall be followed:-

In e-tendering the intending bidder can quote his rates in figures only. The rates in words, amount of each item and total is generated automatically. Therefore the rate quoted by the bidder in figures is to be taken as correct.
12. The tender for the work shall not be witnessed by a contractor or contractors who himself/ themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
13. Other agencies will also simultaneously execute the works like horticulture, external services, installation of telephone exchange equipment and other building works for the same project alongwith this work in particular. The contractor shall afford necessary facilities for the same. No claim in the matter shall be entertained.

14. Some restrictions may be imposed by the security staff etc on the working and/or movement of labour, material etc. The contractor shall be bound to follow all such restrictions /instructions and nothing extra shall be payable on this account.
15. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Engineer-in-charge may in his discretion without prejudice to any other right or remedy available in law cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
16. Agency has to observe all labour rules and regulations in force. Agency shall be fully responsible for any violation observed at any time.
17. Bye laws Indemnity against liabilities
 - The contractor shall comply with all by laws and regulations of the local and statutory authorities having jurisdiction over the works and shall be responsible for payment of all fees and other charges and giving and receiving all necessary notices and keep the Engineer –in-charge informed about the notices issued and received.
 - The contractor shall indemnify the department against all claims in respect of patent rights design, trademark or name of other protected rights in respect of any plant, machine, work or materials used for or in connection with the works or temporary works and from and against all claims demands, proceedings, costs, charges and expenses whatsoever in respect of or in relation thereto. The contractor shall defend all actions arising from such claims and shall himself pay all royalties, License fees, damages , costs and charges of all and every sort that may be legally incurred in respect hereof shall be borne by the contractor.
 - All liabilities / penal recoveries on matters arising out of tax/excise /levies such as incorrect deductions discrepancies in the filing of returns, revised assessments by the concerned authorities etc, shall be borne by the contractor.
18. Rates quoted by the contractor shall be firm and shall be valid for the currency of contract. No cost escalation shall be permitted during the currency of contract.

PROFORMA OF SCHEDULES

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

SCHEDULE 'A'

Schedule of quantities: Enclosed

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. Important Note for Contractors: Appended from page 25 to page 31

II. Copy of Memo no. 5-1-12-EW/94 dt. 26/9/1996, Annexure – I (model form of Bank Guarantee): Appended from page 53 to 54.

SCHEDULE 'E'

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

NIL

CLAUSE 10 CC

Component of Cement expressed as per cent of total value of work	Xc	_____ %	} NA
Component of Steel expressed as per cent of total value of work	Xs	_____ %	
Component of civil(except cement and steel) / Electrical construction Materials expressed as per cent of total value of work	Xm	_____ %	
Component of Labour expressed as per cent of total value of work	Y	_____ %	

SCHEDULE 'F'

Reference to General Conditions of contract.

Name of work:	Dismantling ,Shifting of 5 Nos 7 TR Package AC Units from TE Machilipatnam and Installation at NIB, DTAX Building First Floor, Vijayawada
Estimated cost of work:	Rs.4,09,289/-
i) Earnest money :	Rs. 8,186/-
ii) Performance Guarantee :	5% of tendered value of work.
iii) Security Deposit :	5 % of the tendered value of the work.
GENERAL RULES and DIRECTIONS:	Officer inviting tender: EE (E), BSNL Electrical Division, Vijayawada

Definitions:		See below	
2(v) Engineer-in-Charge	Concerned Executive Engineer (E), BSNL Electrical Division, for which authorization is given for issue of LOI		
2(viii) Accepting Authority	Superintending Engineer (E) BSNL Electrical Circle, Vijayawada.		
2(x) Percentage on cost of materials and labour to cover all overheads and profits.	10%		
2(xi) Standard Schedule of Rates	NA		
2(xii) Department	BSNL		
9(ii) Standard CPWD contract Form	BSNL EW Form 8 as modified and corrected up to date.		
Clause 1			
i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance, in days		14 Days	
ii) Maximum allowable extension beyond the period provided in i) above in days			
Clause 2			
Authority for fixing compensation under Clause 2.		SE (E)	
Clause 5			
Number of days from the date of issue of letter of acceptance for reckoning date of start Milestone(s) as per table given below :-		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	Procurement of material	2(two) weeks	NIL
2	Completion of 1/3 rd of work	8(Eight) weeks	As per agreement clause
3	Completion of 2/3 rd of work	16(Sixteen) weeks	As per agreement clause
4	Total completion of work	24(Twenty Four) weeks	As per agreement clause
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)	NA
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	
19			

Time allowed for execution of work. Authority to give fair and reasonable extension of time for completion of work.	4 Months 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.
Clause 10CC Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column.	NA
Clause 11 Specifications to be followed for execution 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	NA
Clause 16 Competent Authority for deciding reduced rates.	Superintending Engineer (E)
Clause 30 Minimum Qualifications and experience required for Principal Technical Representative.	
i) Work with estimated cost put to tender more than Rs.2 lakhs but less than Rs.5 lakhs	Recognized diploma holder
ii) Work with estimated cost put to tender more than Rs. 5 lakh	Graduate or recognized diploma holder with three years
c) Discipline to which the Principal Technical Representative 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 30.2 & 30.5	Rs.4,000/- p.m. for works costing above 5 lakhs. Rs.2,000/- p.m. for works costing between 2 lakhs and 5 lakhs.

