

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)



BHARAT SANCHAR NIGAM LIMITED

(A Govt of India Enterprise)
(Electrical Wing)

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

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E-TENDER DOCUMENT

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

NIT No : 142/EEE/ED-I/CH/2017-18

This tender document contains **51(fifty one)** pages only.

**For E Tender Helpdesk Pls Contact M/s ITI LTD :Ph:91-80-40482000 &
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INDEX

SL.No	Description	Page no.
1	Front cover and Index	2
2	Notice Inviting Tender form - BSNL EW 6	5
3	General Instructions to the Bidders	9
4	Undertaking to abide by EW 6 & EW 8 (Form 'A')	11
5	Undertaking regarding EPF & ESI provisions (Form 'B')	12
6	Performance report of works (Form 'C')&No Near relative working certificate (Form 'D')	13
7	Model form of Bank Guarantee for EMD (Annexure-I)	14
9	Model form of Performance security Guarantee bond (Annexure-II)	15
10	Important Instructions to tenderer	16
11	Schedule of Quantities	19
12	List of Annexures	24
13	Specification for work	25
14	Specification relevant to services under operation/maintenance	33
13	List of Approved Makes	46
14	List of relevant Indian Standards	48
15	Proforma Schedules	49
16	BSNL EW – 8 form	50

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

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	"Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)"
2	Estimated cost put to tender (Rs.)	Rs.21,75,800/- Excluding GST.
3	Earnest Money (Rs.)	Rs.43516/-
4	Period of completion	Twenty Four Months
5	Last date & time for downloading of tender document by bidder	Up to 14:55 Hrs. on 11-04 -2018
6	Last date & time for online submission of tender	Up to 15:00 Hrs. on 11- 04 -2018
7	Last date & time for submission of original Tender cost and EMD	Up to 15:00 Hrs. on 11-04 -2018
8	Date and time for opening of tender	15:30 Hrs. on 11-04-2018
9	Tender cost (Non refundable)	Rs.500/- (+) GST 18%
10	E-tender Processing fee (Non refundable)	0.05% of estimate cost subject to the minimum of Rs.500 and Maximum of Rs. 5000 plus GST

Eligibility Criteria:

The Contractors satisfying the following conditions:

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

AND

1.2 The manufacturer/authorized dealer /OEM of any of the makes of major equipment included in the NIT. The letter of authorization from manufacturer in original/ photocopy attested by BSNL Executive shall be submitted.

OR

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

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

OR

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

- > **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.**

OR

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

(NOTE 1: The estimated cost of one year shall be considered to evaluate the eligibility criteria.)

(Note 2: By Similar work means, Operation and/or maintenance of substations forming part of the work. Also the tenderer/firm shall possess statutory License(s) to work in HT installation in the state of Tamil nadu)

IMPORTANT NOTE:

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

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

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

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

BSNL EW-6
Bharat Sanchar Nigam Limited
Electrical Wing

Electrical Division: ED-I, Chennai

Sub Division: III, Chennai

Item rate tenders on single bid system are invited on behalf of CMD,BSNL for the work "**Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)**" 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. 21,75,800/- Excluding GST**. This estimate, however, is given merely as a rough guide.
3. Agreement shall be drawn with the successful bidder on prescribed form as amended up to the date of opening of tender. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
4. The time allowed for carrying out the work will be **Twenty four months** from the 10th day after the date of written order to commence the work.
5. The site for the work is available / or the site for the works shall be made available in parts. The successful bidder shall execute the work in coordination with other agencies working in the campus.
6. The bid documents consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.tenderwizard.com/BSNL at free of cost. The BSNL EW-8 document can be seen from the web site www.chennai.bsnl.co.in at free of cost.
7. After submission of the bid, the bidder can re-submit revised bid any number of times but before last time and date of submission of tender as notified. While submitting the revised bid, bidder can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.
8. The Tender Fee in the form of Demand Draft issued by the Nationalized / Scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL, CHENNAI TELPHONES** payable at **CHENNAI** shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
9. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000)/ CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL, CHENNAI TELPHONES** payable at **CHENNAI** shall be scanned & uploaded in the e-tendering website within the period of tender submission. The validity of the EMD in the form of DD shall be **60 days** from the date of opening. If the EMD is in the form

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

of CDR/FDR/BG, the validity shall be **180 days** from the date of opening. In case of L1 bidder, the validity of CDR/FDR/BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit.

10. The Physical **TENDER COST** and **EMD** of which the scanned copy is uploaded shall be deposited by all the bidders before 3:00 PM on the tender opening date, failing which the tender shall not be opened.
11. Interested bidder who wishes to participate in the bid shall pay the e-tender processing fee to M/s. ITI Limited through their e-gateway by credit / debit card / internet banking / RTGS / NEFT facility.
12. All the documents as specified in the tender document shall be scanned and uploaded to the e-Tendering website within the period of bid submission.
13. Online bid documents submitted by intending bidders shall be opened only of those bidders, who have deposited e-Tender Processing Fee with M/s ITI Limited and Earnest Money Deposit and other documents fulfilling eligibility criteria, scanned and uploaded are found in order.
14. The last date for online submission of bid is **11-04-2018 up to 3:00 PM** and the bid submitted shall be opened at **03:30 on PM 11-04-2018**. 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

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

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.

