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: eeevijbsnl@gmail.com

TENDER DOCUMENT

NIT NO: 15 /EDV/2019-20

Name of the work: Providing repairs and replacement of faulty components to the exisiting Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL.

Estimated Cost: Rs. 2,74,857/-

Name of the Agency ……..
Address ……..
Telephone No: ……..
This tender document contains 35 (Thirty Five only).

Executive Engineer (E)

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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
11 ANNEXURE-VI : Non relative Certificate
12 ANNEXURE-VII : Undertaking regarding EPF Provisions
13 ANNEXURE-VIIII: Undertaking regarding ESI Provisions

ONLINE SUBMISSION in E-Tender Portal www.tenderwizard.com/BSNL

The following documents shall be digitally signed and uploaded in the E-tender portal www.tenderwizard.com/BSNL 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-VIIII: Undertaking regarding ESI Provisions
14) Technical Compliance statement
15) Tender Document (To be downloaded from E-Tender portal and digitally signed and uploaded in to the E-Tender Portal
16) Digitally signed and rates quoted Price Bid/Financial Bid

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.	**15/BSNL/EDV/2019-20 dtd.30-05-2019**
2	Name of Work	**Providing repairs and replacement of faulty components to the exisiting Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL.**
3	Estimated Cost put to tender	**Rs. 2,74,857/-**
4	Earnest Money	**Rs. 5,497/-**
5	Cost of Bid Document	**Rs 590 /-(Non refundable)**
6	e-Tender Processing Fee	**As stipulated in the e-tender portal www.tenderwizard.com/BSNL**
7	**Time allowed for completion of work**	**2 months**
9	Last date & Time of **on line submission** of Eligibility documents, Technical Bid & Price Bid	**Up to 15.00 Hrs. on. 11.06.2019**
10	Last date & Time for submission of tender document, EMD, and Eligibility documents as per NIT **(OFF LINE)**	**Up to 15.00 Hrs. on. 12.06.2019.**
11	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 . 12.06.2019.**
12	Time & Date of Opening of the Bid-**ON LINE ONLY**	**At 16.00Hrs On. 12.06.2019.**
A	ELIGIBILITY CRITERIA The Firms who fulfill the following requirements shall be eligible to bid	
	1. Average annual turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost put to tender. AND 2. 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.	

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, CA 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 , GUNTUR**

4. The intending tenderer shall pay E-Tender Processing Fee – as detailed in the e-tender portal/-(inclusive of service tax) to M/s ITI Limited through ON-LINE payment facility available at website www.tenderwizard.com/BSNL.
5. **Earnest Money amounting to Rs. 5,497/-**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/O GMTD, BSNL , GUNTUR**, **"**must accompany each tender. The Validity period of EMD is 90 days, from the date of opening of tender.
6. 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.
7. Exemption from payment of earnest money and security deposit by any other unit/ department shall not hold good for BSNL.
8. 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.tenderwizard.com/BSNL. However for quoting the e-Tender visit www.tenderwizard.com/BSNL.**
9. **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.**
10. 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.
11. For e-Tendering, BSNL has engaged e-portal maintained by M/S ITI, New Delhi. The agency intending to participate in tendering process shall have to register with **http://www.Tenderwizard.com/BSNL**, New Delhi. For details kindly visit website **http://www.tenderwizard.com/BSNL** or contact for Local **assistance Mr Vijay Kumar Reddy Mob No 7207042074, Mr Praveen 7658971318**
12. The intending bidders must have Class-III digital signature to submit the bid.
13. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheet.
14. Contractor can upload documents in the form of JPG format, PDF format and any other format as permissible by the e- tendering portal.
15. 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}.
16. 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.
17. 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 12.06.2019** and shall be opened on the same day at 15.30 Hrs in presence of AO, SDE [E-P] and contractors present.
18. 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.
19. 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.
20. 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 tThe 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.

21. 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 or **http://www.tenderwizard.com/BSNL** Tenderer shall quote his rates as per various terms and conditions of the said form.

