



## Bharat Sanchar Nigam Limited (Electrical Wing)

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

No.22, Kellys Road,  
Chennai - 600010.

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### **E-TENDER DOCUMENT**

**NAME OF WORK: Operation and Maintenance of Electromechanical services at Telephone Exchange, Kellys, Chennai (for the year 2019-21)**

**NIT No : 37 / EEE/ED-I/CH/2019-20**

This tender document contains **56 (Fifty six)** pages only.

For E Tender Help Desk of M/s ITI Limited.Tel.No.011 49424365; Mail Id :  
twhelpdesk680@gmail.com, [bsnlthelpdesk@gmail.com](mailto:bsnlthelpdesk@gmail.com)

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

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

1	Name of work	<b>"Operation and Maintenance of Electromechanical services at Telephone Exchange, Kellys, Chennai (for the year 2019-21) "</b>
2	Estimated cost put to tender (Rs.)	Rs. <b>23,02,629/-</b> (Excluding GST)
3	Earnest Money (Rs.)	Rs. <b>46,053/--</b>
4	Period of completion	Twenty four months
5	Last date & time for downloading of tender document by bidder	Up to 10:55 Hrs. on 13- 09 -2019
6	Last date & time for online submission of tender	Up to 11:00 Hrs. on 13- 09 -2019
7	Last date & time for submission of original Tender cost and EMD	Up to 11:00 Hrs. on 13- 09 -2019
8	Date and time for opening of tender	11:30 Hrs. on 13- 09 -2019
9	Tender cost (Non refundable)	<b>Rs.500/- (+) GST 18%</b>
10	E-tender Processing fee (Non refundable)	<b>0.05% of estimate cost subject to the minimum of Rs.500 and Maximum of Rs. 5000 plus GST</b>

**(a) Financial Norms:**

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

**(b) Physical Norms:**

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

(OR)

2) Experience of having successfully completed similar works in BSNL comprising of either substation or air-conditioning service as part of scope of work during last 7 years ending last day of month previous to the one in which applications are invited, should be either of the following :

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

(OR)

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

(OR)

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

**NOTE:** The estimated cost of one year shall be considered to evaluate the eligibility criteria. Similar work means operation and Maintenance of Electrical Installations

**IMPORTANT NOTE:**

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

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

2. The Physical Tender Fee, EMD, shall be deposited in the tender box available in the office of tender opening authority, by the bidder before **11:00 AM** on the tender opening date, failing which the tender shall not be opened.

**BSNL EW-6**  
Bharat Sanchar Nigam Limited  
Electrical Wing

Electrical Division: ED-I, Chennai

Sub Division: IV, Chennai

Item rate tenders on single bid system are invited on behalf of CMD, BSNL for the work **"Operation and Maintenance of Electromechanical services at Telephone Exchange, Kellys, Chennai (for the year 2019-21) ."** from the eligible bidders as per NIT notification. The enlistment of the bidders should be valid on the opening date of tender. In case the date of opening of tender is extended, the enlistment of bidder should be valid on the original date of opening of tender.

1. Intending bidder is eligible to submit the bid provided that he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority as per the eligibility conditions mentioned in the NIT notification page.
2. The work is estimated to cost **Rs.23,02,629/- (Excluding GST)** This estimate, however, is given merely as a rough guide.
3. Agreement shall be drawn with the successful bidder on prescribed form as amended up to the date of opening of tender. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
4. The time allowed for carrying out the work will be **Twenty Four months** from the 10<sup>th</sup> day after the date of written order to commence the work.
5. The site for the work is available / or the site for the works shall be made available in parts. The successful bidder shall execute the work in coordination with other agencies working in the campus.
6. The bid documents consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website [www.tenderwizard.com/BSNL](http://www.tenderwizard.com/BSNL) at free of cost. The BSNL EW-8 document can be seen from the web site [www.chennai.bsnl.co.in](http://www.chennai.bsnl.co.in) at free of cost.
7. After submission of the bid, the bidder can re-submit revised bid any number of times but before last time and date of submission of tender as notified. While submitting the revised bid, bidder can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.
8. The Tender Fee in the form of Demand Draft issued by the Nationalized / Scheduled bank authorized by the Reserve Bank of India, drawn in favour of BSNL, CHENNAI TELEPHONES payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
9. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000)/ CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of BSNL, CHENNAI TELEPHONES payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the EMD in the form of DD shall be **60 days** from the date of opening. If the EMD is in the form of CDR/FDR/BG, the validity shall be **180 days** from the date of opening. In case of L1 bidder, the validity of CDR/FDR/BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit.

10. The Physical **TENDER COST** and **EMD** of which the scanned copy is uploaded shall be deposited by all the bidders before **11:00 AM** on the tender opening date, failing which the tender shall not be opened.
11. Interested bidder who wishes to participate in the bid shall pay the e-tender processing fee to M/s. ITI Limited through their e-gateway by credit / debit card / internet banking / RTGS / NEFT facility.
12. All the documents as specified in the tender document shall be scanned and uploaded to the e-Tendering website within the period of bid submission.
13. Online bid documents submitted by intending bidders shall be opened only of those bidders, who have deposited e-Tender Processing Fee with M/s ITI Limited and Earnest Money Deposit and other documents fulfilling eligibility criteria, scanned and uploaded are found in order.
14. The last date for online submission of bid is **13- 09 -2019 up to 11:00 AM** and the bid submitted shall be opened at **11:30 on AM 13- 09 -2019** . If a holiday is declared on the tender opening day, the tender will be opened on the next working day.
15. The e-Tender processing fee is non-refundable.
16. **Performance Guarantee:** The bidder is required to furnish Performance guarantee for an amount equal to 5% of the contract value in the form of bank guarantee/CDR/FDR/DD (of a nationalized/ Scheduled Bank in a standard format) within two weeks from the date of issue of acceptance letter. This period can be further extended by the Engineer-in-charge up to a maximum period of two weeks on written request of Bidder. The validity period of the performance security in the form of performance bank guarantee shall be: Three Months from the date of actual completion of work, for AMC works; and ~~One year from the date of actual completion of work for all other works.~~ **In case the bidder fails to deposit the said performance guarantee within the stipulated period, including the extended period if any, the Earnest Money deposited by the bidder shall be forfeited automatically without any notice to the bidder and the bidder will not be allowed to participate in the re tendering for the same work.**
17. **Security Deposit:** In addition to Performance guarantee stated above, a sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum be deducted with the sum already deposited as earnest money, will amount to security deposit of 5% of the contract value of the work. **The security deposit shall be released after an observation period as follows: Three Months from the date of actual completion of work, for AMC works; and ~~One year from the date of actual completion of work for all other works.~~**
18. In case any discrepancy is noticed in the documents as uploaded at the time of submission of the bid online, then the bid submitted shall become invalid and the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further, the bidder shall not be allowed to participate in the retendering process of the work.
19. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a

- bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the BSNL and local conditions and other factors having a bearing on the execution of the work.
20. The competent authority on behalf of the CMD does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected. The competent authority on behalf of CMD reserves to himself the right of accepting the whole or any part of the tender and the bidder shall be bound to perform the same at the rate quoted.
  21. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable to rejection.
  22. Agreement shall be drawn with the successful bidder on prescribed form. Bidder shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.
  23. The bidder should give a certificate as per the following that none of his/her relative is employed in BSNL units as per **Form 'D'**. In case of proprietorship firm, certificate will be given by the proprietor and for partnership firm certificate will be given by all the Directors of the company.
    - a. Near relatives of all BSNL employees either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of BSNL. The near relatives for this purpose are defined as:
      - i. Members of a Hindu Undivided family.
      - ii. They are husband and wife.
      - iii. The one is related to the other in the manner as father, mother, son(s) & son's wife(daughter-in-law), Daughter(s) & daughter's husband(son-in-law), brother(s) & brother's wife, sister(s) & sister's husband(brother -in-law).
    - b. The company or firm or any other person is not permitted to tender for works in BSNL unit in which his near relative(s) is(are) posted. The unit is defined as SSA/Circle/Chief Engineer/Chief Archt./Corporate office for non-executive employees and all SSA in a circle including circle office/Chief Eng./Chief Archt./Corporate office for executive employees (including those called as Gazetted officers at present). The bidder should give a certificate that none of his/her such near relative is working in the units as defined above where he is going to apply for tender/work, for proprietorship, partnership firms and limited company certificate shall be given by the authorized signatory of the firm. Any breach of these conditions by the company or firm or any other person, the tender/work will be cancelled and earnest money/performance guarantee will be forfeited at any stage whenever it is so noticed. BSNL will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit.
    - c. No employee in BSNL/ Govt. of India is allowed to work as a contractor for a period of two years of his retirement from service without the prior permission. The contract is liable to be cancelled if either the bidder or any of his employees is found at any time to be such a person who had not obtained the permission as aforesaid before submission of tender and engagement in the bidders service.
  24. The tender for the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders. If any bidder withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in

the terms and conditions of the tender which are not acceptable to the BSNL, then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.

25. The agency has to comply with the provisions of EPF and miscellaneous provisions Act-1952 and employees provident fund scheme-1952 as amended up to date in respect of labours/employees engaged by them for this work. Any consequence arising due to non-complying of provisions as specified above shall be the sole responsibility of the firm only. The agency shall give an undertaking to this effect as per **Form 'B'**.
26. **Extension of Validity of tender:** In case, where the letter of award of work cannot be placed within the validity period of the tender, the BSNL can request the bidder to extend the validity of their respective tenders and the Earnest Money deposit by a reasonable period. In such cases, extension of validity of Earnest Money deposit by 30 days beyond the extended validity date of tender should also be asked for. While BSNL can make the request for extension, the tenderer is free to either extend the validity or refuse the request to extend the validity.
27. Rates quoted by the contractor shall be firm and shall be valid for the currency of contract. No cost escalation shall be permitted during the currency of contract.
28. This notice inviting tender shall form a part of the contract document. The successful bidder, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
  - a. The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender, subsequent amendments issued and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
  - b. Standard BSNL EW-8 form.



