

Bharat Sanchar Nigam Limited

(Electrical Wing)

O/o The Executive Engineer (E) BSNL Electrical Division-I

No.22, Kellys Road, Chennai - 600010. Office: 044-26448484 E-mail: ee1chennai@gmail.com

E-TENDER DOCUMENT

Name of Work: Shifting and re-Installation of the 4 Nos of PAC units for OFC at 1st floor of TE Flower Bazar LE Bldg, Chennai.

NIT No: 57/EEE/ED-I/CH/2020-21 Date of opening: 07-12-2021

This tender document contains 32 pages only.

For E Tender Help Desk of M/s ITI Limited.Tel.No.011 49424365; or Shri. Dinesh , (Mobile: 9894191904), Shri Kirubakaran (Mobile No9962676264), Representatives of M/s ITI Limited & MailId:twhelpdesk680@gmail.com,bsnltwhelpdesk@gmail.com

Contractor Page 1 of 34 Executive Engineer

INDEX

SL.No	Description	Page no.
1	Front cover and Index	2
2	Notice Inviting Tender form - BSNL EW 6	3
3	General Instructions to the Bidders	9
4	Undertaking to abide by EW 6 & EW 8 (Form 'A')	11
5	Undertaking regarding EPF & ESI provisions (Form 'B')	12
6	Performance report of works (Form 'C') & No Near relative working certificate (Form 'D')	13
7	Model form of Bank Guarantee for EMD (Annexure-I)	14
8	Model form of Performance security Guarantee bond (Annexure-II)	15
9	BID SECURITY / EMD UNDERTAKING & DECLARATION (Annexure-III)	16
10	Important Instructions to tenderer	17
11	Schedule of Quantities	19
12	Technical Specification	24
13	List of Approved Makes	29
14	List of relevant Indian Standards	31
15	Proforma Schedules	32
16	BSNL EW – 8 form	33-34

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE

The Executive Engineer (Elect), BSNL, **Electrical Division-I, Chennai** on behalf of the CMD, Bharat Sanchar Nigam Limited, invites online Item rate bids from eligible bidders in Single bid system for the following work:

1	Name of work	Name of Work: Shifting and re-Installation of the 4 Nos of PAC units for OFC at 1st floor of TE Flower Bazar LE Bldg, Chennai.
2	Estimated cost put to tender (Rs.)	Rs.455855/- (Excluding GST)
3	Earnest Money (Rs.)	Nil under taking as per Annexure III (page no 16 to be submitted)
4	Period of completion	ONE month
5	Last date & time for downloading of tender document by bidder	Up to 14:55 Hrs. on 07-12-2021
6	Last date & time for online submission of tender	Up to 15:00 Hrs. on 07-12-2021
7	Last date & time for submission of original Tender cost and EMD	Up to 15:00 Hrs. on 07-12-2021
8	Date and time for opening of tender	15:30 Hrs. on 07-12-2021
9	Tender cost (Non refundable)	Rs.500/- (+) GST 18%=Rs 590/-
10	E-tender Processing fee (Non refundable)	0.05% of estimate cost subject to the minimum of Rs.500 and Maximum of Rs. 5000 plus GST

(a) Financial Norms:

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.

(b) Physical Norms:

- 1) BSNL enlisted contractors in Electrical category of respective class as per their tendering limits. (OR)
- 2) Experience of having successfully completed similar works in BSNL during last 7 years ending last day of month previous to the one in which applications are invited, should be either of the following:

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

(OR)

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

(OR)

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

Note :- Similar work means "Annual Maintenance Contract of PAC/HPAC UNITS /REPAIRING/SERVICING OF PAC/HPAC UNITS"

IMPORTANT NOTE:

- 1. The self-attested copies of the following documents shall be scanned and uploaded to the e-tendering website within the period of tender submission. Online bid documents submitted by intending bidders shall be opened only of those bidders, who have scanned and uploaded the following documents (and whose uploaded documents are found to be in order), otherwise the bid will not be opened and shall lead to disqualification.
 - a. Tender Fee in the prescribed format
 - b. EMD in the prescribed format
 - c. Certificate of Financial Turnover from Chartered Accountant (Not applicable for BSNL enlisted Electrical contractors)
 - d. Documents fulfilling Eligibility criteria (Please note that in case the bidder is authorised by the manufacturer, the original authorisation letter is to be scanned and uploaded)
 - e. Enlistment certificate issued by BSNL, if applicable
 - f. Valid HT Electrical license issued by licensing authority, Govt. of Tamil Nadu(if applicable)
 - g. GST Registration Number Details
 - h. PAN Card
 - i. EPF and ESI Registration certificate (if applicable)
 - j. Undertaking to abide by EW-6 and EW-8 (Form 'A')
 - k. Undertaking regarding EPF and ESI provisions (Form 'B')
 - I. Certificate of work experience issued by client department (Form 'C') if applicable
 - m. Undertaking regarding No Near relative working certificate (Form 'D')

Not uploading the above documents, (even if the documents are submitted physically) shall lead to disqualification.

2. The Physical Tender Fee, EMD, the original authorisation letter by the manufacturer (wherever applicable), (the scanned copies of which are uploaded) shall be deposited in the tender box available in the office of tender opening authority, by the bidder before 3:00 PM on the tender opening date, failing which the tender shall not be opened.