22. The time allowed for carrying out the work will be as mentioned above.
23. 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.
24. **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 12months from *the date of actual completion of individual work.***
25. 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.
26. The acceptance of a tender will rest with the **Executive Engineer (E), BSNL, Electrical Division,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.
27. Canvassing in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.
28. 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.
29. 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.
33. 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).
34. 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).
35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. **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.

41. 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.
42. 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 :-
    a) 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.
    b) Standard BSNL EW-8 form.
43. 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).
44. The site for the work shall be made available in parts.
45. 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/2019/203 **Dated:30-05-2019.**

1) The Chief Engineer (E), BSNL AP Zone, Vijayawada for kind information.
2) The Superintending Engineer (E), BSNL Electrical Circle, Vijayawada for kind information.
3) The Executive Engineer (E), BSNL, Electrical Div. VSP/TPT/Kurnool for information
4) SDE (E) Electrical Sub Division Vijayawada/Guntur/WG
5) All Eligible Contractors.
6) 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.

	NAME OF THE VENDOR	
Sl.No	**Description**	**Submitted/Uploaded 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	**b) E-Tender Processing Fee –** as detailed in e-tender portal shall be paid to M/s ITI Limited through their e-gateway by credit/debit card, internet banking or RTGS/NEFT facility through website **www. tenderwizard.com/BSNL** **On-line payment details:**	
4	**c) EMD** - amounting **Rs.5,497/-** 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 GUNTUR "** must accompany each tender. The Validity period of EMD is 120 days, from the date of opening of tender.	
5	Self-attested Copy of PAN card.	
6	Self-attested Copy of valid GST registration	
7	Self-attested Copy of CA certificate for turnover.	
8	Self-attested copy of EPF Registration certificate (if applicable).	
9	Self-attested copy of ESI Registration certificate (if applicable).	
10	Declaration by Contractor(As per annexure-IV)	
11	Duly filled and signed Undertaking and to abide by EW6 and EW 8 (As per annexure-V).	
12	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)	
13	Duly filled and signed undertaking regarding EPF Provisions (As per annexure-VII)	
14	Duly filled and signed undertaking regarding ESI Provisions (As per annexure-VIII)	

Notes for Submission of Documents:

- ***The bidder shall have to down load the Tender Documents and again shall upload the documents with Digital Signature before the prescribed date and time. (Ref. Notice Inviting Tenders***)
- The bidder shall submit the Original documents of DD towards cost of Bid documents and EMD in the prescribed form, in a sealed envelope mentioning Name of work , date & time of opening of bids along with the name and address of the bidder in the Tender box in the office of **Executive Engineer (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 M/s ITI Ltd. The agency intending to participate in tendering process shall have to register with https://www.tenderwizard.com/BSNL
2. Those Contractors not registered on the website mentioned above, are required to get registered beforehand. The intending bidder can get registered with ITI Ltd. by making online payment of required amount with registration particulars. For details kindly visit website https://www.tenderwizard.com/BSNL 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.tenderwizard.com/BSNL 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 Charted 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 https://www.tenderwizard.com/BSNL through M/s ITI, a Government of India Undertaking. It supports all activities of tendering based on proactive work flow concept. Fine details of tendering like vendors registration, tender announcement and corrigendum, tender form processing, opening, negotiation and tender awarding are supported in a real time interactive environment.

1. **Tender Bidding Methodology:**

Electronically Sealed Bid System –"Single Stage - Two Envelopes Electronic bid system". In this case of two electronically sealed envelopes bid system, the Eligibility documents as per NIT [Envelope-I] & 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 Tender Wizard site of M/s ITI (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 (https://www.tenderwizard.com), 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.tenderwizard.com), and click on the "Supplier Organization" link under "Registration" (on the Home Page), and follow further instructions as given on the site.

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), Processing Fee 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) dully authorized are requested to carry a Laptop and Wireless Connectivity to Internet.

