

Bharat Sanchar Nigam Limited

(Electrical Wing)

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

No.22, Kellys Road, Chennai - 600010. Office: 044-26448484 E-mail: ee1chennai@gmail.com

TENDER DOCUMENT

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months).

NIT No: 56/EEE/ED-I/CH/2023-24 dated 10-11-2023

Date of opening: 22-11-2023

This tender document contains 59 pages only.

(To be filled in by the Contractor)

Name of the Agency

Address

Telephone No. of agency:

E-mail ID:

Contractor Page 1 of 59 Executive Engineer

INDEX

SL. No	Description	Page no.
1	Front cover and Index	2
2	Instructions for bidders for e-tendering	3
3	Notice Inviting Tender form - BSNL EW 6	5
4	General Instructions to the Bidders	9
5	Undertaking to abide by EW 6 & EW 8 (Form 'A')	11
6	Undertaking regarding EPF & ESI provisions (Form 'B')	12
7	Performance report of works (Form 'C')	13
8	No Near relative working certificate (Form 'D')	14
9	Model form of Bank Guarantee for EMD (Annexure-I)	15
10	Model form of Performance security Guarantee bond (Annexure-II)	16
11	Schedule of Quantities	19
12	Technical Specification	24
13	List of Approved Makes	54
14	List of relevant Indian Standards	56
15	Proforma Schedules	57
16	BSNL EW – 8 form	58

Contractor Page 2 of 59 Executive Engineer

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 Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months).
2	Estimated cost put to tender (Rs.)	Rs. 1,30,183/- (Excluding GST)
3	Earnest Money (Rs.)	Rs. 2,604/-
4	Period of completion	TWO (2) MONTHS
5	Last date submission of tender	Up to 15:00 Hrs. on 22-11-2023
6	Last date & time for submission of original Tender cost and EMD	Up to 15:00 Hrs. on 22-11-2023
7	Date and time for opening of tender	15:30 Hrs. on 22-11-2023
8	Tender cost (Non refundable)	Rs 590/-

ELIGIBILITY CRITERIA

The Contractors satisfying the following conditions:

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

and

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

OR

b. Experience of having successfully completed similar works in BSNL comprising of Electrical Installations as part of scope of work during last 7years ending last day of month previous to the one in which applications are invited, should be either of the following:

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

OR

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

OR

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

Similar works means; **Operation & Maintenance of Electrical Installations**,

Contractor Page 3 of 59 Executive Engineer

IMPORTANT INSTRUCTIONS TO BIDDERS DOWN LOADING THE TENDER DOCUMENT FROM WEB SITE

The bidders, who have down loaded the tenders from the web site, shall read the following important instructions carefully before quoting the rates and submitting the tender documents.

- 1. The tenderer should see carefully & ensure that the tender document containing all the pages as per the index has been down loaded for making required entries. The balance pages of Standard BSNL EW8 form will be attached with the agreement after the award of work.
- 2. A clear print out of tender document shall be taken on good quality A4 size paper and the printer settings, etc., shall be such that the document is printed as appearing in the web and without any change in format, number of pages, etc., and shall also ensure that no page is missing. Only original computer printout of the document shall be used. Photocopy shall not be accepted.
- 3. In case of any doubt in the downloaded tender, the same shall be got clarified from the Engineer in charge calling the NIT before submission.
- 4. The name of the bidder shall be filled on the relevant pages of tender document and all the pages shall be invariably signed. (With stamp)
- 5. The tenderer shall ensure that the downloaded tender document is properly stitched before submitting the document.
- 6. There shall be no correction / addition / alteration / omission made in the text of the downloaded tender document. If found otherwise, the same shall be treated as non-responsive and rejected.
- 7. The tenderer shall sign the declaration enclosed before submitting the tender.
- 8. The tenderer shall submit the tenders in 2 covers marked as No.1 and No.2. The tenderer shall submit the credentials for meeting the eligibility conditions along with the cost of the tender fee and EMD in the prescribed format as detailed in NIT, along with a covering letter on his printed letter head stating the details of enclosures in the **first cover**. The credentials shall be self-attested. The **second cover** shall contain the price bid. The rates and amounts should be filled in the schedule of work attached thereto.
- 9. The **cover-1** shall contain the following.
 - a. Tender Fee in the prescribed format
 - b. EMD in the prescribed format
 - c. Certificate of Financial Turnover from Chartered Accountant if applicable
 - 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. Electrical license issued by TN Govt. if applicable
 - g. GST Registration Number details
 - h. PAN Card
 - i. EPF and ESI Registration certificate if applicable
 - j. Certificate of work experience issued by client department (Form 'C') if applicable

Not submitting the above documents in Cover-1, the Cover-2 will not opened

10. The Cover-1 and 2 shall be deposited in the tender box available in the office of tender opening authority, by all the bidders before 3:00 PM on the tender opening date, failing which the tender shall not be opened.

Contractor Page 4 of 59 Executive Engineer

BSNL EW-6

Bharat Sanchar Nigam Limited

Electrical Wing

Electrical Division: **ED-I, Chennai** Sub Division: **ESD IV**, **Chennai**

NIT No: 56/EEE/ED-I/CH/2023-24 dated 10-11-2023

Item rate tenders on single bid system are invited on behalf of CMD,BSNL for the work Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months).) 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.

- Tenders which should always be placed in sealed covers with the name of the work written on the envelope will be received and opened by the tender opening authority as per the date and time mentioned in INFORMATION AND INSTRUCTIONS FOR BIDDERS. Unsealed tenders will be summarily rejected.
- 2. Intending bidder is eligible to submit the bid provided that he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority as per the eligibility conditions mentioned in the NIT notification page.
- 3. The work is estimated to cost **Rs 1,30,183**/- This estimate, however, is given merely as a rough guide.
- 4. Agreement shall be drawn with the successful bidder on prescribed form as amended up to the date of opening of tender. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 5. The time allowed for carrying out the work will be **TWO months** from the day after the date of written order to commence the work.
- 6. The site for the work is available / or the site for the works shall be made available in parts. The successful bidder shall execute the work in coordination with other agencies working in the campus.
- 7. The bid documents consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website Chennai.bsnl.co.in at free of cost. The BSNL EW-8 document can be seen from the web site Chennai.bsnl.co.in at free of cost.
- 8. The Tender Fee in the form of Demand Draft issued by the Nationalized / Scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL**, **Chennai Telephones** payable at **Chennai.** The validity of the tender cost in the form of DD shall be **60 days** from the date of opening.
- 9. The Earnest money deposit (EMD) in the form of Demand Draft / FDR / BG (BG is only for Air Conditioning, Diesel Engine Alternator, Lifts, and Sub Station works wherever the amount of EMD is more than Rs.20,000) / CDR of a nationalized / scheduled bank authorized by the Reserve Bank of India, drawn in favour of **BSNL, Chennai Telephones** payable at **Chennai.** The validity of the EMD in the form of DD shall be 60 days from the date of opening. If the EMD is in the form of CDR/FDR/BG, the validity shall be 180 days from the date of opening. In case of L1 bidder, the validity of CDR / FDR / BG is to be extended up to the observation period as that of the Performance guarantee / Security deposit. Exemption from payment of Tender Fee, Earnest Money and Security Deposit by any other unit/ department shall not hold good for BSNL.

