

**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

From:  
The Executive Engineer,  
EHV(O&M) Division, Kalwa  
Bramhaputra Building, 2<sup>nd</sup> floor,  
Power House Complex, Post Box No 4, Airoli,  
Thane-Belapur Rd., Navi Mumbai- 400708.  
E-mail ID – [ee7120@mahatransco.in](mailto:ee7120@mahatransco.in)/[ee7120@gmail.com](mailto:ee7120@gmail.com),  
Website : [www.mahatransco.in](http://www.mahatransco.in)

EE /EHV/O&M/Dn./KLW/Tech/ **0 0 0 7 9 4**

Date: **13 MAY 2022**

**E-Enquiry**

**Sub.:** E-Enquiry for work of electrical safety, Fire safety & security audit at various substations under EHV (O&M) Division, Kalwa..

Dear Sir,

Sealed and super scribed quotations are invited for the above work as per enclosed schedule 'A'. You are requested to quote your lowest rates for the above work. The terms and conditions are as follows.

**TERMS AND CONDITIONS**

- 1. Due Date:** - The quotation complete in all respect, duly sealed & super scribed should be submitted to this office on or before **23.05.2022 upto 11:00Hrs.**
- 2. Scope of work:-** As detailed in schedule 'A' & 'B'. This tender is for work of electrical safety, Fire safety & security audit at various S/stn under EHV (O&M) Division, Kalwa. Fire safety audit and security audit should be carried out as per Indian & International standard (IS/OHSAS 18001).
- 3.** Please refer the schedule attached herewith and quote your offer for the same.
- 4.** No Price variation is applicable. GST rate as applicable will have to be quoted separately in space provided. If nothing is specified rates will be considered as inclusive of all taxes
- 5.** According to the financial Act 194 (C) OF 1972 income tax will be deducted from your Bill at the applicable rate of the contract value and certificate to that effect will be issued to you.
- 6. Security Deposit:** -
  - a. The successful contractor shall have to deposit the security deposit of 5% of contract value towards security deposit in this office by B.G./FDR within 15 days before commencement of the work. The same shall be refunded to you after satisfactorily completion of work and as per availability of funds.
  - b. If the successful contractor fails to submit security deposit within the stipulated period, it will be presumed that the contractor is not interested in execution of the contract and the work contract will be issued to other agency i.e The decision of E-enquiry accepting authority i.e the Executive Engineer, EHV O&M Dn. Kalwa shall be final and remain binding on the contractor(s).
  - c. No interest will be paid on the security deposit and the security deposit will be refunded after satisfactory execution of work.
  - d. If the work will not be completed by the agency the security deposit will be forfeited by the MSETCL.
- 7. Validity of Offer:** - The offer should be valid for our acceptance for a period of 90 days from the due date of E-enquiry.

8. **Documents required:** - the rate offer must be accompanied with the following documents duly attested & signed by the vendor.
- I. Valid Goods & Service Tax (GST) registration certificate.
  - II. Valid Shop Act / MSME/ NSIC / SSI Registration.
  - III. PAN Card Copy.
  - IV. Safety auditor license from Gov. of Maharashtra or National safety council of India or from any municipal corporation or an auditor/advisor having requisite qualification or any fire officer who has worked not less than 10 years in fire service of any municipal corporation/council or special planning authority or any govt. bodies/ govt. undertaking can carry out fire safety.
  - V. The bidder should have experience of safety security and fire audit/similar type of work in MSETCL / PGCIL / any Government/Semi-Government and bidder must submit the experience certificate and order copies for the same as per below mentioned criteria. The experience certificate from the authority of the rank of EE or above in MSETCL or equivalent shall be submitted.
  - VI. The bidder should have Experience for the above mentioned work having costing not less than the amount equal to 60% of the estimated cost.
9. Undersigned reserved the right to accept any quotation or to reject/ accept all the quotation without assigning any reason.
  10. All EHV Sub-stations and Division Office should be physically checked/ inspected for fire safety point of view. Present status regarding fire prevention/protection system to ICTs/ Power Transformers, available equipments/extinguishers etc. should be recorded.
  11. The fire Norms, Maharashtra Fire Prevention & Life safety Measures Act-2006 the suggestion and recommendation should be informed in fire safety audit report for each sub-station and Division Office.
  12. Basic training on fire fighting to available technical and other staff at the time of inspection and audit.
  13. Submission of "Fire Safety & Security Audit Report" in three copies.
  14. The work should be carried out strictly within 90 days from the handing over the site.
  15. The work carried out should be as per the standard practices of MSETCL.
  16. Interaction with staff & important tips to all staff present during audit. The contractor shall be fully responsible for compliance of all statutory obligations under the Factory Act 1948, Contract Labour (Regulation and Abolition) Act 1970, Maharashtra Labour Contract Regulation & Abolition Act, 1971, Minimum Wages Act, Provident Fund Act and ESIC Act / Workman Compensation Act 1926, Payment of Wages Act in respect of the Staffs deployed. The rules and regulation of the Contract Labour Act shall be binding on the contractor.
  17. The MSETCL will not be responsible for violation of these statutory rules and regulations by the contractor. It shall be the sole responsibility of the contractor to observe all the relevant acts and regulations along with amendments frame by the Government from time to time. The MSETCL shall not be responsible for violation of any of the above stated regulations / Acts etc. by the contractor.
  18. You will have to arrange all tools, plants, skilled manpower etc. to carry out the work at your own cost.

