

#### **TENDER ID: MUM20240602**

#### PREMISES & ESTATE DEPARTMENT, LHO MUMBAI METRO

3<sup>RD</sup> FLOOR, SYNERGY BUILDING, G- BLOCK, BANDRA KURLA COMPLEX, MUMBAI-400 051 <u>022-26445665/5645</u>

agmpe.lhomum@sbi.co.in

#### **INVITES APPLICATIONS FOR**

# EMPANELLMENT OF ELECTRICAL SAFETY AUDITORS FOR BRANCHES/ OFFICES UNDER CONTROL OF SBI LHO MUMBAI METRO

State Bank of India, Premises & Estate Department, Local Head Office- Mumbai Metro, Bank Street, Koti, Hyderabad - 500 095, invites applications for empanelment of Electrical Safety Auditors in prescribed format for SBI, Mumbai Metro Circle.

	_ , , , , , ,	4) 144 11		
1)	Empanelment application form	, .	oi.co.in under "SBI in th	e News" link
	available for download from the	"Empanelment of		
	websites:	2) "https://etende		
2)	Availability for download from	From 28.06.2024	to 19.07.2024	
	the above website			
3)	Last date and time for	19.07.2024 by	3.00 P.M at our o	nline portal
	submission of online	https://etender.s	hi/SBI/	-
	applications in e-tender portal	rittpo://otoridorio	<u>811</u>	
4)	Date and Time of opening of	19.07.2024 at 3.3	0 P M	
'/	online applications:	1010112021 41 010	• · · · · · · · · · · · · · · · · · · ·	
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3)	For any queries or support in connection with the online	e-Procurement te	chnologies Limited, Ahmed	Japau.
		Far a Tandar C	innert for Diddore	
	, ,	ror e-Tender St	upport for Bidders	
		F	T	
	procurement solutions agency	Dinesh	Dinesh.bagresha@eptl.in	9510812960
		Bagresha	<u> </u>	3310012300
				9081000427
		Nandan Valera	Nandan.v@eptl.in	
		Khushboo	khushboo.mehta@eptl.in	9510813528
		Mehta	Middiboo.mentagecpti.m	3310013320
		Pooja Shah	Pooja.shah@eptl.in	9328931942
		Dinesh		0.5.1.00.1.00.6.5
		Bagresha	Dinesh.bagresha@eptl.in	9510812960
		246, 63114		
			nature Certificate (DSC)	) Registration
		<u>Verification / Pr</u>	ofile Approval etc.,:	
		Sonu Tank	Sonu@abcprocure.com	63532 17080
		=		

		Satabdi Dey	Satabdi@abcprocure.c om	90990 90830
		For Escalations	info@abcprocure.com	-
6)	SBI reserves the right to accept or Thereof, even after opening and no		-	
7)		022-26445665/564 gmpe.lhomum@s		
8)	Applicant must have its office in M application	umbai. Proof of off	ice address must be enclo	sed with

- 9. The intending applicants are advised to submit the empanelment documents strictly in the attached formats only through online portal "<a href="https://etender.sbi"/">https://etender.sbi</a>" and scanned copies (in PDF format only) to be attached where ever it is specified. The information required should be filled/ typed in each and every column and rows of the Formats. The applications received with "partly filled formats" not containing desired information in each and every columns/ points/row of various annexures and where they have written "enclosed/yes/submitted/uploaded etc.," instead of filling the numerical/required data shall be treated as INCOMPLETE and such applications shall be summarily rejected without any reference to the applicant and at the applicant's risk and responsibility.
- 10. The applicant should enter/ fill the detailed data in the given application form in online form. Do not mention enclosed/ yes/ no/ submitted, etc. The applicant should sign and stamp each page of the application & annexure thereby and upload in the https://etender.sbi.
- 11. Do not send any hard copies to the office mentioned above.
- 12. Applicant must have its office in Mumbai. Proof of office address must be enclosed with application
- 13. <u>Definition of similar works</u>: All qualitative Electrical Audit of specified magnitude for Central Government Department / State –Govt Dept/ Semi Govt dept/ PSU / MNC'S which are acceptable to Bank.
- 14. The applicant/firm should not be blacklisted or included in negative list or terminated of their services in the past by any scheduled Bank / PSU /Corporate body / Govt. body. No partner / proprietor of the applicant should have been a director / Partner / Proprietor in an entity that been blacklisted or included in negative list in the past by any scheduled Bank/PSU/Corporate body/ Govt. body. An undertaking / Certificate to this effect should be submitted in the application. If the Bank finds the undertaking / Certificate provided by the applicant to be false/forged at any time, including during the term of the empanelment (If empanelled), the applicant will be immediately disqualified / terminated by the Bank.