- 10. The last date for submission of bid is 22-11-2023 up to 3:00 PM and the bid submitted hall be opened at 03:30 PM on the day. If a holiday is declared on the tender opening day, the tender will be opened on the next working day.
- 11. 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-incharge 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.
- 12. 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.
- 13. If it is found at any stage of tender scrutiny after submission of tender that the bidder has made any correction/addition/alteration/omission intender documents vis-à-vis tender documents available on the website /original Draft NIT in office, the bid shall be treated as non-responsive and shall be summarily rejected 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.
- 14. The Tender documents shall not be sent through the Courier/Post. Tender documents received through Courier/post shall not be opened/ considered at all. All communication with the bidders shall be in writing. Fax / E-mail shall be covered under this category and considered as adequate means of communication.
- 15. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the BSNL and local conditions and other factors having a bearing on the execution of the work.

Contractor Page 6 of 59 Executive Engineer

- 16. The competent authority on behalf of the CMD does not bind himself to accept the lowest or any other tender and reserves to himself 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.
- 17. 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.
- 18. 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.
- 19. 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.

Contractor Page 7 of 59 Executive Engineer

- 20. 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.
- 21. The bidder 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'**.
- 22. 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.
- 23. 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.
- 24. 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 at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b. Standard BSNL EW-8 form

Contractor Page 8 of 59 Executive Engineer

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. 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.
- 5. 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.
- 6. GST and any other tax applicable in respect of this contract 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.

7. 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.
- 8. 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.
- 9. 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.

Contractor Page 9 of 59 Executive Engineer

10. Bye laws Indemnity against liabilities:

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

11. 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.

- 12. 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.
- 13. 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.

Contractor Page 10 of 59 Executive Engineer

FORM 'A'

Undertaking to abide by EW 6 & EW 8

document and I am aware of all the	hereby give an undertaking that I have read the complete bide clauses and sub clauses of BSNL EW 6 & 8 forms and I confirm conditions available in BSNL EW 6 & 8 forms.
(Seal of the firm)	(Signature of Bidder)

Contractor Page 11 of 59 Executive Engineer

FORM 'B'

Undertaking regarding EPF provisions

Contractor Page 12 of 59 Executive Engineer

FORM	'C'
-------------	-----

Executive Engineer or Equivalent

Performance report of works

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

Dated:

Contractor Page 13 of 59 Executive Engineer

	FORM 'D'
No Near relative working certificate	
Son / Daughter 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 ca	ase 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.	

(Signature of Bidder)

(Seal of the firm)

Annexure I

MODEL FORM OF BANK GUARANTEE FOR EMD

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

Whereas	(hereinafter	called	"the	bidder(s)")	has
submitted its Tender dated for	the work				
				KNOW	ALL
MEN by these presents that WE					OF
having ou	r registered office	at			
(hereinafter called "the Bank") are bound	unto			(hereinafter o	alled
"the BSNL") in the sum of	for which pay	ment wi	ll and t	ruly to be ma	de of
the said BSNL, the Bank binds itself, its s	uccessors and assig	ns by th	ese pre	esents.	

THE CONDITIONS of the obligation are:

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

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

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

Signature of the Bank

Signature of the Witness Name of Witness

Address of Witness:

Contractor Page 15 of 59 Executive Engineer

ANNEXURE II

PERFORMANCE SECURITY GUARANTEE BOND

	for (indicate the name of bank)
	Dated the day of
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.
6.	This guarantee will not be discharged due to the change in the constitution of the Bank or the Bidder(s)/supplier(s).
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.
	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.
4.	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. We (name of the bank) further agree that the guarantee herein contained
3.	We undertake 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
۷.	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
_	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.
	(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
	fulfilment by the said bidder (s) of the terms and conditions contained in the said Agreement, on production of the bank guarantee forwe, (name of the bank) (hereinafter refer to as "the bank") at the request of
	(hereinafter called "the said agreement"), of security deposit for the due
	(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
1.	In consideration of the CMD, BSNL (hereinafter called 'BSNL') having agreed to exempt

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) 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.

2) TERMS OF PAYMENT:

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

3) EPF PROVISIONS:-

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

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

4) 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.

5) <u>CO-ORDINATION AT SITE</u>

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.

Contractor Page 17 of 59 Executive Engineer

6) CHANGES IN SPECIFICATIONS

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

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

Or

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

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

7) <u>I.S. Standards:</u>

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.

Contractor Page 18 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months).

SCHEDULE OF QUANTITIES

SI. no	Description of Item	Qty	Unit	Rate per Unit excluding GST	Total Amount Excluding GST (Net cost)	% NI LS90	Amount in Rs	% NI LSSS	Amount in Rs	% NI LSSI	Amount in Rs	Total Amount including GST	HSN/SAC code
1	2	3	4	5	6	7	8= (6 x 7)	9	10= (6x 9)	11	12=col (6*11)	13= (6+8+10+12)	14
	SH-I : Operation of Services												
1	Providing following manpower to perform operation / periodical checks as per maintenance schedule of the EI, Pumps and Compound light and removing & fixing of items provided in SH-III for attending repair / faults for smooth operation of electrical installations, of staff Quarters Taylors Road comprising of 96Nos Type-III, 32Nos Type-IV, 8 Nos Type-V and community centre on all working days, including all holidays, Sundays etc as reqd. The schedule of maintenance of Electro-mechanical services to be carried out as per the specification as reqd Man power: One Electrician (skilled labour) General shift –One / day One helper (unskilled) per shift - 2Nos (2 shifts per day other than General shift)	2 Months	Month										
Uni	t Rate in words (as per Col. 5)								1	ı			T
	SH- II : Comprehensive Maintenance												
2	Comprehensive maintenance of the following pump sets along with starter boxes, SFUs i/c arranging specialised manpower & materials for replacement of faulty components, attending of faults, & carrying out periodical checks as per maintenance schedule etc as required., Lifting from existing open well / bore well, transportation, reinstallation, servicing, replacement of items such as bearings / bushes / spares, terminal plates, glands, rewinding of motors, etc shall also be covered in this item.												
Uni	t Rate in words (as per Col. 5)	<u> </u>		<u> </u>		l			<u> </u>				1

Contractor Page 19 of 59 Executive Engineer

	Name of Work: Operation and maintenance of Electrome	chanical se	rvices	in Staff	Quarters	(type	-III, IV	(& V) at	Taylor	s Road,	Chen	nai.(Fo	r 2 months)	
а	0.5 HP Bore-well Submersible pump - 1 No	2 Months	Month											
Un	it Rate in words (as per Col. 5)				'	'		1	'	1				
b	1.5 HP Bore well Submersible pump - 2 Nos	2 Months	Month											
Ur	nit Rate in words (as per Col. 5)			1	'				•					
С	3 HP Sump submersible pump - 1 No	2 Months	Month											
Ur	nit Rate in words (as per Col. 5)													
d	7.5 HP Open well submersible pump - 2 Nos	2 Months	Month											
Un	it Rate in words (as per Col. 5)					•								
е	10 HP Sump submersible pump- 2nos	2 Months	Month											
Un	it Rate in words (as per Col. 5)			•	•	•			•	•				•
f	20HP Monoblock centrifugal pump- 1 No	2 Months	Month											
Un	it Rate in words (as per Col. 5)									1				
	SH- III : Misc Items													
3	Supplying of following materials / accessories in the existing Lamp Fitting, Fan, switch board, compound light pole, MCB DB, LT Panel, for attending the daily faults received from the various offices occupied in the building etc on all the seven days a week including removing the faulty components and replacing with new items shall be done by labours provided in SH-I etc as required.													
	Note: These item shall be replaced only if the items under maintenance becomes faulty & with the consent of EE (E) /SDE (E) / JTO (E).													
а	36W FI. Tubes	10 Nos	Each											
Ur	nit Rate in words (as per Col. 5)	<u> </u>		1	· ·				1	1				