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

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.

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

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.

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)

Undertaking regarding EPF provisions

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

* I/We have employed only ----- persons in our establishment and hence the EPF and Miscellaneous provisions Act, 1952 are not applicable to my / our establishment.

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

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

* strike out whichever is not applicable

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

(Seal of the firm)

(Signature of Bidder)

Undertaking regarding ESI provisions

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

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

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

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

* strike out whichever is not applicable

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

(Seal of the firm)

(Signature of Bidder)

FORM 'C'

Performance report of works

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

Dated:

Executive Engineer or Equivalent /above

FORM 'D'

No Near relative working certificate

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

(Seal of the firm)

(Signature of Bidder)

ANNEXURE I

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

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

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

THE CONDITIONS of the obligation are:

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

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

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

Signature of the Bank

Signature of the Witness
Name of Witness
Address of Witness

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)

ANNEXURE II

PERFORMANCE SECURITY GUARANTEE BOND

1. 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 1/8th of the whole of the work before 1/8th of the time allowed under the contract has elapsed, 3/8th of the work before half of the time has elapsed and 3/4th of the work before 3/4th 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

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020) 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:

In case of AMC works, Quarterly Payment shall be made after completion of each quarterly maintenance period. With each bill, a certificate from the Contractor that maintenance has been carried out as per terms and conditions of the agreement shall be submitted.

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 of control wiring.
- ❖ Operation and maintenance manual.

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

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)
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 WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai
(for 2018-2020)

Schedule of Quantities

Name of Work : Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai (for 2018-2020)													
SI No	HSN / SAC Code	Description of Item	Quantity	Unit	Rate per Unit excluding GST	Amount excluding GST	CGST		SGST		IGST		Total Amount including GST
							%	Amount	%	Amount	%	Amount	
1	2	3	4	5	6	7=(4x6)	8	9	10	11	12	13	14
		SH-I (operation)											
1		Providing round the clock operation of the following installations in TE Kodambakkam by deploying required manpower as per specifications & carrying out scheduled /routine, maintenance/ activities for smooth operation of installation on all working days, including all holidays and by arranging required tools and plants etc to keep all services operational i/c maintaining records , required up to standards complete as per specification etc as reqd. etc as reqd. a) 2x 400 KVA ,11 KV/433 Volts Transformer Substation- 1 set b) 320 KVA EA set- 2 Nos /All the above consists of/	24 Months	Month									

UNPRICED SCHEDULE

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai
(for 2018-2020)

SH-II (servicing Items)												
The following Servicing Items have to be carried out by agency at 1 job / 12 Months.												
1		Servicing / Calibration of IDMT relays in HT Panel and LT Panel comprising of 2 nos OC and 1 no EF elements by primary injection testing, setting the relay for existing load condition for proper discrimination etc. as required (HT panel - 2 nos, LT panel - 2 nos)	2 jobs	Job								
2		Complete Servicing of 11 KV HT panel with 2 outgoing & one incoming i/c cleaning the carbon deposits in contacts,HT shutters,chutes, heater,CT/PT i/c replacing faulty heaters, indication lamps,control fuses and selector switches , verifying ON/OFF operations with cleaning the terminals, greasing, verifying proper functioning of tripping circuit, cleaning the dust, testing and commissioning etc as per attached maintenance schedule as required	2 Jobs.	Job								
3		Complete Servicing of MV panel (with ACBs - 3 nos) i/c checking of ACBs for operating mechanism and applying lubricants for mechanism as required, Inspection and checking of switches & MCBs, checking of Earth continuity, cleaning of switches with blowers, tightening of bolts and nuts, checking of insulation resistance, loose connection of cable terminations, control wiring and Earthing etc as per										

UNPRICED SCHEDULE

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai
(for 2018-2020)

		attached maintenance schedule i/c replacement of faulty Indication lamps, selector switches, control fuses. as required.	2 Jobs.	Job																
4		Complete Servicing of Capacitor panel i/c checking of switches for operating mechanism and applying lubricants for mechanism as required, Inspection and checking of switches & Capacitors, checking of Earth continuity, cleaning of switches with blowers, tightening of bolts and nuts, checking of insulation resistance, loose connection of cable terminations, control wiring and Earthing etc as per attached maintenance schedule i/c replacement of faulty Indication lamps, selector switches, control fuses. as required.	2 Jobs.	Job																
5		Oil testing and oil filtration of 2 Nos 400 KVA, 11KV/433V Oil cooled Transformer and carrying out BDV Test before and after filtration and changing silica gel i/c isolating primary & secondary terminals of transformer as required	2 Jobs	Job																
6		Supply and topping up of Transformer Oil	40 Ltrs	Ltr																
7		Oil servicing of 320 KVA EA set with following parts as reqd.																		
a		Lub Oil	50 Ltrs																	
b		Coolant	5 Ltrs	Ltr																
c		Lub Oil filter	4 Nos	Each																
d		Fuel Filter	4 Nos	Each																