BSNL EW-6

Bharat Sanchar Nigam Limited Electrical Wing

Electrical Division: ED-I,Chennai Sub Division:VI, Chennai

Item rate tenders on single bid system are invited on behalf of CMD,BSNL for the work Name of Work: Shifting and re-Installation of the 4 Nos of PAC units for OFC at 1st floor of TE Flower Bazar LE Bldg, Chennai. from the eligible bidders as per NIT notification. The enlistment of the bidders should be valid on the opening date of tender. In case the date of opening of tender is extended, the enlistment of bidder should be valid on the original date of opening of tender.

- Intending bidder is eligible to submit the bid provided that he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority as per the eligibility conditions mentioned in the NIT notification page.
- 2. The work is estimated to cost **Rs. 455855/- (Excluding GST)** This estimate, however, is given merely as a rough guide.
- 3. Agreement shall be drawn with the successful bidder on prescribed form as amended up to the date of opening of tender. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 4. The time allowed for carrying out the work will be **One month** from the 10th day after the date of written order to commence the work.
- 5. The site for the work is available / or the site for the works shall be made available in parts. The successful bidder shall execute the work in coordination with other agencies working in the campus.
- 6. The bid documents consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.tenderwizard.com/BSNL at free of cost. The BSNL EW-8 document can be seen from the web site www.chennai.bsnl.co.in at free of cost.
- 7. After submission of the bid, the bidder can re-submit revised bid any number of times but before last time and date of submission of tender as notified. While submitting the revised bid, bidder 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 tender as notified.
- 8. The Tender Fee in the form of Demand Draft issued by the Nationalized / Scheduled bank authorized by the Reserve Bank of India, drawn in favour of BSNL, CHENNAI TELPHONES payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
- 9. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000)/ CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of BSNL, CHENNAI TELPHONES payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the EMD in the form of DD shall be 60 days from the date of opening. If the EMD is in the form of CDR/FDR/BG, the validity shall be 180 days from the date of opening. In case of L1 bidder, the validity of CDR/FDR/BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit.
- 10. The Physical TENDER COST and EMD of which the scanned copy is uploaded shall be deposited by all the bidders before 3:00 PM on the tender opening date, failing which the tender shall not be opened.

- 11. Interested bidder who wishes to participate in the bid shall pay the e-tender processing fee to M/s. ITI Limited through their e-gateway by credit / debit card / internet banking / RTGS / NEFT facility.
- 12. All the documents as specified in the tender document shall be scanned and uploaded to the e-Tendering website within the period of bid submission.
- 13. Online bid documents submitted by intending bidders shall be opened only of those bidders, who have deposited e-Tender Processing Fee with M/s ITI Limited and Earnest Money Deposit and other documents fulfilling eligibility criteria, scanned and uploaded are found in order.
- 14. The last date for online submission of bid is 07-12-2021 up to 3:00 PM and the bid submitted shall be opened at 3:30 PM on 07-12-2021. If a holiday is declared on the tender opening day, the tender will be opened on the next working day.
- 15. The e-Tender processing fee is non-refundable.
- 16. Performance Guarantee: The bidder is required to furnish Performance guarantee for an amount equal to 5% of the contract value in the form of bank guarantee/CDR/FDR/DD (of a nationalized/ Scheduled Bank in a standard format) within two weeks from the date of issue of acceptance letter. This period can be further extended by the Engineer-in-charge up to a maximum period of two weeks on written request of Bidder. The validity period of the performance security in the form of performance bank guarantee shall be: Three Months from the date of actual completion of work, for AMC works; and One year from the date of actual completion of work for all other works. In case the bidder fails to deposit the said performance guarantee within the stipulated period, including the extended period if any, the Earnest Money deposited by the bidder shall be forfeited automatically without any notice to the bidder and the bidder will not be allowed to participate in the re tendering for the same work.
- 17. **Security Deposit**: In addition to Performance guarantee stated above, a sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum be deducted with the sum already deposited as earnest money, will amount to security deposit of 5% of the contract value of the work. **The security deposit shall be released after an observation period as follows: Three Months from the date of actual completion of work, for AMC works; and One year from the date of actual completion of work for all other works.**
- 18. In case any discrepancy is noticed in the documents as uploaded at the time of submission of the bid online, then the bid submitted shall become invalid and the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further, the bidder shall not be allowed to participate in the retendering process of the work.
- 19. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the BSNL and local conditions and other factors having a bearing on the execution of the work.
- 20. The competent authority on behalf of the CMD does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

