



BHARAT SANCHAR NIGAM LIMITED

(A Govt of India Enterprise)
(Electrical Wing)

O/o The Executive Engineer (E)

BSNL Electrical Division-III

No.22, Kellys Road,
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E-TENDER DOCUMENT

Name of work:-Providing Operation and Maintenance of Transformer substation and EA sets in TE Building ADYAR Chennai. (For The year 2017-18) (SW: Operation of Services)(Short Notice Tender)

NIT No : 70/ EEE/ED-III/CH/2017-18

This tender document contains **44 pages (Forty Four)** pages only.

For E Tender Help Desk of M/s ITI Limited.Tel.No.011 49424365; or Shri. Dinesh ,(Mobile: 9894191904),ShriKirubakaran (Mobile No9962676264), Representatives of M/s ITI Limited & Mail Id : twhelpdesk680@gmail.com, 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-III, 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	Providing Operation and Maintenance of Transformer substation and EA sets in TE Building ADYAR Chennai. (For The year 2017-18) (SW: Opeartion of Services) (Short Notice Tender)
2	Estimated cost put to tender (Rs .)	Rs. 2,92,974/-
3	Earnest Money (Rs.)	Rs. 5,859/-
4	Period of completion	Three Months
5	Last date & time for downloading of tender document by bidder	Up to 14:55 Hrs. on 18-08-2017
6	Last date & time for online submission of tender	Up to 15:00 Hrs. on 18-08-2017
7	Last date & time for submission of original EMD& Tender cost	Up to 15:00 Hrs. on 18-08-2017
8	Date and time for opening of tender	15:30 Hrs. on 18-08-2017
9	Tender cost (Non refundable)	Rs.500/- (+) GST 5%=Rs 525/-
10	E-tender Processing fee (Non refundable)	0.05% of estimate cost subject to the minimum of Rs.500 and Maximum of Rs. 5000 plus GST

ELIGIBILITY CRITERIA

The Contractors satisfying the following conditions:

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

AND

1.2 The manufacturer/authorized dealer /OEM of any of the makes of major equipment(Transformers, E/ A sets) included in the NIT. The letter of authorization from manufacturer in original/ photocopy attested by BSNL Executive will be submitted.

OR

1.3 Experience of having successfully completed similar works in BSNL during last 7 years ending last day of month previous to the one in which applications are invited , should be either of the following :

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

OR

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

OR

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

(Note : Similar work means, Operation and/or maintenance of substations forming part of the work.)

OR

- 1.4 BSNL enlisted contractors in Electrical category of respective class as per their tendering limits.**

(NOTE: The tenderer/firm shall possess statutory License(s) to work in HT installation.)

IMPORTANT NOTE:

1. The self-attested copies of the following documents shall be scanned and uploaded to the e-tendering website within the period of tender submission. Online bid documents submitted by intending bidders shall be opened only of those bidders, who have scanned and uploaded the following documents (and whose uploaded documents are found to be in order), otherwise the bid will not be opened and shall lead to disqualification.
 - a. Tender Fee in the prescribed format
 - b. EMD in the prescribed format
 - c. Certificate of Financial Turnover from Chartered Accountant (Not applicable for BSNL enlisted Electrical contractors)
 - d. Documents fulfilling Eligibility criteria (Please note that in case the bidder is authorised by the manufacturer, the original authorisation letter is to be scanned and uploaded)
 - e. Enlistment certificate issued by BSNL, if applicable
 - f. H.T. Electrical license issued by TN Govt.
 - g. GST Registration 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, the original authorisation letter by the manufacturer (wherever applicable), (the scanned copies of which are uploaded) shall be deposited in the tender box available in the office of tender opening authority, by the bidder before 3:00 PM on the tender opening date, failing which the tender shall not be opened.

BSNL EW-6

Bharat Sanchar Nigam Limited
Electrical Wing

Electrical Division: **ED-III,Chennai**

Sub Division: **ESD-Stores, Chennai**

1. Item rate tenders on single bid system are invited on behalf of CMD,BSNL for the work **"Providing Operation and Maintenance of Transformer substation and EA sets in TE Building ADYAR Chennai. (For The year 2017-18) (SW: Operation of Services). (Short Notice Tender)"** 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.
2. 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.
3. The work is estimated to cost **Rs. 2,92,974/-**-This estimate, however, is given merely as a rough guide.
4. 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.
5. The time allowed for carrying out the work will be **Three Months** from the 10th day after the date of written order to commence the work.
6. 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.
7. The bid documents consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website **www.tenderwizard.com/BSNL** at free of cost. The BSNL EW-8 document can be seen from the web site **www.chennai.bsnl.co.in** at free of cost.
8. 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.
9. The Tender Fee in the form of Demand Draft issued by the Nationalized / Scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL, CHENNAI TELPHONES** payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
10. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000)/ CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL, CHENNAI TELPHONES** payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender

- submission. The validity of the EMD in the form of DD shall be **60 days** from the date of opening. If the EMD is in the form of CDR/FDR/BG, the validity shall be **180 days** from the date of opening. In case of L1 bidder, the validity of CDR/FDR/BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit.
11. The Physical **TENDER COST** and **EMD** of which the scanned copy is uploaded shall be deposited by all the bidders before 3:00 PM on the tender opening date, failing which the tender shall not be opened.
 12. 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.
 13. 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.
 14. 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.
 15. The last date for online submission of bid is **18-08-2017 up to 3:00 PM** and the bid submitted shall be opened at **03:30 on PM 18-08-2017**. If a holiday is declared on the tender opening day, the tender will be opened on the next working day.
 16. The e-Tender processing fee is non-refundable.
 17. **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.**
 18. **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.**
 19. 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.
 20. 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.

21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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'**.
27. **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.
28. 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.
29. 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 bylaws 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 is not applicable to my / our establishment.

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

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

* strike out whichever is not applicable

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

(Seal of the firm)

(Signature of Bidder)

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

Note: The above is a specimen. However, performance report of completed works shall contain all relevant information, to decide on eligibility criterion.

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 EMD
(For submitting EMD for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station Works wherever the amount of EMD is more than Rs.20,000/-)

Whereas _____ (hereinafter called "the bidder(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 Bidder(s) withdraws its Tender during the period of Tender validity specified on the Tender Form: or
2. If the Bidder(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)

SCHEDULE OF QUANTITIES						
Name of work :Providing Operation and Maintenance of Transformer substation and EA sets in TE Building ADYAR, Chennai. (For The year 2017-18) (SW: Opeartion of Services) (Short Notice Tender)						
NAME OF THE CONTRACTOR						
Sl.No	Description of items	Qty	Rate per unit excluding GST in Rs.	Rate in words	Unit	Amount excluding GST in Rs.
(1).	(2).	(3).	(4).	(5).	(6).	(3)x(4)=(7)
1	Providing operation of the following installations in TE ADAYAR by deploying manpower as detailed below & carrying out scheduled activities for smooth operation of installation on all working days, including all holidays and by arranging required tools and plants etc to keep all services operational i/c maintaining records , required up to standards complete as per specification etc as reqd.					
	Three Electricans and one Helper (Shift tming at the discretion of Engineer in charge)					
	a) 2x 500 KVA transformer Substation-1No					
	b) 500 KVA EA set- 1 No					
	c) 320 KVA EA set -1 No					
	/All the above consists of/	12 Months			each	0.00
	Net Cost (A)					0.00
	SGST Rate %			SGST Amount (B)		
	CGST Rate %			CGST Amount (C)		
	IGST Rate %			IGST Amount (D)		
	Grand Total = (A+ B+C+D)					0.00

<u>IMPORTANT NOTES:-</u>	
1	The firm shall be responsible to ensure that GST shown in the above columns is correct & Input Tax Credit for the amount shown above is admissible as per GST Act as amended up to date”.
2	Invoice /Bill should be pre-printed as per the GST format.
3	The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST
4	The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the terms as specified in the scope of work.
5	No advance payments can be made. Stipulations like levy of interest if payment is not made in a specified time are also not acceptable and the payment is governed by the normal BSNL practice.

SPECIFICATIONS FOR WORK

A. GENERAL

1.0 SCOPE

- 1.1 Operation & maintenance of electrical services Technical/ Administrative/ Residential Building(s) as applicable in this contract means that all Electro Mechanical Services included in the schedule of work are kept in clean and working condition. Specific details of activities required with regard to each service are detailed under sections pertaining to those service/technical specifications.
- 1.2 Operation and maintenance of services shall be carried out as per instructions contained herein. All documents to be used shall be as per works instructions / forms & checklists, proforma schedules etc., forming part of the agreement and that are issued by from time to time. Services under operation shall be generally maintained clean.
- 1.3 Watch and ward of the installation under Operation shall be the responsibility of the contractor during contract period.
- 1.4 After the contract period is over the installation has to be duly handed over to the new agency along with the record of test results of equipments & associated items, under supervision of SDE (E)/JTO (E) in charge. However in general, installation is to be taken over by the agency for Operation within 15 days of award of work.