### **GENERAL INSTRUCTIONS TO THE BIDDERS**

1. The intending bidder must read the terms and conditions of BSNL-EW 6 carefully. He should only submit his bid, if he considers himself eligible and he is in possession of all the documents required.
2. Information and instructions for bidders posted on website shall form part of bid document.
3. Applicants are advised to keep visiting the above mentioned website from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. An incomplete application may be liable for rejection.
4. Those bidders not registered on the website mentioned above, are required to get registered themselves beforehand. The intending bidder must have valid class-III digital signature to submit the bid.
5. On opening date, the bidder can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
6. Bidder can upload eligibility documents in the form of JPG format or / and PDF format. Documents uploaded in any other format, which could not be opened may result in non opening of the bids.
7. Bidder must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO)
8. Even though any bidder may satisfy the above requirements, he would be liable to disqualification if he has:
  - a. Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
  - b. Record of poor performance such as abandoning work, not properly completing the contract, or financial failures / weaknesses etc.
9. If any information furnished by the bidder is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in BSNL. The BSNL reserves the right to verify the particulars furnished by the applicant independently.
10. GST and any other tax applicable in respect of this contract as applicable shall be borne by the bidder himself. The bidder shall quote his rates considering all such taxes. The TDS as per the Govt. regulations will be recovered from the contractor.

#### **11. Tender Evaluation :**

- (a) The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST. The bid with lowest net cost as elaborated above will be the L1 bidder.
- (b) Vendors should furnish the correct GST Rate in the price schedule. If the Input Tax Credit is found to be not admissible at any stage subsequently owing to wrong furnishing of GST Rate, then the vendors will be liable to refund such non-admissible amount, if already paid, along with penalty if charged by the concerned authority.

12. However, pursuant to the constitution (Forty-sixth amendment) act, 1982, if any further tax or levy is imposed by statute, after the last date of receipt of tenders, and the contractors there upon necessarily and properly pays such taxes/ levies, the contractor shall be reimbursed the amount so paid, provided such payment, if any, is not in the opinion of Superintending engineer (whose decision shall be final and binding) be attributable to delay in execution of work within the control of contractor.
13. The Contractor shall, within a period of 30 days of imposition of any further tax or levy in pursuant to the constitution of (Forty sixth amendment) act 1982 give a written notice thereof to the Engineer-in-charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

**14. Bye laws Indemnity against liabilities:**

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

**15. Termination of contract on death of contractor :**

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

**16. Indulging of contractor in criminal /antisocial activities and cases under investigation/charge sheeted by CBI or any other government agencies etc. :**

If the CBI/Independent External Monitor (IEM) /Income tax/ Sales Tax /GST/Central Excise/Custom Departments recommend such a course - Action will be taken as per the directions of CBI or concerned department.

17. As a general notion, the terms and conditions/instructions contained in various pages of this document are addressed assuming the bidder as 'Male'. However, the same shall remain and assumed to be addressed in case of 'Female' bidder also, except for the gender centric words, which shall be 'female' centric at appropriate places.

**FORM 'A'**

**Undertaking to abide by EW 6 & EW 8**

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

(Seal of the firm)

(Signature of Bidder)

**FORM 'B'**

**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 provisions Act, 1952 are not applicable to my / our establishment.

\* I/ We have registered as per the EPF and Miscellaneous provisions Act, 1952 and our registration no is ----- . We undertake to keep it valid during the currency of contract.

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

\* strike out whichever is not applicable

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

(Seal of the firm)

(Signature of Bidder)

**Undertaking regarding ESI provisions**

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

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

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

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

\* strike out whichever is not applicable

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

(Seal of the firm)

(Signature of Bidder)

**FORM 'C'**

**Performance report of works**

1. Name of work
2. Agreement no.
3. Final Value of Work Done
6. Date of start
7. Actual date of completion
8. Performance: Satisfactory / Not Satisfactory

Dated:

Executive Engineer or Equivalent /above

**FORM 'D'**

**No Near relative working certificate**

I..... Son of Shri.....Resident of.....  
hereby certify that none of my relative(s) as defined in the tender document is/are employed in BSNL unit as per details given in tender document. In case at any stage, it is found that the information given by me is false/incorrect, BSNL shall have the absolute right to take any action as deemed fit/without any prior intimation to me.

(Seal of the firm)

(Signature of Bidder)

**ANNEXURE I**

**MODEL FORM OF BANK GUARANTEE  
(For submitting EMD)**

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

KNOW ALL MEN by these presents that WE \_\_\_\_\_  
OF \_\_\_\_\_ having our registered office  
at \_\_\_\_\_ (hereinafter called "the Bank") are bound unto  
\_\_\_\_\_ (hereinafter called "the BSNL") in the sum of  
\_\_\_\_\_ for which payment will and truly to be made of the said BSNL,  
the Bank binds itself, its successors and assigns by these presents.

THE CONDITIONS of the obligation are:

1. If the Contractor(s) withdraws its Tender during the period of Tender validity specified on the Tender Form: or
2. If the Contractor(s) having been notified of the acceptance of its Tender by the BSNL during the period of Tender validity.
  - (a) Fails or refuses to execute the Contract.
  - (b) Fails or refuses to furnish security Deposit in accordance with the conditions of Tender document.

We undertake to pay to the BSNL up to the above amount upon receipt of its first written demand, without the BSNL having to substantiate its demand, provided that in its demand, the BSNL will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force as specified in the Tender Document up to and including Thirty (30) days after the period of the Tender validity and any demand in respect thereof should reach the Bank not later than the specified date/dates.

Signature of the Bank

Signature of the Witness  
Name of Witness  
Address of Witness

**ANNEXURE II**  
**PERFORMANCE SECURITY GUARANTEE BOND**

In consideration of the CMD, BSNL (hereinafter called 'BSNL') having agreed to exempt \_\_\_\_\_ (hereinafter called 'the said bidder(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 bidder (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 \_\_\_\_\_ (bidder(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 Bidder(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 demur, merely on a demand from the BSNL by reason of breach by the said bidder(s)' of any of the terms or conditions contained in the said Agreement or by reason of the bidders(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 under take to pay to the BSNL any money so demanded notwithstanding any dispute or disputes raised by the bidder(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 bidder(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/BSNL) BSNL certifies that the terms and conditions of the said Agreement have been fully or properly carried out by the said bidder(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 TWO/TWO AND HALF/THREE YEARS (as specified in P.O) from the date hereof, we shall be discharged from all liabilities under this guarantee thereafter.

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 bidder(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 Bidder(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 Bidder(s) or for any forbearance, act or omission on the part of the BSNL or any indulgence by the BSNL to the said Bidder(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 Bidder(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 bank)

NAME OF WORK:- Operation and Maintenance of Electromechanical services at Telephone Exchange, Kellys, Chennai (for the year 2019-21)														
S.N	Description of Items	Qty	Unit	Rate / excluding GST	CGST		SGST		IGST		Rate /unit including GST	Total Amount excluding GST	Total Amount including GST	HSN/ SAC Code
					% Rate	Rate per unit	% Rate	Rate per unit	% Rate	Rate per unit				
1	2	3	4	5	6	7=6 x5	8	9=8x5	10	11=10x 5	12=5+(7 +9)or 11	13=3x5	14=3x12	15
	<b><u>SH –I Operation of Services</u></b>													
1)	Providing following manpower to perform operation / scheduled activities of the following electro mechanical services and removing of faulty items & fixing of new items provided in SH-III for attending repair / faults for smooth operation of electrical installations, of entire campus on all working days, including all holidays, Sundays etc as required. The schedule of maintenance of Electro-mechanical services are to be carried out as per the specification attached. Man power: Three Electrician (skilled labour) per day and One Helper (Unskilled labour) per day (From 10 Am to 6pm)													

UNPRICED SCHEDULE



	<p>Services</p> <p>a. EI/Fans, Compound Lighting &amp; Pumps</p> <p>b. Precision Package AC units ( 5 x 7TR -5ESS &amp; 4 x 7TR-OCB, Only monitoring )</p> <p>c. EA sets (1 x 425 KVA &amp; 1 x 500 KVA)</p> <p>d. Substation</p> <p>Note: (Operator shall have to check operation of Fire detection panels)</p>	24 Months	Month											
	<b>SH- II Comprehensive Maintenance</b>													
1	<p>Comprehensive maintenance of the following pumpsets along with starter boxes, SFUs i/c arranging specialised manpower and materials for replacement of faulty components,attending to faults, and carrying out periodical checks as per maintenance schedule etc as required. , Lifting the existing pipes from existing openwell/ borewell transportation, reinstallation, servicing, replacement of minor items such as earings/bushes/spares, terminal plates,glands, rewinding of motors,etc shall</p>													