Contractor Page 6 of 34 Executive Engineer

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

- 21. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable to rejection.
- 22. Agreement shall be drawn with the successful bidder on prescribed form. Bidder shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.
- 23. The bidder should give a certificate as per the following that none of his/her relative is employed in BSNL units as per **Form 'D'**. In case of proprietorship firm, certificate will be given by the proprietor and for partnership firm certificate will be given by all the Directors of the company.
 - a. Near relatives of all BSNL employees either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of BSNL. The near relatives for this purpose are defined as:
 - i. Members of a Hindu Undivided family.
 - ii. They are husband and wife.
 - iii. The one is related to the other in the manner as father, mother, son(s) & son's wife(daughter-in-law), Daughter(s) & daughter's husband(son-in-law), brother(s) & brother's wife, sister(s) & sister's husband(brother -in-law).
 - b. The company or firm or any other person is not permitted to tender for works in BSNL unit in which his near relative(s) is(are) posted. The unit is defined as SSA/Circle/Chief Engineer/Chief Archt./Corporate office for non-executive employees and all SSA in a circle including circle office/Chief Eng./Chief Archt./Corporate office for executive employees (including those called as Gazetted officers at present). The bidder should give a certificate that none of his/her such near relative is working in the units as defined above where he is going to apply for tender/work, for proprietorship, partnership firms and limited company certificate shall be given by the authorized signatory of the firm. Any breach of these conditions by the company or firm or any other person, the tender/work will be cancelled and earnest money/performance guarantee will be forfeited at any stage whenever it is so noticed. BSNL will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit.
 - c. No employee in BSNL/ Govt. of India is allowed to work as a contractor for a period of two years of his retirement from service without the prior permission. The contract is liable to be cancelled if either the bidder or any of his employees is found at any time to be such a person who had not obtained the permission as aforesaid before submission of tender and engagement in the bidders service.
- 24. The tender for the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders. If any bidder withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the BSNL, then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.
- 25. The agency has to comply with the provisions of EPF and miscellaneous provisions Act-1952 and employees provident fund scheme-1952 as amended up to date in respect of labours/employees engaged by them for this work. Any consequence arising due to non- complying of provisions as specified above shall be the sole responsibility of the firm only. The agency shall give an undertaking to this effect as per **Form 'B'**.
- 26. **Extension of Validity of tender:** In case, where the letter of award of work cannot be placed within the validity period of the tender, the BSNL can request the bidder to extend the validity of their

respective tenders and the Earnest Money deposit by a reasonable period. In such cases, extension of validity of Earnest Money deposit by 30 days beyond the extended validity date of tender should also be asked for. While BSNL can make the request for extension, the tenderer is free to either extend the validity or refuse the request to extend the validity.

- 27. 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.
- 28. This notice inviting tender shall form a part of the contract document. The successful bidder, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:
 - a. The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender, subsequent amendments issued and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b. Standard BSNL EW-8 form.

GENERAL INSTRUCTIONS TO THE BIDDERS

- 1. The intending bidder must read the terms and conditions of BSNL-EW 6 carefully. He should only submit his bid, if he considers himself eligible and he is in possession of all the documents required.
- 2. Information and instructions for bidders posted on website shall form part of bid document.
- 3. Applicants are advised to keep visiting the above mentioned website from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. An incomplete application may be liable for rejection.
- 4. Those bidders not registered on the website mentioned above, are required to get registered themselves beforehand. The intending bidder must have valid class-III digital signature to submit the bid.
- 5. On opening date, the bidder can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
- 6. Bidder can upload eligibility documents in the form of JPG format or / and PDF format. Documents uploaded in any other format, which could not be opened may result in non opening of the bids.
- 7. Bidder must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour. 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)
- 8. Even though any bidder may satisfy the above requirements, he would be liable to disqualification if he has:
 - a. Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
 - b. Record of poor performance such as abandoning work, not properly completing the contract, or financial failures / weaknesses etc.
- 9. If any information furnished by the bidder is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in BSNL. The BSNL reserves the right to verify the particulars furnished by the applicant independently.
- 10. GST and any other tax applicable in respect of this contract as applicable shall be borne by the bidder himself. The bidder shall quote his rates considering all such taxes. The TDS as per the Govt. regulations will be recovered from the contractor.

11. Tender Evaluation:

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

(whose decision shall be final and binding) be attributable to delay in execution of work within the control of contractor.

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

14. Bye laws Indemnity against liabilities:

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

15. 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.

- 16. Indulging of contractor in criminal /antisocial activities and cases under investigation/charge sheeted by CBI or any other government agencies etc.:
 - If the CBI/Independent External Monitor (IEM) /Income tax/ Sales Tax /GST/Central Excise/Custom Departments recommend such a course Action will be taken as per the directions of CBI or concerned department.
- 17. As a general notion, the terms and conditions/instructions contained in various pages of this document are addressed assuming the bidder as 'Male'. However, the same shall remain and assumed to be addressed in case of 'Female' bidder also, except for the gender centric words, which shall be 'female' centric at appropriate places.