2.0 METHODOLOGY

- 2.1 It is presumed that contractor will 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 operation staff has to be available round the clock, round the Year even on holidays. However, strength may vary during day and night shifts. Scheme for staff employed shall be got approved by the Engineer-in-charge. Wherever the shifts/strength is indicated elsewhere in the specifications, the same shall be binding on the firm.
- 2.3 At the start of work, firm shall prepare an inventory of service under operation jointly with J.T.O (E)/SDE (E), concerned.
- 2.4 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. Based on the type of preceding contract, the Defects/discrepancies agreed upon by BSNL shall be got attended by the outgoing agency or by BSNL itself. Since the material for maintenance/breakdown are to be separately measured, agency shall maintain a record of breakdown and carryout urgent works upon information to SDE(E)/JTO(E). For items not covered in the schedule of work depending upon the necessity and requirements, agency shall carryout the same under specific instructions of SDE(E)/JTO(E).
- 2.5 A complaint / fault Register as per annexure- III shall be kept up-to-date at site by the firm and the same shall be available for checking & verification.
- 2.6 Firm shall maintain logbooks as per annexure – IV.
- 2.7 If during the period of contract, any of the equipment(s) are added/ altered, the operation of those equipments/ services shall be done by the agency at no extra cost except for the situation where deployment of additional staff is required on permanent basis to manage operation. Similary in case of deletion of any of the equipment, no recovery shall be made except for the situation when strength of operator on shifts on daily basis is reduced.
- 8 The details in the annexure I (Inventory) are approximate to give an idea of services to be taken over for operation. Any variation on higher or lower side shall deem to be included at the initial take over. However the tenderers are advised to inspect the site (s) and make them acquainted before quoting.

3.0 **OPERATION PERSONNEL**

Service	Type	Skill requirements	No. of personnel	To be based at
Operation of Substation & E/A set	<i>Electrician</i>	Min. ITI or equivalent certificate holder in electrician/wireman/ switchboard technician trade from a recognized institute authorized by central/State Govt. with a minimum experience of 3 years in operation / maintenance of transformer substation and/or E/A sets	<i>One electrician per shift in three shifts per day (Round the clock)</i>	<i>Site of operation</i>
	<i>Helper</i>	Min. ITI or equivalent certificate holder in electrician/wireman/ switchboard technician trade from a recognized institute authorized by central/State Govt. with a minimum experience of 1 year in operation / maintenance of transformer substation and/or E/A sets.	<i>One helper per shift In two shifts per day</i>	<i>Site of operation</i>
Supervision	<i>Skilled</i>	<i>Min. Diploma holder in Electrical/ Mechanical Engineering stream with valid C license.</i>	<i>Atleast one to be associated with the work as and when required as directed by E-in-C</i>	<i>Employed/associated with firm and available whenever required</i>

- 3.1 The operating staff has to be available round the clock throughout the year even on holidays. Since the firm will be doing the operation of critical services such as Substation and standby genset, responsible & trained person(s) placed at site, should be able to take initial steps under emergency situation.
- 3.2 The firm shall maintain attendance register which can be inspected at any time by the SDE/JTO. The workman shall not leave the duty point, till his reliever has reported for duty. In addition to the attendance register, the firm shall abide by the attendance recording methods in vogue in the site of operation such as finger print scanning etc.
- 3.3 Agency shall issue identity cards to the workers and a list of personnel employed together with the copies of such identity cards should be submitted to SDE (E)/JTO (E) concerned. Before being posted at site police should be informed about the personnel and a copy of the intimation shall be submitted to SDE (E).
- 3.4 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 is found improper. Engineer – in – Charge’s decision shall be final and binding.
- 3.5 The firm has to supply details as per annexure- II of all the workers likely to be engaged by it before start of the work.
- 3.6 The workers engaged by the firm should wear uniform of Navy blue color with detachable badge indicating the name of the person and firm’s name and printed “ ENERGY” at the back of the shirt.
- 3.7 The sitting arrangement for the staff engaged by the agency, space, water, telephone and electricity shall be made available by BSNL free of cost.
- 3.8 Provision of Supervisor shall also be made as per standard form of contract (EW8) which forms the part of this contract.
- 3.9 The firm and their personnel shall follow the attendance guidelines / practices such as finger print identification, punch card etc., which are available or will be installed by BSNL at a later date.
- 3.10 The firm and their personnel shall also co-ordinate, operate and feed information on automatic data collection services/automation devices that will be introduced by BSNL at any date during the period of contract.