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

   1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on M/s ITI E-tender Site or any Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA).
   2. Register your organization on M/s ITI e-tender site well in advance of your first tender submission deadline on M/s ITI e-tender Site (http://tenderwizard.com/BSNL)
   3. Get your organization's concerned executives trained on M/s ITI e-tender Site well in advance of your first tender submission deadline on M/s ITI e-tender Site
   4. Submit your tender well in advance of tender submission deadline on M/s ITI 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 M/s ITI e-tender Site, the fourth instruction is relevant at all times.
   5. Vendors are requested to contact ITI Officers for any information regarding e-tendering / training. Contact Details of M/s ITI Ltd officers is as given below:

   For any further query regarding tender uploading/downloading pl. contact Mr Vijay Kumar Reddy Mob No: 7207042074, Mr Praveen 7658971318, email IDs: twhelpdesk694@gmail.com, twhelpdesk755@gmail.com

   <u>Important Note:</u> 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 ":**Providing repairs and replacement of faulty components to the exisiting Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL.."**

As per tender publication advertised by your office and display of Notice Inviting Tender on web site **www.ap.bsnl.co.in** and **www.tenderwizard.com/BSNL** . 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.	Date	
c.	Amount **(Rs 590/-)**	
d.	Name of Bank and Branch	
e.	In favor of	**AO (cash), O/o GMTD, BSNL, GUNTUR**.
3.	**Earnest Money Deposit**	
a.	DD / FDR / CDR /BG No.	
b.	Date	
c.	Amount **(Rs 5,497/-)**	
d.	Name of Bank and Branch	
e.	In favor of	**AO (cash), O/o GMTD, BSNL, GUNTUR**
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
Date
Seal

Yours sincerely

(Signature)
(Name in block letter)

BHARAT SANCHAR NIGAM LIMITED
ELECTRICAL WING

Tender for the work of :- Providing repairs and replacement of faulty components to the exisiting Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL.

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.5,497/-**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) **(Signature of contractor)**
(Postal address) **Dated ……..**

A C C E P T A N C E

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of BSNL for a sum of Rs.
(Rupees……
……
…….)
The letters referred to below shall form part of this contract Agreement.
a)
b)
c)

For & on behalf of ***BSNL***
Signature

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 along with 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:	**Providing repairs and replacement of faulty components to the exisiting Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL.**
Estimated cost of work:	**Rs 2,74,857/-**
i) Earnest money :	**Rs. 5,497/-**

ii) Performance Guarantee : iii) Security Deposit :	5% of tendered value of work. 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 ii) Maximum allowable extension beyond the period provided in i) above in days	14Days
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	**NA**		
2			

OR

Sl. No.	Financial Progress	Time allowed (from date of start)	Amount to be with-held in case of non achievement of milestone
1	1/8th (of whole work)	1/8th (of whole work)	NA
2	3/8th (of whole work)	1/2 (of whole work)	
3	3/4th (of whole work)	3/4th (of whole work)	
4	Full	Full	
Time allowed for execution of work. Authority to give fair and reasonable extension of time for completion of work.			2 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 recognised diploma holder with three years experience
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 venders 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 BNSL 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 Exercise/Custom Departments recommends such a course-Action will be taken as per

the directions of CBI or concerned department.

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** ……. (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 in case battery is of same make as that of Engine and supplied by the Manufacturer only (Kirloskar, Cummins pulse etc)
4	HV Switchgear (Vacuum Circuit Breaker/SF6)	Biecco Lawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type)	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO / Kirloskar / Siemens
	a) Above 400 KVA	
	b) Up to 400 KVA	In addition to above makes, Uttam/Automatic Electric Gear(AEG)/Patson/Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T/ Schneider Electric / Siemens
7	MCCB(Ics=Icu)	L&T/ Schneider Electric / Siemens
8	SDF units	L&T/ Schneider Electric / Siemens/ HPL/Havells
9	Power Contactors	L&T/ Schneider Electric / Siemens/ Lakshmi(LECS)
10	Change Over Switch	HPL / Havells / H-H Elcon
11	Intelligent APFC Relay	L&T/EPCOS(Siemens)/ Schneider Electric / Neptune Ducati/Syntron/ABB
12	Bus Bar Trunking/ Sandwiched Bus Duct	Moeller/L&T/Schneider Electric/ABB/Legrand/Zeta
13	Power Capacitors (MPP/APP)	L&T/EPCOS(Siemens)/ABB/Crompton/ Schneider Electric/Neptune Ducati
14	Digital/ KWHr meter	Schneider Electric/ AE/ Digitron / IMP/ Meco / Rishabh / Universal/HPL/L&T/ABB
15	Cold shrink HT/LT Cable Joint	Denson / 3M(M-Seal)/ Raychem
16	Rubber Matting	ISI mark
17	MCB/ Isolator /ELCB/RCCB/ Distribution Board	Crompton / Havells / Indokopp / MDS Legrand/ L&T / Schneider Electric/ Siemens / Standard/ C&S/ABB/HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/Bharti/Ratan/Slotco/Profab
20	HT/LT Cables	ISI mark
21	PVC insulated copper conductor wire	ISI mark
22	Centrifugal Pump	Amrut / BE / Beacon / Batliboi / Crompton / Jyoti / Kirloskar / KSB / Mather & platt / WASP/Grundfos
23	Submersible Pump	Crompton/Amrut / BE / Calama / Kirloskar / KSB