Contractor Page 20 of 59

	Name of Work: Operation and maintenance of Electrome	chanical se	rvices	in Staff	Quarters	(type	-III, IV	& V) at	Taylor	s Road	Chen	nai.(Fo	or 2 months)	
b	Electronic Ballast suitable for 36/40 W Fl. Tube	10 Nos	Each											
Uni	t Rate in words (as per Col. 5)				'				1		1	1	1	
С	Starters for FL. Fittings	10 Nos	Each											
Uni	t Rate in words (as per Col. 5)				'				1	1	ı			
d	Side holder for Fl. Fittings	10 Nos	Each											
Uni	t Rate in words (as per Col. 5)													
е	2.5 mfd capacitor for ceiling fan	4 Nos	Each											
Uni	t Rate in words (as per Col. 5)													
f	Replacing of bearings including greasing in the Ceiling/ Wall mounting fan	4 Nos	Each											
Uni	t Rate in words (as per Col. 5)				•									
g	Rewinding of winding coil in the Ceiling / Wall mounting / pedestal fan / Exhaust fan	2 Nos	Each											
Uni	t Rate in words (as per Col. 5)								1				1	
h	5/6 Amps Piano type switch	5 Nos	Each											
Uni	t Rate in words (as per Col. 5)													
i	3 pin 5/6 Amps socket outlet	5 Nos	Each											
Uni	t Rate in words (as per Col. 5)				•				•		•			-
j	15/16 Amps Piano type switch	2 Nos	Each											
Uni	t Rate in words (as per Col. 5)			•	•							•	•	•
k	6 pin 15/16 Amps socket outlet	2 Nos	Each											
Uni	t Rate in words (as per Col. 5)				1						ı	1	1	

	Name of Work: Operation and maintenance of I	Electromechanical se	rvices in St	aff Quarters	(type-III, IV 8	t V) at Tayl	ors Road,	Chennai.(F	or 2 months)	<u>, </u>
I	step type Fan Regulator	2 Nos	Each							
Uni	Unit Rate in words (as per Col. 5)									
m	5-32 A Single Pole C series MCB	2 Nos	Each							
Uni	Unit Rate in words (as per Col. 5)									
n	40A Double Pole Isolator	1 No	Each							
Unit Rate in words (as per Col. 5)										
0	1 x 1.5sqmm PVC insulated copper wire	5 Mtrs	Meter							
Uni	Unit Rate in words (as per Col. 5)									
р	1 x 4 sqmm PVC insulated copper wire	5 Mtrs	Meter							
Uni	t Rate in words (as per Col. 5)									
q	30W LED lamp	2 Nos	Each							
Uni	t Rate in words (as per Col. 5)		1					1		
r	10W LED lamp	2 Nos	Each							
Uni	t Rate in words (as per Col. 5)	l								
		Total ex . GST Rs.		Total i/c GST Rs.						
Am	Amount (exclusive GST) in words			Amount (inclusive GST) in words						

Contractor Executive Engineer(E)

Contractor Page 22 of 59 Executive Engineer

IMPORTANT NOTES:-

1	The firm shall be responsible to ensure that GST shown in the above columns is correct &Input Tax Credit for the amount		
	shown above is admissible as per GST Act as amended up to date".		
2	Invoice /Bill should be pre-printed as per the GST format.		
3	The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices offered inclusive of packing, forwarding, freight and insurance charges etc, but excluding GST		
4	The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the terms as specified in the scope of work.		
5	No advance payments can be made. Stipulations like levy of interest if payment is not made in a specified time are also not		
	acceptable and the payment is governed by the normal BSNL practice.		
6	The HSN / SAC Codes indicated are most appropriate. However, any other HSN/SAC code is applicable, the vendor may		
	give it in writing, in case their tender is accepted, so that the same may be incorporated in the invoices.		

Contractor

Executive Engineer(E)

Contractor Page 23 of 59 Executive Engineer

TECHNICAL SPECIFICATIONS

Part I: Scope of Operation & Maintenance of EMS in Staff Quarters Compound:

- i. Deploying required personnel at site of work
- ii. Ensuring that the EI installation is always kept in clean, healthy working condition.
- iii. Attending day-to-day routine complaints in a prompt and satisfactory manner.
- iv. Operation of Motor pump set, filling the overhead tanks, coordinating water supply from external agency in case of acute shortage.
- v. Ensuring that no breakdown in power supply takes place and in case it happens to take all required steps including contacting supply co. for earliest restoration.
- vi. Attending to faults in the pump set i/c replacement of parts, winding etc promptly.
- vii. 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.
- viii. Carrying out minor additions and alterations ordered by Engineer in charge. (Materials required shall be supplied by the department)
- ix. Carrying out various maintenance routines and tests as stated in **Annexure-VII** and elsewhere in the specifications and as per site requirement.
- x. Submission of periodical reports.
- xi. Maintaining Registers/documents for complaints and test results.
- xii. In case of staff quarters, scope of maintenance is limited to the wiring and accessories as per the standard yard stick of the department and shall not cover the additions / alterations carried out by the occupants.
- xiii. Coordinate with Electrical wing in remittance of EB bill for common service & bill for metro water supply, including collection of cheques from Electrical Divisions, payment, return of payment receipts, maintaining relevant records etc.
- xiv. Coordination with EB authorities/assessor/EB office for recording of EB charges i/c handling of EB cards etc.
- xv. Making inventory of items handing over /taking over while allotment/vacation of staff quarters/community hall.

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

Following items should be carried out within first 15 days.

- i. Establish complaint recording system with the approval of Engineer-in-Charge so that complaints can be received and attended properly.
- ii. Measurement of the resistance of Earth Stations of El System and checking of the continuity of earth conductor. Results to be recorded.

Contractor Page 24 of 59 Executive Engineer

- iii. 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.
- iv. Inspection of Main board & SDBs for (a) any loose/improper connection (No strand cutting for making connection to be allowed), (b) improper rating of switches /fuse/(c) Cleanliness.
- v. General inspection of EI system to identify shortcoming. Also any other relevant aspect, which may come in the way of proper maintenance, should be recorded in Register and also brought to the notice of Engineer-in-charge.
- vi. Check of pump set for proper functioning ,efficiency and any worn-out parts
- vii. Check of compound lighting for proper functioning.

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

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

Services	Туре	Skill requirements	No. of personnel	To be based	
				at	
Operation / repair / maintenance	Skilled	Minimum 10th pass with Electrician / wireman certificate familiar in similar jobs.	One person- One shift per day.	Site of operation	
/ service	Unskilled		One person per shift	Site of	
/ Service			for two shifts per day	operation	

Contractor Page 25 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

- i. The operating staff has to be available at the specified shift as decided by SDE(E). Since the firm will be doing the maintenance of critical service requirement such as water pumping systems / Electrical mains for staff quarters, operating staff shall be able to take initial steps under emergency situation such as failure of pump set, 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 without any extra cost.
- ii. In the sites where operation is carried out, the firm shall maintain attendance register which can be inspected at any time by the SDE/JTO. The operator deputed to site shall be provided with a mobile phone by the firm, to contact and monitor the work by JTO(E) / SDE(E).
- iii. 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).
- iv. The workers engaged by firm should maintain proper discipline and good behaviour with occupants. The firm shall remove such workers from the site whose behaviour is found improper 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.
- v. The workers engaged by the firm should wear uniform of Navy blue colour with detachable badge indicating the name of the person and firm's name.
- vi. The sitting arrangement for the staff engaged by the agency, space, water *and electricity* shall be made available by BSNL free of cost.
- vii. 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.
- viii. Provision of Supervisor shall also be made as per standard form of contract (EW 8) which forms the part of this contract.
- ix. 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 tenure of contract.
- x. Wherever the staff is required to enter the residential premises for attending faults or for routine maintenance proper permission of the residents shall be taken. Activity shall be carried out only when the occupants are available. Proper acknowledgement shall be taken from the occupants, as and when visited for carrying out activity.

