



## **Bharat Sanchar Nigam Limited (Electrical Wing)**

O/o The Executive Engineer (E)  
BSNL Electrical Division-I  
No.22, Kellys Road,  
Chennai - 600010.  
Office: 044-26470405, 26470123  
Fax: 044-2647 0406  
E-mail: ee1chennai@gmail.com

### **E-TENDER DOCUMENT**

**NAME OF WORK** Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

**NIT No:** 44/ EEE/ED-I/CH/2022-23

This tender document contains **47 (Forty seven)** pages only.

**For E Tender Helpdesk Pls Contact: [https:// etenders.gov.in](https://etenders.gov.in).**

**Ph: 0120-4200462/4001002/4001005/6277787**

**Mail Id: support-eproc@nic.in**

**INDEX**

<b>Sl.no</b>	<b>Description</b>	<b>Page no.</b>
1	Front cover and Index	2
2	Notice Inviting Tender form - BSNL EW 6	3
3	General Instructions to the Bidders	9
4	Undertaking to abide by EW 6 & EW 8 (Form 'A') & EPF	11
5	Undertaking regarding ESI provisions (Form 'B')	12
6	Performance report of works (Form 'C') & No Near relative working certificate (Form 'D')	13
7	Model form of Bank Guarantee for EMD (Annexure-I)	14
8	Model form of Performance security Guarantee bond (Annexure-II)	15
9	Important Instructions to tenderer	16
10	Schedule of Quantities	19
11	Specifications of work	23
12	List of Approved Makes	42
13	List of relevant Indian Standards	44
14	Proforma Schedules	45
15	BSNL EW – 8 form	46

**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>“Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam &amp; North East), Chennai (FY 2022-24)”</b>
2	Estimated cost put to tender (Rs.)	<b>Rs.12,68,808/- (incl GST)</b>
3	Earnest Money (Rs.)	<b>Rs.25,376/-</b>
4	Period of completion	24 months
5	Last date & time for downloading of tender document by bidder	Up to 14:55 Hrs. on 19- 09 -2022
6	Last date & time for online submission of tender	Up to 15:00 Hrs. on -19-09-2022
7	Last date & time for submission of original Tender cost and EMD	Up to 15:00 Hrs. on 20- 09 -2022
8	Date and time for opening of tender	15:30 Hrs. on 20- 09 -2022
9	Tender cost (Non refundable)	<b>Rs.500/- (+) GST 18%</b>

**ELIGIBILITY CRITERIA**

**(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 Central Government / State Government /Central Autonomous Body / Central Public Sector Undertaking during last 7 years ending last day of the 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 “Repair maintenance of Diesel Engine alternator sets “**

**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 **MANDATORY** 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 [**MANDATORY**]
  - b. EMD in the prescribed format (Declaration as per Annexure III) [**MANDATORY**]
  - c. Certificate of Financial Turnover from Chartered Accountant (Not applicable for BSNL enlisted Electrical contractors)
  - d. Documents fulfilling Eligibility criteria (Please note that in case the bidder is authorised by the manufacturer, the original authorisation letter is to be scanned and uploaded)
  - e. Enlistment certificate issued by BSNL, if applicable
  - f. Valid 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 **MANDATORY** 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 on or before 15.00 hours of the tender opening date, failing which the tender will not be considered for further processing.

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

Electrical Division: ED-I, Chennai

Sub Division: ESD VI, Chennai

Item rate tenders on single bid system are invited on behalf of CMD, BSNL for the work **“Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)”** 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.12,68,808/- (incl GST)**
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 <https://etenders.gov.in> 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 TELPHONES payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
9. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000)/ CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of BSNL, CHENNAI TELPHONES payable at CHENNAI shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the EMD in the form of DD shall be **60 days** from the date of

- opening. If the EMD is in the form of CDR/FDR/BG, the validity shall be **180 days** from the date of opening. In case of L1 bidder, the validity of CDR/FDR/BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit.
10. The Physical **TENDER COST** and **EMD** of which the scanned copy is uploaded shall be deposited by all the bidders before 3:00 PM on the tender opening date, failing which the tender shall not be opened.
  - ~~11. Interested bidder who wishes to participate in the bid shall pay the e-tender processing fee to M/s. ITI Limited through their e-gateway by credit / debit card / internet banking / RTGS / NEFT facility.→ [CLAUSE DELETED]~~
  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 **19 -09 -2022 up to 3:00 PM** and the bid submitted shall be opened at **03:30 on PM -20-09 -2022**. 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)

**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

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)

### **IMPORTANT INSTRUCTIONS TO THE TENDERERS**

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

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

a) BSNL will have the right to increase or decrease up to 25% of the Contract value depending upon the requirement of goods and services specified in the schedule of items without any change in the unit price or other terms and conditions at the time of award of contract.

b) In exceptional situation where the requirement is of an emergent nature and it is necessary to ensure continued supplies from the existing vendors, the purchaser reserves the right to place repeat orders up to 50% of the quantity of goods and services contained in the running tender/contract within a period of 12 months from date of award of work at the same rate or a rate negotiated (downwardly) with the existing vendors considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.