UNPRICED SCHEDULE

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai
(for 2018-2020)

e		PreLine Filter	2 Nos	Each								
f		Labour Charges for carrying out the Oil service of EA set with above items	4 Jobs	Job								
TOTAL AMOUNT												

SH –III Optional Items

SI No	HSN / SAC Code	Description of Item	Quantity	Unit	Rate per Unit excluding GST	CGST		SGST		IGST		Total Amount including GST
						%	Amount	%	Amount	%	Amount	
1		Attending breakdown maintenance/c Supplying and fixing the following materials / accessories in the existing installation i/c removing the faulty item and replacing the same etc as reqd.										
		Note : These item may be carried out as and when faults occurred in existing Substation/ EA set under maintenance as per schedule of work with the approval of SDE / Engineer in Charge. Rates Quoted for these items will not considered for evaluating tender. However Rates quoted shall be justifiable.										
a		630A TPN SDF suitable for DIN type fuses	1 No	Each								

UNPRICED SCHEDULE

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai
(for 2018-2020)

b	400A TPN SDF suitable for DIN type fuses	1 No	Each										
c	250A TPN SDF suitable for DIN type fuses	1 No	Each										
d	125A TPN SDF suitable for DIN type fuses	1 No	Each										
e	100A TPN SDF suitable for DIN type fuses	1 No	Each										
f	63 TPN SDF suitable for cylindrical type fuses	1 No	Each										
g	400 A DIN Type HRC fuses	1 No	Each										
h	250 A DIN Type HRC fuses	1 No	Each										
i	125 A DIN Type HRC fuses	1 No	Each										
j	63 A Cylindrical Type HRC fuses	1 No	Each										
k	Air Cleaner Element - Primary	1 No	Each										
l	Air Cleaner Element - Safety	1 No	Each										

IMPORTANT NOTES:-

1	The firm shall be responsible to ensure that the estimation 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 format.
3	The evaluation and comparison of responses shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc., but excluding GST
4	The rates for all items of work shall, unless specifically 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 mention correct HSN / SAC Codes.

Contractor

Executive Engineer(E)

Contractor

Internet downloaded Copy

EE(E)

List of Annexure

SL NO	Description of Annexure	Annexure
1	Size of services to be maintained	III
2	Details to be supplied before starting the work & Details to be displayed at site	IV A, B
3	Complaint Register	V
4	Log Book for Sub Station	VI
5	EB Bill register	VII
6	Daily Maintenance Activity	VIII
7	Log Book for EA set	IX
8	Periodical Schedules	X A,B,C,D,E,F
9	Format of Abstract of actual periodical maintenance carried out in the quarter ending _____	XI
10	Certificate to be submitted along with each bill	XII

SPECIFICATIONS FOR WORK

Part I :Scope of Operation & Maintenance of Substation & EA Sets

1. Deploying required personnel at site of work.
2. Ensuring that the SUBSTATION & E/A SET installation is always kept in clean, healthy working condition.
3. Attending day-to-day routine complaints in a prompt and satisfactory manner.
4. Operation of transformers, EA sets and connected items such as panels/switchgears.
5. Ensuring that prompt action is taken, in case of, breakdown in power supply including contacting/Co-ordinating with supply co. for earliest restoration.
6. Ensuring that there is no wastage of electrical energy. Details of steps to be taken in this regard to be worked out in consultation with the maintenance in charge.
7. Carrying out various maintenance routines and tests as stated in **Annexures V to X** and in the specifications and as per site requirement.
8. Maintaining Registers/documents for complaints and test results.
9. **Coordination with EB authorities/assessor/EB office for recording of EB charges i/c handling of EB cards etc, wherever necessary.**
10. Submission of periodical reports.
11. **Keeping watch on the working condition of Precision Package AC plant as and when required. Ensuring continuous power supply and switching ON of package AC Units**

Part II Tasks To be performed within first 15 days.

Following items should be carried out within first 15 days.

1. Establish required registers with the approval of Engineer-in-Charge so that operation and maintenance is carried out promptly and effectively.
2. Preparing an inventory of materials to be kept at site for prompt maintenance in consultation with Engineer-in-Charge. Materials for all the services to be considered for preparation of inventory.
3. Arrange for required tools and plants to be kept at site
4. Check for safety devices such as fully replenished first aid box, rubber mat, hand gloves etc and submit a report.
5. In addition to the above, specific tasks relevant to the services under operation & / or maintenance mentioned elsewhere in the technical specifications shall also be carried out.