Contractor Page 26 of 59 Executive Engineer

5) COMPLAINT RECORDING AND DISPOSAL MECHANISM

- i. A complaint Register as per annexure- V shall be kept up-to-date at site by the firm and the same shall be available for checking & verification. Whenever any complaint is received, it shall be recorded and complaint no. shall be given to the complainer. Disposal of complaint shall be recorded and monthly report as per Annexure VIII shall be submitted to the SDE (E) concerned.
- ii. For disposal of complaints, whenever items are required to be replaced and the same is available in S.H III of schedule, the firm shall make a record of the same and carryout the work. Firm shall ensure that the quantity does not exceed the schedule quantity. In such cases, the firm shall bring the same to the notice of SDE(E) / JTO(E) for sanction of such quantity deviation. If the item is not available in the S.H III of schedule, then the firm shall immediately report the same to the SDE(E) / JTO(E), to give decisions. Wherever SDE(E) / JTO(E) ask to provide the items, measurable as extra/substitute item, the firm shall promptly carryout the work, to dispose off the complaint.
- iii. Firm shall maintain logbooks as per Annexure VI.
- iv. Faults of general services such as compound lighting and common area lighting, the firm shall record the complaint through the RWA members/ Allottees and the acknowledgement to be taken from the complainer.
- v. Complaints over phone shall also be recorded with details complainer, date of complaint and phone number, and action taken to redress the complaint. Acknowledge shall be obtained in the register from the complainer.
- vi. Details of person and their contact number, to whom the complaint is to be registered shall be displayed outside the maintenance office. Whenever the phone number changes the changed number shall be promptly displayed.
- vii. In addition to the above, a Complaint mail id shall be furnished by the agency and displayed outside the maintenance office. 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/acknowledge complaint through mail, will attract penalty, without prejudice to BSNL for taking any further action.

6) MATERIALS AND TOOLS & PLANTS

(A) Material

i. The scope of work includes operation of services along with comprehensive maintenance of pump sets as per inventory. In Comprehensive maintenance no material will be supplied by BSNL.

Contractor Page 27 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

- ii. The minimum inventory of material, 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.
- iii. The inventory shall be of 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.
- iv. As regards to item under comprehensive maintenance, replacement of major equipments (such as pump sets) 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.
- v. 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.
- vi. Dismantled and unserviceable items for which a replacement is supplied, shall be removed from the site under intimation to the JTO(E).
- vii. Supplier Invoice/Bill / Purchase particulars etc shall be produced in case of all major items shall be produced 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 pump room within 15 days of taking over of installation.

The tools box shall contain minimum tools as follows:

- i. Insulated Screw Driver
- ii. Line Tester
- iii. Insulated Cutting Plier
- iv. Torch Light
- v. Test lamp
- 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.

Contractor Page 28 of 59 Executive Engineer

7) GENERAL:

- i. Contractor shall have a round the clock communication landline/ Mobile telephone number at Chennai. Agency shall furnish official mail id for correspondence.
- ii. Any official communication from BSNL, through mail is deemed to be valid communication.
- iii. 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.
- iv. 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.
- v. 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.
- vi. Operation of pump set to be done on daily basis, at the regular intervals based on water requirements. Contractor shall continuously monitor availability of source of water and quantum and inform SDE(E) / JTO(E) for any contingent activities.
- vii. Wherever water is procured from metro water/private water supplies as standalone/ supplement basis, agency shall ensure that the water is optimally pumped as per the site requirements. Coordination with the supplier is firm's responsibility. Wherever the supplier of water fails to supply in time, agency in consultation with SDE(E) / JTO(E) shall initiate such action as directed, to ensure water supply to occupants.
- viii. Pumping of water shall be such that, no occupants face undue delay in cycle/ stage by stage filling of the tanks.
- ix. General maintenance activities such as cleaning of pump sets, tightening the terminations in starter boxes etc are to be done on periodical basis along with any other specific maintenance activity as directed by Engineer-in-charge.
- X. Whenever community hall is allotted, the initial and final meter readings of electricity are to be recorded, together with connected works such as pump set for community hall.
- **Xi.** During power failure, agency shall coordinate with TNEB for restoration of power and carryout such activities to facilitate restoration.

Contractor Page 29 of 59 Executive Engineer

- xii. Agency shall be responsible for payment of EB bill for common services and vacant quarters in time. Hence the firm shall collect the EB card, coordinate with SDE(E) / JTO(E) for processing of payment.
- xiii. Agency shall ensure that the fuses and power supply to vacant quarters are cut off promptly to avoid misuse.
- xiv. Agency shall take details of inventory for each of the quarters / community hall whenever vacated / occupied in a prescribed proforma as issued by SDE(E) /JTO(E).
- XV. Any unauthorized use of electricity / tapping shall be promptly brought to the knowledge of SDE(E)/JTO(E).
- **XVI.** The contractor has to keep all the equipments under operation & maintenance and site neat and clean to avoid any accident or fire hazards.
- XVII. Dates of weekly, monthly, biannual / annual tests / maintenance activity, (wherever applicable), shall be displayed / recoded in relevant columns.
- xviii. The Contractor will display on a board in Watchman shed/ pump room/operator room important telephone numbers.
- xix. The contractor shall not sublet the work or part thereof. However, services of specialized agencies for specific work can be obtained.
- XX. 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.
- **XXI.** The Contractor will provide the workers with necessary T & P, Testing & safety equipments.
- xxii. Contractor has to observe all the labour rules and regulations in force & BSNL shall not be liable for any default
- xxiii. Firm shall ensure energy conservation by avoiding continued burning of Compound lights in day time, running pumpset with water over flow etc., wherever O & M is forming the scope of contract.

8) ROUTINE MAINTENANCE ACTIVITIES:

The agency shall carryout routine maintenance activities of the Electrical Installation, to keep the installation in healthy working condition. Schedule of activities are as follows:

A. MAINTNANCE ACTIVITY IN QUARTERS

(i) Agency shall carryout check of electrical installation in the residential quarters at least twice in a year. This is besides attending of faults, as and when reported to. The check shall be to ensure that the installation is in proper condition. Agency shall carryout all preventive measures, to avoid/minimise breakdown/faults.

Contractor Page 30 of 59 Executive Engineer

- (ii) Check list for maintenance activity in residential quarter is as per Annexure-VII A
- (iii) SDE(E) shall fix up the monthly targets for this activity, which the agency shall adhere to. Wherever the activity is hindered/could not be carried out, due reasons beyond the control of the agency, the same shall be brought to the knowledge of SDE(E).

B. COMMON SERVICES MAINTENANCE ACTIVITY:

1. Pumpset:

- (i) Maintenance activity in all the pump sets shall be carried out every month. Items of checks is as per Annexure VII-B. Observation shall be recorded and wherever the pumpsets are in comprehensive maintenance, prompt action shall be taken.
- (ii) Preventive Maintenance in pump sets shall be to ensure that the pumpsets are working with good efficiency and that any minor faults are attended promptly.