#### **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  $1/8^{\text{th}}$  of the whole of the work before  $1/8^{\text{th}}$  of the time allowed under the contract has elapsed,  $3/8^{\text{th}}$  of the work before half of the time has elapsed and  $3/4^{\text{th}}$  of the work before  $3/4^{\text{th}}$  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. For Substation, the work is deemed to have been completed after clearance by Electrical Inspector.

#### **3) EXTENSION OF TIME:-**

If the contractor shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or on any other grounds, he shall apply in writing to the Engineer in charge within 30 days of the hindrance on the account on which he desires such extension as aforesaid, and the Engineer in charge shall if in his opinion reasonable grounds to be shown therefore, authorize such provisional extension of time, if any as in his opinion be necessary are proper.



4) **COMPENSATION FOR DELAY :**

If the contractor fails to maintain the required progress or complete the work and clear the site on or before the contract or extended date of completion, he has to pay the compensation for delay which is limited to 0.5% per week of the tendered value for the first 10 weeks and 0.7% per week for next 10 weeks and thereafter subject to a maximum of 12% of the tendered value for the location where the work is delayed and the firm is found responsible for the same. The clause 2 of BSNL - 8 forms stands modified accordingly. Flow chart of the Procurement process/ contract shall be supplied by the contractor and approved by Executive Engineer concerned.

5) **TERMS OF PAYMENT:**

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

6) **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.

7) **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.

8) **STORES AND SAFETY**

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

9) **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.

## **10) COMPLETION DRAWINGS**

~~The firm shall supply three sets of drawings/documents after completion of the work but before the proposed date of completion of work.~~

~~❖ Schematic diagram. (Clause deleted)~~

## **11) CHANGES IN SPECIFICATIONS**

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

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

(or)

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

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

## **12) 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.

Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

Name of work: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)										
Sl.no	Description of Items	Qty	Unit	Rate	Total Amount excl. GST	CGST		SGST		Total Amount including GST
						% Rate	Rate per unit	% Rate	Rate per unit	
1	2	3	4	5	6 = 3x5	7	8 = 6x7	9	10 = 6x9	11= (6+8+10)
	<b>SH-I Essential services (Oil Servicing)</b>									
I	Oil servicing of DG set i/c replacement of Lub oil, all filters both in oil & fuel circuits, Water / oil seals, gaskets i/c handing over a minimum quantity of lub oil and coolant to the exchange in charge to enable topping up of the same during periodical bi-monthly visit etc as reqd. ( Once every 12 months )									
1	15-40 KVA	<b>15 Nos</b>	job							
2	41-63 KVA	<b>8 Nos</b>	job							
3	64-125 KVA	<b>7 Nos</b>	job							
4	126 - 250 KVA	<b>2 Nos</b>	job							
5	250-350 KVA	<b>1 Nos</b>	job							
II	<b>Periodical Checks</b>									

Unpriced Schedule

Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

1	Providing periodical checks of EA set by skilled technician visit to exchange / RSU to monitor the healthiness of the EA set by conducting trial runs, recording of vital parameters, topping up of lub oil / coolant already available with the TE / RSU in charge pdg feedback to the TE authorities / Engineer-in-charge etc as reqd. (Once in three months)	264 job	job							
2	Providing skilled and supportive man power during emergency, to clear minor faults and attending to unavoidable breakdowns etc as reqd.	79 job	job							
	<b>Total of Essential services Part (A)</b>									
	<b>SH III Repairs, replacement of spares &amp; maintenance</b>									
III	<b>EA set spares &amp; consumables for attending faults/repairs</b>									
A	S/F of battery for the following capacity EA set under i/c testing commissioning (price including buy back off old batteries)									
1	S/F of 12V 88AH battery for 15 to 25KVA EA SET	1	each							
2	S/F of 12V 100AH battery for 30 to 50KVA EA SET	1	each							
3	S/F of 12V 130AH battery for 63 to 83 KVA EA SET	1	each							
4	S/F of 12V 2x150AH battery for 125 to 160 KVA EA SET	1	each							
5	S/F of 12V 180AH battery for 250 to 380KVA EA SET	1	each							
	<b>Total of Part - Battery</b>									
6	Battery charger 10A rating	1	each							
B	S/F of the following items for 15 to 40KVA EASET i/c Testing and commissioning etc as required									
1	Fan belt	2	each							
2	Dynamo belt	2	each							