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 / 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".
* Strike out 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 **Providing repairs and replacement of faulty components to the exisiting Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL..** without any reservation and deviation.

For and on behalf of (Name the company)

Signature of the authorized signatory of the bidder company.

ANNEXURE – X

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 wring
   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.

	Size of conduit

Nominal cross Sectional Area of conductor in sq.mm (1)	¾" (19/20 mm)		1" (25 mm)		1-1/4" (32 MM)	
	S (2)	B (3)	S (4)	B (5)	S)	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 wring 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 of16/18 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 the 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.

a) 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, of 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 pint 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 than1 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 Instillation), 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.

Fire Extinguishers should be supplied with as per IS specification only.

C o n t r a c t o r **Engineer in Charge**

SCHEDULE 'D'

SPECIFICATIONS FOR FIRE DETECTION AND FIRE ALARM SYSTEM SECTION – I
GENERAL DESCRIPTION OF WORKS

SCOPE : This section indicates general description of work and various design parameters for the automatic smoke detection and alarm system.

DESIGN : A. The area to be protected by ionization and photo electric detectors shall be in accordance with the standards laid down below : Assumption (i) Floor height : 5 m (MAX) and (ii) Air Changes 1.5 /hour.

a) Each detector shall cover an area not exceeding 25sq.mtrs in case of air conditioned equipment rooms.
b) Each detector shall cover an area not exceeding 40sq.mtr in case of non air- conditioned equipment rooms.
c) Each detector shall cover an area not exceeding 50sq.mtr in case of rooms having no equipment.
d) Each detector shall cover an area not exceeding 10sqmtr when provided above false ceiling or below false flooring or over fully covered cable net work.
e) Area separated by beams having dept of minimum 450 mm shall have separate detector irrespective of area.
f) Maximum horizontal distance between center to center of heat detector and smoke detector when provided in corridor shall not exceed 10 mtrs.

B. Ionisation or photo electric detector shall be installed right above the racks at a distance not exceeding 4.0 mtrs between detectors in either direction in case of all E-10-B exchange rooms. C. Ionisation or photo electric detectors shall be provided in the areas which are normally free from smoke.
D. Heat detectors shall be provided for the area like kitchen, Battery room etc. which are prone to smoke. Each heat detector shall cover an area not exceeding 40 sq mtrs.
E. Duct detectors one in each return air opening in weather maker room shall be provided. The **Detector shall be ionization type smoke detector fitted inside the sampler box.**

F. Ionisation and photo electric type smoke detectors shall be provided in the ratio of 1:1 for mixed monitoring purpose.
G. Each room including electrical rising main shall necessarily be provided with at least one detector irrespective of its area.
H. Signals from detectors which are normally not visible shall be extended in the shape of response indicators to a suitable location which is visible.
I. Local control panels shall be provided at the respective floors at easily accessible areas like corridors etc. where the same can be properly monitored. The main control panel shall be installed preferably at the ground floor at the fire control room. Standby batteries for power supply to the panels shall be provided near the panel.
J. Minimum two speakers for audible alarm and / or public announcement shall be provided on each floor and at least one speaker shall be provided on terrace.
K. Manual call points shall be installed in such a way that one should not travel more than 22.5 meters to reach a call point.
L. The response indicators for the Detectors below the false floor, shall be installed with top at 300mm above false floor at nearby wall/column or directly on false floor by making suitable cutout and covered with thick glass. For Detectors above false ceiling, the Response Indicators shall be installed either right below on the false ceiling or on the nearby wall/column with bottom 300mm below false ceiling. Alternatively all Response Indicators shall be located at convenient places as approved. The cover plate if the Response Indicators shall also boldly display the Detector number to which they correspond.