2. Earthing:

- (i) All earthing shall be checked twice in a year for physical condition, connection and values. Values and date of testing of the earth shall be properly sign written.
- (ii) Values shall be recorded in Annexure VII D, Date of testing and values measured shall be conspicuously displayed near the earth pits on wall with proper sign writing.
- (iii) Agency before take over shall ensure that the earth pits are in proper condition with cover plates and shall maintain the earth sets by painting and proper locking arrangement.
- (iv) Monthly reports shall be generated indicating the no of earth sets, check completed and pending checks etc as per Annexure VIII B-III

3. Compound Lighting:

- (i) All compound light arrangements shall be checked once in six months.
- (ii) Check list is as per Annexure VII-C. Observations shall be properly recorded.
- (iii) Monthly reports shall be generated indicating the no of C.Ls check completed and pending checks etc as per Annexure VIII B-II

4. Meter boards and DBs in common area

- (i) Inspection of the meter boards and common area DBs shall be done once in six months. It shall be ensured that no loose connections are available. Observations shall be recorded in Annexure VII A
- (ii) Proper sign writing shall be done for easy access during exigencies.

Contractor Page 31 of 59 Executive Engineer

9) COMMERCIAL.

- a. The tenderer 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 –IX & X
- 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 clause12.3 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.

Contractor Page 32 of 59 Executive Engineer

- 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. <u>Termination of contract on death of contractor</u>: 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:

SERVICE	SERVICE CONDITIONS	PENALTY FOR DEFICIENCY IN SERVICE
Pumpset	1. Faults occurring in 1st Pump is to be attended within 7 days of occurrence, failing which penalty shall be imposed.	Rs. 250/- per day
	2. In case fault in Standby pump , during above said period the firm shall be required to act fast and get the repair done within 1 day failing which penalty shall be imposed. However the contractor has to arrange water supply through alternative means such as portable pump set etc. (pump to be arranged by firm without any extra cost)	Rs. 500/- per day
	3. If submersible pump set is to be removed from the tube well due to any fault, its repair including hiring charges etc. as required is to be arranged by the contractor free of cost and should not take more 7 days , failing which penalty shall be imposed. However the contractor has to arrange water supply through alternative means such as portable pump set etc. (pump to be arranged by firm without any extra cost) as above	Rs.500/- per day
	4. In case water is not available in U/G tank due to lack of water supply from municipal authorities/private contract for more than 24 hours day, the contractor shall arrange to supply through water tanker (for which the actual charges of water tanker shall be paid to the contractor). Failure to carry out this task will result in penalty.	Rs. 1000/- per day

Contractor Page 33 of 59 Executive Engineer

Note:-

- i. Once the above penalty is invoked, BSNL free to take action for rectification of the defects/faults at the risk and cost of the contractor. The firm will be ineligible to participate in the risk and cost works. The Penalty shall be continued till rectification of faults at risk and cost or up to a period of 21 days whichever is earlier.
- ii. In case contractor fails to comply with routine maintenance activities in a particular period, penalty of 25% of one month's bill amount shall be imposed in the bill. Besides BSNL reserves the right to carry out the same at the risk and cost of the contractor.
- iii. 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.
- iv. 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.
- v. In case of absence of worker from the duty on any day, penalty shall be made @ double the prorata basis as applicable per person per shift. (Staff employed of less than the prescribed qualifications/ non-obedient workers deployed at site, in spite of written instructions to remove such persons from site, shall be treated as absent). The Decision of the Executive Engineer shall be final & binding.
- vi. 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. This is in addition to the penalty for specific deficiencies as per Clause 9 above.
- vii. Repair etc. of faulty equipment, other than pumpset, 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.
- viii. 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 maintenance firm, at his risk & cost.

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.

Contractor Page 34 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months)

- 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 proforma:.

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) ----- Weekly
 - b. SDE(E)----- Fortnightly
 - 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 clause no. 13.

16) Guarantee and Defect Liability

- 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.

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.

Contractor Page 35 of 59 Executive Engineer

SPECIAL CONDITIONS OF THE TENDER

[In case of any difference between any clause of any section of NIT and that of the "special conditions of contract," then the "special conditions of contract" shall prevail]

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

GENERAL CONDITIONS

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

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

1. Terms of Payment: For AMC

Payments shall be made once in three months subjected to submission of monthly report signed by concerned in charge.

1(i) INCREASE / DECREASE OF TENDERED QUANTITY

- a) BSNL will have the right to increase or decrease up to 50% of the quantity of goods and services specified in the schedule of items without any change in the unit price or other terms and conditions at the time of award of contract.
- b) In exceptional and unavoidable cases BSNL can increase the quantity of goods and services beyond 50% of the tendered quantity without any change in tendered and accepted unit price and also other terms and conditions as applicable at the time of award of contract.

1(ii) CURTAILMENT OF QUANTITY:-

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

2. COMPLETION OF WORK:-

At the time of issuing NIT for a particular work, the time allowed for completion of work consistent with magnitude and urgency of work is specified. The time allowed for carrying out the work as entered in the contract is reckoned from the tenth day after the date on which the orders to commence the work are given to the Contractor. To ensure good progress of the work during the execution, the contractor is bound in all cases in which the time allowed for any work exceeds one month (except special jobs) to complete 1/8th 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

Contractor Page 36 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

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.

3) EPF PROVISIONS:-

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

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

4) EARNEST MONEY DEPOSIT

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

5) PROGRAMME FOR EXECUTION

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

6) STORES AND SAFETY

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

7) CO-ORDINATION AT SITE

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

8). COMPLETION DRAWINGS / Log Book

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

9. DEFECT LIABILITY

- (a) Any defects occurred due to wrong operation is the responsibility of the agency. The same shall be rectified without any extra cost within the time specified by the Engineer-in Charge.
- (b) The following aspects are, however, not covered under the purview of guarantee:
 - i) Consequential losses and damages due to Natural calamity

10. CHANGES IN SPECIFICATIONS

Contractor Page 37 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

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

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

Or

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

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

11. Packing, Forwarding, Storage at site.

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

12 Inspection Of Site & Contract Documents

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

13) I.S. Standards:

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

14) SUFFICIENCY OF TENDER

The contractor shall be deemed to have satisfied himself before entering into the contract as the correctness and sufficiency of his offer for the work and of the rates and prices quoted in the schedule of works and items/quantities or in bills of quantities for the contract period.

Contractor Page 38 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months)

These rates and prices shall except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for proper completion of works.

No additional conditions shall be stipulated by the tenderer.

15) Test Certificate

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

- Technical catalogues of Engine & alternator
- Manufacturer's Original test certificates for Engine, Alternator, E/A set, control panel
- Routine test certificates for individual items.
 Department may test each unit at factory without any extra payment.

16) Set off clause:

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

17) CURRENCY OF CONTRACT

- a The currency of contract shall be 24 months.
- b The BSNL reserves the right to terminate the contract by giving show cause notice of one-month duration at any time during the currency of the contract.

Contractor Page 39 of 59 Executive Engineer

EI & FANS

Part-I: Scope of Maintenance:

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

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

Following items should be carried out within first 15 days.

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

Part III: Maintenance Schedule to be followed

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

Contractor Page 40 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

Note : Materials required for maintenance shall be utilized from the optional items under SH –III of schedule.

<u>PUMP</u>

Part I: SCOPE

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

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

Part II : TASKS TO BE PERFORMED WITHIN FIRST 15 DAYS

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

Part III : MAINTENANCE / OPEARATION SCHEDULE

- To monitor on daily basis that the system is in healthy working condition, leakage & breakage and malfunctioning of safety devices to be attended.
- Pumps to be operated for ensuring water supply in the building blocks.
- On daily basis check for:
 - (i) Abnormal heating of the pump sets.
 - (ii) Abnormal noise
 - (iii) Gland leakages

Check alignment of pump motor quarterly.

- Measure earth values at six month interval after last test.
- Log book detailing pumps operation time to be maintained.