Part III DETAILED ACTIVITIES

- 1) At the start of work, firm shall prepare an inventory of service under maintenance jointly with J.T.O (E)/SDE (E), concerned.
- 2) Before start of the work complete equipments/services under scope of comprehensive 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. Defects/discrepancies agreed upon by BSNL shall be got attended by the outgoing agency before handing over the site to the new agency. Where the contract of the outgoing agency, for some items or all items is of comprehensive nature, if the outgoing agency fails to correct the defects/discrepancies within 15 days, the same shall be got done by BSNL at the risk and cost of the outgoing agency.
- 3) However any defect pointed out beyond 15 days for items of comprehensive maintenance nature, the agency taking over the maintenance is responsible for attending to the defects/discrepancies.

Where the maintenance is taken over, for the first time, the defects / discrepancies shall be got attended by BSNL.

4) OPERATING & MAINTENANCE PERSONNEL

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

Services	Type	Skill requirements	No. of personnel	To be based at
Operation of substation or E/A sets	Skilled	Electrical wireman permit / workman's competency certificate / Electrical workman's license (certificate of competency class-II) or any other equivalent certificate with at least two years experience in the line	One person per shift for Three shifts per day.	Site of operation
	Un Skilled	Familiar with operation / maintenance of electro mechanical services.	One person per shift for one shift per day. (shift timing at discretion of E-in-Charge)	Site of operation

- ii. The operating staffs have to be available at the specified shift/shift(s). Since the firm will be doing the operation /maintenance of critical service requirement such as Sub Station and DG sets, operating staff shall be able to take initial steps under emergency situation such as failure of TANGEDCO supply, fire, shocks etc. In case of 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 as per scope and conditions of agreement.
- iii. The workman shall not leave the duty point until his reliever has reported for duty. The firm shall abide by the attendance recording methods in vogue in the site of operation such as finger print scanning etc. The operator deputed to site shall be provided with a contact number by the firm, to contact and monitor the work by JTO(E)/SDE(E).
- iv. Agency shall issue identity cards to the workers and a list of personnel employed together with the copies of such identity cards should be submitted to SDE (E) / JTO (E) concerned. Before being posted at site, police should be informed about the personnel and a copy of the intimation shall be submitted to SDE (E).
- v. The workers engaged by firm should maintain proper discipline and good behaviour with staff of the building. The firm shall remove such workers from the site whose behaviour is found improper or found to be negligent in doing works, fail to adhere the work instructions of JTO(E)/SDE(E). Engineer – in – Charge's decision shall be final and binding. Failure to remove errant workers from the site within a reasonable time shall amount to treating the presence of such workers as absent and will result in levy of penalty. Presence of unauthorized personnel in the maintenance office is strictly prohibited.

- vi. The workers engaged by the firm should wear uniform with detachable badge indicating the name of the person and firm's name.
- vii. The sitting arrangement for the staff engaged by the agency, space, water and electricity shall be made available by BSNL free of cost.
- viii. The firm has to supply details as per Annexure- IV of all the workers likely to be engaged by it before start of the work.
- ix. Provision of Supervisor shall also be made as per standard form of contract (EW 8) which forms the part of this contract.
- x. The firm and their personnel shall also co-ordinate, operate and feed information on automatic data collection services/automation devices/SMS etc that will be introduced by BSNL at any date during the tenor of contract.

5) COMPLAINT RECORDING AND DISPOSAL MECHANISM

1. A 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. Faults and action taken shall be recorded in the register..
2. **For disposal of faults, whenever items are required to be replaced and the same is available in Optional Item of schedule , the firm shall make a record of the same and carryout the work with approval of SDE (E)/ EE (E). If the item is not available in the Optional Item of schedule, then the firm shall immediately report the same to the SDE(E)/JTO(E), to give decisions.**
3. Firm shall maintain logbooks as per **Annexure – V to X.**
4. Complaints/Faults over phone shall also be recorded with details such as date, person calling, phone number and action taken.
5. In addition to the above, a Complaint mail id shall be furnished by the agency and displayed at the sitting place of operators also . Whenever a complaint is received by mail, the agency shall furnish a reply mail acknowledging the complaint, within 24 hours with complaint number with a copy to SDE(E)/JTO(E) to the official mail id. Failure to attend fault /acknowledge complaint through mail, will attract penalty, without prejudice to BSNL for taking any further action.