M. Each detector shall be numbered; zonal-wise such as Z00/N-10, wherein Z09 indicates zone number nine and N-10 indicates detector number 10 in that zone.

N. All the cables and wires shall be tagged or labeled with ferrules for proper identification at the Termination end.
O. The specification of different types of Detectors selected shall conform to the detailed specification issued by the Department.

SECTION - II

PHOTO ELECTRIC SMOKE DETECTOR, IONISATION SMOKE DETECTOR, AND HEAT DETECTOR SALIENT FEATURES

a) The detector shall be designed to detect one or more characteristics of fire, smoke or heat. The prime function of a detector shall be to detect fire in its early stages by one of its characteristic phenomena both visual and invisible and convert the same into an electrical signal for initiating the local and remote alarm.
b) The detector shall be suitable for column/ceiling mounting. c) The detectors shall be plug-in type.
d) All type of detectors shall be of same make and having a common base. e) Base shall be from original detector manufacturer.
f) No electronic shall be housed in base.

g) The detector shall be self hold type capable of maintaining the alarm signal until the system is reset at the control unit.

PHOTOELECTRIC (OPTICAL) SMOKE DETECTORS

a) The Photoelectric (optical) smoke detectors shall be suitable for detecting visible smoke such as is produced by slow smoundering fires including burning PVC.
b) They shall be of the light scattering type using a pulsed internal LED light source and a photocell sensor.
c) The detectors shall be suitable for connecting a 2-wire 24V central system and operate satisfactorily within the supply voltage range of 17V - 28V DC.
d) An indicator LED shall be provided on the detector, which illuminates when the detector has reached a pre-set alarm level. The indicator shall be operated independently of the detector from the central control panel.
e) Provision shall be made for an output from the detector suitable for operating a remote indicator or other device.
f) Separate mounting bases shall be required which enable ready removal of detectors of maintenance.
g) The construction of the detector and bases shall be of self-extinguishing polycarbonate plastic. Full circuitry must be protected against moisture and fungus. Smoke entry points must be protected against dust and insect ingress by corrosion resistant gauze.
h) The detector shall be capable of protecting an area upto 100sq.m. at a height of 12 m. TheInstallation and sitting of the detectors must confirm to IS specification.

- The detector shall be supplied along-with manufacturer's test certificate.

HEAT DETECTOR

a) The heat detector shall be electronic in operation and suitable for connecting to a 2-wire 24 V central system which can operate within the voltage range of 17 V - 28 V DC. b) The device shall monitor ambient temperature by means of a NTC thermostat.
c) The detectors shall be suitable for connecting a 2-wire 24 V central system and operate satisfactorily within the supply voltage range of 17 V - 28 V DC.
d) An indicator LED shall be provided on the detector which illuminates when the detector has reached a pre-set alarm level. The indicator shall be operated independently of the detector from the central control panel.
e) Provision shall be made for an output from the detector suitable for operating a remote indicator or other device.
f) Separate mounting bases shall be required which enable ready removal of detectors for maintenance.
g) The construction of the detector and bases shall be of self-extinguishing polycarbonate plastic. Full circuitry must be protected against moisture and fungus. Smoke entry points must be protected against dust and insect ingress by corrosion resistant gauze.
h) The detector shall be capable of protecting an area upto 50sq.m. at a height of 7.5 m. The installation and testing of the detectors must confirm to IS specifications.
i) The detector shall be supplied along-with manufacturer's test certificate.