FORM 'A'

Undertaking to abide by EW 6 & EW 8

"1	Son of
that I have read the complete bid docum	hereby give an undertaking nent and I am aware of all the clauses and sub clauses of BSNL EW
6 & 8 forms and I confirm that I will ab BSNL EW 6 & 8 forms.	ide by all the terms and conditions available in original standard
(Seal of the firm)	(Signature of Bidder)

Contractor Page 11 of 34 Executive Engineer

FORM 'B'

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

(Seal of the firm)

	Performance report of works	ORM 'C'
1.	Name of work	
1.	Name of work	
2.	Agreement no.	
3.	Final Value of Work Done	
6.	Date of start	
7.	Actual date of completion	
8.	Performance: Satisfactory / Not Satisfactory	
	Dated: Executive Engineer or Eq	juivalent /above
	No Near relative working certificate	FORM 'D'
that no details false/in	Son of Shri	ed in BSNL unit as per ormation given by me is

(Signature of Bidder)

ANNEXURE I

MODEL FORM OF BANK GUARANTEE (For submitting EMD)

Whereas	(hereinafter called "the contractor(s)")/ ha	as
submitted its Tender dated	for the work	
KNOW ALL MEN by these presen		
OF		се
		of
for which p	ayment will and truly to be made of the said BSNL, the Bar	٦k
binds itself, its successors and as	igns by these presents.	
THE CONDITIONS of the ob	ligation are:	
If the Contractor(s) withdraw on the Tender Form: or	vs its Tender during the period of Tender validity specifie	∌d
If the Contractor(s) having I during the period of Tender	een notified of the acceptance of its Tender by the BSN ralidity.	۱L
(a) Fails or refuses to exec	ute the Contract.	
(b) Fails or refuses to fur Tender document.	oish security Deposit in accordance with the conditions	of
demand, without the BSNL havion the BSNL will note that the amo	IL up to the above amount upon receipt of its first writteng to substantiate its demand, provided that in its demanant claimed by it is due to it owing to the occurrence of orecifying the occurred condition or conditions.	d,
- /	ce as specified in the Tender Document up to and including of the Tender validity and any demand in respect there han the specified date/dates.	_
Signature of the Bank	Signature of the Witness Name of Witness	

Address of Witness

ANNEXURE II

PERFORMANCE SECURITY GUARANTEE BOND

'the said bidder(s)') from the dated	NL (hereinafter called 'BSNL') having agreed to exempt demand under the terms and conditions of an ag made between and reinafter called "the said agreement"), of security dep	reement/Advance Purchase Order No for the supply of
bidder (s) of the terms and	conditions contained in the said Agreement, on prwe, (name of the bank)	roduction of the bank guarantee for
bank") at the request of amount not exceeding	gainst any loss or damage caused to by breach by the said Bidder(s) of any of the terms or conc	eby undertake to pay to the BSNL an or suffered or would be caused to or
guarantee without any demur, mor conditions contained in the sidemand made on the bank shall the decision of BSNL in these co	do hereby undertake to pay the nerely on a demand from the BSNL by reason of breach be aid Agreement or by reason of the bidders(s)' failure to be conclusive as regards the amount due and payable be unts shall be final and binding on the bank. However, or reding	by the said bidder(s)' of any of the terms perform the said Agreement. Any such by the Bank under this guarantee where
bidder(s)/supplier(s) in any suit obeing absolute and unequivocal.	the BSNL any money so demanded notwithstanding a or proceeding pending before any court or tribunal relatin The payment so made by us under this bond shall be val applier(s) shall have no claim against us for making such pa	g thereto our liability under this present lid discharge of our liability for payment
force and effect during the perio enforceable till all the dues of the discharged or tillhave been fully or properly carrie under this guarantee is made on	further agree that the guaranted that would be taken for the performance of the said agree BSNL under or by virtue of the said Agreement have be (office/BSNL) BSNL certifies that the termed out by the said bidder(s) and accordingly discharges the us in writing on or before the expiry of TWO/TWO AND edischarged from all liabilities under this guarantee there	greement and that it shall continue to be been fully paid and its claims satisfied or is and conditions of the said Agreement his guarantee. Unless a demand or claim HALF/THREE YEARS (as specified in P.O)
without our consent and without the said Agreement or to extend time to time any of the powers of conditions relating to the said of extension being granted to the said	further agree with the BSNL that affecting in any manner our obligations hereunder to be time of performance by the said bidder(s) from time to the exercisable by the BSNL against the said Bidder(s) and to agreement and we shall not be relieved from our liability aid Bidder(s) or for any forbearance, act or omission on the by any such matter or thing whatsoever which under the elieving us.	vary any of the terms and conditions of ime or to postpone for any time or from forbear or enforce any of the terms and lity by reason of any such variation, or ne part of the BSNL or any indulgence by
6. This guarantee will not be disc	harged due to the change in the constitution of the Bank	or the Bidder(s)/supplier(s).
7. We (name of the bank) the previous consent of the BSNI	lastly undertake not to revoke this gu _ in writing.	uarantee during its currency except with
Dated the da	ıy of	
	for	(indicate the name of bank)

Annexure-III

Bid Security/EMD DECLARATION(As per the BSNL CO Ltr No.BSNLCO-MMT/12(15)/1/2020-MMT dated 05-12-2020)

	TY / EMD UNDERTAKING & DECLARATION	
firm M/sto as bidder) have read, und	And authorized since the control of	ignatory of the reafter referred
No	do hereby undertake and declare that: e agreement & commence the work in time as used to or would be caused to or suffered b idder(s) of any of terms or conditions contain on of the bidder(s) failure to perform the said a	per BSNL y the BSNL by ned in the said
3. If anything is found false a any time.	and / or incorrect and / or reveals any suppre	ession of fact at
Enterprise or Non MSE bidd	red with body specified by Ministry of Micro, S der claiming any concessional benefits is aw to obey any of the contractual obligations.	
right to debar our tender off suspend/Debar/Ban for a per	nat under any/all the above conditions, BSN fer / cancel the LOA/purchase/work order if riod of one year from the date of such order/i any further work/contract by BSNL for one yea	issued, and to nstance. BSNL
In lieu of EMD/Bid Sec	curity, this declaration is submitting.	
Date:	Signature of the tenderer	
Place:tenderer	Name of	