Part IV: MATERIALS

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

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

Contractor Page 41 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

COMPOUND LIGHTING

Part I : Scope of Maintenance

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

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

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

Part III: Maintenance schedule to be followed.

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

Note : Materials required for maintenance shall be utilized from the items under SH –III of schedule.

Contractor Page 42 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters $\,$ (type-III, IV & V) at Taylors Road, Chennai.(For 2 months)

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
3	Complaint Register	V
4	Daily Log book	VI
5	Maintenance activity proforma	VII A, B, C,D
6	Monthly reports	VIII
7	Format of Abstract of actual periodical maintenance carried out in the quarter ending	IX
8	Certificate to be submitted along with each bill	Х

Contractor Page 43 of 59 Executive Engineer

ANNEXURE III

SIZE OF VARIOUS SERVICES TO BE OPERATED AND MAINTAINED

El and fans including all light fittings, Fans, , SDB /MCBDBs, switches & sockets, Distribution arrangement, cabling, switch-gears, LT panel, Feeder pillar, Service Connection panel, Earthing etc.

SI. no.	Description	Quantity
1	Type I Quarters	114 Nos.
	Type II Quarters	246 Nos.
	Type III Quarters	114 Nos.
	Community Centre	1No.
2	Pump sets	
а	20HP Centrifugal pump in Sump Room	1 No.
b	15 HP monoblock type Centrifugal pump	1 No.
С	2HP centrifugal pumpset (metro water Sump Room)	2 Nos.
d	1HP Submersible pump in bore well	2 Nos.
3	Compound lighting poles / fittings/ Post top lantern / Gate fittings	

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.

Contractor Page 44 of 59 Executive Engineer

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 the 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 JTO(E)/SDE (E) along with qualification/experience credentials)

	Name & Address	Qualification	Responsibility
1.			
2.			
3.			
4.			
5.			
6.			
7.			_

Contractor Page 45 of 59 Executive Engineer

ANNEXURE V

COMPLAINT REGISTER

Complaint 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	Acknowledgement of rectification by complainant	Remarks

	COMPLAINT SUMMARY							
DATE	DATE NO. OF COMPLAINTS AS ON DATE NO. OF COMPLAINTS TODAY NO. OF COMPLAINTS CARRIED OVER		COMPLAINTS CARRIED	SL. NO OF CARRIED OVER COMPLAINTS AS PER COMPLAINT REGISTER	REASONS FOR CARRY OVER			

Contractor Page 46 of 59 Executive Engineer

ANNEXURE VI

DAILY LOG BOOK

Name of the operator	Time In	Time Out

PUMP OPERATION						
TYPE OF PUMP & TIME STARTED TIME STOPPED TIME STOPPED						

	COMPOUND LIGHTS						
DATE	TIME SWITCHED ON	REASONS FOR THE FAULT					

Contractor Page 47 of 59 Executive Engineer

ANNEXURE VII

MAINTENACNE ACTIVITY PROFORMA

MAINTENANCE ACTIVITY IN QUARTERS ANNEXURE VII-A

DAT	E		
BLC	CK		
QU	ARTER NO		
TYP	E OF QUARTER		
<u>A.</u>	Switch boards (Half yearly)		
i.	No. of Switch boards		
ii.	Cleaning of Switchboards		
iii.	Check of Wire termination, earth connection,		
	fixing screws, switches and sockets		
<u>B.</u>	Ceiling Fan (YEARLY)		
i.	No. of Fans		
ii.	No. of fans working		
iii.	Check for abnormal Noise		
iv.	Check for Functioning of Fan regulator		
٧.	Cleaning of fan		
vi.	Check of Wiring terminations		
<u>C.</u>	Light fittings (Half Yearly)		
i.	No. of fittings		
ii.	No. of fittings working		
iii.	Cleaning of fittings		
iv.	Check of proper Fixing arrangement		
٧.	Check of Wiring terminations		
vi.	Check for Working of accessories like choke,		
	starters		
<u>D.</u>	Meter boards/DBs/SDBs (Half Yearly)		
i.	Cleaning		
ii.	Check of Wiring terminations		
iii.	Check for proper Earthing termination		
iv.	Check of Isolators/MCBs/Fuses		
٧.	Check for Sign writing		

Sign. of Contractor

Name & Sign. of Occupant Contact number.......

JTO(E)/SDE(E)

Contractor Page 48 of 59 Executive Engineer

MAINTENANCE ACTIVITY IN PUMPSET ANNEXURE VII-B

Date:

PUN	IPS	1	2	3
i.	Location (Near which block)			
ii.	Type of pump			
iii.	Check for Abnormal Vibration/sound if any			
iv.	Check of Pump foundation			
٧.	Check of Motor & Pump assembly			
vi.	Check for Functioning of Valves, pipeline and			
	accessories			
vii.	Check of Priming arrangement			
viii.	Check of Starters, Cable connection &			
	termination			
ix.	Check for Earthing termination			
х.	Lighting in pump room			
xi.	General cleanliness of pump room			
xii.	Check of Water availability			

MAINTENANCE ACTIVITY IN COMPOUND LIGHTING (Half yearly) ANNEXURE VII-C

Date :			
B. Compound Lighting	1	2	3
i. Location (near which block)			
ii. Type of fitting			
iii. Complete Cleaning of fitting			
iv. Check of Wiring , Earthing & Switches			
v. Check for Painting			

MAINTENANCE ACTIVITY IN EARTHING (Half yearly) ANNEXURE VII-D

Dat	e:			
<u>C</u> .	C. Earthing		2	3
i.	Location (near which block)			
ii.	Pit traceable or not			
iii.	Check for Any Damage to pit			
iv.	Check of funnel/screw/cover plate, etc.			
v.	Measured Earth value in ohms.			
vi.	Check of Sign writing of earth pit no., Earth			
	value with Month & Year of last measurement			
	recorded.			

Contractor Page 49 of 59 Executive Engineer

ANNEXURE VIII

MONTHLY REPORTS

A. MAINTENANCE ACTIVITY IN STAFF QUARTERS

Months
Total no. of Quarters
Monthly targets
No. of grts in which Mtce. activities completed till last month
No of grts in which mtce activity carried out this month
Balance Quarters
back log if any
Remarks

JTO(E)/SDE(E) remarks on backlog and signature

Contractor

B. OTHER SERVICES

I. PUMPS

SI.No	Month	Total No of pumpset	No. of pumpset in which maintenance activity carried out in month	No of pumpsets left out for maintenance	Reasons	Action planned	Remarks

JTO(E)/SDE(E) remarks on backlog and signature

Contractor

II. COMPOUND LIGHTING

4,007
MOTICI
Total No of Compound
Monthly target
No. of C/L in which maintenance activity carried out till last month
Nos carried out this month
Balance
Backlog if any
Remarks

JTO(E)/SDE(E) remarks on backlog and signature

Contractor

Contractor Page 50 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months)

Contractor

III. EARTHING

|--|

JTO(E)/SDE(E) remarks on backlog and signature

Contractor

Contractor Page 51 of 59 Executive Engineer

ANNEXURE - IX

CERTIFICATE TO BE SUBMITTED FOR MONTHLY SCHEDULED ACTIVITIES

Name	of contractor :	
Agreen	ment No. :	·
Site	:	·
(Annex	of have been ca kure –IX) and as per terms and condit	arterly / half yearly / Yearly Maintenance for the rried out properly as per Maintenance schedule tion of the agreement and i/c testing/drills etc. med. Except the following due to the reasons
SI. No	ITEM/SERVICES	REASONS FOR NON OPERATION
Contra	actor's representative Exchange	e In- Charge JTO(E)
)	SD	DE(E)