HOOTERS, MANUAL CALL POINTS & RESPONSE INDICATORS

HOOTERS

1. The hooter shall be totally electronic solid state type speaker cum siren having interrupted tone for Alert. The interrupted tone shall be `ON' for 3 seconds and `OFF' for one second.
2. The hooter shall operate on 24 volts D.C. supply and shall be polarity insensitive.

3. The hooter shall be suitable for an audible range of 500 Hz to 1000 Hz.

4. The hooter output shall be approximately 6 watts.

5. The hooter shall be suitable for wall mounting incorporating hooter card and speaker inside a metallic box and shall be mounted 2.4 mtr above floor level.
6. The hooter shall be actuated by the control panel and shall not be connected to PA system.

MANUAL CALL POINT OR PILL BOX

1) The manual call point box shall be aluminium die cast painted with fire red.

2) The box shall incorporate single pole change over switch with test facility by inserting a key/rotating the cover. It shall operate on 24 V DC supply along with detectors.
3) The box shall be provided with plastic coated front glass (minimum 30 sq. cm) and gasket to make it completely vermin and dust proof along with hammer and chain.
4) The glass front cover shall have write up. `BREAK GLASS IN CASE OF FIRE'

5) The box shall be suitable for wall mounting and shall be mounted at 1.2 meter above floor level.

RESPONSE INDICATORS

1) Response Indicators shall be housed in ABS (Acrolo Nitrite Bitudine Styrene) moulded enclosure having minimum 2 mm thickness with ABS front plate having 2mm thickness and LED's mounted for wide angle viewing 60 degree minimum.
2) Indication will be by means of twin LEDs in red colour mounted to facilitate viewing from wide angle 60 degree min.
3) Input will be polarity insensitive.

SPECIFICATION OF MICROPROCESSOR BASED CONTROL PANEL FOR FIRE DETECTION SYSTEM .

INTRODUCTION:- The purpose of introducing Microprocessor based control panel in fire detection system is to make the panel more compact by reducing the number of components, minimizing false alarms and the quantity of cable required, better reliability and making it more user friendly. However this panel is intended for use mainly in small buildings with a maximum of
8 zones. Hence the concept of Public address system and local control panel has been discarded. However the essential feature of local control panel has been included in the Microprocessor based panel.

GUIDELINES FOR DESIGN

1. (I) The transistors used in the circuits shall be derated by as much as 50% and shall operate at only 25% of their wattage to safeguard against thermal run – away.
(ii) No resistance shall be working at more than 1/3rd of its rated wattage and shall give good stability and resistance to moisture, vibration, temperature and dust.
2. The standby power supply should be capable of maintaining the system in normal operation for a period of not less than 48 hours after the failure of normal mains supply after which sufficient capacity would remain to provide full load operation for at least 1 hour. The full load would be defined as that caused by the operation of all the alarm sounders operating simultaneously, operation of a detector in at least 25 percent of zones (with a minimum of two zones) and the operation of the fault indicator. The operation of trigger devices in further zones should not result in cancellation of fire alarms existing at that time.
3. The power supply unit shall have solid state battery charger circuit for charging of sealed maintenance free battery whenever the battery is discharged below the predetermined level. The rate of battery charging should be such that having discharged to its final voltage, the battery can comply with the recommendations of para 2 above after a charging period of 24 hours. The charger shall sufficiently charge the battery in 8 hours so as to supply the maximum system load at an adequate voltage for at least 2 hours.
4. The printed circuit board and all the components in the panel shall be suitably protected against atmospheric corrosion.
5. Circuit and design of the panel shall be such that the operation (or) failure of one indicator does not prevent the proper and independent operation of other indications.
Additional design features(Optional):-

(i) All the devices in a zone viz. detector, sounders, manual call points shall be operated on the same two wires of the zone.
(ii) Where the panel is used with conventional system, the Microprocessor based control panelmust be compatible with the conventional main control panel as well as local control panel and Detectors of approved makes.

GENERAL

1. The Panel shall be fabricated from 16 gauge (1.6mm) CRCA sheet, completely dust and vermin proof with neoprene gasket, wall mounting and front openable type with hinged door.
2. The panel shall have glass door enclosure with lock and key arrangement.