Along with date & Seal

IMPORTANT INSTRUCTIONS TO THE TENDERERS

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

1 (i) INCREASE / DECREASE OF TENDERED QUANTITY

- a) BSNL will have the right to increase or decrease up to 25% of the Contract value depending upon the requirement of goods and services specified in the schedule of items without any change in the unit price or other terms and conditions at the time of award of contract.
- b) In exceptional situation where the requirement is of an emergent nature and it is necessary to ensure continued supplies from the existing vendors, the purchaser reserves the right to place repeat orders up to 50% of the quantity of goods and services contained in the running tender/contract within a period of 12 months from date of award of work at the same rate or a rate negotiated (downwardly) with the existing vendors considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.

2) TERMS OF PAYMENT:

Quarterly Payment shall be made after completion of maintenance period. With each bill, a certificate from the Contractor that maintenance has been carried out properly and testing / drills etc. required during the period have been performed in addition to the penalty explicitly indicated under penalty clauses.

3) **EPF PROVISIONS:**-

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

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

4) STORES AND SAFETY

All the stores and materials required for the satisfactory completion of the work shall be arranged at work site by the contractor from his own source. Space for storing the same materials may be provided on request from the contractor. However safe custody of the material stores at site will be responsibility of the contractor.

5) CO-ORDINATION AT SITE

At the site of work more than one agency may be working. Full cooperation shall be extended to other agencies during the 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 to normal routine work.

6) CHANGES IN SPECIFICATIONS

The BSNL reserves the right to make changes in respect of specifications of work if in its opinion same is found necessary. However such alterations shall be made after mutual discussions and

agreement between the BSNL and the contractor. Any price implications in this regard shall be mutually discussed and agreed up on in terms of clause 12 of EW forms. The BSNL as matter of principle will not permit modifications by the contractor in design /specifications of any document /material. However the same can be agreed upon by the BSNL under exceptional circumstances where

a) The same is necessitated due to non-availability of material/components of certain specifications/make.

Or

b) Such alterations constitute an improvement in the opinion of BSNL. Prior approval is necessary before undertaking any alteration/modification in the specifications of the equipment.

7) I.S. Standards:

The entire system shall conform to relevant BIS including safety standards as amended up to date. Where IS standards are not available the British standard(s) shall be followed. In case of conflict, the requirements of these specifications shall be given over-riding priority. The electrical and earthing work shall be carried out as **per CPWD specifications** for electrical works (internal) and electrical works (external) as amended up to date. A list of relevant standards, approved makes of equipment is furnished and forms part of the tender document.

Contractor Page 18 of 34 Executive Engineer

	NAME OF THE CONTRACTOR												
	SCHEDULE OF QUANTITIES												
SI. no	Description of Item	Qty	Unit	. Unit GST	g GST set)	CGST	-	SGS	ST		5	GST	code
				Rate per Unit excluding GST	Total Amount Sxcluding GST (Net cost)	CAN C	Amou nt in Rs	%	Amou nt in Rs	%	Amou nt in Rs	Total Amount including GST	HSN/SAC code
					<u> </u>		Rs.		Rs.		Rs.	Rs.	
1	2	3		1000	e 2000.	7	8=C ol. (6 x 7)	9	10= col. (6x 9)	11	12= col. (6*1 1)	13= col. (6+ 8+1 0+1 2)	14
1	Dismantling, Shifting, Transportation of existing 4 Nos of 7TR Precision type PAC units from Harbour TE to 1st floor of Flower Bazaar Exchange including all accessories, cables, refrigerant pipes, condensor supports, indoor unit supports, refrigerant pipe supports indoor & outdoor units, Distribution power panel, and all accessories loading & unloading at site i/c positioning of indoor unit and keeping other items at I floor etc complete as required	1	Job						0.00		0.00	0.00	
2	S/F of the the cable trays for extension of power supply to units along with supports i/c all accessories etc complete as required (300mmx75mmx1.6mm thick ladder type)	55)			0.00		00:0		00:0		00:0	00:00	