Unpriced schedule

Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

3	Radiator waterline hose with clips	1	set						
4	Valve door gasket	1	set						
5	AVR	1	each						
6	Diodes	1	each						
7	Top overhauling	1	job						
8	Air filter	1	each						
9	Starter motor rewinding	1	job						
10	Charging alternator rewinding	1	job						
C	S/F of the following items for <b>41 to 63KVA</b> EASET i/c Testing and commissioning etc as required								
1	Fan belt	2	each						
2	Dynamo belt	2	each						
3	Radiator waterline hose with clips	1	set						
4	Valve door gasket	1	set						
5	AVR	1	each						
6	Diodes	1	each						
7	Top overhauling	1	job						
8	Air filter	1	each						
9	Starter motor rewinding	1	job						
10	Charging alternator rewinding	1	job						
D	S/F of the following items for <b>64 to 125KVA</b> EASET i/c Testing and commissioning etc as required								
1	Fan belt	2	each						
2	Dynamo belt	2	each						
3	Radiator waterline hose with clips	1	set						
4	Minor gasket	1	set						
5	AVR	1	each						

Unpriced schedule

Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

6	Diodes	1	each						
7	Top overhauling	1	job						
8	Air filter	1	each						
9	Starter motor rewinding	1	job						
10	Charging alternator rewinding	1	job						
E	S/F of the following items for <b>126 to 250KVA EA SET</b> i/c Testing and commissioning etc as required								
1	Fan belt	1	each						
2	Dynamo belt	1	each						
3	Radiator waterline hose with clips	1	set						
4	Minor gasket	1	set						
5	AVR	1	each						
6	Diodes	1	each						
7	Top overhauling	1	job						
8	Air filter	1	each						
9	Starter motor rewinding	1	job						
10	Charging alternator rewinding	1	job						
E	S/F of the following items for <b>251 to 350KVA EA SET</b> i/c Testing and commissioning etc as required								
1	Fan belt	1	each						
2	Dynamo belt	1	each						
3	Radiator waterline hose with clips	1	set						
4	Minor gasket	1	set						
5	AVR	1	each						
6	Diodes	1	each						
7	Top overhauling	1	job						
8	Air filter	1	each						

Unpriced schedule

Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-23)

9	Starter motor rewinding	1	job							
10	Charging alternator rewinding	1	job							
				<b>Total excl GST</b>					<b>Total incl GST</b>	

Unapplied schedule

**IMPORTANT NOTES:-**

1	The firm shall be responsible to ensure that GST shown in the above columns is correct & Input Tax Credit for the amount shown above is admissible as per GST Act as amended up to date”.
2	Invoice /Bill should be pre-printed as per the GST format.
3	The evaluation and comparison of responsive bids shall be done on the basis of <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	Bidders must mandatorily quote for all GST components (CGST, SGST and IGST) as applicable.
7	Bidders must mandatorily mention correct HSN / SAC Codes

## SPECIFICATIONS FOR WORK

### A. GENERAL

#### 1.0 SCOPE

- 1.1 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 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. In case of faults beyond the capacity of the staff provided as above, contractor shall immediately provide extra specialized work force so as to attend to the fault in minimum reasonable time without any extra cost.~~
- 2.3 At the start of work, firm shall prepare an inventory of service under repair maintenance jointly with J.T.O (E)/SDE (E), concerned.
- 2.4 Before start of the work complete equipments/services under scope of 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 is 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 records / logbooks as per annexure listed below

1	INVENTORY	Annexure I
2	DETAILS TO BE SUPPLIED BEFORE STARTING WORK WITHIN 15 DAYS	Annexure II
3	COMPLAINT / FAULT REGISTER (model)	Annexure III
4	LOGBOOK FOR AIR COOLED PACKAGE AC PLANT	Annexure IV
5	Log Books in respect of E/A Set	Annexure V



**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmadapam & North East), Chennai (FY 2022-24)**

6	Program for periodical maintenance	Annexure IX
7	Actual periodical maintenance carried out in the month of	Annexure X
8	CERTIFICATE TO BE SUBMITTED ALONG WITH EACH BILL	Annexure XII

- 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 a permanent basis to manage operation. Similarly 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.~~ Wherever equipments are added or removed from comprehensive / repair maintenance rates will be worked out from the similar class of item. Decision of SE(E) is final and binding in this regard.
- 2.8 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.
- 2.9 For services under comprehensive / repair maintenance, at the start of each month, the firm in consultation with the SDE (E) concerned shall prepare a Program for preventive maintenance to be carried out during the month as per **annexure- IX**. The actual maintenance carried out shall be recorded in **annexure- X** at the end of each month.