3. Suitable knockouts shall be provided for terminations of conduits and cable glands.

4. The panel shall be powder coated with Siemens Grey finish (Paint code:-RAL 7032)

5. All components and their wiring shall be arranged so as to be conveniently attended to from the front of the panels.
6. All indication lamps shall be LED type and of the following colours. The zone indicator indicating FIRE should consist of two LEDs
(a) FIRE warning indicator should be clearly labeled and colored red.

(b) FAULT warning indicator should be clearly labeled and colored amber with provision for Identifying open/short separately.

7. The feather touch switches and indicating lamps shall be located in the front fascia of the panel and shall be unambiguously labeled.
8. The primary alarm circuit shall be solid state.

9. The PCB's shall be easily removable. The connections to the PCBs shall be through interface cord of plug-in-type.
10. An audible signal along with its silencing switch shall be provided or the control panel.

11. The earthing terminal shall be provided on the frame of control panel.

12. The panel shall have ventilating louvers with wire mesh.

13. Laminated wiring diagram shall be pasted at a suitable place inside the panel.

FEATURES:-

1. The control panel shall continuously monitor OPEN, SHORT leads in each zone, Fire detectors/ Manual call point with audio alarm distinct for FIRE and FAULT and shall visually indicate FIRE/ FAULT in corresponding zone.
2. For multistoried building separate panels may be installed on each floor with individual power supply and batteries to reduce the interdependence of one panel over the other panel. However a repeater panel may be provided at the ground floor with sounder to indicate the FIRE / FAULT condition at various floors.
3. The panel shall be available in 2, 4 and 8 zone versions.

4. The manual controls for switching OFF / ON, MAINS/STANDBY power provided shall not be accessible to outsiders.
5. The panel shall have the following visual indications for (a) System ON – Green (b) Stand by ON – Green (c) Charger ON – Green
(d) Isolation of a zone for testing purpose

6. Audio – Visual indication shall be provided for the following

(i) The operation of Fire detector in any zone

(ii) Short circuit or disconnection of leads in any zone (iii) Failure or disconnection of normal power supply (iv) Failure or disconnection of standby power supply
(v) Failure or disconnection of battery charging equipment

(vi) Battery Voltage Low

(vii) Common indication for Earth fault in the panel /zone

7. The panel shall have the following supervisory facilities:- (i) Switch for acknowledgement
(ii) Switch for manual reset of panel after normal of fore condition.

8. Means shall be provided in the panel to prevent battery from discharging through the charging equipment in the event of its breakdown of failure.
9.(I) Facilities shall be provided in panel to test the zones individually by simulating Fire and Fault condition. On test mode the panel shall automatically reset after a predetermined time, once the fault (or) fire is cleared. The testing authority shall be able to test continuously all the zones without the necessity of resetting the panel every time.
(ii) Each zone shall be capable of isolation for maintenance (or) test purposes leaving the remaining zones in healthy condition so that fire and fault detection in order zones is not affected.
(iii) Facility for testing all the LEDs shall also be available.

10. Fuses shall be provided for AC, DC and Charger circuit as close to the source of supply in the easily accessible place.
11. The user shall be able to acknowledge the Fire/Fault audio visual alarm and the panel directly without the use of any password or key.

12. Only on test condition, Fire and Fault shall reset automatically. On actual conditions also Fault shall reset after clearance automatically. The FIRE alarm should not be silenced automatically. The operation of the silencing switch should automatically result in an audible/visual signal being giving in the panel until the FIRE alarm is reset.
13. Silencing the sounder shall not prevent fire alarm being activated in any other zone simultaneously.
14. Any fault signal including fault testing which the panel might be experiencing shall not prevent the fire alarm being given if any detector activates at the same time in other zones.
15. When Fire is detected, the corresponding zone LEDs shall flash when the alarm is first signaled and will glow steadily after the silence button is pressed.
16. Three 'NO' and 'NC' contacts shall be provided for remote monitoring.

17. When a Fire is detected, alarms in all zones will give continuous dual tone for Evacuate condition.
18. It shall be possible to program on the panel for isolating the power supply to zones for maintenance purposes.