IMPORTANT NOTE FOR CONTRACTORS

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

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 on 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 Tax, Freight, Forwarding, Packing, Insurance and any other Levies / Charges already paid or 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) Duties and Taxes applicable if any:

i) The firm shall furnish challans / invoices for availing input tax credit by BSNL

ii) Vendors should furnish the correct HSN/SAC Code in the price Schedule. If the input tax credit under GST 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.

iii) In case the input tax credit which could not be availed by BSNL as per the quotes indicated in the price schedules by the vendors and subsequently at any stage it is found that input tax credit is admissible as per GST Rules, 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 Rules

iv) The purchaser reserves the right to ask the bidders to submit documentary proof confirming the correct HSN/SAC Code where the code 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 Rules.

v) If the supplier fails to furnish necessary supporting documents for input tax credit by BSNL, the amount pertaining to such Input credit will be deducted from the payment due to the firm.

vi) Invoice should clearly indicate breakup details of composite price i.e. basic unit price (Ex-Factory price) of the goods / services / materials, any other duties and taxes, Freight / Packing, Forwarding charges, GST etc.

vii) In case of any statutory variation in regard to GST or any other taxes, within the currency of individual agreement including extension of time period, the same shall be admissible as per actual

prevailing rates of GST or any other taxes as applicable, 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 Duties and taxes. Packing, Forwarding, Freight and Insurance charges etc. but excluding input tax credit under 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. INCREASE/DECREASE OF TENDER QUANTITY

BSNL will have the right to increase / decrease up to 50% of the quantity 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 and unavoidable cases BSNL can increase the quantity of goods and services beyond 50% of the tendered quantity without any change in tendered and accepted unit price and also other terms and conditions as applicable at the time of award of contract.

5. Signing of Contract:

The successful tenderer /contractor, on acceptance of his tender by the Accepting Authority, shall sign the contract within 15days consisting of the notice inviting tender, all documents including drawings, if any, forming the tender as issued at the time of invitation of tender & acceptance thereof together with any correspondence leading thereto.

The agreement to be signed on non-judicial stamp paper and the cost to be decided as per the prevailing local bye-laws or zonal head of the circle.

6.a) Tendered rates are inclusive of taxes and levies payable under the respective states.

However, pursuant to the Constitution (Forty Sixth amendment) Act 1982, if any further tax or levy is imposed by statute after the date of receipt of tenders and the contractor(s) thereupon necessarily and properly pays taxes or levies the contractor(s) shall be reimbursed the amount so paid provided such payment if any is not in the opinion of S.E (whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor(s).

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

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

7. PERFORMANCE BANK 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/BG/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.

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.

8. PAYMENT TERMS: -As per BSNL EW6 & EW8

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.

9.. PROGRAMME FOR EXECUTION: -The firm shall execute the work as per detailed programme as mentioned in table of mile stones in schedule of proforma.

10.. STORES AND SAFETY:

The contractor from his own sources shall arrange all the stores and materials required for the satisfactory completion of the work at work site. Lockable space for storing the materials may be provided on request from the contractor. However, safe custody of material stored at site will be the responsibility of the contractor.

11. PACKING, FORWARDING AND STORING AT SITE:

Before dispatch to site, the equipment / components / materials shall be properly packed with polythene sheet and wooden planks for protection and avoiding transit damages and damage against storage in open area at transporters premises or at work site.

12. COORDINATION AT SITE:

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

13.GUARANTEE AND DEFECT LIABILITY:

(i) The guarantee shall be valid for twelve months after successful final A/T. The contractor shall guarantee that all equipments shall be free from any defect due to the defective material and / or bad workmanship and also the equipments shall work satisfactorily with performance and efficiencies not less than the guaranteed values. The security deposit will be released only after the guarantee period.

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

(iii) The contractor shall depute his representative within 24 hours of notification of the defect by the BSNL

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

(v) In case the contractor fails to depute his representative within 24 hours of notification of the defect or fails to cause remedial action within reasonable time as decided during joint inspection, the BSNL may proceed to do so at the contractor's risk and expenses and without prejudice to any other right.

14.NOT COVERED UNDER GURANTEE:-

- 1 Consequential losses and damages.
- 2 Parts subject to normal wear and tear such as electrical contacts.
- 3 Failure of parts due to corrosive atmosphere.

15. The list of approved make of various items is as per Annexure 'VI'

16. THE FIRM SHOULD NOTE THAT THE OFFERS WITH CONDITIONS INCLUDING THAT WITH CONDITIONAL REBATES WILL BE SUMMARILY REJECTED.

17. The contractor shall ensure fulfillment/compliance of the provisions of EPF & Misc. Provisions Act 1952 & Employees Provident Fund Scheme 1952 in respect of labourers / employees engaged by them for performing the works of BSNL.

18. The Contractor shall not be permitted to tender for works in telecom circle of BSNL in which his near relative (s) (directly recruited or on deputation in BSNL) is/are posted in any capacity either non-executive or executive employee in that Circle. Any breach of this condition by any contractor would be sufficient to debar from enlistment.

Note:- 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) wife (daughter-in-law), daughter(s) and, daughter's husband (son-in-law), brother(s) and brother's wife, sister(s) and sister's husband (brother-in-law).

The certificate (As per Annexure-IX) shall be given by the proprietor in respect of proprietorship firm, by all the partners in respect of partnership firm and in respect of a limited company by all directors of the company. Govt. of India/ Financial Institutions nominees and independent non-official part time

Directors appointed by Govt. of India or the Governor of the State and full time Directors of PSUs both State and Central are excluded from the purview of the above provisions.