4.0 **TOOLS & PLANTS**

- 4.1. All tools and plants, testing & safety equipments required for carrying out various tasks relevant to operation have to be arranged by firm at its own cost.

4.1.1. Wherever the firm is carrying out the Operation of equipment, the firm shall possess the following minimum T&P Insulated Screw Driver

- i. Line Tester
- ii. Insulated Cutting Plier
- iii. Torch Light
- iv. Waste Cloth
- v. Ring and adjustable spanner -1 Set
- vi. Insulated Hand gloves
- vii. Test Lamps

4.1.2 In addition to the above, the firm shall generally possess the following T & P at their maintenance office according to the services covered under the scope.

GENERAL

- i. Crimping tool suitable for 6 Sq.mm To 300 Sq.mm Cable.
- ii. LT meggar
- iii. HT meggar
- iv. Earth tester
- v. Hammer
- vi. Blower for cleaning.
- vii. Tong tester.
- viii. Drilling Machine

4.2 The above list is general and any other requirements for smooth Operation of installation shall be contractor's responsibility and shall not claim anything extra on this account.

4.3 The firm shall also coordinate with the JTO (E) / SDE (E) for carrying out energy audit/capacity test at site in respect of services maintained by the firm, in addition to collection /recording of data such as MD , number of units in total or for a particular load for a fixed period/ interval as instructed by JTO(E)/SDE(E).

4.4 The Firm/Contractor will provide the workers with necessary Testing and Safety Equipment.

4.5 While the work is taken over the firm shall be provided with fully replenished First Aid box and other safety devices such as artificial resuscitator, rubber mat. The firm shall ensure that the same is maintained and replenished during the period of contract. Normal wear and tear of these items is allowed.

Note:-1.The stocking/ storing arrangement of minimum inventory and T&P shall be the responsibility of the firm.

5.0 COMMERCIAL.

5.1 The tender must obtain himself on his own expenses, all the information necessary for the purpose of tendering, inspect the site and acquaint himself with all the local conditions, means of access to work and nature of work etc. No claim shall be entertained on this account.

5.2 Payment shall be made on quarterly basis and on submission of bill in printed letter head together with requisite certificate and documents as per Clause 15 of Important instructions to Contractors and annexure – VI

5.3 The rates quoted must be full & final. Nothing extra is payable other than quoted rates. Clause10-CC shall not be applicable for this account.

6.0 DAMAGES TO BSNL INSTALLATION:

6.1 Any damage to the installation(s)/building during the period of contract due to the carelessness on the part of staff shall be the responsibility of firm. Firm is liable to be penalized for careless as per relevant penalty clauses.

6.2 Any accident or damage during /operation will be the responsibility of the firm/contractor & the Department 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.

7.0 CURRENCY OF CONTRACT:

7.1 The currency of contract shall be 12 months. The Department 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.

7.2 The Department reserves the right to extend the contract for a maximum period of six months (three months at a time) at the same rates & conditions, without the consent of the firm and beyond this period with mutual consent.

8.0 TERMINATION OF CONTRACT:

8.1 Right is reserved by BSNL for terminating the contract due to serious default. This includes major break down or accident or loss due to negligence on the part of firm or their workers, disobedience and abandoning the site etc. In such a case, Full Performance Guarantee shall be forfeited to BSNL. The decision of Superintending Engineer (E) in this regard shall be final and binding.

8.2 Right is reserved by BSNL for closure of the contract at any time by giving one month's notice for reasons not attributed to the Contractor. The decision of Executive Engineer shall be final and binding on the contractor for closure of contract and for which BSNL shall not entertain any claim.