POWER SUPPLY

1. The entire system shall be suitable to operate on 230 + 10% , 50Hz single AC supply with 12/24 V DC sealed maintenance free battery as secondary source.

2. The power supply until shall consist of solid state power rectifier of adequate capacity so as to provide 12/24 V stabilized DC Power as output while receiving 230 Volts + 10%, 50Hz single phase AC supply.
3. Battery Voltage Low alarm shall be activated at 10.5 V for 12 V battery and 21 V for 24Vbattery.

4. The unit shall have automatic change over facility from Mains to battery and vice versa.

5. The battery shall be housed inside the control panel itself.

6. Battery charging voltage shall not be greater than 13.6 V for 12V battery and 27.2 V for 24 V battery.

7. The battery shall be isolated from MS sheet enclosure by means of rubber pad.

UNPRICED BID **NOT** FOR QUOTING

Name of work:- Providing repairs and replacement of faulty components to the existing Automatic fire detection system at Various Sites in Guntur SSA (TE Ashoknagar, Autonagar TE, Autonagar STR bldg, SJ Mudi, Kolakaluru, Tadepalli, Pedavadlapudi)-2nd CALL.

S.No.	Description of Item	Qty.		Rate (Rs)	Unit	Amount
1	SITC of Microprocessor based automatic fire alarm panel with control card/zone card etc suitable for operation on dual source i.e. 230V, 50Hz AC Supply and 50Volts exchange DC Supply(along with suitalble DC to DC convertor) etc., complete as reqd .					
	a)4 Zone	3	Job		Job	
	b) 8 Zone	1	Job		Job	
	c)12 Zone	1	Job		Job	
2	SITC of the following equipment for automatic fire detection system as per attached specifications, testing as required.					
	a) Optical electric smoke/ Heat detector as per site environment . (Make:BSNL approved)	63	Nos		Each	
	b) S/F 150 x 150 x40mm MS boxes for accomodating detectors I/c painting the MS box etc., as reqd.	5	Nos		Each	
	c) Manual push button station with hammer and chain	2	Nos		Each	
	d) 4 Watts Out put Electronic Hooter delivering intermittent and continous alarm suitable for operation on 24 Volts DC Supply.	6	Nos		Each	
3	Supplying and laying of 2x1.5Sq.,mm armoured FRLS copper conductor cable on surface of wall / recess etc. as required.(Make: BSNL approved)	100	Mtrs		Mtr	
4	S/M end termination by providing suitable gland for 2 x 1.5 sqmm copper AUG cable etc. as reqd.	8	Sets		Set	
5	Supplying and fixing of 6A SPN MCB in a 2 Way metalic enclosure including supplying lugs for terminating the leadingin supply cable etc.,as required. (Make: BSNL approved make)	4	Job		Job	
6	Removing of faulty Fire alarm panel, Detectors,MCPs,Hooters, making good the cabling and rearranging of cable for installation of new panel etc., as required.	6	Job		Job	
7	Supplying and fixing of Adopter box of size suitable to the panel made of 16SWG MS sheet i/c cutting welding painting , etc. as required.	1	Job		Job	
8	Cleaning,General Servicing and Testing of the existing PED / IS Detectors installed both in false ceiling and false flooring, Manual call points, Hooters and connected apparatus of the system in the Exchange and making good etc as reqd.	193	Nos		Each	
9	Providing servicing to the existing Fire alarm systems along with preparation and provision of					

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	laminated drawings (panel wise) i/c attending minor repairs like s/f of glass fuses , testing and commissioning etc. as required					
	a) 6/12 Zone Panel	1	Jobs		Job	
10	Shifting and ITC of old 12 Zone fire panel (in which 4 zones are faulty, but other zones are working) from TE Ashok nagar to TE Tadepalli etc complete as reqd.	1	Jobs		Each	
11	Arranging man power for testing of the entire smoke dectection systems (i/e accepting testing) after above repair and replacement of the faulty components, supplying and fixing of zone drawings on suitable size laminated card board sheet etc as required.	6	Jobs		Each	

Total without GST
Add GST @18%
Total including GST

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