19. The competent authority on behalf of the BSNL does not bind himself to accept the lowest or any other tender, and reserves to himself the authority to reject any or all of the tenders received without the assignment of a reason. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

20. The competent authority on behalf of BSNL reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.

21. No exemption certificate for payment of EMD is acceptable.

22. TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR:

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

23. INDULGING OF CONTRACTOR IN CRIMINAL/ANTISOCIAL ACTIVITIES AND CASES UNDER INVESTIGATION/CHARGE SHEETED BY CBI OR ANY OTHER GOVERNMENT AGENCIES ETC.: If the CBI/Independent External Monitor (IEM)/Income tax/Sales Tax/Central Excise/Custom Departments recommends such a course-Action will be taken as per the directions of CBI or concerned department.

DETAILS TO BE SUPPLIED BEFORE STARTING THE WORK

1	Name of the Agency (With Office address)	:	
2	Name of Proprietor/ partners	:	
3	Telephone No.(s) of the firm	:	
4	Name & address of the Supervisor	:	
5	24 Hours contact Numbers	:	
6	Particulars of the License/ Registration	:	

ANNEXURE-I

MODEL FORM OF BANK GUARANTEE

BANK GUARANTEE BOND FOR EMD FOR AIR CONDITIONING, DIESEL ENGINE ALTERNATOR, LIFTS AND SUB STATION WORKS WHEREVER THE AMOUNT OF EMD IS MORE THAN RS. 20, 000/-.

Whereas _____ (hereinafter called "The Contractor(s)") has submitted its Tender dated _____ for _____ (Name of work) _____ KNOW ALL MEN by these Presents that WE _____ OF _____ having our registered office at _____ (hereinafter called "The Bank") are bound unto **ACCOUNTS OFFICER (CASH), O/O GMTD, BSNL...Vijayawada**..... (hereinafter called " The Purchaser ") in the sum of _____ for which payment will and truly to be made of the said Purchaser, 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 Purchaser 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 Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand, the Purchaser 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 Witness

Signature of the Bank Authority

Name & Address of Witness

ANNEXURE – II

PERFORMANCE SECURITY GURANTEE BOND

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 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 _____ (Indicate the name of the Bank)

ANNEXURE-III
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 incase 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)	BieccoLawrie / Crompton / Kirloskar / MEI/ Jyoti Ltd
5	Transformer (Oil filled / Dry type)	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO / Kirloskar / Siemens
	a) Above 400 KVA	
	b) Up to 400 KVA	In addition to above makes, Uttam/Automatic Electric Gear(AEG)/Patson/Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T/ Schneider Electric / Siemens
7	MCCB(Ics=Icu)	L&T/ Schneider Electric / Siemens
8	SDF units	L&T/ Schneider Electric / Siemens/ HPL/Havells
9	Power Contactors	L&T/ Schneider Electric / Siemens/ Lakshmi(LECS)
10	Change Over Switch	HPL / Havells / H-H Elcon
11	Intelligent APFC Relay	L&T/EPCOS(Siemens)/ Schneider Electric / Neptune Ducati/Syntron/ABB
12	Bus Bar Trunking/ Sandwiched Bus Duct	Moeller/L&T/Schneider Electric/ABB/Legrand/Zeta
13	Power Capacitors (MPP/APP)	L&T/EPCOS(Siemens)/ABB/Crompton/ Schneider Electric/Neptune Ducati
14	Digital/ KWHrmeter	Schneider Electric/ AE/ Digitron / IMP/ Meco / Rishabh / Universal/HPL/L&T/ABB
15	Cold shrink HT/LT Cable Joint	Denson / 3M(M-Seal)/ Raychem
16	Rubber Matting	ISI mark
17	MCB/ Isolator /ELCB/RCCB/ Distribution Board	Crompton / Havells / Indokopp / MDS Legrand/ L&T / Schneider Electric/ Siemens / Standard/ C&S/ABB/HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/Bharti/Ratan/Slotco/Profab
20	HT/LT Cables	ISI mark
21	PVC insulated copper conductor wire	ISI mark
22	Centrifugal Pump	Amrut / BE / Beacon / Batliboi / Crompton / Jyoti / Kirloskar / KSB / Mather &platt / WASP/Grundfos

23	Submersible Pump	Crompton/Amrut / BE / Calama / Kirloskar / KSB
24	Motors	ABB/ Bharat Bijlee / Crompton Greaves / Schneider Electric / HBB / KEC / Siemens/Jyoti Ltd
25	Fresh Air Fans	GE / Khaitan/Almonard/Crompton
26	Starter	ABB / BCH / Schneider Electric / L&T / Siemens /
27	Single Phase Preventer	L&T / Minilec / Siemens / Zerotrip
28	GI/MS Pipe	ATC / ATL / BST / GSI / ITC / ITS / IIA / JST / Jindal /TTA / Tata/Zenith
29	Foot Valve	ISI mark
30	Gate Valve	Advance/Audco/Johnson Controls/Zoloto/Annapurna / Fountain / Kirloskar / Leader / Sant / Trishul
31	Compressors	Carrier/Emerson copeland/York/Danfoss (for chillers only)
32	Resin Bonded Glass wool	Fibre Glass / 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 sale 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 equipments are also acceptable in addition.

ANNEXURE-IV
Declaration by Contractor

I / We do hereby undertake to have gone through the terms & conditions / clauses of all the tender documents including Form EW-6, EW-8 being adopted by the BHARAT SANCHAR NIGAM LIMITED (Electrical Wing) & agree to abide by the same.

I/we hereby declare that no addition /deletion/correction have been made in the tender document

submitted and is identical to the tender document appearing on website.

In case of failure to comply as above, our offer will stand withdrawn and the decision of tender opening officer in this regard shall be final & binding on me.