19. You will have to provide all safety measures to your staffs while executing the work.
20. If any loss occurs to Company's property during execution of work, you should make it good at your own cost.
21. **BILLS:-**  
All the payments will be made by Account Payee Cheques/Through RTGS only. Tenderer will have to submit the Tax invoice bills in triplicate along with recent GSTR1 & GSTR3B copy to concerned Sub-Station Incharge.
22. **PAYMENTS:-**  
100% payment of the contract price will be made on recording of bill by the consignee. The invoice should be submitted to this office in triplicate, along with test certificates (if any)/ Delivery Challan, and advance stamp receipt. The concerned Sub-Station Incharge shall verify & record the bills & will submit the same to the concerned Executive Engineer. The concerned Executive Engineer will verify & audit, after passing & payment.
23. The T&P/ labour/ machinery/ equipment/ material required for the work shall be on your account.
24. **LIQUIDATED DAMAGES:-**
  - a) If the contractor fails to complete all the works within the time frame stipulated, the MSETCL shall levy liquidated damages for breach of contract.
  - b) The Liquidated damage shall be levied at the rate of ½ % (Half Percent) on the total portion of contract price per week of delay, subject to the maximum 10 % of the contract price for the entire scope of the work.
  - c) In case of such delay, the contract may be terminated by the competent authority as per general rules and regulations of MSETCL and the balance work shall be got completed through separate contract at his risk and cost.
  - d) GST will be charged @ 18% extra on LD amount calculated.
25. **Accident:** The contractor shall ensure the safety of all the workmen, materials and equipment at work site. The contractor shall be responsible for providing of all safety notices and safety equipment required. If any accident occurs to any person, labour skilled or unskilled, compensation if any, is to be paid by the contractor only.
26. Any breakage/damage occurred to MSETCL material/ Equipment / theft of material if any, asset during the work shall be recovered from your bills as per rules.
27. The contractor shall not be entitled to claim any interest on amount payable to him.
28. You shall not entrust the work on sub-contract /transfer or assign the contract or any part thereof to any third party. In case any deviations observed it will be treated as breach of contract and the contract will be terminated at your entire risk and cost.
29. **Agreement:** -You have to execute an agreement on Bond paper after receipt of work order & cost of agreement to be borne by the agency as per stamp duty act.
30. You should be fully aware of the M.S.E.T. Co. Ltd. General Condition for execution of work and same is applicable to this contract also. Any of the condition will not exempt you from your liability to be abiding by the same.
31. **DECISION OF EXECUTIVE ENGINEER TO BE FINAL:**  
If any time question or difference shall arise between the contractor and Engineer-in-charge the decision of Superintending Engineer will be final and binding on both parties.
32. **Income tax/WCT:** if applicable will be deducted as per rules/ otherwise you will have to submit income tax exemption certificate or income tax registration no. of your firm PAN No.
33. In case of difference of opinion, misinterpretation of any of the condition of the contract. In connection with or arising out of the condition or during the period work, the decision of the under signed shall be final & binding on you.




34. While execution of work, if any loss is caused to M.S.E.T.C.L, the same will be recovered from you & you will have to make good the loss, work to be attended by you at your cost & risk only.
35. **Jurisdiction:** All disputes, differences related to the tender contract shall be subject to the exclusive jurisdiction of Thane District Court.

Thanking you,

Encl: Schedule 'A'

Yours faithfully,



**Executive Engineer,  
EHV O&M Dn., Kalwa.**

**Copy s.w.rs.to:-**

The Sperintending Engineer, EHV O&M, Circle Kalwa.

**Copy to:**

- 1] The Substation In-charge, Temghar/Kamba/Bapgaon/Mahape/Bhiwandi/Mumbra.
- 2] The Dy.Manager (F&A), EHV (O&M) Dn., Kalwa.
- 3] The Dy.Mgr(HR), EHV O&M Dn. Kalwa.