Contractor Page 19 of 34 Executive Engineer

Name 3	of Work: Shifting and re-Installation of the 4 Nos of PAC und S/F of the the dismantled trays for refrigerant pipe lines made of MS members along with supports i/c all accessories etc complete as required	ts for OFC a	nt 1st floor	of TE Flower		Bldg, Chenna	ai. 00'0	0.00	0.00	0.00	
4	Laying of the recovered refrigerant pipe lines of size for hot and cold circuits, leak and pressure testing of refrigerant lines, vaccumising, insulation of refrigerant piping arrangement, welding etc, complete as per specifications(Hot Gas Line, 7/8" dia. and Liquid Line, 5/8" dia.)	60	mtr		0.00		0.00	0.00	0.00	0.00	
5	Laying of recovered 4 core 2.5 Sq,mm PVC insulated PVC sheathed copper conductor armoured UG cable including cable gland end termination etc as required	60	mtr		0.00		0.00	0.00	00:00	00:00	
6	Pressure testing of existing 7TR precision type PAC unit by complete purging of the refrigerant system, vaccumizing the system, and exposing the system to appropriate pressure with Nitogen gas on both suction and discharge sides of compressor for 48 hours, and checking the system for for any leakage, arresting any the leakage by necessary bracing, vaccumizing etc as reqd.(Note: Warranty for six months shall be extended by the agency for the welding / bracing undertook by the agency for this item)	4	Job		0.00		(26)0	0.00	0.00	0.00	
7	Supplying and charging of R407C Refrigerant gas for the existing Stulz make 7 TR Precision Package AC Unit etc. as required.	45	Kgs		0.00		00:00	0.00	0.00	0.00	

Page 20 of 34 Executive Engineer

Name	of Work: Shifting and re-Installation of the 4 Nos of PAC un Supply and fixing 415V, 50Hz, scroll type compressor suitable to work with R22 / R407A refrigerant, i/c debracing the existing compressor arrangement and rebracing the new compressor complete etc as reqd. (Make: Emerson copeland, Model: ZR108 KC TFD 522)	its for OFC a	Nos	of TE Flower	Bazar LE E 0.00	Bldg, Chenna	ii. 00:0	0:00		0.00	0.00	
9	Supply and fixing condenser motor in the existing condenser arrangement i/c pdg necessary supports etc as reqd.	6	Nos		0.00		0.00	0.00		0.00	0.00	
10	Supply and fixing indoor Blower moter axial flow fan Electronic Commutation (EC) 380V-480V/3 phase/50-60Hz/1520 rpm make Rosenberg compatible for 7 TR HPAC unit i/c testing commisioning (with 1 year warrenty) etc as required (Note this item shold be executed only on confirmation from Engineer incharge)	1	Nos		0.00		0.00	0.00		0.00	0.00	
11	Replacement of following items with new one in the existing Sidwal make 7 TR Precision Package AC Unit etc. as required.											
a	Liquid line drier	4	Nos		0.00		0.00	0.00		0.00	0.00	
b	7/8" Ball valve	1	Nos		0.00		0.00)00\	0	0.00	0.00	
c	5/8" Ball Valve	1	Nos		0.00		0.00	[B]		00:0	0.00	
d	LP CUTOUT	1	Nos		0.00		00:			0.00	0.00	
e	HPCUTOUT	1	Nos		0.00		(B)	0.00		0.00	0.00	
F	Display and control unit for Sidwal make unit	1	NOS				0.00	0.00		0.00	0.00	

Contractor

age 21 of 34

Executive Engineer

Name	of Work: Shifting and re-Installation of the 4 Nos of PAC un	its for OFC a	t 1st floor	of TE Flower	Bazar LE E	Bldg, Chenna	i.						
12	Supplying and laying following sizes of PVC insulated PVC sheathed armoured U/G cable of 1.1KV grade, conforming to relevent IS on the wall/existing trench, existing cable trays i/c interconnections, end termination, gland earthing for extending power supply to PAc units complete etc. as required												
a	4 Core 2.5 Sqmm Copper conductor Cable	10	mtr		0.00		0.00		0.00		0.00	0.00	
13	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.												
a	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	25	mtr		0.00		0.00		0.00		00:00	00:00	
14	Water servicing of 7 TR Precision Package AC unit i/c cleaning of filters, evaporator and condenser coil etc. as required.	4	Job		0.00		0.00		0.00		0.00	0.00	
15	Refixing of condensor stand and condenser for each HPAC units, grouting complete painting etc at 1st floor of LE bldg complete as reqd	4	Job		0.00		0.00		0.00	_	0.00	0.00	
16	Removing and refixing of the existing AC plant panel, i/c reconnection testing and commissioning etc at in 1st floor of LE bldg complete as reqd	1	Job				0.00		0.00	_	0.00	0.00	
17	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		20/2	361									
a	3½ X 95 sq. mm (45mm)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			0.00		0.00		0.00		0.00	0.00	
b	3 X 185 sq. mm (57mm)	$\sqrt{2}$	Job		0.00		#		#		#	#	
18	Providing and fixing 6 SWG dia G. surface or in recess	\(\sum_{100} \)	mtr		0.00		0.00		0.00		0.00	0.00	
		Total Ex (SST		0			Total	i/c GS	T		0	

Contractor Page 22 of 34 Executive Engineer

Total Net Cost to BSNL in words (Col13)	#NAME?		
Total Cost including GST in words (Col14)	#NAME?		

IMPORTANT NOTES:-

1	The firm shall be responsible to ensure that GST shown in the above columns is correct &Input Tax Credit for the amount shown above is admissible as per GST Act as amended up to date".
2	Invoice /Bill should be pre-printed as per the GST format.
3	The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST
4	The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the terms as specified in the scope of work.
5	No advance payments can be made. Stipulations like levy of interest if payment is not made in a specified time are also not acceptable and the payment is governed by the normal BSNL practice.
6	The HSN / SAC Codes indicated are most appropriate. However, any other HSN/SAC code is applicable, the vendor may give it in writing, in case their tender is accepted, so that the same may be incorporated in the invoices.