Signature of contractor/authorized representative

With seal of the firm

ANNEXURE-V
UNDERTAKING TO ABIDE BY EW6 & EW8

"I.....Son
of.....Resident
of..... hereby give an
undertaking that I have read 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)

(Dated Signature of Contractor)

ANNEXURE-VI
Non relative Certificate
(The format of the certificate as per clause 12 .3 of EW-6)

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 Contractor)

ANNEXURE-VII
UNDERTAKING REGARDING EPF PROVISIONS

"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 provision 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".

* Strikeout whichever is not applicable.

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

(Seal of the firm)

(Dated Signature of Contractor)

ANNEXURE-VIII
UNDERTAKING REGARDING ESI PROVISIONS

I..... Son
of..... Resident
of
hereby declare 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 under ESI Act 1948 and ** allotted Registration Number is..... We undertake to keep it valid during the currency of contract..

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

* Strike out whichever is not applicable.

** Attach a self-attested photocopy of the above said ESI Registration Certificate OR self-attested photocopy of the latest ESI contribution slip along with above undertaking on a printed letter head.

(Seal of the firm)

(Dated Signature of Contractor)

ANNEXURE – IX

COMPLIANCE STATEMENT

We _____ (name of the firm) state to comply in full manner with all the General, commercial, Technical, operating financial conditions of the Tender Document for the **work Dismantling ,Shifting of 5 Nos 7 TR Package AC Units from TE Machilipatnam and Installation at NIB, DTAX Building First Floor, Vijayawada** without any reservation and deviation.

For and on behalf of (Name the company)

Signature of the authorized signatory of the bidder company.

ANNEXURE– X

Computerized Measurement Books (CMB's) and 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.

(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.

ANNEXURE – X

SPECIFICATION FOR WORK

List of Indian Standards:-

- 277 - Galvanised Steel Sheets
- 655 - Metal Air Ducts
- 732 - Code of practice for electrical wiring and fitting for building
- 778 - Gunmetal Gate, Globe and check valve for general purpose
- 1239 - Mild steel tubes GI pipes tubulars and other wrought steel fittings
- 1248- Direct acting electrical indicating instrument
- 1554 - PVC insulated (Heavy duty) electric cables for working voltages upto 1100 volts
- 2208- HRC cartridge fuses –links upto 650 volts
- 2516- AC circuit breaker
- 3589- Electrically welded steel pipes for water, Gas and Sewage
- 4047- Heavy duty air break switches and composite units of air break switches and fuses for voltage not exceeding 1000 volts

Important Note:- All references to I.S.I appearing in the specification may be read as bureau of Indian Standards, latest amended version

LIST OF SAFETY STANDARDS:-

- 618 - Code of practice for safety and health requirements in electrical and gas welding and cutting operation
- 659 - Safety code for Air conditionings
- 660 - Safety code for mechanical refrigeration
- 3016 - Code of practice for fire precautions in welding and cutting operation
- 3210- Code for safety procedures and practices in Electrical works
- 3696- Safety for scaffolds and ladders

- Indian Electricity Rules' 1956 i/c latest amendments

SECTION-I

General:

Salient features common for all AC systems for electronic exchange:-

1. Ducting arrangement shall take into account any change or maintenance of air switches, heater bank, booster fan etc., so that it does not require the total shutdown of the plant itself. Some scheme of AC shall be available at all time.
2. The air stream coming from the Package plant shall pass through volume control damper, fire damper fine filter booster fan(s) (if warranted by system design).
3. Air distribution in switch rooms:-

For bottom feed exchanges:-

The air conditioning system is based on blowing conditioned dust free air upwards through the rack in order to dissipate the heat and Maintain the equipment at suitable temperature. The air blown under the raised floor by the AC equipment should provide draft which Distributed to each individual rack via damper recessed into the raised floor. The switch room shall also have supply air outlet around its circumference to maintain a suitable ambient condition. However in OMC room the AC shall be provide by means of supply air outlet behind the racks. The return hot air shall be extracted through the return air inlet recessed into the false ceiling by the air conditioning equipment .

For top feed Exchanges:-

The air distribution in all exchanges or technical room i/c electronic exchanges other than E-10B shall be through conventional method. However for any specific case where some new method is to be followed based on the design of equipment supply air separate instruction/ details Shall be furnished along with the work order.

Electrical Power Supply:-

The entire equipment shall be suitable for operation on 415 +- 5% V, 3 phase, 50 Hz earthed neutral AC supply received either from the departmental sub station or from standby Engine Alternator set. The main incoming for the electrical panel shall have two incoming, one for normal AC supply and other for Emergency supply.

Safety interlocks:-

The AC system shall ensure following interlocks:-

- i) Fire Detection signal from fire detector system to switch OFF A.H.Us and booster fan operation in the event of fire in conditioned space.(necessary connection from fire detection system will be arranged by the department) ii) Electrical interlock between condenser fan motor and compressor motor

to prevent starting of package unit without fan operation.

Audio Visual Indications & Alarms common for all Systems (i.e, for Electronic as well as Non electronic)

The air conditioning system shall incorporate manually reset type audio visual alarms as under wherever so specified:-

- i) Failure of main incoming supply
- ii) High pressure trip (for each package) iii) Low pressure trip (for each package) iv) Fire alarm operation

Additional Audio Visual Indications & Alarms for Electornic System

- i) Conditioned space temperature higher than the present value.
- ii) Conditioned space relating humidity beyond the present range
- iii) Failure of fresh air fan. Sensing shall be arranged by means of air flow switch

SECTION-II

FRESH AIR ARRANGEMENTS

1.0 FRESH AIR ARRANGEMENTS

Sheet metal fresh air louvers with frame, damper, booster fan, coarse and fine filters etc., shall be provided in the opening in masonry or in a window as per requirement wherever fresh air ducting is involved, it shall be carried out as per sheet metal specifications and insulated properly whenever traverses a conditioned area.