**3.0 MAINTENANCE PERSONNEL**

Service	Type	Skill requirements	Personnel	To be based at
<b>Repair maintenance of E/A set</b>	<i>Electrician (Skilled)</i>	10th Pass with Minimum ITI or equivalent certificate holder in electrician/wireman/ switchboard technician trade from a recognized institute. with a minimum experience of 1year OR 10th Pass with Minimum of 5 Year experience, preferably in operation / maintenance of Diesel engine Alternator and attending electrical faults in industrial establishment	<i>Periodical checks during routine mtce/ Emergency fault attending of EA set by skilled technician</i>	<i>To visit sites for routine mtce / During emergency</i>
	<i>Helper (unskilled)</i>	Minimum 8th pass with at least 1 year experience in operation / maintenance of Diesel engine Alternator and attending electrical faults in industrial establishment	<i>Periodical check assistance during routine mtce/ Emergency fault attending of EA set by unskilled technician</i>	<i>To visit sites for routine mtce / During emergency</i>

3.1 ~~Wherever HT Sub-station is included in the scope of work, Operation & Maintenance of HT equipments shall have to be carried out under strict supervision of supervisor with valid permit / HT license for working in Tamilnadu / Pondicherry states.~~

3.2 The maintenance staff has to be available round the clock throughout the year even on holidays. Since the firm will be doing the repair maintenance of critical services such as genset, responsible & trained person(s) placed at site, should be able to take initial steps under emergency situation.

3.3 ~~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, punch card etc., which are available or will be installed by BSNL at a later date.~~

3.4 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

**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)**

for site visits police should be informed about the personnel and a copy of the intimation shall be submitted to SDE (E).

3.5 The workers engaged by firm should maintain proper discipline and good behaviour with occupants. The firm shall remove such workers from the site whose behaviour is found improper. Engineer – in – Charge’s decision shall be final and binding.

3.6 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. The workers engaged by the firm should wear proper formal dresses with detachable badge indicating the name of the person and firm’s name.

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 to 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,~~

3.10 The firm and their personnel shall also coordinate, 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 MATERIALS, TOOLS & PLANTS**

4.1 **(A) Material** – Wherever the scope of work includes maintenance of complete installation on comprehensive basis i.e. no material will be supplied by the Department.

The minimum inventory of material as shown in the table below, required for smooth maintenance of installation shall be maintained at site. The inventory shall be from BSNL approved make wherever applicable. Items which are under comprehensive maintenance shall be maintained till such time BSNL decides to scrap and discontinue its usage, except in situations when the spare parts/components for the same is not available, product is discontinued from the market, obsolescence etc. .

a	36W Fl. Tubes	25 Nos
b	Electronic Ballast suitable for 36/40 W Fl.Tube	5 Nos
c	Starters for FL. Fittings	5Nos
d	Side holder for Fl. Fittings	5 Nos
e	2.5 mfd capacitor for ceiling fan	5 Nos
F	Step type electronic Fan Regulator	2 Nos
g	5-32 A Single Pole C series MCB	2 Nos
h	63A HRC fuse link	1 No
i	1.5sqmm copper flexible cable	25 Mtrs

4.2 Contractor shall comply with any inclusion/exclusion in the above items and/or their quantity depending upon site requirements. The decision of the Engineer in charge shall be final in this regard

**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)**

4.3 The replacement of material shall be with the same rating and make as that of the original. The firm may also replace an item with energy efficient item wherever the same is available on intimation to JTO (E). However, in case of non-availability of a particular make, Engineer-in-charge will approve the alternate make.

~~4.4. Dismantled and unserviceable items for which a replacement is supplied, shall be removed from the site under intimation to the JTO(E).~~

4.5 .All materials shall be of approved make, model and capacity and shall be matching to the system. However, wherever approved makes are not readily available in the market and that there in urgency, matching makes may be provided with the approval of EE(E).

~~4.6 Invoice shall be produced in case of all major items etc. as a proof of genuine spares. Obsolete items not available in market can be repaired and re used.~~

~~4.7 The contractor shall maintain minimum inventories at site in addition to items/spares mentioned under specifications as section 4.0 above.~~

**4.8 (B) TOOLS & PLANTS:** All tools and plants, testing & safety equipments required for carrying out various tasks relevant to repair maintenance have to be arranged by firm at its own cost.

4.1.1. Wherever the firm is carrying out the Repair maintenance of equipment, the firm shall possess the following minimum T&P

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

4.1.2 In addition to the above, the firm shall generally posses 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 Repair maintenance of the installations 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.

**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)**

~~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 2** of Important instructions to Contractors.
- 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 maintenance period due to the carelessness on the part of maintenance staff shall be the responsibility of firm/contractor & shall be replaced/rectified by the firm without any extra cost

6.2 Any accident or damage during /repair maintenance 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 24 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:**