UNPRICED SCHEDULE

	also be covered in this item.													
a	3HP Centrifugal Monoblock pumpset - 2 Nos	24 Months	Month											
b	5HP Centrifugal Monoblock pumpset - 1No	24 months	Month											
c	2HP Centrifugal Monoblock pumpset - 1No	24 months	Month											
d	1.5HP Borewell Jet pump - 1 No	24 months	Month											
e	10HP Centrifugal Monoblock stromwater pumpset - 1 No	24 months	Month											
2	Comprehensive maintenance of Split AC units along with stabiliser /industrial plug and socket etc i/c arranging specialised manpower and materials for replacement of faulty components, attending faults, and carrying out periodical checks as per maintenance schedule etc as required. In case of failure of compressor, the same shall be replaced with new compressor.													
a	Split AC with compressor under warranty from supplier/ manufacturer	48 Unit Months	Unit month											
b	Split AC	72 Unit Months	Unit month											
	<b>SH- III Misc Items</b>													

UNPRICED SCHEDULE

1	Supplying of following materials / accessories in the existing Lamp Fitting, Fan, switchboard, compound light pole, MCB DB, LT Panel, for attending the daily faults received from the various offices occupied in the building etc on all seven days a week including removing the faulty components and replacing with new items shall be done by labours provided in SH-I etc as required.													
	Note: These item shall be replaced only if the items under maintenance becomes faulty & with the consent of EE (E) /SDE(E) / JTO(E).													
a	36W Fl. Tubes	250 Nos	Each											
b	Electronic Ballast suitable for 36/40 W Fl.Tube	75 Nos	Each											
c	Starters for FL. Fittings	50 Nos	Each											
d	Side holder for Fl. Fittings	25 Nos	Each											
e	2.5 mfd capacitor for ceiling fan	50 Nos	Each											
f	Replacing of bearings including greasing in the Ceiling/ Wall mounting fan	25 Nos	Each											
g	Rewinding of Faulty winding in the Ceiling/ Wall mounting /pedestal fan	30 Nos	Each											

UNPRICED SCHEDULE

h	Rewinding of winding coil in the Exhaust fan etc as reqd.	5 Nos	Each											
i	5/6 Amps Piano type switch	25 Nos	Each											
j	3 pin 5/6 Amps socket outlet	10 Nos	Each											
k	15/16 Amps Piano type switch	10 Nos	Each											
l	6 pin 15/16 Amps socket outlet	10 Nos	Each											
m	5A Ceiling Rose	10 Nos	Each											
n	Step type electronic Fan Regulator	10 Nos	Each											
o	5-32 A Single Pole C series MCB	10 Nos	Each											
p	5-32 A Double Pole C series MCB	5 Nos	Each											
q	40A Double Pole Isolator	3 Nos	Each											
r	40A /63A Four Pole Isolator	5 Nos	Each											
s	1 x 1.5sqmm PVC insulated copper wire	50 Mtrs	Mtr											
t	1 x 4 sqmm PVC insulated copper wire	25 Mtrs	Mtr											
u	45W LED lamp	10 Nos	Each											
v	36W CFL/PL lamp	25 Nos	Each											
w	11W CFL/PL lamp	25 Nos	Each											
x	32A HRC fuse carrier and base	5 Nos	Each											
y	32A HRC fuse link	5 Nos	Each											
z	63A HRC fuse carrier and base	5 Nos	Each											
aa	63A HRC fuse link	5 Nos	Each											

UNPRICED SCHEDULE

ab	125A HRC fuse link	3 Nos	Each											
ac	32A TPN SDFU switch (open execution)	2 Nos	Each											
ad	63A TPN SDFU switch (open execution)	2 Nos	Each											
ae	Single tone musical call bell	5 Nos	Each											
	<b>Total</b>													

**IMPORTANT NOTE: \_**

1. The firm shall be responsible to ensure that GST shown in the above columns are correct & Input Tax Credit for the amount shown above is admissible as per GST Act as amended up to date".
2. Tax Invoice /Bill should be pre-printed with all the details as per the requirement under the GST Act.
3. The evaluation and comparison of responsive bids shall be done on the basis of <b>Net cost to BSNL</b> on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., <b>but excluding GST</b>
4. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the terms as specified in the scope of work.
5. No advance payments can be made. Stipulations like levy of interest if payment is not made in a specified time are also not acceptable and the payment is governed by the normal BSNL practice.
6. Bidder must mandatorily quote for all GST components(CGST,SGST,IGST)AS APPLICABLE.
7. Bidders must mandatorily mention correct HSN/SAC codes.
8. The agency shall make payment as per extant minimum wages. They shall make the payment online or through bank and shall produce proof of payment along with every bill.

**INVENTORY DETAILS.**

<b>El &amp; Fans</b>	5930 sq.mtr
<b>Pumps</b>	
3HP Centrifugal Monoblock pumpset	2nos.
5HP Centrifugal Monoblock pumpset	1nos.
2HP Centrifugal Monoblock pumpset	1no
1.5HP Borewell Jet pump	1no.
10HP Centrifugal Monoblock stormwater pumpset	1 no
<b>Compound Light</b>	
150 W SV lamp poles	2nos.
Gate light	4nos.
FL Lamps poles	5 Nos
36 W CFL lamps wall mounting	12 No
<b>S/T AC units 1.5TR i/c stabilizers (more Than 5 Years)</b>	3 Nos
<b>S/T AC units 1.5TR i/c stabilizers (compressor under warranty)</b>	2 Nos
<b>E/A Set (only Operation)</b>	
1x 500 KVA EA set	1 No
1 x 425 KVA EA set	1 No
<b>Substation (only Operation)</b>	
1 x 630 KVA Transformer	1 No
1 x 400 KVA Transformer	1 No
HT Panel	1 No
<b>Pr Package AC Plant (only Operation)</b>	
7 TR Precision AC Units for 5ESS	5 Nos
7 TR Precision AC Units for OCB	4 Nos

## **GENERAL CONDITION**

### **SCOPE OF WORK**

Scope of the work covers the following:

1. Comprehensive maintenance of Split type AC units and pumps
2. Replacement of faulty components in EI & Fans and compound lighting
3. Monitoring of operation of HPAC plants
4. Operation of substation and DG sets
5. Checking the healthy condition of FAP on a daily basis and reporting

### **METHODOLOGY**

- 1) At the start of work, firm shall prepare an inventory of services under operation jointly with J.T.O (E)/SDE (E), concerned.
- 2) Before start of the work complete equipments/services under scope of operation / Maintenance shall be thoroughly examined by the agency jointly with SDE(E)/JTO(E) concerned. All Defects/discrepancies should be brought to the notice of the SDE(E)/JTO(E) in writing within first 15 days of award of work.
- 3) The contractor shall provide minimum qualified staff at the site, which will be adequate to perform routine operational functions. For optimum utilization one person can be responsible for number of services. Also the staff engaged must be available round the clock, round the Year even on holidays.
- 4) At the start of each month, the firm in consultation with the SDE (E) concerned shall prepare a Program for preventive maintenance if any, to be carried out during the month. The actual maintenance carried out shall be recorded in **Annexure-X** at the end of each month as per maintenance schedule vide **Annexure-V A to N** . and Firm Shall Maintain Log Book as per **Annexure VI to IX**
- 5) Firm Shall submit bills along with a Certificate as per **Annexure - XI**
- 6) If during the period of contract, any of the electromechanical services are added/ altered, the operation of the same shall be done by the firm..
- 7) The details in the section are approximate to give an idea of services to be maintained. Any variation on higher or lower side shall deem to be included. However the tenderer are advised to inspect the site (s) and make them acquainted before quoting.

### **2-OPERATING PERSONNEL**

- i. **The personnel employed for carrying out the work and their skill requirement is as follows:**

Services	Type	Skill requirements	No. of personnel	To be based at
Operation of substation, E/A sets, C/L and Pump	Skilled	ITI with wireman competency certificate.	One person per shift for <b>three shifts</b> per day.	Site of operation
	Unskilled		One person per shift for <b>One shifts</b> per day.	Site of operation

The person(s) deputed for the job should-

- a) Know how to treat the persons suffering from electric shock / burn etc.
- b) Be able to operate fire extinguisher.
- c) Make himself familiar with the distribution scheme, the switches controlling various loads and also its importance.

- d) Clearly understand what is to be done in case of an emergency. This should be done in consultation with Engineer – in – charge.
- e) Operate E/A set
- ii. The operating staff has to be available round the clock at the specified shift. Since the firm will be doing the operation of critical service requirement such as Sub Station and DG sets. operating staff shall be able to take initial steps under emergency situation such as failure of TANGEDCO supply, fire, shocks etc. In case of operation on HT side i.e Tap changing of transformer or Changing of transformer from I to II vice versa shall be carried out under the supervision of 'C' Licence holder and same shall be carried out without any extra cost.

## **COMMERCIAL**

- The workers engaged by firm should maintain proper discipline and good behavior with occupants.
- The firm shall remove such workers from the site whose behavior improper, Executive Engineer's decision shall be final.
- Any damage to the Installation(s) / Building during the maintenance period due to the carelessness on the part of maintenance staff shall be the responsibility of firm & be replaced /rectified without any extra cost.
- The agency will provide the workers necessary T & P, Testing & safety equipments.
- Any accident of damage during maintenance / operation will be the responsibility of the agency & the Department will not entertain any claim. Compensation, Penalty etc. on this account of non observances of any other requirement of law relevant to his work.
- Agency has to observe all the labour rules & regulations in force.
- The agency has to supply details as per **Annexure I** of all the workers likely to be engaged by him before start of the work and get it approved by Executive Engineer.
- Firm should also supply two pass port size photographed identity cards of the workers. One copy of the identity card should be submitted to SDE(E) in charge of the maintenance and original shall bear with the workers.
- Dismantled materials shall be returned to the BSNL except those items for which the replacement is supplied by the agency.
- The BSNL reserves the right to carry out any work at the risk and cost of the agency, if the agency fails to perform any duty as per the contract.
- The Tenderer must obtain himself at his own expenses all the information necessary for the purpose of tendering.
- Inspect the site & acquaint himself with all local conditions, means of access to work & nature of work etc. no claims shall be entertained on these accounts.
- The rates quoted must be full & final, [Inclusive of all charges like fixing / laying of department materials, making good the damages etc.]
- Nothing extra is payable other than the quoted rates unless specified.
- The contractor shall not sublet the work or part thereof. However, services of specialized agencies for specific work can be obtained.
- The firm shall maintain the Installation(s) in such a way as to provide uninterrupted working of AC plant the exchange / Bldg. In case of Ac plant failure of more than 1



hour in a day, the firm can be penalized if this is on account of carelessness on the part the Contractor. The decision of EE (E) shall be final.