SECTION-III

SHEET METAL DUCTING, SUPPLY AIR OUTLETS RETURN AIR AND FRESH AIR INTAKES

1.0 Scope:

This section sets out the general requirements for sheet metal ducting, Supply air outlets and return air/fresh air intakes, their materials of construction, methods of insulation and finishing requirements.

2.0 Design:

Air velocity in sheet metal ducts has a greater role to play in initial cost of the plant and its operation cost. Therefore the air velocity shall be selected from the following ranges for an overall economy.

Application	Main (M/Mt)	Supply air Ducts Branch (M/Mt)	Return Air Passage (M/Mt)
Technical Rooms	350 - 500	250 - 300	280 – 400
Non - Technical	300 - 350	200 - 250	250 – 300

3.0 Ducting:

3.1 All ducts shall be fabricated from class-IV Galvanised steel sheets conforming to IS277, Flanges, mating duct sections and Stiffening angles shall be of rolled steel angles, all nuts, bolts and washers shall be of zone plated steel and all rivets shall be galvanized or made of magnesium aluminium alloy. Self tapping screws shall not be used.

3.2 Duct construction shall generally conform to IS 655 "Specification for metal air Ducts". Thickness of sheets for rectangular duct work shall however be as follows.

Longest Side (mm)	Minimum G.S.S (mm) Sheet thickness Gauge
-------------------	--

750 and below	0.63
751 to 1500	0.80
1501 to 2250	1.00
2251 and above	1.25

The thickness of all the four sides shall be determined by the thickness required for the longest side of the duct from the above table

3.3 The duct shall be stiffened by cross breaking or boarding at 300 mm centers for ducts upto 600 mm longest side and at 150 mm centers for ducts above 600 mm longest side. Insulated ducts need not be cross broken.

3.4 Stiffening angles shall be fixed to the sides of the duct by rivets.

3.5 Flanged joints shall be used at intervals not exceeding 2500 mm using angle iron of size as per I.S.S 655. Flanges shall be welded at corners first and then riveted to the duct. Bracing shall be provided as per I.S.S. 655.

3.6 All flanged joints shall have at least 8 mm thick felt lining between the flanges.

3.7 Suitable supply and volume control dampers shall be provided in the branch ducts for balancing the air quantities. Suitable links, levers and quadrants shall be provided for proper operation, control and setting of the dampers. Every damper shall have indicating device clearly showing the damper position at all time.

3.8 For measurement purposes openings in ducts such as for branch ducts, grills etc., shall not be deducted, however no measurements shall be recorded for volume control dampers, guide vanes, louvers etc.,

3.9 Fire dampers specified in the tender schedule shall be provided.

The construction of fire damper shall conform to the relevant codal requirement of local bye-laws or fire regulations, if any. Fire damper casing may be either with 3015 mm thick M.S. sheet without reinforcement or 18 G (1.25mm) thick M.S.sheet without reinforcements.

3.10. All joints shall be made of air tight and all interior surfaces be smooth, bends shall be made with radius not less than one half, the width of the duct or with properly designed interior curved vanes.

3.12 All ducts shall be supported on angle iron supports 35mm X 35mm X 5 mm in case of ceiling suspended ducts distance between support shall not be more than 2.45 mtrs. In case of straight run an additional support shall be provided wherever necessary such as bends etc., necessary hangers and brace etc., shall be provided by the contractor where ducts cannot be suspended from ceiling wall brackets or other suitable arrangements approved by the engineer-in-charge shall be adopted. A minimum of 6 mm neoprene or other vibration isolation packing shall be provided between the duct and angle from support at critical points.

3.13 Where metal ducts or sleeves terminate in wood work, brick or masonry openings tight joints shall be made by means of closely fitted heavy flanged collar.

3.14 Duct connections to the air handling units shall be made by inserting a double canvass sleeve 100 mm long. The sleeve shall be securely bonded and bolted to the duct and the unit casing.

3.15 Size of the frame work for R.A boxing shall be restricted to 1200 mm X 600 mm (` 4 X2 `) to prevent sagging.

4.0 Supply Air outlets and return air intakes:

4.1 All air outlets and intakes shall be of sheet steel connection/stainless steel/aluminium connection as the case may be in accordance with schedule of works.

4.2 Square or rectangular side outlets/intake shall have a flange frame with outside edge returned or curved 5 to 7 mm and fitted with a suitable flexible gasket. Supply air register shall have adjustable front louvers parallel to the longer dimension to give upto 22 1/2 vertical deflection and adjustable back louvers parallel to the short or dimension to achieve a horizontal bend air pattern to atleast 45 ° C . Return air grills shall have only front louvers. The outer framework of the grills shall be made of not less than 1.25 mm (18 gauge) steel sheet. The louvers shall be of not less than 0.63 mm (24 Gauge) steel sheet. The louvers may be spaced 18 mm or as advised by the Engineer-in-charge.

4.3 Square and rectangular ceiling outlets and intake shall have a flange flush with the ceiling into which it is fitted or be anti smudge type. The outlets shall comprise outer shell with duct collar and removable diffusing assembly. The outer shell shall not be less than 1.25 mm (18 gauge) steel and diffusing not less than 0.63 mm (24 gauge) steel.

4.4 Circular ceiling outlets and intakes shall have anti smudge outer cones as required. Anti smudge cones shall have the outer cones profile designed to reduce dirt deposit on the ceiling adjacent to the air outlet. The metal sheets used for construction shall not be less than 1.25 mm (18 gauge) steel.