SL NO	SERVICE	SERVICE CONDITIONS	PENALTY FOR DEFICIENCY IN SERVICE
1	<p><b>E/A set</b> [applicable where items are under repair maintenance]</p>	<p><i>i) Faults involving the following in the individual EA set units shall be replaced within the time frame failing which penalty shall be imposed.</i></p> <ol style="list-style-type: none"> <li><i>1. Alternator or exciter winding faulty – Beyond 15days.</i></li> <li><i>2. Major engine faults (which leads to major overhauling) – Beyond 3 weeks</i></li> <li><i>3. Minor engine faults (which leads top overhauling) - Beyond 15 days</i></li> <li><i>4. Other faults due to minor spares (Spare / Items listed in the nomenclature of the scheduled items for repair maintenance) – Beyond one week.</i></li> <li><i>5. Failure to carryout quarterly preventive maintenance activity (In addition to non-payment for the EA set)</i></li> <li><i>6. Failure to respond to emergency situations due to EA set failure leading to service failure.</i></li> </ol>	<p><i>Rs. 1000/- per day per EA set</i></p> <p><i>Rs. 1000/- per day per EA set</i></p> <p><i>Rs. 500/- per day per EA set</i></p> <p><i>Rs. 250/- per day per EA set</i></p> <p><i>Rs.1000/- per day per EA set</i></p> <p><i>Rs.2000/- upto 3 occasions beyond three occasions will lead to termination of contract and execution of work through risk and cost.</i></p>

**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalandapam & North East), Chennai (FY 2022-24)**

Note:

- (a) In case contractor fails to comply with preventive/ periodical maintenance schedules, penalty of Three times periodical check bill amount per EA set shall be imposed.
- (b) 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.
- (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 repair maintenance is carried out, penalty shall be made @ Rs. 1000/- per day. (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 ID card by the personal visiting sites, 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 for preventive maintenance, 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 repair maintenance 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 equipment under repair maintenance under maintenance neat and clean to avoid any accident and or fire hazards.
- 10.2 ~~Dates of earth test, refilling of fire extinguisher, servicing details of E/A set, Package ac plants / window / split ac units and sub station equipments (wherever applicable), shall be displayed at site as per annexure - XII attached.~~ Dates of weekly, monthly, biannual / annual tests (wherever applicable), shall be displayed / recorded 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 and complaint no. shall be given to the complainant. Disposal of complaint shall be recorded and monthly report shall be submitted to the SDE(E) concerned
- 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 Exchanges / RSUs important telephone numbers for contact.
- 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.
- 10.8 BSNL reserves the right to carry out any work at the risk and cost of the contractor, if the agency fails to perform any duty as per the contract.
- 10.9 ~~The firm will be doing the maintenance and /or operation of critical services like sub station, fire fighting standby power etc responsible and trained person(s) should be placed round the clock at site who could take initial steps under emergency situation.~~

**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)**

10.10 Firm shall ensure ~~energy conservation~~ by switching ~~on~~ the air conditioner units /lights & fans etc only when required, wherever Operation is forming the scope of contract.

10.11 In case of Emergency, contractor and/or his authorized engineer or supervisor shall be available at site on short notice from Engineer-in- charge and make all efforts to make the situation normal at the earliest

**11.0 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 in format approved by Executive Engineer (E) shall be maintained at site for the following components of work **(as per Annexure - IV to VIII)**.

- 1) ~~Sub Station (Both HT & LT) Annexure VI~~
- 2) ~~Packaged A.C. system. Annexure IV~~
- 3) E/A set. Annexure V
- 4) ~~Pumps. Annexure VII~~
- 5) ~~Electricity bills. Annexure VIII~~

11.3 **Maintenance register:-** In this register, the agency will keep a record of ~~daily, weekly, fortnightly, monthly,~~ quarterly, & annual maintenance activities carried out by him including details of replacement / repair of any item. Such register shall contain records of maintenance activities in respect of each service separately in standard form.**(as per annexure- IX, X )**

11.4 **Report file:-** Containing all the test reports in original Viz. ~~Oil test report, IDMT test report,~~ E/A set service reports, ~~A.C. package reports, reports on fire drill conducted~~ etc shall be maintained at site.

11.5 **History register:** The firm shall record all major breakdown maintenance carried out by the firm like rewinding of motor / ~~compressor / transformer~~ / alternators/ major overhauling of engine etc.

11.6 **Inspection notes:** A file containing all inspection notes released by CE(E) / SE(E) / EE (E) / SDE (E) along with the action taken report on it shall be available at site.

11.7 **Maintenance card:** A maintenance card in standard proforma (as shown below) showing the history of maintenance activities undertaken shall be displayed for every equipment such as EA set, AC units, Sub-Station, AFD panel & Fire fighting system.

**FRONT SIDE OF CARD**

SITE:-	AMC FIRM:-
EQUIPMENT:-	FIRM'S PH NO:-
CAPACITY:-	JTO (E)'S PH NO:-
MAKE & SL NO:-	SDE(E)'S PH NO:-

**BACK SIDE OF CARD**

DATE	NATURE OF FAULT	REPORTED TO	SIGN OF XGE INCHARGE	ATTENDED ON	SIGN OF MECHANIC	SIGN OF XGE STAFF

#### 12.0 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 carry out 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.