Contractor Page 52 of 59 Executive Engineer

ANNEXURE - X

CERTIFICATE TO BE SUBMITTED ALONG WITH EACH BILL

1.	CERTIFIED THAT WE HAVE CARRIED OUT THE OPERATION & COMPREHENSIVE MAINTENANCE OF ELECTRICAL SERVICES OF STAFF QUARTERS AT COVERED IN THE ABOVE CONTRACT SATISFACTORILY, EXCEPT THE FOLLOWING DUE TO THE REASONS MENTIONED AGAINST THE RESPECTIVE ITEM:				
	SI. 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)					

Contractor Page 53 of 59 Executive Engineer

LIST OF APPROVED MAKES - BSNL ELECTRICAL WING

(AS ON 29.02.2016)

S.	Item	Makes
No.	Item	INICKES
1	Engine	Ashok Leyland /Cummins/ Cater pillar /KOEL/ Volvo Penta / Mahindra & Mahindra (up to 200 KVA) /Escorts (up to 30 KVA)/ Eicher (up to 35 KVA)
2	Alternator(Brushless)	Crompton Greaves (AL. series) / KEC / Leroy Somer / Stamford/Jyoti Ltd
3	Battery (Lead Acid / Mntc. Free)	Amara Raja / AMCO / Farukawa / Hitachi / Exide/ Prestolite / Standard
4	HV Switchgear (Vacuum Circuit Breaker/SF6)	Biecco Lawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type) a) Above 400 KVA	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO /Kirloskar / Siemens
	b) Up to 400 KVA	In addition to above makes, Uttam/ Patson /Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T/ Schneider Electric / Siemens
7	MCCB(Ics=Icu)	L&T/ Schneider Electric / Siemens
8	SDF units	L&T/ Schneider Electric / Siemens/HPL/Havells
9	Power Contactors	L&T/ Schneider Electric / Siemens/ Lakshmi(LECS)
10	Change Over Switch	HPL / Havells / H-H Elcon
11	Intelligent APFC Relay	L&T/EPCOS(Siemens)/ Schneider Electric / Neptune Ducati/Syntron/ABB
12	Bus Bar Trunking/ Sandwiched Bus Duct	Moeller/L&T/Schneider Electric/ABB/ Legrand /Zeta
13	Power Capacitors (MPP/APP)	L&T/EPCOS(Siemens)/ABB/Crompton/ Schneider Electric / Neptune Ducati
14	Digital/ KWHr meter	Schneider Electric/ AE/ Digitron / IMP/Meco / Rishabh /Universal/HPL/L&T/ABB/Yokins
15	Cold shrink HT/LT Cable Joint	Denson / 3M(M-Seal)/ Raychem
16	Rubber Matting	ISI mark
17	MCB/ Isolator /ELCB/RCCB/ Distribution Board	Crompton / Havells / Indokopp / MDS Legrand / L&T / Schneider Electric/ Siemens / Standard/ABB/HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/Bharti/Ratan/Slotco/Profab
20	HT/LT Cables	ISI mark
21	PVC insulated copper	ISI mark
	conductor wire	
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 /

Contractor Page 54 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai. (For 2 months)

25 Fresh Air Fans GE / Khaitan/Almonard/Crompton			Schneider Electric / HBB / KEC / Siemens/Jyoti Ltd
26 Starter ABB / BCH / Schneider Electric / L&T / Siemens / 27 Single Phase Preventer L&T / Minilec / Siemens / Zerotrip 28 GI/MS Pipe ATC / ATL / BST / GSI / ITC / ITS / IIA / JST / Jindal / /TTA / Tata/Zenith 29 Foot Valve ISI mark 30 Gate Valve Advance/Audco/Johnson Controls / Zoloto /Annapurna / Fountain / Kirloskar / Leader / Sant / Trishul 31 Compressors Carrier/Emerson copeland/York/Danfoss (for chillers only) 32 Resin Bonded Glass wool Fibre Glass / Pilkingston / UP Twiga 33 Expanded Polystyrene BASF(India) Ltd. 34 Gauge Feibig / H.Guru / Pricol 35 Controls FILCA / 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 Apollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton / System Sensor / Wormald / Honeywell Essar/Notifier 40 Photo Electric Smoke Detector Apollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / System Sensor / Wormald / System Sensor / Wormald / System Sensor / Ravel Elect. / Honeywell Essar / Notifier	25	Fresh Air Fans	
27 Single Phase Preventer L&T / Minilec / Siemens / Zerotrip	_		
Section Sect		Starter	ADD / Berry Semiciaes Electric / Early Siemensy
JST / Jindal /TTA / Tata/Zenith	27	Single Phase Preventer	L&T / Minilec / Siemens / Zerotrip
29 Foot Valve ISI mark 30 Gate Valve Advance/Audco/Johnson Controls / Zoloto /Annapurna / Fountain /Kirloskar / Leader / Sant / Trishul 31 Compressors Carrier/Emerson copeland/York/Danfoss (for chillers only) 32 Resin Bonded Glass wool Fibre Glass / Pilkingston / UP Twiga 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 Apollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton / System Sensor/ Wormald/Honeywell Essar/Notifier 39 Ionization Detector Apollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald / System Sensor 40 Photo Electric Smoke Detector Apollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / System Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems 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	28	GI/MS Pipe	ATC / ATL / BST / GSI / ITC / ITS / IIA /
Advance/Audco/Johnson Controls / Zoloto /Annapurna / Fountain /Kirloskar / Leader / Sant / Trishul			JST / Jindal /TTA / Tata/Zenith
Fountain /Kirloskar / Leader / Sant / Trishul	29	Foot Valve	
Carrier/Emerson copeland/York/Danfoss (for chillers only)	30	Gate Valve	
Ground Comment Grou			
Resin Bonded Glass Fibre Glass / Pilkingston / UP Twiga	31	Compressors	
wool 33 Expanded Polystyrene BASF(India) Ltd. 34 Gauge Feibig / H.Guru / Pricol 35 Controls FLICA / Honeywell / Indfoss / Penn- Danfoss / Ranco / Ranutrol / Sporland Anfiltra Effluent / ARW / Athlete/ Airtake / Dyna / Kirsloskar/ Puromatic/ Purafill/ Purolator / Tenacity Asil / Tata Tata Apollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton / System Sensor / Wormald/Honeywell Essar/Notifier Apollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald / Fenwal / Hochiki / Nitton / System Sensor / Wormald / Fenwal / Hochiki / Nitton / System Sensor / Wormald / Fenwal / Hochiki / Nitton / System Sensor / Wormald / Fenwal / Hochiki / Nitton / System Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin based) Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems ISI mark Hose Pipe ISI mark ISI ma			17
33Expanded PolystyreneBASF(India) Ltd.34GaugeFeibig / H.Guru / Pricol35ControlsFLICA / Honeywell / Indfoss / Penn- Danfoss / Ranco / Ranutrol / Sporland36Fine FiltersAnfiltra Effluent / ARW / Athlete/ Airtake / Dyna / Kirsloskar/ Puromatic/ Purafill/ Purolator / Tenacity37GI SheetHSU Jindal / National / Nippon Denro / Sail / Tata38Heat DetectorApollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton / System Sensor/ Wormald/Honeywell Essar/Notifier39Ionization DetectorApollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald40Photo Electric Smoke DetectorApollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald / System Sensor41Fire Panel (Microprocessor Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems42Sprinkler/ Hose Reel & Hose PipeISI mark43Fire ExtinguisherISI mark44LiftOTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	32		Fibre Glass / Pilkingston / UP Twiga
34GaugeFeibig / H.Guru / Pricol35ControlsFLICA / Honeywell / Indfoss / Penn- Danfoss / Ranco / Ranutrol / Sporland36Fine FiltersAnfiltra Effluent / ARW / Athlete/ Airtake / Dyna / Kirsloskar/ Puromatic/ Purafill/ Purolator / Tenacity37GI SheetHSU Jindal / National / Nippon Denro / Sail / Tata38Heat DetectorApollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton / System Sensor/ Wormald/Honeywell Essar/Notifier39Ionization DetectorApollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald40Photo Electric Smoke DetectorApollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald /System Sensor41Fire Panel (Microprocessor based)Agni Instruments / Agni Devices/ Aruna Agencies / Carmel Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems42Sprinkler/ Hose Reel & Hose PipeISI mark43Fire ExtinguisherISI mark44LiftOTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp			
Secontrols FLICA / Honeywell / Indfoss / Penn- Danfoss / Ranco / Ranutrol / Sporland		<u> </u>	, ,
Ranutrol / Sporland 36 Fine Filters		i	J , ,
36 Fine Filters	35	Controls	
Puromatic/ Purafill/ Purolator / Tenacity 37 GI Sheet			
37 GI Sheet HSU Jindal / National / Nippon Denro / Sail / Tata 38 Heat Detector Apollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton / System Sensor/ Wormald/Honeywell Essar/Notifier 39 Ionization Detector Apollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald 40 Photo Electric Smoke Detector Apollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald / System Sensor 41 Fire Panel Agni Instruments / Agni Devices/ Aruna Agencies / Carmel (Microprocessor Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems 42 Sprinkler/ Hose Reel & HSU Jindal / National / Nippon Denro / Sail / Tata	36	Fine Filters	
Sail / Tata 38 Heat Detector	27	CT Cht	
Apollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton /System Sensor/ Wormald/Honeywell Essar/Notifier	3/	GI Sneet	, , , , , , , , , , , , , , , , , , , ,
/System Sensor/ Wormald/Honeywell Essar/Notifier 39	20	Heat Detector	,
39 Ionization Detector Apollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor /Wormald 40 Photo Electric Smoke Detector Apollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / Wormald /System Sensor 41 Fire Panel (Microprocessor Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems 42 Sprinkler / Hose Reel & Hose Pipe ISI mark 43 Fire Extinguisher ISI mark 44 Lift OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	38	Heat Detector	
System Sensor /Wormald 40 Photo Electric Smoke Detector	30	Ionization Dotoctor	
40 Photo Electric Smoke Detector	39	Toriization Detector	
Detector Wormald /System Sensor 41 Fire Panel (Microprocessor based) 42 Sprinkler/ Hose Reel & Hose Pipe 43 Fire Extinguisher 44 Lift Wormald /System Sensor Agni Devices/ Aruna Agencies / Carmel Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems ISI mark ISI mark OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	40	Photo Flectric Smoke	
41 Fire Panel (Microprocessor based) 42 Sprinkler/ Hose Reel & Hose Pipe 43 Fire Extinguisher 44 Lift Agni Instruments / Agni Devices/ Aruna Agencies / Carmel Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems ISI mark ISI mark OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	10		
(Microprocessor based) 42 Sprinkler/ Hose Reel & ISI mark 43 Fire Extinguisher 44 Lift Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems ISI mark ISI mark OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	41		
based) Systems 42 Sprinkler/ Hose Reel & ISI mark Hose Pipe 43 Fire Extinguisher ISI mark 44 Lift OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	'-		, , , , , , , , , , , , , , , , , , , ,
42 Sprinkler/ Hose Reel & ISI mark Hose Pipe 43 Fire Extinguisher ISI mark 44 Lift OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp		1 .	
Hose Pipe 43 Fire Extinguisher ISI mark 44 Lift OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	42		
43 Fire Extinguisher ISI mark 44 Lift OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp			
44 Lift OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp	43		ISI mark
Floorita (Todia)			OTIS, Kone, Mitsubishi , Schindler, Johnson, Thyssenkrupp
			Elevator(India)