Contractor

Executive Engineer(E)

Contractor Page 23 of 34 Executive Engineer

Specifications

1.General conditions

1.0 General:

- 1.1 "THIS TENDER" is for work to be executed in the existing BSNL Exchange along with the supplier of Package AC unit..
- 1.2 FULL MUTUAL CO-OPERATION and co-ordination among different agencies to ensure execution of speedy and quality work and during testing the system is ESSENTIAL. The performance of individual agency will therefore be under scrutiny for consideration for entrusting future works.
- 1.3 THE FIRM SHALL CONSULT the Sub Divisional Engineer (E) and under his guidance prepare and submits a working drawing in triplicate within 15 days of award of work This drawing shall indicate all the dimensions, quantities, specifications of material used in the particular site.
- 1.4 DEVIATIONS IN QUANTITIES AND SPECIFICATIONS SHOULD BE INTIMATED TO SUB DIVISIONAL ENGINEER(E) /EXECUTIVE ENGINEER(E) IN WRITING IMMEDIATELY.
- 1.5 MATERIALS AND STORAGE AT SITE:- All materials used for the work should be got approved before use. Rejected materials should be removed from site immediately. Original TEST CERTIFICATE and Guarantee Cards if any and operation manual to be submitted to the Sub Divisional Engineer (E). Lockable space for storing materials at site will be provided by Department. However safe custody will be the firm's responsibility.
- 1.6 ELECTRICITY: Electricity for Erection, Commissioning and Testing shall be provided by BSNL free of cost. However BSNL does not guarantee the conformity of supply and no compensation whatsoever shall be allowed on this account.
- 1.7 TESTING:- Entire AC system shall be tested for abnormal noise, vibration, water leakage and air leakages and rectification if any required should be attended immediately. The capacity test to be performed for each PAC as per the following table and report to be submitted.

(A)Capacity Test of P		
PAC UNIT NO	SL. No	
DATE OF TESTING:		
Evaporator & Compressor		

S.No.	Parameter	Results	Remarks
1.	rea of the PAC air Inlet Grill of the evaporator in FT		
2.	Air Velocity in FPM		
3.	Air Quantity in CFM		
4.	Required air Quantity as per Agreement		

Contractor Page 24 of 34 Executive Engineer

5.	Inlet Air Temp DB °F	
	WB ^o F	
6.	Canvas air Temp DB ^o F	
	WB ^o F	
7	Internet Enthalpy	
8	Canvas Enthalpy	
9	Enthalpy Difference	
10	Specific Volume	
11	Total Capacity	
	Cfm x Enthalpy diff	
	200 x Sp. Volume	
12	Observed Tonnage	
	a) Sensible Cooling Capacity	
	1.08 x Cfm x Temp. Diff	
	1200	
	b) Latent cooling capacity	
	(Total capacity – Sensible cooling)	
13.	Evaluated tonnage at design conditions	
	a) Sensible cooling capacity	
	b) Latent Cooling capacity	

Inside conditions during the tonnage test

Swith Room Temperature

DB F: WB F: RH %:

HP of the PAC unit being tested: LP of the PAC unit being tested:

Signature of Contractor/representative Signature of SDE(E) with remarks.

- 1.8 DATE OF COMPLETION AND PROVISIONAL TAKE OVER will be the date of successful completion of initial Acceptance Testing and the plant will be put to beneficial use by the Department from that date. THREE SETS OF COMPLETION PLAN WITH COPIES OF OPERATING INSTRUCTIONS BEFORE TAKE OVER.
- 1.9 ALL TOOLS AND TACKLERS required for handling of equipments and materials at site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the contractor.
- 1.10 WORK IN OCCUPPIED BUILDINGS: (i) When ever work is executed in occupied buildings, there should be minimum of inconvenience to the occupants. The work shall be programmed in consultation with the Engineer-in-Charge and the occupying

department. If so required, the work may have to be done even before and after office hours (ii) The contractor shall be responsible to abide by the regulations or restrictions set in regard to entry into and movement within the premises. (iii) The contractor shall not tamper with any of the existing installations without specific approval from the Engineer-in-Charge.

2. SPECIFICATIONS FOR EI & FANS

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

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

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

The following wiring shall be done in separate conduits:-

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

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

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

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

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

Contractor Page 26 of 34 Executive Engineer

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

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

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

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

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

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

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

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

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

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

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

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

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

3. Specification for A/C works

- 1. The work shall be done as per latest C.P.W.D. specifications for electrical works and Indian Electricity Rules as amended from time to time.
- 2. The layout of the work, will be given by the Engineer-in-charge or his duly authorized representative, at site of work.
- 3. The work shall be done in accordance to schedule of work and specification.
- 4. Any damage to the building during execution of the work shall have to be made good by the contractor at his own cost and risk.
- 5. The contractor shall arrange all tools and plants for execution of work and nothing extra will be paid on this account.
- 6.All material shall be provided as per department product list/ specification unless otherwise specified or as approved by engineer in charge
- 7. Pressure test, vacuum test and performance test of compressor for two days shall be done in presence of engineer in charge or his authorized representative and test report shall be submitted along with bill.
- 8. Original bill / invoice of the compressor shall be produced at the time of payment.
- 9. The warranty period of compressor shall be one year from date of successful performance test.
- 10.All the electrical works shall confirm to various standards amended up to date wherever applicable.
- 11.It is contractor's liability to follow all safety procedures in accordance with relevant I.S. amended up to date during execution of work at site.
- 12.Materials provided by the contractor shall be of makes already existing at site. If any change is required, the EE (E) based on approved product list of department shall approve the same
- 13. The agency will provide the workers with necessary T&P, Testing and safety equipments.
- 14Agency has to observe all the labour rules and regulations in force.