- Any part found defective during Guarantee period shall be replaced free of cost by the contractor. The service of the contractor's personnel, if required during this period shall be made available free of cost to the BSNL.
- In case the contractor fails to depute his representative to attend the fault within the time frame stipulated in various clauses or fails to cause remedial measure within reasonable time as decided during joint inspection, the BSNL may proceed to do so at the contractor's risk and expenses and without prejudice to any right of the BSNL to recover such expenses.

#### 14.0 ENERGY CONSERVATION

BSNL TN zone is committed to reduction in energy bills by the way of energy conservation over a year by 12%. The contractor shall continuously monitor energy conservation measures to save energy bills with suitable testing using energy monitoring instruments at his own cost to meet the Energy Conservation Building Code.

The contractors shall co-ordinate with the departmental SDEs / JTOs while conducting Energy auditing of the buildings under maintenance for effective Energy Conservation.

~~The contractors are responsible for display of Energy conservation slogan stickers at prominent locations in the buildings under maintenance. The list of Energy conservation slogans as per Annexure XI shall be displayed by the firm at the respective locations and as directed by the JTO(E)/SDE (E) concerned.~~

~~Faulty chokes / fluorescent lamps / incandescent bulbs etc. shall be replaced by energy efficient items viz; electronic chokes, 36 watt fluorescent lamps, CFLs , LED lights etc.~~

~~Burnt out fan motors shall not be repaired but replaced with higher efficiency motors of reputed make.~~

~~Energy efficiency of Package AC plants, AC units, EA sets ( whichever is forming part of maintenance), shall be maintained within the benchmark value. The benchmark value shall be assigned by JTO(E)/SDE(E) after testing, with respect to the present conditions within 2 months from the date of handing over the services for maintenance. A 10% allowance shall be given for ageing while setting the benchmark itself. Energy efficiency report shall be submitted once every 6 months by the contractor. Reduction in Energy efficiency below the benchmark value shall result in suitable penalty as per the penalty clause.~~



**DGM Kalmandapam & North East**

ENNORE PORT	1	15	Kalmandapam
THIRUPALAIVANAM RSU	1	15	Kalmandapam
ATHIPATTU	1	15	Kalmandapam
VELLIVAYALCHAVADI	1	15	Kalmandapam
VELUR	1	15	Kalmandapam
ARAMBAKKAM	1	15	Kalmandapam
DEVAMPATTU	1	15	Kalmandapam
MADHARPAKKAM	1	15	Kalmandapam
ELAVAMBEDU	1	20	Kalmandapam
PULICAT	1	20	Kalmandapam
MINJUR	1	20	Kalmandapam
MANALI NEW	1	30	Kalmandapam
Kaladipat RSU	1	40	Kalmandapam
ARANI	1	40	Kalmandapam
KAVARAPETTAI	1	40	Kalmandapam
ATHIPEDU	1	60	Kalmandapam
GUMMIDIPOONDI OLD TWON	1	60	Kalmandapam
PONNERI	1	62.5	Kalmandapam
Broadway	1	63	NE
Periamet RSU	1	63	NE
NEW WASHRRMENPET RSU	1	63	Kalmandapam
MANALI CHENNAI	1	63	Kalmandapam
KATHIWAKKAM CHTD	1	63	Kalmandapam
Nethaji nagar	1	75	Kalmandapam
Vallalar Nagar Rsu	1	125	NE
Walltax Road	1	125	NE
HARBOUR TEL. EXCHANGE	1	125	NE
ENNORE CHENNAI	2	125	Kalmandapam
Kalmandapam	1	125	Kalmandapam
GUMMIDIPOONDI SIPCOT	2	160	Kalmandapam
HARBOUR TEL. EXCHANGE	1	350	NE

**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:

Co mpl aint No.	Date & Time of complain t	Officer / section lodging complaint	Nature of complaint	Location	Time & Date of attending complaint vide service report no.	Cause of fault	Material used	Dated Signature of Firm's Representative	Dated Signatu re of SDE/JT O	Re ma rks

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 EA SET READING FOR THE QUARTER OF ..... (Eg: Apr'22 to Jun'22)**

LOG BOOK FOR EA SET READING FOR THE QUARTER OF																				Remarks			
Date	Start time	Stop time	Voltage			Load Current			Fre q	Spee d	Lub oil Temp	Lub oil Pr.	Water Temp	Diesel level Ltrs		KWH		Check before start of EA set					
	Hrs	Hrs	RY	YB	B R	R	Y	B	Hz	RPM				Star t	Sto p	Star t	Sto p	Water in radiator & coolant	Lub oil level & leakage		Battery charger system	Battery terminal connection	