- The firm at his own cost should arrange the sitting arrangement for the staff engaged by them. The space, water, Telephone & electricity shall be made available by the Department at free of cost.
- The BSNL reserves the right to terminate the contract by giving show cause notice of one month duration at any time during the currency of the contract.
- The contractor has to keep all the Electro mechanical equipment at site neat and clean to avoid any accident and fire hazard
- Since the firm will be doing the maintenance and operation of AC plant, responsible & trained person(s) should be placed round the clock at site who could take initial steps under emergency situation.
- Firm should have round the contract telephone number. In case of Emergency contractor and authorized engineer supervisor shall be available at site on short notice from engineer-in-charge and make efforts to make the situation normal at the earliest.
- A complaint book as per **Annexure-IV** shall be kept up to date at site by the firm and the same shall be available for checking & verification.
- The staff engaged by the firm shall bear I-Card issued by the firm, while on duty.
- After the contract period is over the Installation has to be duly handed over to the BSNL. The contractor shall be responsible for any discrepancies vis-à-vis, the status of installation at the start of work plus any modification carried out during the currency of the contract.
- Any defects, and shortcomings brought to the notice of the department at the time of the taking over of the site by the contractor from the earlier agency or from the BSNL shall be the responsibility of the Dept.
- The contractor agrees that he shall at all times indemnify BSNL against all claims for compensation under the provisions of any law for the time being in force or in respect of any person employed by it in carrying out the contract. Further, such staff has no right to claim employment in BSNL.
- Contractor has to observe all the labour rules and regulations in force & BSNL shall not be liable for any default.
- The firm shall also coordinate with the JTO (E) / SDE (E) for carrying out energy audit/capacity test at site with respect to all Electromechanical Services whenever required.
- BSNL is having right to pre close the agreement in special cases with one month notice without assigning any reason.
- BSNL is having the right to curtail the quantity according to the requirement

## **6.0 TOOLS & PLANTS**

a) The firm at its own cost shall provide a lockable tools box preferably in the substation within 15 days of taking over of installation.

The tools box shall contain minimum tools as follows

- i. Line Tester
- ii. Insulated Cutting Plier
- iii. Insulated Screw Driver

- iv. Torch Light
- v. Waste Cloth
- vi. Ring and adjustable spanner -1 Set
- vii. Insulated Hand gloves HT**
- viii. Test Lamps
- ix. Tong tester
- x. Earth discharge rod

In addition to the above, the firm shall generally possess the following T & P with them, according to the services covered under the scope.

a. **General**

- 1. Crimping tool suitable for 6 Sq.mm To 300 Sq.mm Cable.
  - 2. LT meggar
  - 3. HT meggar
  - 4. Earth tester
  - 5. Hammer
  - 6. Blower for cleaning.
  - 7. Drilling Machine
- b) The above list is general and any other requirements for smooth O&M of installation shall be contractor's responsibility and he shall not claim anything extra on this account.
- c) The Firm/Contractor will provide the workers with necessary Testing and Safety Equipment.

**PENALTY CLAUSE**

- 1. Any damage to the installation(s)/building due to the carelessness on part of firm's staff shall be the responsibility of firm and shall be replaced/rectified without any extra cost
- 2. Any accident or damage will be the responsibility of agency and the BSNL will not entertain any, claim, compensation, penalty etc on this account or on account of non observance of any other requirement of law relevant to his work.
- 3. If the agency fails to rectify any fault within reasonable time, the department reserves the right to carry out the work at the risk and cost of the agency. In case the fault is of emergency nature which may affect the normal functioning of the services and the firm fails to take immediate necessary action, the work shall be carried out the risk and cost of the firm without giving any notice. The decision of the EE(E) shall be final
- 4. In case of unsatisfactory performance during this period one Percent (1%) penalty of the bill amount shall be imposed.
- 5. For repeated unsatisfactory performance during the contract period penalty up to 5% of bill amount shall be imposed. Decision of Executive Engineer (E) shall be final on this account.
- 6. In case of absence of worker from the duty on any day, penalty shall be made @ double prorata basis as applicable per person per shift. (Staff employed of less than the prescribed qualifications/ non-obedient workers deployed at site, in spite of written instructions to remove such persons from site, shall be treated as absent). The Decision of the Executive Engineer shall be final & binding.

**PENALTY FOR DEFICIENCY IN SERVICE:**

SERVICE	SERVICE CONDITIONS	PENALTY FOR DEFICIENCY IN SERVICE
Pumps & S/T AC	Faults pending more than 48 hours (Affecting the performance)	Rs. 500/- per day

**Note:-**

1. In case contractor fails to comply with preventive/ periodical maintenance schedules for AC units/ services, payment for such services for that particular period will not be made. In addition penalty of 25% of one month's bill amount for such units/services shall be imposed.
2. In case of a major accident/loss on account of negligence on the part of the contractor, the contract shall be terminated and 10% of the estimated cost shall be recovered. Decision of Executive Engineer (E) shall be final and binding on the contractor.
3. Repair etc. of faulty equipment for which comprehensive maintenance is included, if not done by the firm, will be got done at the risk & cost of firm, beyond 7 days of continuing failure, without further notice. The decision of EE (E) shall be final in this regard.
4. Notwithstanding the compensation clause described above, BSNL reserves the right to take necessary steps for maintenance of the services at the risk and cost of the contractor within two day's notice or as decided by the Engineer-in-Charge, depending upon the graveness of the situation attributed to the contractor. BSNL also reserves the right to carryout scheduled maintenance activity, if not done by the agency, at its risk & cost.

**SPECIFICATION**  
**EI & FANS**

**Part-I: Scope of Maintenance:**

- Ensuring that EI installation is always kept in clean, healthy working condition.
- Attending day-to-day routine complaints in the prompt and satisfactory manner.
- Ensuring that no breakdown, in power supply takes place and in case it happens to take all required steps including contacting supply co. for earliest restoration.
- Maintaining the installation i.e. fans fittings and other components of the installation in clean condition including proper sign writing.
- Ensuring that there is no wastage of electrical energy. Details of steps to be taken in this regard to worked out in consultation with the maintenance in charge.
- Carrying out minor additions and alternations order by Engineer in charge (Materials required shall be supplied by the BSNL)
- Carrying out various maintenance routines and test as stated in part III.
- Maintaining Registers for complaints and test results.
- In case of staff quarters, scope of maintenance is limited to the wiring and accessories as per the standard yard stick of the department and shall not cover the additional / alterations carried out by the occupants.

**Part II Tasks To be Performed within first 15 days.**

**Following items should be carried out within first 15 days.**

- Establish an Enquiry office and organize a system with the approval of Engineer – in – charge so that complaints can be received and attended properly.
- Measurement of the resistance of Earth Stations of EI System and checking of the continuity of earth conductor. Results to be recorded.
- Preparing an inventory of materials to be kept at site for prompt maintenance in consultation with Engineer-in-Charge. Materials for all the services to be considered for preparation of inventory.
- Inspection of Main board & SDBs for (a) any loose./improper connection (No strand cutting for making connection to be allowed), (b) improper rating of switches /fuses/(c) Cleanliness.
- General inspection of EI system to identify shortcoming. Also any other relevant aspect, which may come in the way of proper maintenance, should be recorded in Register and also brought to the notice of Engineer-in-charge
- Insulation Test.

**Part III Maintenance Schedule to be followed**

- i) Testing of Earthing state for earth resistance and continuity – After every six months of initial testing.
- ii) Inspection of MB & SDB-every month after initial testing.
- iii) Insulation test of MB & SDB-every month after initial testing.
- iv) Greasing and oiling of fans, fitting etc on regular basis so that installation is always clean.
- v) Broken/incomplete louvers of fittings, switch plates etc. to be attended at the earliest.

Note: Materials required for minor additions and alterations shall be supplied by the BSNL.

### **COMPOUND LIGHTING**

#### **Part – I: Scope of Maintenance**

- Ensure that the compound lighting installation is always kept clean, and in healthy condition.
- Attending day-to-day routine complaints in prompt and satisfactory manner.
- Ensure that there is no wastage of electrical energy and lights do not remain switched on when not needed.
- Carrying out various maintenance routine and test as stated below.

#### **Part-II: Tasks to be performed within first 15 days.**

- Inspecting the entire installation comprising of control switches, cable, poles fittings, lamps and earthing for any short comings. Recording the same and bringing it to the notice of Engineer-in-charge
- Checking earthing system for proper efficiency.
- Checking the connections for any loose/improper connecting (no strand cutting for making a connecting to be allowed).

#### **Part – III: Maintenance schedule to be followed.**

- Cleaning of fittings on a regular basis so that fittings are always in clean condition.
- Checking earthing system after every six months of initial check.
- Checking for proper electrical connection after every six months of initial check.