4.5 All supply air outlets shall be so located or protected as to avoid any risk of condensate drops falling on the equipment, particularly at the time of starting of the plant.

4.6 Free area of the grills and diffusers must not be less than the specified percentage of the face area given in the schedule of work.

4.7 All supply air outlets shall be fitted with a volume control device which shall be located immediately behind the outlet and shall be fully adjustable from within the occupied space, without removing any access panel.

4.8 Volume control devices for circular outlet shall be opposed blade radial dampers or butterfly dampers in conjunction with equalizing grid. Opposed blade dampers shall be used for square and rectangular ceiling and wall outlets.

Annexure-X

SPECIFICATION FOR THE WORK OF PROVIDING EI & FANS

1. The work shall be done as per current CPWD specifications for Electrical works as amended from time to time and Indian Electricity Rules amended up-to-date.
2. The work shall be supervised by a qualified technical staff as per Clause 36.1 of PWD 8.
3. The layout of the work will be given by Engineer-in-charge or his duly authorized representative at the site of work.
4. The following wiring shall be done in separate conduits: -
 - a) Power plug wiring.
 - b) Light and fan point wiring
 - c) Emergency light point wiring (AC supply/D.C. supply)
 - d) Telephone wiring
 - e) Clock wiring
 - f) AC Unit wiring
 - g) Fire alarm wiring

h) UPS wiring.

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

6. Minimum number of PVC insulated 660/1100-volt grade copper Conductor cable confirming to IS: 694-1990 that can be drawn in one circuit.

Nominal cross Sectional Area of conductor in sq.mm (1)	Size of conduit					
	¾" (19/20 mm)		1" (25 mm)		1-1/4" (32 MM)	
	S (2)	B (3)	S (4)	B (5)	S (6)	B (7)
1.50	5	4	10	8	18	12
2.50	5	3	8	6	12	10
4	3	2	6	5	10	8
6	2	-	5	4	8	7
10	2	-	4	3	6	5
16	-	-	2	2	3	2
25	-	-	-	-	2	2

7. The earthing sets shall be provided in the presence of the Engineer-in-charge or his authorized representative.

8. Samples of all materials, fittings, accessories i/c Switchgears etc. shall be got approved from the Engineer-in-charge before using the same on the work. The rejected materials shall be removed immediately from the site of work.

9. The contractor shall submit completion plan as per clause 6A (1) 6B of the PWD 8 within in 30 days of the completion of the work, failing to submit the completion plan, he will be liable to pay a sum equivalent to 2.5% of the value of work subject to ceiling of Rs.15000/-. As per clause 6A (1) 6-B of the agreement. Completion plan should be impeccable and indicate the following: -

a) General lay out of the building.

b) Locations of main switchboard and distribution boards, indicating the circuit numbers controlled by them.

c) Positions of all points and their controls

d) Type of fittings viz., fluorescent, pendants, bulkhead, fans, E.F. Etc.

e) Name of work, Agreement no., actual date of completion, name of sub division/division

f) Name of agency.

10. The contractor will have to conduct the following tests at his cost in the presence and the satisfaction of Engineer-in-charge and intimate test results before final bills are paid. Nothing extra will be paid to him on this account.

a) Earth electrode resistance test.

b) Polarity test of switch

c) Insulation resistance test.

d) Earth continuity test of the surface-recessed conduit pipes

Note: The contractor if so desired shall arrange all necessary test instruments for the test.

11. Any damage done to the building, by the contractor during the execution of the work shall have to make good at his cost and risk. If he does not do it himself within a reasonable time (determined by Executive Engineer (E) then the same will be got done at his cost departmentally after giving notice to him.

12. The outlet boxes, IC boxes for switches and ends of conduits etc. for different categories of conduit runs catering for different type of Electric wiring as mentioned in clause (4) above shall be painted inside & outside with different colours each signifying the different categories mentioned so as to avoid mixing of various circuits and their wiring and nothing extra will be paid for this. Conduits shall be painted with 2 coats of red oxide paint before use.

13. At the time of laying conduit type in the slab and in recess the contractor will keep fish wire of 16/18 SWG GI Wire throughout conduit pipe and will have to take special care so that the conduits

do not pass through air- conditioning ducts, grills, columns, beams etc. if any such necessity is foreseen, special written permission of the EE(E) will be obtained before such work is carried out. In case of failure the contractor will not be paid on this account.

14. The successful tenderer should recess the conduit, junction box, switch board, D.B. etc, in the walls before they are plastered and in collaboration with progress of building work. Any damaged thus done will have to be made good at the time of the contractor. The conduit pipes should be mechanically and electrically continuous.

15. All the IC distribution board, sub-main board and their complete fitting shall be sign written clearly indicating the number of distribution board, the type of load it is serving and the number of circuit contained in the distribution box shall be placed in a tabular form on the reverse of the cover of the distribution box.

16. Underground cables both of 1.1 KV and of 11 KV grade should be subjected to pressure/insulation tests before and after laying the same in the ducts. In case of unsatisfactory test, the cost of all repairs and replacements and all extra work of removal and relaying will have to be made good by the contractor at his own risk

17. While making the end connections of wires, no strand shall be cut and the termination of wire shall be done with necessary lugs and ferrules without any extra payment.

18. The bus bars of single phased distribution box shall be solid strip.

19. The lugs should be provided while terminating (8 SWG GI/ All Cir. Al.) wire for earth continuity without any extra payment.

20. The termination of conduits etc. in the junction box to be provided above D.B should be done by making proper holes instead of cutting the box.

21. The contractor will have to make arrangements to take material to site of work at his own cost and risk. Octroi if paid by the contractor for the materials supplied by the Department the same can be claimed by him against original voucher.