**Program of periodical maintenance ( For applicable service)**

**ANNEXURE – IX**

	E.I & Fans	Pumps	Comp. Lighting	Lightning Cond.	S/Stn. & AVR	EA set	Fire Det./Alarm	W/SAC/Volt.St.	Package AC	Des. cooler/ Heater	Lifts	Fire Fighting
January							Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill
February	Fan/Fixture cleaning						Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill
March							Fire drill & detector cleaning	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank Pad changing	Cleaning lift car & Machine Room	Fire drill
April	Earth & insulation test	Earth & insulation test	Earth & insulation test	Earth & insulation test	Earth & insulation test, oil insulation test	Earth & insulation test, OEM services	Fire drill	Earth & insulation test, Filter cleaning & servicing	Filter cleaning & servicing Earth & insulation test	Cleaning of Tank	Cleaning lift car & Machine Room	Earth & insulation test, OEM services, Fire drill
May	Painting	Painting	Painting of poles etc.		Painting	Painting	Fire drill	Filter cleaning, Painting & servicing	Filter cleaning, & servicing painting	Cleaning of Tank Painting	Cleaning lift car & Machine Room	Painting, Fire drill
June							Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill
July							Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill

Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

August							Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill
September							Fire drill, detector cleaning	Filter cleaning & servicing	Filter cleaning, & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill
October	Earth & insulation test	Earth & insulation test	Earth & insulation test	Earth & insulation test	Earth & insulation test, oil, insulation	Earth & insulation test.	Fire drill	Filter cleaning, & servicing Earth & insulation test	Filter cleaning & servicing Earth & insulation test	Cleaning of Tank	Cleaning lift car & Machine Room	Earth & insulation test, OEM services, Fire drill
November					Electrical Inspector report		Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill
December					Relay Calibration		Fire drill	Filter cleaning & servicing	Filter cleaning & servicing	Cleaning of Tank	Cleaning lift car & Machine Room	Fire drill

The above chart shows yearly programme schedule for reference. Actual Programme based on the sites and the services being maintained, to be drawn up after award of work.

ACTUAL PERIODICAL MAINTENANCE CARRIED OUT IN THE Quarter of \_\_\_\_\_

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

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

Month: \_\_\_\_\_

Sr.no	Service	Activity as per quarterly plan	Date on which actual activity carried out	Result of the activity	Departmental representative	Remarks

1. Certified that we have carried out maintenance properly as per schedule of work and as per terms and condition of the agreement and testing/drills etc. required during the period has been performed.

Contractor's representative

Departmental representative

Contractor

Executive Engineer (E)

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 WE HAVE REMITTED THE EPF SUBSCRIPTION FOR THE EMPLOYEES UPTO \_\_\_\_\_.

SIGNATURE OF CONTRACTOR

Counter signed by:

JTO(E)

SDE(E)

## MAINTENANCE SCHEDULE

### SECTION-4

#### ENGINE ALTERNATOR SETS

##### Part- I Scope of maintenance

Ensuring that the EA set installation is kept in clean and healthy working condition. Testing the system every day for operating fitness. Carrying out various maintenance activities and test as stated in part-III. The vendor shall arrange inspection of installation by authorized Engine service station and shall submit its health check report to BSNL. At the beginning of contract. The vendor shall replace the set of batteries as per schedule of work, once during the currency of contract. The engines have to be operated whenever required and staff should be available round the clock for the same.

##### 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. The system should be brought into working condition, if this is not the case, on priority.
4. The persons(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.
5. Inspect the EA room for proper ventilation (normally 1 1/2 times the radiator area should be available for fresh air and the hot air during operation should have free passage to outside atmosphere. Steps for improvement to be discussed with maintenance in charge.
6. The Engine capacity vis-à-vis the load being supplied be checked to ensure that there is no mismatch.
7. 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 – Maintenance schedule to be followed every quarterly visit:

###### List 1

1. Check Engine oil level & leakage if any.
2. Check Radiator/ Make up water tank water level & leakage if any.
3. Check fuel level.
4. Check state of batteries, terminals for cleanliness and level of water.
5. Check that the battery charger is in trickle charging position
6. Check whether insulation of the Exhaust pipe is proper.
7. Check that ventilation of the EA Room is proper.
8. Check oil pressure.
9. Check if lights and exhaust fan are working properly.
10. Check physically before start for loose connection/ nut bolt.
11. Check hydraulic governor of oil.

###### List 2

1. Check Air line connection and filter.
2. Check fan belt and its tension.
3. Check all Safety, indications, alarms, interlocking & Voltage Regulation

###### List 3

1. Check Battery voltage, Terminals, Electrolyte level (Top up if necessary).
2. Check Specific Gravity of Electrolyte. (After the above checks, start the engine for No load/ Connected Load and test for 10 minutes the following)
  1. Check for any abnormal noise. Shut down the E/A immediately and cause be examined.
  2. Check frequency & output voltage.
  3. Check the colour of Exhaust gas.
  4. Check working of the Indication lamps.
  5. Check working of Dynamo and Auto Cut off of the battery charger.
  6. Check for any Exhaust gas restriction.
  7. Check manual/ auto-changeover from commercial supply on connected load
  8. Record various readings in the logbook.