### **PUMP**

#### **Part - I: SCOPE**

In case of water supply pumps the scope covers not only the proper maintenance of the pumps but also ensuring that water supply is available in the building. The pumps have to be operated as and when required for ensuring water supply.

- Keeping the system comprising suction lines pumps discharge line & Electrical panel in healthy and clean condition.
- Desilting of bore wells not in the scope of contract.
- Following maintenance schedule as given below.

#### **Part - II : TASKS TO BE PERFORMED WITHIN FIRST 15 DAYS**

- The entire installation should be checked for efficient functioning and shortcoming if any pointed out.
- The earth system should be checked for Earth resistance and continuity.
- The agency should discuss and finalize the working schedule of the pumps for operation.
- Should familiarize with the location of under ground tanks overhead tanks and functioning of various valves.
- Check electrical system for proper contacts and cleanliness.
- Leakages in pumps, pipe line etc.

#### **Part-III : MAINTENANCE / OPEARATION SCHEDULE**

- To monitor on daily basis that the system is in healthy working condition, leakage & breakage and malfunctioning of safety devices to be attended.
- Pumps to be operated for ensuring water supply in the building blocks.

- On daily basis check for :
  - (i) abnormal heating of the pump sets.
  - (ii) abnormal noise
  - (iii) gland leakages
- Check alignment of pump motor quarterly.
- Measure earth values at six month interval after last test.
- Log book detailing pumps operation time to be maintained.
- 

#### **Part - IV : MATERIALS**

All the materials required for carrying out maintenance with the exception of following shall be arranged by contractor at his own cost.

- (i) Replacement of pumps
- (ii) Replacement of Motor
- (iii) Replacement of Suction / delivery lines.

### **WINDOW / SPLIT AC UNITS MAINTENANCE**

#### **PART-I: SCOPE OF MAINTENANCE:**

- a) Keep all the units in clean & healthy working condition.
- b) Attending day to day faults promptly.
- c) Carrying out maintenance tasks as mentioned in Part-III.
- d) A/C unit maintenance card as per Performa enclosed shall be maintained by the contractor and kept near ac units and it shall be available for checking and attesting by the competent authority or his duly authorized representative .A duplicate copy of the card shall be with the firm and shall be submitted to SDEE as and when required
- e) Service report as per proforma enclosed shall be submitted with every bill.
- f) The A/C units shall be handed over to BSNL in satisfactory working condition on the completion of the comprehensive maintenance.

#### **PART II: TASKS TO BE PERFORMED WITHIN 15 DAYS**

Following tasks should be carried out within 15 days.

- 1) Shall carry out tests as per test schedule before taking over the maintenance.
- 2) Shall collect information like the telephone numbers of the BTS in charge, JTO(E), SDE(E),EE(E),Fire service, Supply Company, Local Hospitals, Emergency Services etc. and preserve it in the maintenance office.

#### **Part III – MAINTENANCE SCHEDULE TO BE FOLLOWED**

##### **Monthly**

- a) Check of air filters & clean them
- b) Checking of Electrical Connections
- c) Check voltage stabilizer provided with A/C unit.
- d) Check for leakage of condition air.
- e) Check that fins are clean.
- f) Check the window AC control unit.
- g) Check for tripping of compressor by thermostat.
- h) Check any combing is required in the fins at the back of the unit and other items as per monthly service report

##### **Quarterly**

- a) Cleaning /water washing of window unit or condensing unit in case of split AC units/High sensible AC.

#### **Part IV: Materials.**

- a) All the materials required for carrying out maintenance except the following shall be arranged by the firm at his own cost.
- i. Replacement of complete AC unit.
  - ii. Replacement of complete voltage stabilizer.

The contract is for comprehensive maintenance of AC units and the firm shall arrange all materials including replacement of spares, fans, motors and compressors, Gas etc. at his own cost.

Rewinded/ Cut compressors, rewinded blower/condenser motor shall not be used. The faulty compressor, blower/ condenser motors shall be replaced with new one.

For Split AC with compressor under guarantee, Agency has to coordinate with supplier/ Manufacture for smooth replacement of compressor i/c transportation of faulty compressor to supplier.

#### **FIRE DETECTION (Operation Only)**

##### **Part - I: SCOPE OF MAINTENANCE**

- To ensure that complete fire detection system is always clean and in healthy working condition.
- Perform daily checks as per part III.
- To perform tasks subsequent to a real alarm situation as per part III.

If any fault / discrepancies are found report immediately to JTO (E) / SDE (E) and Coordinate with concerned agency for earlier clearance of fault / Discrepancies.

##### **Part - II: TASKS TO BE PERFORMED WITHIN FIRST 15 DAYS**

- Familiarize the maintenance personnel with the Fire Detection and Alarm System and their responsibility in consultation with maintenance in charge.
- Inspect the complete system for proper functioning. Any shortcoming noticed should be recorded and brought to the notice of Engineer-in-charge.

##### **Part - III: MAINTENANCE SCHEDULE TO BE FOLLOWED**

- (1) Check working of PA system on daily basis.
- (2) Check working of F/D system from the control panel on daily basis.
- (3) Check battery for proper charge, water level & clean contacts on daily basis

#### **Operation of EA set**

##### **Part-I Scope of Operation**

All operations (labour only) such as On/off of EA sets, maintaining records of all parameters, diesel filling, radiator coolant filling, and battery checking and cleaning of EA sets etc pertaining to EA set is also the responsibility of the firm. All tools required for proper operation is in scope of operation.

Run engine for at least 5 minutes every day to ensure proper working of engine and inform to SDE for any abnormalities.

1. The following check are to be done before starting of the Engine:-
  - a) Check and correct coolant/water level in radiator
  - b) Check & correct belt tension

- c) Check lube oil level
- d) Check and ensure sufficient Quantity of fuel in the tank
- e) Check battery terminals and connections for proper tightness-top up of distilled water if reqd.
- f) Check battery Voltage

2. After starting the Engine:-

- a) Check lube oil pressure
- b) Check all meters, engine noise etc and inform to SDE(E)/JTO(E) for any abnormalities in writing .

**Part II- Tasks to be performed within 15 days**

1. Inspect the installation for any shortcoming, which is to be recorded and brought to the notice of Engineer-in-charge.
2. Check the safety devices as well as operating switches for their proper functioning.
3. Any defective item to be informed promptly.
4. Identify qualified persons responsible for maintenance and operation of EA set
5. The person(s) should familiarize themselves with the installation, load distribution and working of E/A set. Need for watch to keep various parameters in permissible limits and responding to various alarms should be clearly understood.
6. Inspect the EA room for proper ventilation
7. The Engine capacity vis-à-vis the loads being supplied should be checked to ensure that there is no mismatch.
8. Check the earthing system for proper values. The results of inspection as above should be recorded in register and brought to the notice of Engineer-in-charge.

**Part III : Schedule to be followed.**

**Daily :**

1. Check the availability of diesel. .Coordinate with the SDE/JTO incharge for filling of diesel. Agency shall keep a record of diesel consumption and diesel stock and updated in time.
2. Check the level of water in the radiator. top up if needed.
3. Check the state of battery, terminals for cleanliness & level of water.
4. Check the Lubricating Oil level. Top up if necessary.
5. Ensure cleanliness of the EA room.
6. Check air line connection and air breather for cleanliness. Clean the air filter, if necessary.

**Monthly:**

1. Checking and cleaning control panel
2. Proper working of safety devices and alarms should be ensured on monthly basis.
3. Checking alarms/ safety devices
4. Checking of earths-watering earth pits
5. Checking of EA room lights and ventilation
6. Cleaning radiator fins by blowing air in the opposite direction
7. Proper working of safety devices and alarms should be ensured on monthly basis.

**NOTE: - If anything adverse is noticed during the checks, the matter shall be reported to the Engineer- in- charge in writing.**

**Part IV: Materials**

1. Since the work is not of comprehensive maintenance nature, wherever material requirement is there, the same shall be promptly reported to SDE(E)/JTO(E)



## **Operation of Substation**

### **Part-I Scope of Operation**

- Ensuring that HT Panel, Transformer, LT Panels Capacitor panels & outdoor structure(If available) as well as connecting cables, constituting the Substation are in healthy & clean condition.
- Monitoring on continuous basis, power factor & peak load and ensuring that these are maintained within limits to avoid penalty.
- To disconnect total electric supply or individual loads in case of emergent situation to avoid/limit damage.
- To ensure continuous power supply and in case of breakdowns take steps to ensure restoration at the earliest. Carry out general inspection with a view to identify shortcoming if any in the Substation installations.
- Check all the switches & meters for proper operations.
- Check availability and working of fire extinguishers at earmarked location
- Check the earthing system for the proper earth values & continuity of earthing system once in 6 month.
- Check oil level in all the equipments to ensure proper levels.
- Check power factor meter, for proper functioning.
- Check all the Electrical connections for proper tightness .
- All tools required for proper operation is in scope of operation.
- Coordinate and pursue with the suppliers for repair/ replacement of faulty items, which are under warranty coverage. Extend full cooperation to the agency carrying out installation and maintenance of work in the area of operation

### **Part II – Tasks To Be Performed Within First 15 days.**

1. Identify a person(s) with necessary competence to be responsible for sub- station maintenance. The person (s) deputed for sub-station job should know how to treat the persons suffering from electric shock/ burn etc. Be able to operate fire extinguisher. Make himself familiar with the distribution scheme the switches controlling various loads and also importance their of. Clearly understand what is to be done in case of an emergency. This should be done in consultation with Engineer In charge.
2. Carry out general inspection with a view to identity short coming if any in the sub-station installation.
3. Check all the switches & meters for proper operation.
4. Check availability and working of fire extinguishers at earmarked locations.
- 5 Check operation of all the safety devices like relays and fuses.
6. Check the earthing system for the proper earth values & continuity of earthing system.
7. Check insulation value of the equipments.
8. Carry out meggar test.
9. Check oil level in all the equipments to ensure proper levels.
10. Check power factor meter, maximum demand meter for proper functioning.
11. Check all the Electrical connections for proper tightness. All result of above inspection to be recorded and brought to the notice of Engineer- in –charge. Specially highlighting short comings for necessary action.