9 PENALTY FOR DEFICIENCY IN SERVICE:

- (a) In case of major accident/ loss on account of negligence on part of the contractor, the contract shall be terminated and 10% (ten percent) of the tendered amount shall be recovered. Decision of Executive Engineer (E) shall be final and binding on the contractor.
- (b) Contractor shall be responsible to ensure proper working of PF Capacitor panel and that the power factor is maintained within 0.90 lag-.95 lag. Any penalty on this account levied by Supply Company (attributed to the wrong setting in APFC relay/ faults in capacitor panel not brought to the notice of the JTO(E)/SDE(E) in writing) shall be recovered from the agency with an additional penalty of Rs.1000/- per occasion. However in case of inadequacy of the capacitor bank at the time of taking over or due to addition of any services / Load during period of contract, the extra requirement shall be met out departmentally.
- (c) Minimum inventory and T&P shall always be maintained and any loss/ worn-out inventory and/or T&P shall be recouped every month failing which penalty @ 1% of the bill amount per month shall be made for the period of lapse till the inventory is fully recouped.
- (d) In case of absence of worker from the duty/site where operation is carried out, penalty shall be made @ Rs. 500/- per day per person per shift. (Staff employed of less than the prescribed qualifications shall be treated as absent). The Decision of the Executive Engineer shall be final & binding. In case of persistent non wearing of uniform by the operators, noticed and recorded in the relevant registers/records/conveyed in writing penalty of Rs.100/- per occasion shall be levied.
- (e) If the performance is found to be unsatisfactory (Such as non-recording of data, continuous non-availability of staff at site, not informing in writing to the SDE(E)/JTO(E) the faults and/or defects requiring maintenance activity in time etc.,) noticed by the Officers during their site visits / test checks, penalty upto 5% of one month's bill for that service for that site shall be recovered. This is in addition to the penalty for specific deficiencies as per Clause(s) above.
- (f) Notwithstanding the compensation clause described above, BSNL reserves the right to take necessary steps for operation of the installation at the risk and cost of the contractor within a day's notice or as decided by the E-in-C, depending upon the graveness of the situation. BSNL also reserves the right to levy additional penalties, wherever deficiency in the work carried out by the firm results in loss to BSNL.

10.0 GENERAL CONDITIONS:

- 10.1 The contractor has to keep all the equipments under operation and site neat and clean to avoid any accident and or fire hazards.
- 10.2 Dates of weekly, monthly, biannual / annual tests (wherever applicable), shall be displayed / recoded in relevant columns.
- 10.3 Contractor shall have a round the clock communication landline/ Mobile telephone number at Chennai. A complaint register shall be maintained as per annexure - III. Whenever any complaint is received, it shall be recorded
- 10.4 If the complaint is covered under the scope of work, firm shall promptly attend to the same and record such action in relevant registers. Where action not covered under scope of work, the firm shall intimate the same to SDE(E)/JTO(E) in writing. Decision of Executive Engineer(E) shall be final and binding in this regard.
- 10.5 The Contractor will display on a board in Substation room important telephone numbers.
- 10.6 The contractor shall not sublet the work or part thereof. However, services of specialized agencies for specific work can be obtained.
- 10.7 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.

19.0 DOCUMENTS TO BE MAINTAINED AT SITE/MAINTENANCE OFFICE

The contractor shall maintain following documents,

- 11.1 A complaint / fault register as per format given in annexure- III.
- 11.2 **Log Book:** Log book as per annexure IV-A for Substation & Annexure IV-B for E/A sets shall be maintained at site. The logbook shall be printed and spiral/bound, preferably with different color sheets. Coloring code may be as follows.

Daily	:White
Weekly	: Pink
Monthly	: Yellow
Half yearly	: Light blue etc.,
Yearly	:Grey/Light green

- 11.3 **Report file:-** Containing all the test reports in original Viz. Oil test reports, Earth Value reports, Insulation and routine test reports, breakdown reports shall be maintained at site.
- 11.4 **History register:** The firm shall record all major breakdown maintenance carried out at site like rewinding of alternator / replacements, E/A set overhauling done, if any etc.

20.0 TEST CHECK BY THE FIELD ENGINEERS:

12.1 For the purpose of assessing the quality of service rendered by the firm against the above contract, the EE,SDE& JTO shall carryout inspection & test checks of the service/work under the contract periodically.

12.2 During these test checks they shall record any deficiency in the work. As per the principle of sampling, if service during sample test check is not found to be satisfactory, then penalty shall be imposed on the contractor as per the penalty clause no. 9.

13.0 Guarantee and Defect Liability

13.1 The guarantee for replaced components / equipments shall be valid for twelve months after successful commissioning. The contractor shall guarantee that all replaced components /

equipments are free from any defects and also the equipments work with satisfactory performance and efficiency not less than the guaranteed values.(applicable in case of maintenance contract)

14.0 ENERGY CONSERVATION

14.1 BSNL Electrical Wing, Chennai Telephones is committed to reduction in energy bills by the way of energy conservation over a year by 5%. The contractor shall continuously monitor & coordinate in energy conservation to save energy bills which includes suitable testing using energy monitoring instruments etc.,

14.3 The contractors are responsible for display of Energy conservation slogan stickers at prominent locations in the area under maintenance.