22. If any conduits laid before the award of this work, the cover for the same will be made from the contractor at the same rate which was given for laying the pipes for this particular work.

23. List of Approved Makes Attached

24. Additional requirement of surface conduit work

a) The outer surface of conduit i/c all bends, unions, tees, junction boxes etc. forming part of the conduit system, shall be adequately protected against rust. When such system is exposed to weather, by being painted with two coats of red oxide paint applied before they are fixed.

b) Conduit pipe shall be fixed by saddles, screws to suitable approved plugs with screws in an approved manner at an interval of not more than one meter, but on either side of the couplers or bends of similar fittings, saddles shall be fixed at a distance of 30 cm from the center of such fittings.

25. Additional requirement of recessed conduit work.

a) The chase in the wall shall be neatly made and of ample dimensions to permit the conduit to be fixed in the manner desired.

b) In case the building under construction, the conduits shall be buried in the wall before plastering and shall be finished neatly after erection of conduit.

c) In case of exposed brick/rubble masonry work special care shall be taken to fix the conduit and accessories in a position along with the building.

The conduit pipe shall be fixed by means of staples, J-hooks or by means of saddles, not more than 60 cm apart or by means of approved means of fixing.

e) All threaded joints of conduit pipes shall be treated with some approved preservative compound to secure protection against rust.

26. The entire system of metallic conduit work including the outlet boxes and other metallic accessories shall be mechanically and electrically continuous by proper screwed joints, or by double check nuts at terminations. The conduit shall be continuous when passing through walls or floors.

27. a) Cable carrying DC may, if desired, be bunched, whatever their polarity, but cables carrying AC, if installed in metal conduit shall always be bunched so that the out going and return cables are drawn into the same conduit.

b) Where the distribution is for single-phase loads only, conductors for these phases shall be drawn in one conduit.

c) Phase & neutral shall be in different color (Black neutral, Red, Yellow, Blue for phase) in case of single-phase wiring. Red, Yellow, Blue for phases and Black for 3-Phase wiring shall be used.

28. Classification of points.

i) Residential buildings:

a) Group 'A' for point wiring for type I, II, III and IV residential quarters and hostels.

ii) Non residential buildings: Group 'C' for all types of non-residential buildings such as offices, hospitals, laboratories, Educational institutions, libraries etc.

29. Measurement of point wiring:

(Please see CPWD General Specification for Internal Works - 1994)

(i) Unless otherwise specified there shall be no leaner measurement for point wiring for light points, fan points, exhaust fan points and call bell points. These shall be measured on unit basis by counting.

(ii) No separate measurement will be made for interconnections between points in the same distribution circuit and for the circuit protective (loop earthing) conductors between metallic switch boxes.

(iii) A light point controlled by two numbers of two way switch shall be measured as two points from the fittings to the switches on either side.

30. Joints in Wiring:

(i) No bare conductor in phase and or in neutral or twisted joints in phase, neutral and or protective conductors in wiring shall be permitted.

(ii) There shall be no joints in the through-runs of cables. If the length of final circuit or sub main is more than the length of a standard coil, thus necessitating a through joint, such joints shall be made by means of approved mechanical connectors in suitable junction boxes.

(iii) Termination of multi-strand conductors shall be done using suitable crimping type thimbles.

31. Capacity of circuits:

(a) Lighting circuit shall not have more than a total of 10 points of light, fan & socket outlets or a total connected load of 10 points of light, fan & socket outlets or a total connected load of 800 watt, whichever is less.

(b) Power circuit shall be designed with only one outlet per circuit in non-residential buildings. The circuit shall be designed based on the load, where not specified, the load shall be taken as 1 KW per outlet.

(iii) Load more than 1 KW shall be controlled by an isolator or miniature circuit breaker.

32. Bus bars:

(i) Bus bars shall be of sufficient cross section so that a current density of 130 A/ Sq. cm for aluminium bus bars and 160 A/ Sq. cm for copper bus bars.

(ii) The cross section of neutral bus bar shall be same as that of phase bus bar for bus bar of capacity up to 200 A.

iii) Minimum clearance between bus bars.

Phase to Earth - 26 mm

Phase to Phase - 32 mm

33. Test certificate.

On completion of an electrical installation (or an extension to an Installation), costing more than Rs. 20,000/- a certificate shall be furnished by the contractor, counter signed by the certified supervisor or under whose direct supervision the installation was carried out. This certificate shall be in prescribed form as given in APPENDEX 'F' in addition to the test certificate required by the Total Electric Supply authorities.

34. (i) Care shall be taken by the contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall be also removing all unwanted and waste materials arising out of his work from the site, at his cost.

(ii) When the work is executed in occupied buildings, there should be minimum of inconvenience to the occupants. The work shall be programmed in consultation with

Engineer-in-charge and occupying Department. If so required, the work may have to be done even before and after office hours.

(iii) The contractor shall not tamper with any existing installations including their switching operations or

connections there to without specific approval from the Engineer-in-charge.

(iv) No structural member in the building shall be damaged / altered, without prior approval from the competent authority through the Engineer-in-charge.

(v) General workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall be confirmed to sound Engineering practice.