6. MATERIALS AND TOOLS & PLANTS

(A) Material

- a. The scope of work includes operation of services along with maintenance/repairs as per inventory/schedule of work. In case of Comprehensive maintenance, no material will be supplied by BSNL.
- b. The minimum inventory of material such as fuses/ consumables as required to redress the complaint, within prescribed time, shall be available with the firm at site of work. Delay caused due to non availability of materials shall attract penalty.
- c. The inventory shall be from BSNL approved make, wherever applicable. For items not covered in the approved makes list, a list of similar superior make is as in the schedule of items.
- d. **As regards to item under comprehensive maintenance, replacement of major equipment's which is required to be replaced as a whole after due scrapping shall be the responsibility of the BSNL. Till such time firm has to maintain the equipments, which are under comprehensive maintenance.**

- e. The replacement of material shall be with the same rating and make as that of the original, wherever applicable. The firm may also replace an item with energy efficient item wherever the same is available on intimation to SDE(E)/ JTO (E). However, in case of non-availability of a particular make, Engineer-in-charge will approve the alternate make.
- f. Dismantled and unserviceable items for which a replacement is supplied, shall be removed from the site under intimation to the SDE(E)/ JTO(E).
- g. Supplier Invoice/Bill / Purchase particulars etc shall be produced in case of all major items as and when called for, to verify the genuineness of the items being replaced. Wherever guarantee/warranty is available the same shall be made use of in case of fault within such periods. Obsolete items not available in market can be repaired and re used.

(B) TOOLS & PLANTS:

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

The tools box shall contain minimum tools as follows:

- i. Line Tester
- ii. Insulated Cutting Plier
- iii. Insulated Screw Driver
- iv. Torch Light
- v. Waste Cloth
- vi. Ring and adjustable spanner -1 Set
- vii. Insulated Hand gloves HT**
- viii. Test Lamps
- ix. Tong tester
- x. Earth discharge rod

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

a. **General**

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

7. GENERAL :

- a) Contractor shall have a round the clock communication landline/ Mobile telephone number at Chennai. Agency shall furnish official mail id for correspondence.
- b) Any official communication from BSNL, through mail is deemed to be valid communication.

- c) If during the period of contract, any of the service/services are added/ altered, the comprehensive maintenance of the same shall be done by the firm, the rates will be regularized as per Clause -12 of EW 8. Similarly in case of deletion of any service/services similar recovery shall be made from the bill of the contractor. However operation of the services shall be done without any extra cost, except where the work requires continuous additional shifts of workmen to be deployed at site.
- d) The details in the **Annexure III** are approximate to give an idea of services to be operated/ maintained. 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.
- e) The firm shall also coordinate with the JTO (E) / SDE (E) for carrying out data collection for scrapping/ energy audit/capacity test in respect of services under maintenance. In addition to the above, the firm shall also coordinate in implementation of energy conservation measures such as collection of savings data, operation of EC equipments, circulation of pamphlets on energy conservation, etc.
- f) During power failure, agency shall coordinate with TNEB for restoration of power and carryout such activities to facilitate restoration.
- g) The contractor has to keep all the equipments under operation & maintenance and site neat and clean to avoid any accident and or fire hazards.
- h) Dates of weekly, monthly, biannual / annual tests / maintenance activity, (wherever applicable), shall be displayed / recoded in relevant columns.
- i) The Contractor will display on a board in substation room important telephone numbers.
- j) The contractor shall not sublet the work or part thereof. However, services of specialized agencies for specific work can be obtained.
- k) 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.
- l) The Contractor will provide the workers with necessary T & P, Testing & safety equipments.
- m) Contractor has to observe all the labour rules and regulations in force & BSNL shall not be liable for any default

8. **COMMERCIAL.**

- a. 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.
- b. Payment shall be made on regular intervals (3 months or above) after completion of maintenance period and on submission of bill in printed letter head together with requisite certificate and documents as per **Annexure –XI& XII**
- c. The rates quoted must be full & final. Nothing extra is payable other than quoted rates. Clause10-CC shall not be applicable for this account.

10. **DAMAGES TO BSNL INSTALLATION:**

- i. 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.
- ii. Any accident or damage during maintenance/operation to the staff of the firm will be the responsibility of the firm/contractor & BSNL will not entertain any claim, compensation, penalty

etc. on this account or on account of non observance of any other requirement of law relevant to his work.

- iii. Any damages to the installation due to the reasons beyond the control of the agency shall be brought to the knowledge of SDE (E)/EE (E) within 15 days. Action as deemed fit shall be carried out as per the instructions. Belated claims will not be entertained. Decision of Executive Engineer (E) shall be final and binding.

11. CURRENCY OF CONTRACT:

- i. 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.
- ii. The Department reserves the right to extend the contract which is governed by clause 12.3 of EW8.

12. TERMINATION OF CONTRACT:

- i. 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, failure to attend breakdown, 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.
- ii. 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.
- iii. 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.

13. PENALTY FOR DEFICIENCY IN SERVICE:

- a. In case of a major accident/loss on account of negligence on the part of the contractor, the contract shall be terminated and 10% of the estimated cost shall be recovered. Decision of Executive Engineer (E) shall be final and binding on the contractor.
- b. 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.
- c. In case of absence of worker from the duty on any day, penalty shall be made @ Rs. 750/- per day per person per shift. (Staff employed of less than the prescribed qualifications/ non-obedient workers deployed at site, in spite of written instructions to remove such persons from site, shall be treated as absent). The Decision of the Executive Engineer shall be final & binding.
- d. If the performance is found to be unsatisfactory (Such as non-recording of data, failure to carry out providing maintenance in time, continuous non-availability of staff at site, etc., noticed by the Officers during their site visits / test checks , penalty upto 25% of one month's bill shall be recovered.