14.4 The firm shall follow energy conservation measures in respect of the services being maintained by him as when the same is issued.

15. List of Annexures

SL NO	Description of Annexure	Annexure
1	Size of services to be maintained	I
2	Details to be supplied before starting the work & Details to be displayed at site	II
3	Complaint cum fault Register	III
4	Log Books	IV
5	Layout Details of the various Equipments to be displayed at Site	V
6	' Certificate to be submitted along with each bill	VI

INVENTORY Annexure I

Sl.No	Details of Equipments	Make	Qty	Date of Commissioning
1 a)	750 KVA, 11KV/433V, Indoor Transformer Dry type along with connected items	Kirloskar Electric Co	2 Nos	19/08/2009
2 a	500 KVA E/A Set - I	Engine – Greaves Alternator – KEL	1 No.	14-08-2000
2b)	600 KVA E/A Set - I	Engine –	1	13-03-2009

		Mitsubishi Alternator – Stamford	No.	
2 c)	250 KVA E/A Set - II	Engine – Perkins Alternator – Stamford	1 No.	28-11-2011
3	All M.V. and L.T. Panels with Switches, ACBS, Busducts available in Ground floor of Substation and Engine genset rooms.	-	1 Job	
5	Capacitor Bank Panel	-	1 Set	

Note:

The above is indicative list. The firm may visit the exchange to ascertain exact quantum of inventory and associated items before submission of tender.

Annexure-II

DETAILS TO BE SUPPLIED BEFORE STARTING WORK WITHIN 15 DAYS

a) The following information to be pasted/displayed in the Substation.

The Operation of Substation & E/A sets , in this building is carried out by

1.	Name of the Agency	
2	Address	
3.	Person to contact	
4.	Telephone No.	
5	Contact Numbers of Operators (i) (ii) (iii)	
5.	Name of JTO(E) incharge and his contact No.(landline & mobile)	
6	Name of the SDE(E) incharge and his	

	contact no.(landline & mobile)	
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- In case of emergency please call: _____ (Agency's Emergency Contact Number)___
or
- In case of no response call JTO (E)/SDE(E).

b) Details of staff to be deputed to site: To be furnished to JTO (E) along with qualification and antecedents certificate.

Sl.no.	Name & Address	Qualification	Designation	To be stationed at
1.				
2.				
3				
4				

- a) List of T&P
- b) List of Inventory
- c) Test details of the equipments taken over for maintenance and defects discrepancies noticed if any.

ANNEXURE – III

COMPLAINT / FAULT REGISTER(model)

The following information shall be pasted in front cover of the register

Name of work:

Name of contractor:

Agreement No:

Name of Sub-Division:

Location:

Complaint No.	Date & Time of complaint	Complaint Lodged by	Nature of complaint reported	Cause of fault if traceable by the operator	Action taken	Dated Signature of Operator/ Supervisor of the firm	Dated Signature of SDE/JTO incharge of building/ JTO(E)	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Note: The above format is general and addition/deletion of any of the data columns that may be required specific to particular site shall also be incorporated, with the approval of SDE(E)

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						POWER MEASUREMENT			SIGN OF OPERATOR	SIGN OF EXCHANGE STAFF			
	HT VOLTAGE	HT CURR ENT	MD REC ORD ED	HT Current	LT Voltage			LT Current			KWH	KVAH			KVAR H	P	F
					RY	YB	BR	RY	Y	BR							
10.00																	
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)

Daily maintenance activity Time of Check:

1

PARAMETER	OBSERVATION	TIME OF CHECK	ACTION TAKEN FOR ABNORMALITY
Transformer oil level	(Normal/Less)		
Leakage	(Yes/No)		
Abnormal Temperature	(No/Yes)		
Abnormal Noise	(Yes/ No)		

2
3

Working of Instruments	Ok/ Not OK	
Colour of breather	Blue /Pink	
Cleanliness		

In case of abnormality the operator shall be instructed to report the same to the supervisor/ authorized person of the firm and the firm shall take earliest action to clear the abnormality.