### **Part- III Schedule to be followed**

#### **Daily:**

- 1.Cleaning of Sub Station / Panel Room including clearing of cob webs. Also ensure that no waste materials are dumped in the Substation/ Panel room. Any difficulties/ discrepancies shall be reported to SDE(E)/JTO(E).

2. Check of all measuring instruments for proper functioning. In case of faulty meters, it shall be recorded and reported to SDE(E)/JTO(E).
3. Check for abnormal temperature / heat in Transformer / Panels and reported to SDE(E)/JTO(E).
4. Check for any abnormal noise in Sub Station equipments and reported to SDE(E)/JTO(E).

**Monthly:**

1. Watering of earth pits and tightening of connections.
2. Check capacitor panel for proper functioning.
3. The colour of the breather attached to the transformer.
4. Check for proper working of all the measuring instruments.
5. Check for electromechanical interlocking.
6. Record of various readings in the log-books and inform any abnormality

**Half yearly:**

1. Check HT tripping circuit for proper functioning. In case of out door installation check operation of GOS.
2. Checking & cleaning of insulators.
3. Checking and cleaning of lighting arrestors.
4. Checking & cleaning of drop out fuses.
5. Earthling systems check.
6. Check working of Relays and other protection Devices.
7. Insulation measurement of the system.
8. ON/OFF operation of all switches, operating mechanism wherever required, particularly in case of outdoor installation.
9. Cleaning of HT/LT OCB/ACB/ other switchgears contacts & tightening of connections.

**NOTE:-If anything adverse is noticed during the checks, the matter shall be reported to the Engineer- in- charge in writing.**

**Part IV: Materials**

Since the work is not of comprehensive maintenance nature, wherever material requirement is there, the same shall be promptly reported to SDE(E)/JTO(E)

### **List of Annexure**

SL NO	Description of Annexure	Annexure
1	Details to be supplied before starting the work & Details of staff to be posted	III
2	Complaint Register	IV
3	Periodical Schedules/ Maintenance Activity	V- A to N
4	Log Book for Sub Station	VI
5	EB Bill register	VII
6	Log Book for EA set	VIII
7	Log Book for HPAC Plant	
8	Format of Abstract of actual periodical maintenance carried out in the quarter ending _____	IX
9	Certificate to be submitted along with each bill	X

### **Annexure - III**

#### **A. Details to be supplied before starting the work**

1.	Name of the Agency (with Office address & E-mail Address)		
2.	Name of the Proprietor		
3.	Telephone No.(s) of the firm		
4.	Name & Address of the Supervisor		
5.	24 Hours contract No.		
6.	Particulars of the License/		

#### **B. Details of the Staff to be posted at site**

	Name & Address	Qualification	Responsibility
1			

### **Annexure – IV**

#### **COMPLAINT REGISTER**

	Officer / Sections lodging complaint	Nature of complaint	Date & Time redressal of complaint	Acknowledgement of rectification by complaint	Remarks

**Annexure – V-A**

**MAINTENANCE SCHEDULE-CEILING FAN**

FREQUENCY-YEARLY (FEB)

Location	Hanging Arrangement i/c hook Safety pins check nuts etc.	Check greasing (If reqd. apply)	Painting sign writing reqd. or not	Fans working ok/not ok	Sign of AWM/WM	Sign of occupant	Sign of JTO

**Annexure – V-B**

**MAINTENANCE SCHEDULE – EXHAUST FAN**

FREQUENCY – HALF YEARLY (FEB./AUGUST)

Location	No. of Exhaust Fans	Mounting Arrangement	Condition Of Louvers OK/not OK	Painting Is reqd. or not	Fans Working OK/not OK	Sign. of AWM/WM	Sign. of Occupant	Sign. of JTO

**Annexure – V-C**

**MAINTENANCE SCHEDULE – WALL/CEILING MOUNTD TYPE FITTINGS**

FREQUENCY – HALF YEARLY (MAY/NOV.)

Location	No. of Fittings	Cleaning	Check whether Fixing Arrangement is sound or not	Painting Is reqd. or not	Remarks	Sign. of AWM/WM	Sign. of Occupant	Sign. of JTO

**Annexure – V-D**

**MAINTENANCE SCHEDULE – BUILDING AND COMPOUND LIGHT**

FREQUENCY – HALF YEARLY (MAY/NOV.)

Location	No. of Fittings	Check Wiring	Any Defect/shortcoming noticed	Remarks	Sign. of AWM/WM	Sign. of JTO

**Annexure - V -E**

**MAINTENANCE SCHEDULE – SWITCH BOARD  
FREQUENCY – HALF YEARLY (FEB./AUGUST.)**

Location	Cleaning the switch board & ensure that all connections are tight i/c earth and also plate is properly fixed	Checked & attended all items	Items to be attended	Remarks	Checked by
.					

**Annexure – V-F**

**MAINTENANCE SCHEDULE-SDB'S  
FREQUENCY- HALF YEARLY (APRIL/OCT)**

Location	Cleaning and tightening connections	Replacement of faulty MCB's Fuse/ Fuse Base grip if any)	Painting & sign writing if reqd.	Remarks	Sign of AMW/ WM	Sign of occupant	Sign of JTO

**Annexure – V- G**

**MAINTENANCE SCHEDULE – SAFETY MATS & TOOLS  
FREQUENCY – MONTHLY (I WEEK)**

Location	Condition ok or not ok	Cleaning	All tools available not (repeat if reqd.)	Condition of tools & glove ok or not ok)	Remarks	Sign. of AWM/WM	Sign. of JTO

**Annexure – V-H**

**MAINTENANCE SCHEDULE – FIRE ALARM SYSTEM  
FREQUENCY – DAILY**

S. No	Description of Item	MONDAY TO SUNDAY	Remarks
1.	Check the power supply position of all the panels placed at various floors & buildings		
2	Check the LEDs or panels through lamp test switch		
3	Check the healthiness of battery from battery low indication on panel		
4	Check any fault if indicated on any or the panels		
5	Check Operational readiness of the system during mains failure		
6.	Cleaning the control panel and surrounding		

**Annexure – V-I**

**WINDOW/SPLIT AC UNITS MAINTENANCE CARD/ SERVICE REPORT FORMAT**

**AC UNIT MAINTENANCE CHART TO BE PLACED NEAR EACH AC UNIT.**

**WINDOW/SPLIT AC UNITS MAINTENANCE CARD FORMAT (W-1)**

**FRONT SIDE OF CARD**

SITE/LOCATION: -

AMC FIRM:-

EQUIPMENT: -

FIRM'S PH NO:-

CAPACITY: -

JTO (E)'S PH NO:-

MAKE & SL NO: -

SDE (E)'S PH NO:-

DATE	TYPE OF MAINTENANCE DONE	SIGN OF MECHANIC / ELECTRICIAN	REMARKS	Sign of BSNL officers

**BACK SIDE OF CARD**

DATE	NATURE OF COMPLAINT	ATTENDED ON	FAULT CLEARED/N OT	IF NOT, REASONS	SIGN OF MECHANIC	REMARKS

**MONTHLY SERVICE REPORT FOR WINDOW/SPLIT/SLIMLINE/CASSETTE TYPE AC UNITS**

Monthly service details for the month of \_\_\_\_\_

Floor		
Location		
Unit type		
Capacity		
<b>Description</b>		
<b><u>Electrical System</u></b>		
Plug & socket condition ( OK/N ok)		
Current ( amps)		
Condition of starting relay ( OK)		
Condition of starting capacitor( Ok)		
Tightness of connections( OK)		
Earthing ( Tight)		
Condition of starter & stabilizer (working/ Not)		
Condition of remote (Available/ Not Available)( Working/Not Working)		
<b><u>Control system</u></b>		
Thermostat( working		
temperature set( degrees)		
<b><u>Refrigeration System</u></b>		
Compressor (Working, Any noise)		
Condenser/cooling coil		
Capillary tube( OK/Not Ok)		
Gas leakage ( observation)		

<b><u>Air Circulation System</u></b>		
Evaporator Fan ( Ok/Not)		
Condenser fan( Ok/Not)		
<b><u>Ventilation &amp; Exhaust</u></b>		
Filter/condition( Cleaned)		
Drain pipe ( any loose connection/ leakage)		
Damper Louvers condition( Firm)		
Overall Condition of the unit(satisfactory/ Not satisfactory)		

Sign of AC mechanic

**Note:** While checking for this item i.e. Window/split unit in a particular room/area please look around and see whether other electrical items like fittings, switch board, sockets etc are generally in proper working condition or not. If not initiate action.