- e. Repair etc. of faulty equipment which is under the scope of the agency, if not done by the firm, will be got done at the risk & cost of firm, beyond 7 days of continuing failure, without further notice. The decision of EE (E) shall be final in this regard.
- f. Notwithstanding the compensation clause described above, BSNL reserves the right to take necessary steps for operation of the services 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 attributed to the contractor. BSNL also reserves the right to carryout scheduled mtce activity, if not done the main form, at is risk & cost.
- g. Contractor shall be responsible to ensure proper working of PF Capacitor panel and that the power factor is maintained within prescribed limits. Any penalty on this account levied by Supply Company (attributed to the wrong setting in APFC relay/ faults in capacitor panel not brought to the notice of the JTO (E)/SDE(E) in writing) shall be recovered from the agency with an additional penalty of Rs.1000/- per occasion. However in case of inadequacy of the capacitor bank at the time of taking over or due to addition of any services / Load during period of contract, the extra requirement shall be met out by BSNL.

14 DOCUMENTS TO BE MAINTAINED AT SITE/MAINTENANCE OFFICE

The contractor shall maintain following documents,

- a) A complaint register as per format given in Annexure- V
- b) **Report file:-** containing all the test reports, copy energy bills, etc.
- c) **History register:** The firm shall record all major breakdown maintenance carried out by the firm like rewinding of motor, replacement
- d) Replacement register for items covered under schedule of work.(To be linked to complaint register)- Proforma shall be decided by SDE(E).
- e) **Periodical maintenance proformas:.**

15.TEST CHECK BY THE FIELD ENGINEERS:

- i. For the purpose of assessing the quality of service rendered by the firm against the above contract, the EE, SDE & JTO shall carryout inspection & test checks of the service/work under the contract periodically as follows.
 - a. JTO(E) ----- Fortnightly
 - b. SDE(E)----- Monthly
 - c. EE(E)----- Quarterly
- ii. The above test check is a minimum frequency for inspection & test checks to be done. EE (E) shall increase the frequency on case to case basis depending on the needs of BSNL.
- iii. The above period is determined only to ensure continued quality of service. 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 clauses above.

16.. Guarantee and Defect Liability

- i. (i) 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.

(ii) 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.

(ii) 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.

SPECIFICATIONS RELEVANT TO SERVICES UNDER OPERATION/ MAINTENANCE

SUB-STATION

Part I: Scope of work:

1. Ensuring that H.T. Panel, Transformer, LT panels, Capacitor panels and out door structure as well as connecting cables/ducts, constituting the substation are in usable & clean conditions.
2. Monitoring of power factor & peak load and consumption. Following diversification of loads by operation of necessary switchgears as per BSNL requirement.
3. To disconnect total electric supply and or individual loads in case of emergent situation to avoid penalty.
4. To ensure continuous power supply and in case of break down inform the supply company and coordinate with their personnel in restoration of power supply.(Coordination by the operating staff without involvement of material)
5. Coordinate and pursue with the suppliers for repair/ replacement of faulty items, which are under warranty coverage. Extend full cooperation to the agency carrying out installation and maintenance of work in the area of operation.

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

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

Part- III Schedule to be followed

Daily:

- 1.Cleaning of Sub Station / Panel Room including clearing of cob webs. Also ensure that no waste materials are dumped in the Substation/ Panel room. Any difficulties/ discrepancies shall be reported to SDE(E)/JTO(E).
2. Check of all measuring instruments for proper functioning. In case of faulty meters, it shall be recorded and reported to SDE(E)/JTO(E).
3. Check for abnormal temperature / heat in Transformer / Panels and reported to SDE(E)/JTO(E).
4. Check for any abnormal noise in Sub Station equipments and reported to SDE(E)/JTO(E).

Monthly:

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

Half yearly:

1. Check HT tripping circuit for proper functioning. In case of out door installation check operation of GOS.
2. Checking & cleaning of insulators.
3. Checking and cleaning of lighting arrestors.
4. Checking & cleaning of drop out fuses.
5. Earthing systems check.
6. Insulation measurement of the system.
7. ON/OFF operation of all switches , operating mechanism wherever required, particularly in case of outdoor installation.

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

Note :

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

Part IV: Materials

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

ENGINE ALTERLLNATOR SETS

Part I- Scope of Operation

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

Part II- Tasks to be performed within 15 days

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

mismatch.

8. Check the earthing system for proper values. The results of inspection as above should be recorded in register and brought to the notice of Engineer-in-charge.

Part III : Schedule to be followed.