Contractor

Engineer in Charge

PRICE SCHEDULE

Sl. No.	Item Description	Quantity	Units	BASIC RATE	GST %	TOTAL AMOUNT Without Taxes	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
	2	4	5	13	14	53	54	55
1.00	Package AC Units Dismantling and Transportation from Machilipatnam							
1.01	Removing of the existing Ceiling height Aluminum Partition in the AC Plant room at Machilipatnam for facilitating removal of Package AC Units and shifting to the same place in the exchange premises.	1	Job			0.00	0.00	INR Zero Only
1.02	Dismantling of existing 7 TR Package AC units (Both indoor & out door) including refrigerant pipe line, MS trays & Cabling, Condenser stands, other related items at MBM Machilipatnam as required for use at Vijayawada.	5	Jobs			0.00	0.00	INR Zero Only
1.03	Transportation of the dismantled PAC Units including 10 Nos Condensers from the terrace floor and 5 Nos indoor units from First floor, including all other dismantled items such as copper refrigerant pipes, power cables, control cables, cable trays, dampers and other accessories from MBM Machilipatnam to First floor of DTAX building, Vijayawada, including loading and unloading with the help of suitable manpower and hoisting cranes including vehicle hiring charges etc. complete as required.(Distance 68 Km)	1	Job			0.00	0.00	INR Zero Only
2.00	Repairs & Installation at NIB Vijayawada							

2.01	Providing complete water servicing to the 1no 7TR ID unit & 2numbers of OD units , complete cleaning of coils, unit surface & making good as required.	5	Jobs			0.00	0.00	INR Zero Only
2.02	Installation of the 7TR Package type AC units along with existing volume control dampers and air cooled condenser on existing PCC foundation/ floor /existing MS structure, necessary electrical connections, etc as per site requirement.	5	Jobs			0.00	0.00	INR Zero Only
2.03	Providing Nitrogen Pressure Testing, Arresting Leakages, Vacuumization, observing the vacuumization for 24 hours for one circuit making system ready for refrigerant gas filling as required.	10	Jobs			0.00	0.00	INR Zero Only
2.04	Supplying and Filling of R ₂₂ Refrigerant for Package AC units including testing as required.	75	Kgs			0.00	0.00	INR Zero Only
2.05	ITC of existing Three Phase Blower Motor which shall be directly coupled to the fan blade suitable for operation on 230Volts single phase AC supply suitable for the above shifted PAC units including interconnections , testing etc as required. Note: Blower motor will be recovered from OMCR Package AC Plant at the same floor.	1	Jobs			0.00	0.00	INR Zero Only
2.06	Providing re-winding to the existing faulty OD fan motors of with suitable copper conductor including insulating the winding , removing & refixing and transportation, making good , testing as required	2	Job			0.00	0.00	INR Zero Only
2.07	ITC of existing Single phase Out Door condenser fan motor including recovering from the nearby AC Plant in the same compound, along with fan blades, bird grill etc testing and commissioning etc as required.	2	Job			0.00	0.00	INR Zero Only

2.08	S/F of A-29 size V belts to the blower motor including replacement of damaged belts etc as required	10	Nos			0.00	0.00	INR Zero Only
2.09	S/F of the Electronic Thermostats for the Package AC Units including necessary control wiring as required. (M/s Sub Zero 7510 or similar superior make)	10	Nos			0.00	0.00	INR Zero Only
2.10	Supplying and fixing of Catchall Drier in PAC unit including removing of the drier, transportation and labour charges etc. as required.	5	Nos			0.00	0.00	INR Zero Only
2.11	S/F the following copper spares to the above Packaged AC plant installation including welding to the copper refrigerant pipeline, testing & making good as required.							
2.11	a) 5/8'' couplings	20	Nos			0.00	0.00	INR Zero Only
2.11	b)5/8'' elbows	50	Nos			0.00	0.00	INR Zero Only
2.11	c) 7/8'' couplings	30	Nos			0.00	0.00	INR Zero Only
2.11	d) 7/8'' elbows	30	Nos			0.00	0.00	INR Zero Only
2.12	e) 7/8'' to 5/8'' reducers	20	Nos			0.00	0.00	INR Zero Only
3.00	GI Sheet Ducting & Misc works							
3.01	Providing , fabricating and fixing GI sheet ducting of the following sheet thickness and suitable sizes as required for fixing the PAC discharge air outlet connections with existing Ducting , fixing of the canvas connections, re alignment etc as required.							
3.01	a) 0.63 mm (24 gauge)	6	Sq. Mtr			0.00	0.00	INR Zero Only

3.02	Modifications to the existing supply Air branch ducts to suit the new package AC Units , by removing form the plenum, cutting bending, modifying to suit the openings of the Sidwal Package AC Unit supply air outlet size, re fixing the same making temporary arrangements to avoid leakages of cool air to switch room during execution of work etc as required.	5	Jobs			0.00	0.00	INR Zero Only
3.03	Providing painting to the condenser units cleaning of deposited rust etc for 10 out door units	1	Job			0.00	0.00	INR Zero Only
4.00	Dismantling & Shifting of Existing Package AC Units at NIB ,VJA							
4.01	Dismantling of existing 5 Nos 7 TR Voltas Package AC units (Both indoor & out door) at DTAX, Building Vijayawada without disturbing the existing copper pipe lines, stands etc as required.	5	Job			0.00	0.00	INR Zero Only
4.02	Shifting of the indoor units and outdoor units from first floor and Terrace of pump room to ground floor by engaging Crane, Hoist , Manual Arrangement , shifting the units to a safer place in the exchange premises as required.	5	Job			0.00	0.00	INR Zero Only
9.00	Supplying and fixing of AMF controller in the above 15 kVA single phase DG set with all accessories as per attached specifications and Installaton, testing ,Commissioning and conducting the all functional tests required by the engineer incharge i/c modification of existing panel board for fixing above controller etc complete as reqd (Utopia GCU 104/SS make)	4	Jobs			0.00	0.00	INR Zero Only
Total in Figures		INR Zero Only						