**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.**  
**EHV O&M Circle, Kalwa**

**SCHEDULE 'A'**

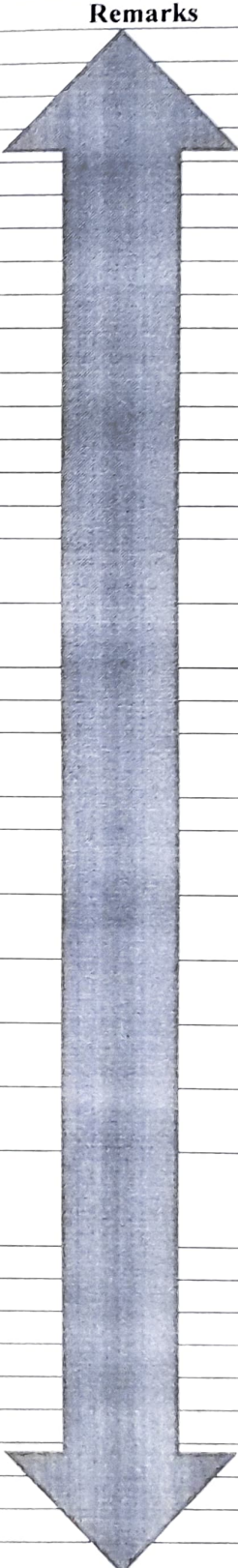
Sr. No.	Service No	SAC code	Description	Unit	Qty	Rate including 18% GST	Amount
1	50006709	998521	Safety & Security Audit of 100/22kV S/s	EA	2		
2	50020303	998521	Safety & Security Audit of 220kV S/s	EA	4		
<b>Total</b>							

Estimated cost:- **66,740.80/-** Including taxes.

Any other loading if any :-

  
**Executive Engineer,**  
**EHV O&M Dn., Kalwa.**

### Check list for safety & security Audit

Part 'A'		
	Remarks	
1	Date of Audit:	
2	Name of the s/s	
3	Name and designation of the s/s in charge:	
4	Year of commissioning:	
5	Total staff (regular) in the s/s:	
6	Name of the Agency: ESRO	
7	Order No.	
Part 'B'		
1	Valid authorization list s/s staff –	
2	Valid authorization list for DISCOM staff	
3	One sample of cross permit :	
4	One sample of work permit :	
5	One sample of caution permit :	
6	Whether operating manual is available :	
7a	Whether outage is availed as per operating manual one sample may be shown	
b	whether 'not to operate' board is placed on control switch of control Panel at the time of outage.	
c	whether proper earthing is done before issue of permit	
8	Whether maintenance manual is available	
9	Whether work carried out during outage period as per maintenance schedule	
10	If yes, one sample may be shown during safety audit.	
11	No of power Transformers available in the s/s capacity wise.	
12	Last date of quarterly maintenance of each transformer	
13	One sample of maintenance of power transformer may be shown.	
14	Last date of oil Testing of each transformer including DGA test carried out	
15	Whether any abnormality found in the oil Test including DGA Test of each Transformer.	
16	Whether all the equipment's i.e. Breaker CT / PT, isolators, L.A., CC etc. maintained as per maintenance schedule. Maintenance card should be shown in support with signature of s/s in charge.	
17(i)	Earth resistance of the s/s – latest value taken may be shown.	
(ii)	Earth resistance of each transformer Earth pits	
(iii)	Earth resistance of each L.A.S Earth pits	
18(i)	Condition of battery set:	
(ii)	Date of charge discharge cycle:	
(iii)	No. of cells faulty	
19(a)	Last Date of thermography of switchyard carried out	
(b)	Status of hot spot pending to be attended	
(c)	Date of last LCM taken (Max. Min. Value)	
(d)	Oil leakage in x'mer or any other equipment-	

**MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LTD**  
**EHV (O&M) DIVISION, KALWA**  
**Schedule 'A'**

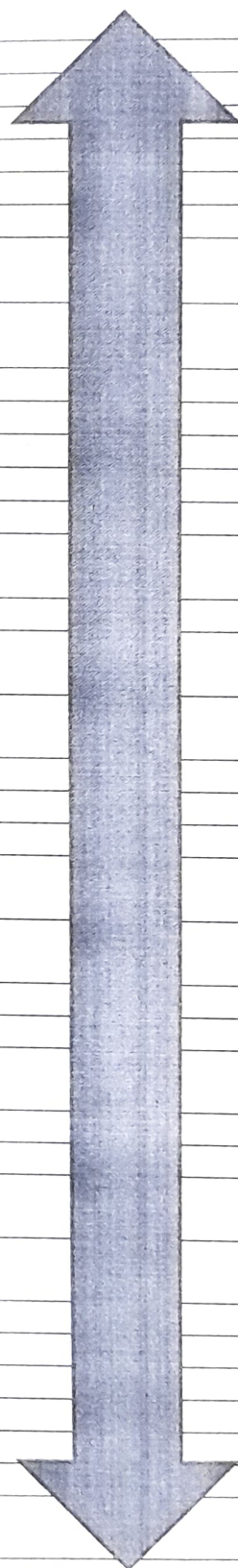
1. Date of Audit :
2. Name of the S/s.
3. Name and designation of the s/s in charge:
4. Year of commissioning :
5. Total staff (Regular) in the s/s :
6. Name of the Agency:
7. Order No.

**SAFETY AUDIT OF BELOW MENTIONED SUBSTATIONS**

Sr. No.	Name of Division	Name of S/s
1	EHV (O&M) Division Kalwa	220 kV Mahape
2		220 kV Kamba
3		220 kV Temghar
4		220KV BAPGAON
5		100 kV Bhivandi
6		100 kV Mumbra

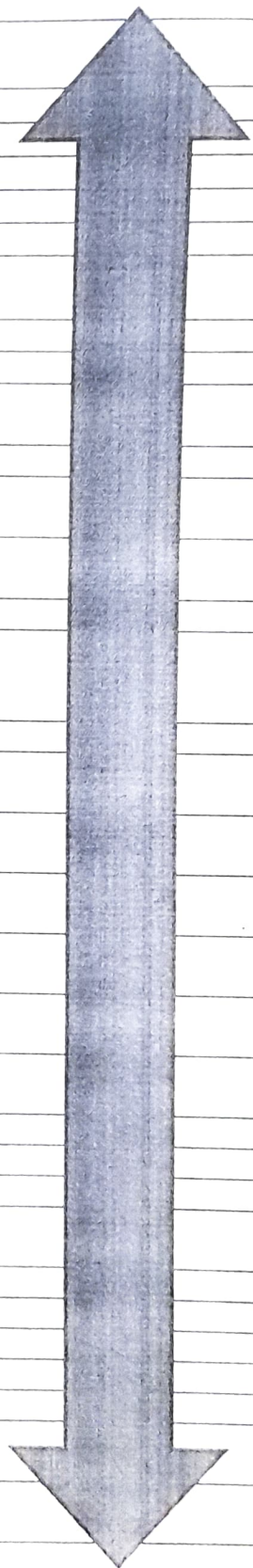


(iv)	Have managers and supervisors attended safety training?	
(v)	Are training records maintained for all safety training?	
44	<b>EMPLOYEE PARTICIPATION</b>	
(i)	Are workers consulted on the safety aspects?	
(ii)	Are employees encouraged to raise issues for consideration?	
(iii)	Is safety a standing agenda item?	
(iv)	Are employees encouraged to bring their concerns regarding safety to the attention of management?	
(v)	Are employees encouraged to bring their concerns regarding safety to the attention of management?	
(vi)	Interaction with S/S staff on Safety measures.	
	<b>Security Audit</b>	
1	Nos. of security Guards available in each shift.	
2	Nos. of Gunman available in each shift.	
3	Whether visitors registers available with security staff.	
4	Whether entry of visitors and signature taken in the visitors registers.	
5	Whether I-card is asked to visitor to show by the security guard	
6	Whether a pass is given to the visitor and entered in the visitor's Register	
7	The visitor register may be shown to the auditor at the time of security audit.	
8	Whether gate pass is seen and signed by the security personnel.	
9	If any vehicle is checked when coming inside and outside the s/s.	
10	Whether material in the vehicle is checked.	
11	Whether vehicle registration no. is entered in the visitors book and signature of driver is taken in the register.	
12	Whether security personnel doing patrolling work of the switch yard frequently or every hour.	
13	The condition of the fencing and boundary	
14	Latest theft occurred is the s/s – A brief note may be given	
15	Whether the s/s has been declared prohibited area by the competent authority	
16	Whether prohibited area board has been displayed on the gate.	
17	Whether security staffs are using uniforms.	
18	Whether Gunman is having valid license of the gun and competent to fire in any eventuality	
19	Whether Security staff are doing duty tactfully and keeps alert all the time	
20	Whether they are sleeping in the night :	
21	Whether they are doing 8 hours duty generally.	
22	Whether CC TV has been provided -	
23	Whether CC TV is in working condition-	
24	Whether metal detector provided-	
25	Whether metal detector is in working condition-	
26	Whether metal detector is utilized by the security Staff whenever a visitor enters into the premises	