Daily :

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

Monthly:

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

Part IV: Materials

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

ANNEXURE- III

SIZE OF VARIOUS SERVICES TO BE OPERATED AND MAINTAINED

INVENTORY				
	Details of Equipments	Make	Qty	Date of commissioning
1	400 KVA, 11KV/433V, Indoor Oil type transformer	ITL, Kerala	2 no	1990
2	320 KVA EA set	Kirloskar	2 no	2016
3	HT Panel	Southern Switchgear	1 set	1990
4	All MV & LT panels, switches available in Ground Floor of Substation	Custom made	1 job	1990
5	Capacitor bank panel	Custom made	1 job	1990

Note:

The Details given above are approximate to give an idea of services to be operated & maintained. Operation and maintenance of all the allied components and accessories of each system of service mentioned in schedule of work will come under the scope of work agency should visit the site before quoting to have overall idea of scope of work.

ANNEXURE-IV

DETAILS TO BE SUPPLIED BEFORE STARTING THE WORK WITHIN 15 DAYS

A. The following information to be pasted/displayed at conspicuous location as decided by SDE(E)/JTO(E) at site.

1	Name of agency		
2	Address of the agency		
3	Responsible person to contact		
4	a) Telephone No.(s)		
	b) mail id		
5	Name of the JTO(E) incharge and his contact number SDE(E) contact number		
6	IN CASE OF EMERGENCY PLEASE CALL		
7	IN CASE OF NO RESPONSE CALL JTO(E)		

B. Details of the Staff to be posted at site : (To be furnished to EE (E) along with qualification/experience credentials)

	Name & Address	Qualification	Responsibility
1.			
2.			
3.			

COMPLAINT REGISTER ANNEXURE-V

Complain t Number	Date & Time of complaint	Complaint Lodged by (preferably with contact number)	Nature of complaint	Action taken	Date & Time of redressal of complaint	Dated Signature of the firm's representative	Acknowledgem ent of rectification by complainant	Remarks

NAME OF WORK: Operation and Maintenance of Transformer Sub station, EA sets and operation of precision package AC plant in Kodambakkam TE Building, Chennai
(for 2018-2020)

ANNEXURE VI

LOG BOOK FOR SUBSTATION

The front cover of the log book shall indicate

Name of work:

Name of contractor:

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

DATE: _____

Time	HT PANEL			TRANSFORMER 1							TRAN SFOR MER 2 Same as for transfo rmer 1	POWER MEASUREMENT				SIGN OF OPER ATOR	SIGN OF EXCH ANGE STAF F	
	HT VOLTAGE	HT CURR ENT	MD REC ORDED	HT Curre nt	LT Voltage			LT Current				Temp eratur e	KWH	KVAH	KVAR H			P F
					RY	YB	BR	RY	Y B	BR								
10.00																		
12.00																		

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

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

EB BILL REGISTER

Annexure VII

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

ANNEXURE VIII

DAILY MAINTENANCE ACTIVITY

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

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

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

Counter sign of JTO (E)/SDE (E)

ANNEXURE IX

LOG BOOK FOR E/A SET AT _____

Name of work:

Name of contractor:

LOG BOOK FOR EA SET RUNNING OR THE MONTH OF

Date	E/A set No.	Start time	Stop time	Voltage			Load Current			Freq	Speed	Lub oil Temp	Lub oil Pr.	Water Temp	Diesel level Ltrs		KWH	
	Hrs	Hrs	RY	YB	BR	R	Y	B	Hz	RP M	Kg/cm ²	Start	Stop		Start	Stop		

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

ANNEXURE X

PERIODICAL SCHEDULES (CHECKS)

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

A. MONTHLY REPORT

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

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

B. HALF YEARLY ACTIVITY FORM

EARTHING SYSTEM

Date:

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

Note:

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

C. CAPACTIOR PANEL(For Agreement Item No. SH-II,4)

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

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

Signature of Contractor

Signature of JTO (E)/ SDE (E)

E.MAINTENANCE SCHEDULE – L.T. PANEL (For Agreement Item No. SH-II,3)

S. No	Description of item	Remarks
1	Inspection & Checking of operation & tripping mechanism	
2	Inspection & checking visual indication & metres.	
3	Inspection & checking of TPN Switch/MCB for operation & Tightness of connection	
4	Opening the covers and cleaning the panel and surrounding area	
5	Cleaning of contacts and ARC chutes.	
6	Checking safety mat and its condition.	
7	Cleaning and Lubricating of operating mechanisms.	
8	Cleaning of isolating contacts and checking for tightness.	
9	Cleaning, lubricating and checking operation of all inter locking devices and shutters.	
10	Checking and cleaning of bus bars.	
11	Measuring insulation resistance between phase and earth	
12	Checking earth connection.	