NOTE:

- 1. The accessories such as CT/PT/measuring instrument/relays provided by approved make in respect of Transformer/HT Panel/DG /AC Package Units as supplied by approved manufacturer along with the equipments are also acceptable in addition.
- 2. Any other makes which are approved by BSNL CO up to the last date of sale of tender can also be used in this contract.
- 3. Any additional makes may be approved by concerned PCEs/Sr CEs/CEs(Elect) for the work under his jurisdiction as already accorded vide letter no. 3-2-5/EW/VEP-1/2007 dated 05-07-2007.

Contractor Page 55 of 59 Executive Engineer

RELEVANT IS STANDARDS

<u>STANDARDS</u>	TITLE
IS 732- 1989	CODE OF PRACTICE FOR FOR ELECTRICAL WIRING INSTALLATIONS
IS 3043- 1987	Code of practice for earthing
IS 5216- PART II 1982	Guide for safety procedures and practices in electrical works (general)
IS 374-1979	Electric ceiling type fan and regulator
IS 11037-1984	Electronic type fan regulator
IS 4237-1982	General requirements for switch gear and control gear not exceeding
	volts 1000 Volts AC
IS 2675-1983	Enclosed Distribution fuse boards and cutouts for voltages not
	exceeding 1000 Volts AC
IS 8828-1996	Electrical accessories – Circuit breakers for overcurrent protection for
	house hold and similar installation.
IS 13032-1991	Ac miniature circuit breaker boards for voltages upto and including
	1000 Volts AC
IS 8544-part 1-1977	Motor starters for voltages not exceeding 1000 Volts: direct online AC
	starters.
IS 694- 1990	PVC insulated cables for working voltages upto and including 1100
	Volts
IS 3854-1997	Switches for domestic and similar purposes

Contractor Page 56 of 59 Executive Engineer

Name of Work: Operation and maintenance of Electromechanical services in Staff Quarters (type-III, IV & V) at Taylors Road, Chennai.(For 2 months)

PROFORMA OF SCHEDULES

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

SCHEDULE 'A'

Schedule of quantities : Attached

SCHEDULE 'B'

Schedule of materials to be issued to the bidder: Nil

SCHEDULE 'C'

Tools and plants to be hired to the bidder: Nil

SCHEDULE 'D'

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

SCHEDULE 'E'

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

SCHEDULE 'F'

Reference to General Conditions of contract:

Name of work:	
Estimated cost of work:	As per NIT notification page
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 Sub Divisional Engineer (E), ESD-IV, Chennai 2(vi) Accepting Authority EE (E), BSNL Electrical Division -I, Chennai

2(x) Percentage on cost of materials

and labour to cover all 10%(TEN)

overheads and profits

CLAUSE 5

Time allowed for execution TWO Months

Authority to give fair and reasonable extension of time

for completion of work: EE (E),ED-I, Chennai Competent Authority for deciding reduced rates SE (E),EC-II,Chennai

Clause 25

0.4466

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

Contractor Page 57 of 59 Executive Engineer

BSNL EW-8

Bharat Sanchar Nigam Limited

Electrical Wing

Electrical Division: ED-I, Chennai Sub Division: ESD IV, Chennai

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

Contractor Page 58 of 59 Executive Engineer

Signature of Witness (required in the case of bidder's thumb impression is given by the bidder in place of signature) Occupation of Witness:				
	Seal of Bidder			
	Date:			
	ance 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)				
The letters referred to below shall form part of this contract Agreement.				
a)				
b)				
	For & on behalf of BSNL			
Dated	Signature :			
	Designation :			
	Doorging to 17.			

Contractor Page 59 of 59 Executive Engineer