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

Annexure IV-B

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	Temp	Speed	Lub oil Pr.	Water Temp	Diesel level Ltrs	KWH	Daily Checks	Remarks

		Hrs	Hrs	RY	YB	BR	R	Y	B	Hz	RP M	Kg/ cm ²		Start	Stop	Level of Water in radiator	Lub oil level & leakage	Battery charger system	Battery terminal connection	Draining water/sediment from primary fuel filter			

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

PERIODICAL SCHEDULES (CHECKS)

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

WEEKLY

36.1.1.1 EA SET

	Activity	E/A set 1	E/A set 2	E/A set 3
	Date and time			
	Checking and cleaning control panel Checking protection devices Checking & cleaning of EA set Checking of earths-watering earth pits Checking of EA room lights and ventilation Cleaning radiator fins by blowing air in the opposite direction Checking oil level and cleaning air cleaner Checking and correcting loose lamps			

CHECK OF FIRST AID BOX- MONTHLY

52.1.1.1.1.1.1.1.1 Location	Checking of medicine/ instrument (replenish if reqd.)	Checking of date of expiry (replenish if reqd.)	Items identified in (2) & (3)	Reported to	Replaced on	Signature of operator/ supervisor	Checked by BSNL staff/ JTO(E) & date
1	2	3	4	5	6	7	8

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**52.1.1.2 CHECK OF SAFETY MATS & TOOLS
FREQUENCY – MONTHLY**

52.1.1.2.1.1.1.1.1 Location	Condition ok or not ok	Cleaning	All tools available not (replenish for shortage)	Condition of tools & glove (ok or not ok)	Remarks	Sign. of Supervisor	Sign. of BSNL staff/ JTO(E)
52.1.1.2.1.1.1.1.2							

HALF YEARLY

TRANSFORMERS

S. No.	Description of item	Activity carried out	Remarks
1.	Measuring H.T. & L.T. winding insulation on resistance (where standby transformer provision is available)		
2.			
3.	Checking the painting of transformer		
4.	Testing Earth Resistance		
5..	Checking transformer bushing for cracks		
6.	Checking relay alarm system for correct settings.		

Note:

- The above activity shall be done in the presence of JTO(E)/SDE(E)
- Test report shall be furnished by the firm
- In case the report shows any abnormality, firm shall inform action needed for restoring to normal conditions
- Calibration of relays are not included in the above.

52.1.1.3 EARTHING SYSTEM

HALY YEARLY checks

Date:

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

- 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.

53

54 CAPACITOR PANEL

HALF YEARLY checks

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 conditions

ANNUAL ACTIVITY:

S.No	Description of Item	Action done	Sign of maintenance of staff	Sign of JTO(E)	Remarks
1	Checking the oil level in the tank				
2	Checking and cleaning of vent holes of arching chambers				

Name of work:- Rewiring of 6 Nos Type III Staff quarters in Block E at BSNL staff quarters at St. Thomas Mount.

3	Checking and cleaning of all insulators				
4	Meggering secondary wiring				
5	Measuring earth resistance				
6	Relay checking for operation & their calibration				

E/A SET

FREQUENCY – FOR EVERY 500 HOURS/12 MONTHS (WHICHEVER IS EARLIER)

Date:

S.No.	Description of Item	Condition	Sign of maintenance of staff	Sign of JTO(E)	Remarks
1	Check condition of Lubricating Oil				
2	Check condition of Lub oil filters				
3	Condition canister of Main fuel filter				
4	Condition of crank case breather filter				
5	condition of all drive belts				
6	Inspect coolant hoses and clips				
7	Check of air charge cooler and radiator matrix are clean and free from the debris				
8	Checking of Engine Protection Devices				
9	Inspection of Engine Mountings				

TECHNICAL SPECIFICATIONS

SUB-STATION

Part I: Scope of work:

1. Ensuring that H.T. Panel, Transformer, LT panels, Capacitor panels and out door structure as well as connecting cables/ducts, constituting the substation are in usable & clean conditions.
2. Monitoring of power factor & peak load and consumption. Following diversification of loads by operation of necessary switchgears as per BSNL requirement.
3. To disconnect total electric supply and or individual loads in case of emergent situation to avoid penalty.
4. To ensure continuous power supply and in case of break down inform the supply company and coordinate with their personnel in restoration of power supply.(Coordination by the operating staff without involvement of material)
5. 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 identify 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

Monthly

1. Check for tightness of connections in all the panels.
2. Check the tripping of the HT panel i/c batteries etc. for proper functioning.
3. Watering of earth pits and tightening of connections.
4. Check capacitor panel for proper functioning.
5. The colour of the breather attached to the transformer. Colour should be white.
6. Check for proper working of all the measuring instruments.
7. Check for electromechanical interlocking.
8. Check all relays, NO VOLT/ shunt Trip, IDMT Tripping for proper functioning.
9. Record of various readings in the log-books and inform any abnormality

Half yearly:

- 1.0 Check HT tripping circuit for proper functioning.