_____ **Signature of Contractor**

Signature of JTO (E)/ SDE (E)

F. MAINTENANCE SCHEDULE –H.T. SWITCH AND CIRCUIT BREAKER (For Agreement Item No. SH-II,3)

S. No	Description of Item	Remarks
1	Checking the oil level in the tank and top up if necessary	
2	Cleaning the oil tank and replacing the oil if required	
3	Cleaning and lubricating of operating mechanisms	
4	Cleaning of isolating contact and checking operation of bolted connections for tightness	
5	Cleaning, lubricating and checking operation of all inter-locking devices and shutters	
6	Cleaning secondary contacts and checking for tightness	
7	Checking Di-Electric strength of oil	
8	Checking and cleaning of vent holes of arching chambers	
9	Checking and cleaning of all insulators including tank lining	
10	Meggering secondary wiring	
11	Measuring earth resistance	
12	Relay checking for operation & their calibration.	
13	Interchanging of Main and Standby HT Cable	

Signature of Contractor

Signature of JTO (E)/ SDE (E)

ANNEXURE XI

(To be submitted by the contractor along with the quarterly bill claim)

ABSTRACT OF ACTUAL PERIODICAL MAINTENANCE CARRIED OUT IN THE QUARTER ENDING

Name of contractor: _____.

Agreement No. : _____.

I. Daily ACTIVITY:(Tick /fill relevant coloumn)

DAILY OPERATION OF TRANSFORMERS / EA sets / Panels	DONE FOR ALL THE DAYS	NOT DONE FOR _____ DAYS
--	-----------------------	-------------------------

II. MONTHLY ACTIVITY:(Tick /fill relevant coloumn)

MONTHLY MAINTENANCE ACTIVITY	DONE AS PER THE TARGET	IF NOT REASONS FOR NOT DOING
------------------------------	------------------------	------------------------------

QUARTERLY MAINTENANCE ACTIVITY	DONE AS PER THE TARGET	IF NOT REASONS FOR NOT DOING
--------------------------------	------------------------	------------------------------

III. ANNUAL ACTIVITY:(Tick /fill relevant coloumn)

ANNUAL MAINTENANCE ACTIVITY	DONE	NOT DONE
-----------------------------	------	----------

Certified that the data given above are true and is based on the periodical repair/ maintenance work done by us _____(bldg/site)

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/ authorized representative

Counter signed by JTO(E)/ SDE(E)

ANNEXURE - XII

CERTIFICATE TO BE SUBMITTED ALONG WITH EACH BILL

1. CERTIFIED THAT WE HAVE CARRIED OUT THE OPERATION & MAINTENANCE OF SUB STATION & EA SETS IN TE BUILDING, KODAMBAKKAM COVERED IN THE ABOVE CONTRACT SATISFACTORILY, EXCEPT THE FOLLOWING DUE TO THE REASONS MENTIONED AGAINST THE RESPECTIVE ITEM:

Sl.No	ITEM/SERVICES	REASONS FOR NON OPERATION

2. CERTIFIED THAT REQUIRED INVENTORY HAS BEEN REPLENISHED BY US.
3. CERTIFIED THAT EPF FOR THE EMPLOYEES ARE REMITTED WHEREVER APPLICABLE.
4. CERTIFIED THAT WE HAVE COMPLIED WITH PROVISIONS OF MINIMUM WAGES ACT 1948.

SIGNATURE OF CONTRACTOR

Counter signed by:

JTO (E)/ SDE (E)

LIST OF APPROVED MAKES- BSNL ELECTRICAL WING

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

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

- a. Any other approved makes as approved till the date of opening of tender shall be included in the approved make.

Contractor

Executive Engineer(E)

RELEVANT IS STANDARDS

<u>STANDARDS</u>	<u>TITLE</u>
IS 11171- 1985	Dry type transformer
IS 10028 (Part-I & 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 732-1989	Electrical wiring installation (system voltage not exceeding 650V)
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

Executive Engineer(E)

Contractor

PROFORMA OF SCHEDULES (Operative Schedules to be supplied separately to each intending tenderer)	
<u>SCHEDULE 'A'</u> Schedule of quantities :	Attached
<u>SCHEDULE 'B'</u> Schedule of materials to be issued to the bidder:	Nil
<u>SCHEDULE 'C'</u> Tools and plants to be hired to the bidder:	Nil
<u>SCHEDULE 'D'</u> Extra schedule for specific requirements/documents for the work, if any:	Nil
<u>SCHEDULE 'E'</u> Schedule of components of Materials, Labour etc. for escalation:	Nil
<u>SCHEDULE 'F'</u> Reference to General Conditions of contract :	
Name of work:	As per NIT notification page No 3
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) Electrical Division-I Chennai
2(vi) Accepting Authority	Superintending Engineer (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: III, Chennai

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

<p>Signature of Witness (required in the case of bidder's thumb impression is given by the bidder in place of signature) Occupation of Witness :</p>	<p>(Signature of bidder) (Name & Postal address)</p> <p>Seal of Bidder</p> <p>Date:</p>
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Acceptance of Tender

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of BSNL for a sum of Rs. _____ (Rupees _____)

The letters referred to below shall form part of this contract Agreement

- a)
- b)

For & on behalf of BSNL

Dated
Signature :

Designation :