(e)	SF-6 gas leakage in breaker-
(f)	Testing report of ten delta of transformer bushings/windings and CT PT units
(g)	Breaking timing of breaker-
(h)	Contact resistance of breaker -
(i)	Whether all the main relays are Normal
(j)	Whether settings of all the main relays are proper
20	Whether First Aid Box is available
21	Whether all the contents/ medicine in the First aid box are available within expiry date.
22	Whether adequate Fire extinguishers are available in the s/s -
23	Whether all the Fire extinguishers are having validity date.
24	Whether all the staff know the use of fire extinguishers and can operate in the event of fire.
24(i)	Whether smoke detector is provided in substation
25	Whether any hazardous area in the s/s i.e. grass, trees below the lines etc.
26	Latest accident occurred in the s/s a brief note with reason may be given.
27	Latest occurrence in the s/s, a brief note with reason.
28	Whether operating and maintenance staff using proper PPE(personal protective equipment) at the time operation and maintenance work.
29	The condition of each (PPE) :
30	Whether operating staff using hand gloves while operating the isolator, discharge rods etc.?
31	Whether operation and maintenance staff carrying aluminum ladder at knee high?
32	Whether O & M staff bearing safety shoes whenever go into the switch yard for work.
33	Whether O & M staff bearing helmet whenever went to switch yard for work.
34	Whether raincoat is provided to all O&M staff and use whenever required.
35	Whether cords of hand drill machine, insulation testers are having good insulation values and there is no leakage current.
36	Whether all the PPE are maintained satisfactorily.
37	Staff are well acquainted with the PPE
38	Is there any shortage of PPE?
39	Staff are using safety belt to work on high equipment line such as breaker, CT/PT, L.A. etc.
39(i)	Whether disaster management scheme is available and updated
40	Condition of House Keeping
41	Condition of garden.
42	Overall outlook of the s/s:
43	<b>TRAINING</b>
(i)	Is induction training provided for all employees including contractors Employees?
(ii)	Does initial training include a thorough review of hazardous and accidents associated with the job?
(iii)	Is training provided for the use of emergency equipment?



## **FIRE SAFETY AUDIT:**

### **ESCAPE ROUTES**

- 1) Are you familiar with all your escape routes and –Are they clear?
- 2) Are all escape doors clear of obstructions?
- 3) Can all fire escape doors be opened immediately and easily?
- 4) Are all push bars and pads on emergency doors in good working order?
- 5) Are all External Emergency routes clear of obstructions?
- 6) Does all electronic release mechanism on fire doors work correctly?
- 7) Do all internal self closing devices work correctly?
- 8) Are fire seals and self closing devices in good condition?
- 9) Do all roller shutters provided for compartmentation work correctly?
- 10) Are all external escape stairs safe?
- 11) Has escape route compartmentation being effected by other works? (if Yes please Investigate)

### **Fire Detection and Warning Systems**

- 1) Is the indicator on the fire alarm panel showing “normal”
- 2) Do the manual call points work correctly?
- 3) Last tested on date \_\_\_\_\_ by \_\_\_\_\_ Is certificate of test available?
- 4) Do the automatic detectors operate correctly?
- 5) Have you tested the detectors every \_\_\_\_\_ weeks? (Remove battery operated detectors)
- 6) Did the alarm system work correctly when tested?
- 7) Last tested on date \_\_\_\_\_ by \_\_\_\_\_ Is certificate of test available?
- 8) Did your employees and others present hear the fire alarm?
- 9) Do all visual alarms work correctly?
- 10) Do all the electronically linked mechanisms operate correctly? – Magnetic door holders  
– Smoke / Fire curtains – Others

### **ESCAPE LIGHTING**

- 1) Escape Lighting
- 2) Are emergency light fittings and exit signs working and in good condition?
- 3) When tested did all the emergency lights work?  
Last tested on date \_\_\_\_\_ by \_\_\_\_\_  
Is certificate of test available?
- 4) Has the system been checked by a competent person?

**MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LTD  
EHV O&M CIRCLE KALWA**

**Schedule-B**

- I. Safety audit of EHV Substations and Major store mentioned in the list which includes
  1. Electrical & equipment Safety audit.
  2. Fire Safety audit.
  3. Security Audit
  4. Interaction with staff & important tips to all staff present during audit.
  
- II. Submission of report as per standard check list comprising of recommendation, deficiencies etc.



**Executive Engineer,  
EHV O&M Dn., Kalwa.**