###### List 4

1. Check for tightness of connections in engine and control panel.
2. Watering of earth pits and tightening of connections.
3. Check functioning of safety devices.
4. Check belt tensions.



**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)**

5. Check of battery charger.
6. Check for leakage of fuel line.
7. Check for leakage of exhaust pipes.
8. Inspect the manufacturer's chart for due date of maintenance. Servicing of the DEA set on the basis of hour meter/log book reading shall be done by the firm i/c material

**Half yearly**

1. Cleaning of bus bars & chambers and tightening of nut bolts.....(Feb & Aug)
2. Checking of ACB/ MCCB tripping mechanism .....(Feb & Aug)
3. Earth testing and Meggering .....(April & Oct)
4. Relays and other protection devices working properly ..... (April & Oct)

**Yearly.**

1. Tighten all mounting, nut and bolt.....(March)
2. Check turbo charger bearing clearance. ( if applicable).....(Oct)
3. Check crankshaft and float..... (Oct)
4. Check injector inlet screen. ....(Oct)
5. Clean and calibrate all injectors..... (Nov)
6. Check fuel pump calibration..... (Nov)
7. Replace fuel pump filter screen and magnet.....(Nov)
8. Complete health check of each set through Authorized service station.....(March)

Testing Detailed Testing of the installation shall be done once in a year to find out capacity and efficiency of various equipment with respect to their rating. The testing procedure shall be same as adopted at the time of original testing (but without involving the T&D persons.)

**Notes**

1. The attendants shall check respective items as per the checklist. This shall be 100% test checked by JTO (E)/SDE (E).
2. Quarterly, Half Yearly & Yearly checks shall be performed directly under the supervision of JTO (E)/SDE (E) and quarterly report on the same duly countersigned by EE (E) shall be sent to the SE (E) before 7th of next month.
3. The yearly testing report shall be sent to SE (E) with copy to CE (E) directly by EE (E) in charge.

**Part-IV : Material**

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

Diesel for E/A sets.

Replacement of complete Engine, Alternator and control panel. Radiator replacement etc.

Battery of DEA Set only once.(at the beginning of contract as given in schedule of work)

Major overhauling of DEA Set which is due after some fixed running hours. The contract is for the comprehensive maintenance as such the firm shall arrange all materials at his own cost including rewinding of Alternators.

NOTE:- The replacement of material shall be with the same rating and make as that of the original. However, in case of non-availability of a particular make, the Engineer-in-charge will approve the alternate make..

**Part-V Special conditions relevant to particular job/particular site.**

1. ~~Services as per manufacturer's recommendations shall be carried out by the firm including material without extra cost.~~
2. ~~The department shall bear the cost of diesel & transportation but handling of diesel including filling etc. shall be arranged by the contractor.~~
3. The servicing and breakdown maintenance has to be got done from authorized service Centre/dealer of the Engine manufactures

**LIST OF APPROVED MAKES – BSNL ELECTRICAL WING**

S.No.	Item	Makes
1	Engine	Ashok Leyland /Cummins/ Cater pillar /KOEL/ Volvo Penta / Mahindra & Mahindra (up to 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) 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=lcu)	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/LTCable 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

**Name of wok: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)**

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 Glasswool	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 SmokeDetector	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. Any other make approved by PCE (E)/ CE (E) of this zone till date of opening of tender can also be used in this contract.
2. The accessories such as CT/PT/measuring instrument/relays provided by approved make in respect of Transformer/HT Panel/DG /AC Package Units as supplied by approved manufacturer along with the equipments are also acceptable in addition.
3. 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.

**RELEVANT IS STANDARDS**

<b><u>STANDARDS</u></b>	<b><u>TITLE</u></b>
IS 11171- 1985	Dry type transformer
IS 10028 (Part-II & III)	Installation & Maintenance of Transformers
IS 2099:1986	Bushings
IS 2705	Current transformers
IS 3961 (Part-II)-1967	PVC insulated PVC sheathed Heavy duty cables
IS 2675-1983	HRC cartridge fuse links
IS 13118:1991 IEC 60056	High voltage alternating circuit breaker
IS 9920:2002	High voltage switches-PART-I . switches for rated voltage above 1 KV and less than 52 KV
IS 3427:1997	Ac metal enclosed switch gear and control gear for voltages above 1 KV and upto and including 52 KV
IS 694- 1990	PVC insulated cables for working voltages upto and including 1100 Volts
IS 1248	Electrical measuring instruments and accessories
IS 8130:1984	Conductors for insulated electric cables & flexible cords
IS:15652	Insulating mats

**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), Electrical Circle-II, 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-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: I, Chennai

Sub Division: VI, 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 there from to any person other than to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety or interest of BSNL.

Name of work: Providing periodical oil servicing and repair maintenance of EA sets at RSUs under DGM (Kalmandapam & North East), Chennai (FY 2022-24)

<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>Seal of Bidder</p> <p>Date:</p>
--	--

**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 :