**Annexure - V -J**

**DAILY MAINTENANCE ACTIVITY**

<b>Daily maintenance activity</b>		<b>Time of Check:</b>
PARAMETER	OBSERVATION	ACTION TAKEN FOR ABNORMALITY/INACTION
<b>TRANSFORMERS/SUBSTATION EQUIPMENTS</b>		
Room/substation cleaning	Done/ Not done	
Whether all instruments are working	(Yes/No)	
Abnormal Temperature	( No/Yes)	
Abnormal Noise	(Yes/ No)	
Working of Instruments	Ok/ Not OK	
<b>E/A SETS</b>		
Check Availability of Diesel		
Check level of water in radiator, Top up if needed		
Check state of battery		
Check lubricating oil level, top up if necessary		
Check air line connection and air breather		
Check of terminals of batteries		
Check Battery water level		
Cleanliness of area around EA set		

In case of abnormality the operator shall report the same to the JTO (E)/SDE (E) concerned.

**Signature of the operator**  
(The above shall form part of log book)



## Annexure – V-K

### PERIODICAL SCHEDULES (CHECKS)

**Note: The periodical schedule sheets shall be suitably placed in the log book itself.**

#### A. MONTHLY REPORT

EA SET					
	Activity		E/A set 1	E/A set 2	E/A set 3
	Date and time				
	Checking and cleaning control panel Checking alarms/ safety devices  Checking of earths-watering earth pits Checking of EA room lights and ventilation Cleaning radiator fins by blowing air in the opposite direction	Done/ Not done  Working/ Not working Done/ Not done  Ok/ Not Ok  Done / Not done			

## Annexure – V-L

SUBSTATIONS					
	Check capacitor panel for proper auto functioning	OK/ Not OK			
	Check of colour of breather, if any	Blue/White/ Pink			
	Check of Electro mechanical interlocking	Easy/ Difficult			
	Check of log book entries and reporting any abnormality	Entries done properly/ not			
	Cleaning the surface of the transformers and panels	Cleaned/ Not			
	Check First Aid box and its replenishment	Ok/ Not Ok			
	Check proper placing safety mats, cleaning and their physical condition	Ok/ Not OK			
	Checking of earths-watering earth pits	Done/ Not done			

**Annexure – V- M**

**B.HALF YEARLY ACTIVITY FORM**

**EARTHING SYSTEM**

Date:

Location	No. of Earth electrode	Earth PIT Chamber condition	Earth Resistance	Recorded by	Signature of BSNL staff/ JTOE(E)	Remarks

Note:

1. The earth values shall be updated on the cover plate or the place where the values are already sign written along with the date of testing.

**Annexure – V-N**

**CAPACITOR PANEL**

Sl. No	Description of Items	Activity Carried out	Sign of operator	Sign of JTO(E)	Remarks
1	Inspection & checking visual indications & meters				
2	Inspection & checking of TPN switch/MCB for operation & Tightness of connection				
3	Opening the covers and cleaning the panel and surrounding area				
4	Cleaning of contacts				
5	Checking and cleaning of bus bars				
6	Checking earth connections				
7	Checking the current taken by Each capacitor bank				
8	Check the capacitor drawing over 30% current than rated				
9	Disconnect the capacitor having Leakage problem				

**Note:** In case the report shows any abnormality, firm shall inform action needed for restoring to normal condition

## **ANNEXURE VI**

### **LOG BOOK FOR SUBSTATION**

The front cover of the log book shall indicate

**Name of work:**

**Name of contractor:**

1(a) Each page shall contain in one side the following table for recording data

DATE: \_\_\_\_\_

Time	HT PANEL			TRANSFORMER 1							TRANSFORMER 2	POWER MEASUREMENT				SIGN OF OPERATOR	SIGN OF EXCHANGE STAFF
	HT VOLTAGE	HT CURRENT	MD RECORDED	HT Current	LT Voltage			LT Current			Temperature	KWH	KVAH	KVARH	P F		
					RY	YB	BR	RY	YB	BR							
10.00											Same as for transformer 1						
12.00																	

# 1. READINGS SHALL BE TAKEN EVERY TWO HOURS UNLESS OTHERWISE SPECIFIED

1. THE ABOVE IS GENERIC COLOUMNS AND ANY OTHER COLOUMNS/DATA COLLECTION SPECIFIC TO SITE SHALL ALSO BE RECORDED IF INSTRUCTED BY SDE(E)

### **EB BILL REGISTER**

### **AnnexureVII**

Month & Year	Date of recording	Recorded MD	Consumed Units	PF	Bill Amount	Penalty, if any	Remarks

Contractor

EE(E)

**ANNEXURE VIII**

**LOG BOOK FOR E/A SET AT \_\_\_\_\_**

**Name of work:**

**Name of contractor:**

**LOG BOOK FOR EA SET RUNNING OR THE MONTH OF**

Date	E/A set No.	Start time	Stop time	Voltage			Load Current			F r e q	Spe ed	Lub oil Te mp	Lub oil Pr.	Water Temp	Diesel level Ltrs		KWH	
		Hrs	Hrs	RY	YB	B R	R	Y	B	Hz	RP M		Kg/c m2		Start	Stop	Start	Stop

**LOG BOOK FOR HPAC Plant (Only Monitoring)**

**ANNEXURE IX**

Date/Time	5ESS Plant			OCB Plant		
	No of AC Units working	SI No of AC units working	Switch Room Temp	No of AC Units working	SI No of AC units working	Switch Room Temp
<b>00.00 hrs</b>						
<b>03.00 Hrs</b>						
<b>06:00 hrs</b>						

**Note: Only Printed Log books shall be used at site**

Contractor

EE(E)

**ANNEXURE -X**

**CERTIFICATE TO BE SUBMITTED FOR MONTHLY SCHEDULED ACTIVITIES**

Name of contractor: \_\_\_\_\_.

Agreement No. : \_\_\_\_\_.

Site :

Certificated that Monthly/Quarterly/halfly/Yearly Maintenance for Month of -----  
-- -----have been carried out properly as per Maintenance schedule (Annexure –IX) and as  
per terms and condition of the agreement and i/c testing/drills etc. required during the period  
has been performed. Except the following due to the reasons mentioned against the respective  
item:

Sl.No	ITEM/SERVICES	REASONS FOR NON OPERATION

**Contractor's representative**

**Exchange In- Charge**

**JTO(E)**

**SDE(E)**

**ANNEXURE - XI**

**CERTIFICATE TO BE SUBMITTED ALONG WITH EACH BILL**

1. CERTIFIED THAT WE HAVE CARRIED OUT THE PREVENTIVE MTCE. OF ALL THE SERVICES COVERED IN THE ABOVE CONTRACT SATISFACTORILY AND ALL THE SERVICES HAVE BEEN UNDER SATISFACTORY WORKING CONDITION EXCEPT THE FOLLOWING DUE TO THE REASONS MENTIONED AGAINST THE RESPECTIVE ITEM:

Sl.No	ITEM/SERVICES	REASONS FOR NON OPERATION

2. CERTIFIED THAT THE EQUIPMENTS FOR WHICH THE ENERGY EFFICIENCY PARAMETERS HAVE BEEN PRESCRIBED WERE MAINTAINED WITHIN THE PRESCRIBED BENCHMARK.
3. CERTIFIED THAT REQUIRED INVENTORY HAS BEEN REPLENISHED BY US.
4. CERTIFIED THAT EPF FOR THE EMPLOYEES ARE REMITTED.

SIGNATURE OF CONTRACTOR

JTO (E)

SDE (E)

### **SPECIAL CONDITIONS OF THE TENDER**

**In case of any difference between any clause of any section of NIT and that of the “special conditions of contract,” then the “special conditions of contract” shall prevail**

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

### **GENERAL CONDITIONS**

Please note that the offers, which do not comply with the following, will not be considered and will be totally rejected. These instructions supersede the BSNL / EW6 and EW 8 clauses, or any other clauses/conditions appearing elsewhere in the tender, in case of any Disparity.

- 1) Tenders with any condition including that of conditional rebates shall be rejected forthwith summarily.
- 2) The price shall be firm and fixed during the currency of the contract. No cost escalation is permitted. Clause10CC is not applicable.
- 3) No advance payments can be made. The payment is governed by the normal department practice and stipulations like levy of interest if payment is not made in a specified time are not acceptable.
- 4) The firm should deposit EMD before submission of their offer. The EMD of other works returnable to them cannot be adjusted against this work. The firm's offer shall be liable for rejection without fresh EMD for this particular work.

### **1. Terms of Payment:** **For AMC**

- i) Payments shall be made once in three month subjected to submission of monthly report signed by concerned in charge.

### **1(i) INCREASE /DECREASE OF TENDERED QUANTITY**

a) BSNL will have the right to increase or 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.

b) 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.

### **1(ii) CURTAILMENT OF QUANTITY:-**

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

### **2. COMPLETION OF WORK:-**

At the time of issuing NIT for a particular work, the time allowed for completion of work consistent with magnitude and urgency of work is specified. The time allowed for carrying out the work as entered in the contract is reckoned from the tenth day after the date on which the orders to commence the work are given to the Contractor. To ensure good progress of the work during the execution, the contractor is bound in all cases in which the time allowed for any work exceeds one month (except special jobs) to complete 1/8<sup>th</sup> of the whole of the work before 1/8<sup>th</sup> of the time allowed under the contract has elapsed, 3/8<sup>th</sup> of the work before half of the time has elapsed and 3/4<sup>th</sup> of the work before 3/4<sup>th</sup> of such time has elapsed. However, for special jobs, if a time schedule has been submitted by the Contractor and the same has been accepted by the

Engineer-in-charge, the contractor shall comply with such time schedule.