Contractor Page 28 of 34 Executive Engineer

LIST OF APPROVED MAKES- BSNL ELECTRICAL WING

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

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

LIST OF INDIAN STANDARDS

- I.S.277 Galvanized steel sheets.
- I.S.325 Three Phase Induction Motors
- I.S.655 Metal Air Ducts
- I.S.732 Code of Practice for Electrical Wiring and fittings for Buildings.
- I.S.778 Gun Metal Gate, Globe and Check Valves for general purposes.
- I.S.900 Code of Practice for Installation and Maintenance of Induction Motors.
- I.S.996 Single Phase small AC and Universal Motors.
- I.S.1239 Mild Steel Tubes, G.I. Pipes, Tubular and other wrought steel fittings.
- I.S.1248 Direct Acting Electrical Indicating Instruments.
- I.S.1520 Horizontal Centrifugal Pumps for clear, cold and fresh water.
- I.S.1554 PVC Insulated (heavy duty) Electrical Cables

(Part-I) for working voltages upto and including 110 volts.

- I.S.2372 Timber for cooling towers.
- I.S.2516 AC Circuit Breakers.
- I.S.2592 Recommendation for Methods of Measurements of Fluid flow by

means of Orifice Plates and Nozzles.

- I.S.1822 Motor Starters of Voltage not exceeding 1000 volts.
- I.S.2208 HRC Cartridge Fuse Links upto 650 volts.
- I.S.3589 Electrically welded steel pipes for water, gas and sewage.
- I.S.3624 Bourden Tube Pressure and Vacuum Gauges.
- I.S.4047 Heavy Duty air break switches and composite units of air break

switches and fuses for voltage not exceeding 1000 volts.

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

Boxes.

- I.S.8148 Specification for packaged air conditioning.
- CPWD General Specifications for Heating, Ventilation & Air conditioning (HVAC)-2004

IMPORTANT NOTE

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

LIST OF SAFETY STANDARDS

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

Contractor Executive Engineer(E)

PROFORMA OF SCHEDULES

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

SCHEDULE 'A'

Schedule of quantities : Attached

SCHEDULE 'B'

Schedule of materials to be issued to the bidder: Nil

SCHEDULE 'C'

Tools and plants to be hired to the bidder: Nil

SCHEDULE 'D'

Extra schedule for specific requirements/documents for the work, if any: Nil

SCHEDULE 'E'

Schedule of components of Materials, Labour etc. for escalation: Nil

SCHEDULE 'F'

Reference to General Conditions of contract:

Name of work:	
Estimated cost of work:	As per NIT notification page
Earnest money:	
Security Deposit and	
performance Guarantee	

General Rules &Directions: Officer inviting tender: Sub Divisional Engineer (E)

Electrical Sub Division, Chennai

Definitions:

2(v) Engineer-in-Charge Executive Engineer (E), ED-I, Chennai

2(vi) Accepting Authority EE (E), BSNL Electrical Division -I, Chennai

2(x) Percentage on cost of materials

and labour to cover all 10%(TEN)

overheads and profits

CLAUSE 5

Authority to give fair and reasonable extension of time

for completion of work: SE (E),EC-II,Chennai

Competent Authority for deciding reduced rates :SE (E),EC-II,Chennai

Clause 25

Competent authority for conciliation: SE (E) not in-charge of the work.

Contractor Page 32 of 34 Executive Engineer

BSNL EW-8

Bharat Sanchar Nigam Limited Electrical Wing

Electrical Division: ED-I, Chennai Sub Division: ESD VI, Chennai

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

Contractor Page 33 of 34 Executive Engineer

Name of Work : Chennai.	Shifting and re-Installation of the 4 Nos of PAC units for OFC at 1st floor of TE Flower Bazar LE Bldg,

Signature of Witness (required in the case of bidder's thumb impression is given by the bidder in place of signature)
Occupation of Witness:

(Signature of bidder)
(Name & Postal address)

Seal of Bidder

Date:

Acceptance of Tender

The	above	e tende	er (as m	odified	by you as	s provi	ided in the	eletters	s mer	ntioned h	nereur	nder) is a	accepted
by	me	for	and	on	behalf	of	BSNL	for	а	sum	of	Rs.	
(Rup	ees)		
The I	etters	referre	d to bel	ow sha	all form pa	rt of th	nis contrac	t Agre	emer	ıt.			
a)													
b)													
								For 8	on b	ehalf of	BSNL	_	
Ds	ated												
	1100							Signa	ature	:			
								Desig	gnatio	n :			

Contractor Page 34 of 34 Executive Engineer