In case of out door installation check operation of GOS.

1.1 Checking & cleaning of insulators.

1.2 Checking and cleaning of lighting arrestors.

1.3 Checking & cleaning of drop out fuses.

1.4 Earthing systems check.

1.5 Check working of Relays and other protection Devices.

1.6 Insulation measurement of the system.

1.7 ON/OFF operation of all switches , operating mechanism wherever required, particularly in case of outdoor installation.

1.5 Cleaning of HT/LT OCB/ACB/ other switchgears contacts & tightening of connections.

NOTE:- 1. If anything adverse is noticed during the checks, the matter will be reported to the Engineer- in-charge in writing.

Notes –

1. The above is generic in nature. Any other specific tasks relevant to the work, as assigned by the SDE(E)/JTO(E), which does not involve external specialized labour and material shall be also be carried out at no extra cost.

54.1.1.1.1.1.1 ENGINE ALTERLLNATOR SETS

Part I- Scope of Operation

1. Ensuring that the EA set installation is kept in clean and usable condition.
2. Testing the system every day for operating fitness.
3. Operating the E/A set whenever needed, checking load, any abnormality, etc
4. Scope of maintenance does not cover replacement of any spares/parts, except that covered under the schedule of work.
5. Informing promptly any faults/abnormalities in writing for timely action, to ensure smooth working of the E/A set.

55

56 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 sets.
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.

57 Daily –

- I. Check the availability of diesel.Coordinate with the SDE/JTO incharge for filling of diesel.
- II. Check the level of water in the radiator.top up if needed
- III. Check the state of battery, terminals for cleanliness & level of water.
- IV. Check the Lubricating Oil level
- V. Ensure cleanliness of the EA room.
- VI. Check air line connection and air breather for cleanliness.
- VII. Proper working of safety devices and alarms should be ensured on monthly basis.
- VIII. Intimate atleast one month in advance the scheduled Oil change, filter change etc in writing to SDE(E)/JTO(E)

ANNEXURE – VI

CERTIFICATE TO BE SUBMITTED ALONG WITH EACH BILL

1. CERTIFIED THAT WE HAVE CARRIED OUT THE SCHEDULED WORK COVERED IN THE ABOVE CONTRACT SATISFACTORILY AND 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 REQUIRED INVENTORY HAS BEEN REPLENISHED BY US.
3. CERTIFIED THAT EPF FOR THE EMPLOYEES ARE REMITTED WHEREVER APPLICABLE.
4. CERTIFIED THAT WE HAVE COMPLIED WITH PROVISIONS OF MINIMUM WAGES ACT 1948.

SIGNATURE OF CONTRACTOR

Counter signed by:

JTO (E)/SDE (E)

**LIST OF APPROVED MAKES-BSNL ELECTRICAL WING
(AS ON 29.02.2016)**

S. No.	Item	Makes
1	Engine	Ashok Leyland /Cummins/ Caterpillar /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)	BieccoLawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type) a) Above 400 KVA	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.

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
Estimated cost of work:	
Earnest money:	
Security Deposit and performance Guarantee	

General Rules & Directions: Officer inviting tender: Executive Engineer (E)
Electrical Division-IIICHennai

Definitions:

2(v) Engineer-in-Charge Executive Engineer (E)
Electrical Division-IIICHennai

2(vi) Accepting Authority **Executive Engineer (E)**
Electrical Division-III Chennai

2(x) Percentage on cost of materials and labour to cover allover heads and profits 10% (TEN)

CLAUSE 5

Time allowed for execution **Three Months**

Authority to give fair and reasonable extension of time for completion of work: **SE(E),EC-II,Chennai**

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

Clause 25

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

BSNL EW-8
Bharat Sanchar Nigam Limited
Electrical Wing

Electrical Division: III, Chennai

Sub Division:Stores,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 upto maximum of percentage mentioned in clause 12.3 of the tender form and those in excess of that limit at rates to be determined in accordance with provisions contained in clause 12.2.
6. I/we agree to furnish to BSNL, Deposit at Call receipt/FDR/ Bank guarantee of a Nationalized/ Scheduled Bank for an amount equal to 5% of the 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 & Postal address)</p> <p>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 :