**3) EPF PROVISIONS:-**

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

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

**4) EARNEST MONEY DEPOSIT**

The firm should deposit EMD in proper form. The EMD of other works refundable to them cannot be adjusted against this work. The firm's offer shall be liable for rejection without EMD for this particular work. Firm has option to deposit earnest money in the form of Bank guarantee in BSNL' s attached format and manner.

**5) PROGRAMME FOR EXECUTION**

The firm shall supply detailed programme to Engineer-in-Charge for execution of contract within fifteen days of award of work. The programme shall contain details about submission of drawing, supply of materials, tentative dates for installation and commissioning.

**6) STORES AND SAFETY**

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

**7) CO-ORDINATION AT SITE**

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

**8). COMPLETION DRAWINGS/Log Book**

On completion of work the agency shall submit Log book, complaint register, attendance register if any maintained at site etc to the SDE(E)/ JTO(E).

**9. DEFECT LIABILITY**

**a.** Any defects occurred due to wrong operation is the responsibility of the agency. The same shall be rectified without any extra cost within the time specified by the Engineer-in –Charge.

(b) The following aspects are, however, not covered under the purview of guarantee:-

i) Consequential losses and damages due to Natural calamity

**10. CHANGES IN SPECIFICATIONS**



The BSNL reserves the right to make changes in respect of specifications of work if in its opinion same is found necessary. However such alterations shall be made after mutual discussions and agreement between the BSNL and the contractor. Any price implications in this regard shall be mutually discussed and agreed up on in terms of clause 12 of EW 8 form. The BSNL as matter of principle will not permit modifications by the contractor in design /specifications of any document /material. However the same can be agreed upon by the BSNL under exceptional circumstances where

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

Or

- b) Such alterations constitute an improvement in the opinion of BSNL.

Prior approval is necessary before undertaking any alteration/modification in the specifications of the equipment.

### **11. Packing, Forwarding, Storage at site.**

Before dispatch to the site, the equipment /components/materials shall be properly packed so as to afford protection against transit damages and damage against storage in open areas either at transporters premises or at work site. Special care shall be taken in respect of sensitive items. When storage in open areas is inevitable, proper water proof covering shall be provided to protect damages on account of rain water etc. However damaged items should be replaced as per the directions of the Engineer –in-charge.

### **12 Inspection Of Site & Contract Documents**

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

### **13) I.S. Standards:**

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

### **14) SUFFICIENCY OF TENDER**

The contractor shall be deemed to have satisfied himself before entering into the contract as the correctness and sufficiency of his offer for the work and of the rates and prices quoted in the schedule of works and items/quantities or in bills of quantities for the contract period. These rates and prices shall except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for proper completion of works.

**No additional conditions shall be stipulated by the tenderer.**

**15) Test Certificate**

The firm shall submit following test certificates on supply of the material at site:

- Technical catalogues of Engine & alternator
- Manufacturer's Original test certificates for Engine, Alternator, E/A set, control panel
- Routine test certificates for individual items.

Department may test each unit at factory without any extra payment.

**16. Set off clause:**

Only those payments due to Government against a particular contract agreement shall be deducted from the bills of the same work and not deductible from other works.

**17. CURRENCY OF CONTRACT**

a The currency of contract shall be 24 months.

b The BSNL reserves the right to terminate the contract by giving show cause notice of one-month duration at any time during the currency of the contract.

LIST OF APPROVED MAKES-BSNLELECTRICALWING

(AS ON 29.02.2016)

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
4	HV Switchgear (Vacuum Circuit Breaker/SF6 )	Biecco Lawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type) a)	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO /Kirloskar / Siemens
	b) Up to 400 KVA	In addition to above makes, Uttam/ 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/Yokins
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/ABB/HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/Bharti/Ratan/Slotco/Profab
20	HT/LT Cables	ISI mark
21	PVC insulated copper conductor wire	ISI mark
22	Centrifugal Pump	Amrut / BE / Beacon / Batliboi /Crompton / Jyoti / Kirloskar / KSB / Mather & platt / WASP/Grundfos
23	Submersible Pump	Crompton/Amrut / BE / Calama / Kirloskar / KSB
24	Motors	ABB/ Bharat Bijlee / Crompton Greaves / Schneider Electric / HBB / KEC / Siemens/Jyoti Ltd
25	Fresh Air Fans	GE / Khaitan/Almonard/Crompton
26	Starter	ABB / BCH / Schneider Electric / L&T / Siemens /

27	Single Phase Preventer	L&T / Minilec / Siemens / Zerotrip
28	GI/MS Pipe	ATC / ATL / BST / GSI / ITC / ITS / IIA / JST / Jindal / TTA / Tata/Zenith
29	Foot Valve	ISI mark
30	Gate Valve	Advance/Audco/Johnson Controls / Zoloto /Annapurna / Fountain /Kirloskar / Leader / Sant / Trishul
31	Compressors	Carrier/Emerson copeland/York/Danfoss (for chillers only)
32	Resin Bonded Glass wool	Fibre Glass / Pilkington / UP Twiga
33	Expanded Polystyrene	BASF(India) Ltd.
34	Gauge	Feibig / H.Guru / Pricol
35	Controls	FLICA / Honeywell / Indfoss / Penn- Danfoss / Ranco / Ranutrol / Sporland
36	Fine Filters	Anfiltra Effluent / ARW / Athlete/ Airtake / Dyna / Kirsloskar/ Puromatic/ Purafill/ Purolator / Tenacity
37	GI Sheet	HSU Jindal / National / Nippon Denro / Sail / Tata
38	Heat Detector	Appollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton /System Sensor/ Wormald/Honeywell Essar/Notifier
39	Ionization Detector	Appollo / Cerebrus / Edward/ /Fenwal / Hochiki / Nitton / System Sensor /Wormald
40	Photo Electric Smoke Detector	Appollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald /System Sensor
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. 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.
2. Any other makes which are approved by BSNL CO up to the last date of sale of tender can also be used in this contract.

### **LIST OF INDIAN STANDARDS**

- I.S.277 Galvanized steel sheets.
- I.S.325 Three Phase Induction Motors
- I.S.655 Metal Air Ducts
- I.S.732 Code of Practice for Electrical Wiring and fittings for Buildings.
- I.S.778 Gun Metal Gate, Globe and Check Valves for general purposes.
- I.S.900 Code of Practice for Installation and Maintenance of Induction Motors.
- I.S.996 Single Phase small AC and Universal Motors.
- I.S.1239 Mild Steel Tubes, G.I. Pipes, Tubular and other wrought steel fittings.
- I.S.1248 Direct Acting Electrical Indicating Instruments.
- I.S.1520 Horizontal Centrifugal Pumps for clear, cold and fresh water.
- I.S.1554 PVC Insulated (heavy duty) Electrical Cables  
(Part-I) for working voltages upto and including 110 volts.
- I.S.2372 Timber for cooling towers.
- I.S.2516 AC Circuit Breakers.
- I.S.2592 Recommendation for Methods of Measurements of Fluid flow by  
means of Orifice Plates and Nozzles.
- I.S.1822 Motor Starters of Voltage not exceeding 1000 volts.
- I.S.2208 HRC Cartridge Fuse – Links upto 650 volts.
- I.S.3589 Electrically welded steel pipes for water, gas and sewage.
- I.S.3624 Bourden Tube Pressure and Vacuum Gauges.
  
- I.S.4047 Heavy Duty air break switches and composite units of air break  
switches and fuses for voltage not exceeding 1000 volts.
- I.S.6392 Steel Pipe Flanges.
- I.S.7403 Code of Practice for Selection of Standard Worm and Helical Gear  
Boxes.
- I.S.8148 Specification for packaged air conditioning.
- CPWD General Specifications for Heating, Ventilation & Air conditioning (HVAC)-2004

### **IMPORTANT NOTE**

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

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### **LIST OF SAFETY STANDARDS**

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

## **PROFORMA OF SCHEDULES**

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

### **SCHEDULE 'A'**

Schedule of quantities : Attached

### **SCHEDULE 'B'**

Schedule of materials to be issued to the bidder: **Nil**

### **SCHEDULE 'C'**

Tools and plants to be hired to the bidder: Nil

### **SCHEDULE 'D'**

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

### **SCHEDULE 'E'**

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

### **SCHEDULE 'F'**

Reference to General Conditions of contract :

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

General Rules & Directions: Officer inviting tender:

Executive Engineer (E)  
Electrical Division-I  
**Chennai**

Definitions:

2(v) Engineer-in-Charge

Executive Engineer (E), ED-I,  
**Chennai**

2(vi) Accepting Authority

SE (E), BSNL Electrical Circle, Chennai

2(x) Percentage on cost of materials  
and labour to cover all  
over heads and profits

10% (TEN)

#### **CLAUSE 5**

Time allowed for execution

**Twenty Four Months**

Authority to give fair and reasonable  
extension of time for completion of work:

SE (E ), EC, Chennai

Competent Authority for deciding reduced rates:

SE (E ), EC, Chennai

#### **Clause 25**

Competent authority for conciliation:

SE (E) not in-charge of the work.

**BSNL EW-8**  
**Bharat Sanchar Nigam Limited**  
**Electrical Wing**

Electrical Division: I, Chennai

Sub Division: **IV, Chennai**

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

<p>Signature of Witness (required in the case of bidder's thumb impression is given by the bidder in place of signature) Occupation of Witness :</p>	<p>(Signature of bidder ) (Name &amp; Postal address)</p> <p style="text-align: center;">Seal of Bidder</p> <p>Date:</p>
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### **Acceptance of Tender**

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)

For & on behalf of BSNL

Dated

Signature :  
Designation :