The Asst. General Manager (P&E)
State Bank of India
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# ELIGIBILITY CRITERIA (PLEASE FILL THE DATA IN ANNEXURE-"A")

S. No.	Minimum Pre-qualification Criteria for Electrical Safety Auditors	Documents to be Uploaded in the portal
1)	Electrical Safety Auditors should have full time graduation degree in Electrical Engineering (B.E or B.tech or Bsc(Engineering) with Electrical & Electronics Engineering/Electrical Engineering/power systems Engineering/Electrical power Engineering) with minimum three (3) years of relevant experience (as on 31.03.2024) in Electrical installations and safety related work.  'or'  Should have full supervising license from concerned licensing authority of the state or central govt. with min 05 years experience in electrical installations and safety related work.  'or'  Retired electrical Engineer (must be less than 65 years old) from SBI Group, PSUs, Central and state Govts, employed as electrical engineers who dealt electrical installations and safety related work and not banned from re-employment.	<ul> <li>i. Copy of the Graduation certificate attested by Gazette Officer.</li> <li>ii. Copy of work order &amp; work completion certificate.</li> <li>iii. Copy of Electrical supervising license shall be valid as on date of last date of submission.</li> </ul>
2)	The Electrical auditor must have certified Energy Auditor by Bureau of Energy Efficient, Govt. of India	Copy of certificate to be attached.
3)	Applicants shall have an office in Mumbai / Thane / Navi Mumbai. Empanelment letter will be issued after submitting the valid proof of office establishment in Mumbai / Thane / Navi Mumbai	Copy of the address proof
4)	The List of technical staff with qualification and relevant experience shall be Uploaded.	Copy of proof
5)	Should have Valid GST No	Copy of proof

#### **OTHER MANDATORY CONDITIONS:**

- i) The firm should be well established in Mumbai Region for a minimum period of 3 years as on 31.03.2024
- ii) The Electrical Safety Auditor should have valid "Energy Auditor" Certification from the Competent Government Authority issued in the name of Proprietor/ Partner/Director/one of their Employee(who conducts the Audits at our Branches/offices) of applied firm and should Upload photocopy thereof for verification.
  - Agencies with valid Energy Auditor from other States applying for this empanelment should obtain valid local address proof for their Office/ Branch Office before applying for this empanelment.
  - The Auditor who audits the Branches/offices should be an authorized supervising license holder.

#### iii) All the existing empanelled Auditors need to apply afresh.

- iv) Applicants shall have an office / Branch Office in Mumbai/ Thane/ Navi Mumbai. Empanelment letter will be issued after uploading the valid proof of office establishment.
- v) Applicants shall upload documentary proof of all credentials to support experience; turnover, qualifications etc. and applications without required credentials shall summarily be rejected.
- vi) The applicants should have valid **PAN**, **GST** numbers & **Digital Signature Certificate of Class-3** in the firm name or proprietor, to enable the firms for participation in the online procurement/e-tendering.

VII) The prospective agencies for electrical safety audit are not eligible for Electrical works and vice versa. If any agency applies in both categories (Electrical Safety Auditors and Electrical Contracts), Bank will have right to allot anyone category only at Banks discretion.

The applicant/firm should not be blacklisted or included in negative list or terminated of their services in the past by any scheduled Bank / PSU /Corporate body / Govt. body. No partner / proprietor of the applicant should have been a director / Partner / Proprietor in an entity that been blacklisted or included in negative list in the past by any scheduled bank/PSU/Corporate body/ Govt. body. An undertaking / Certificate to this effect (Annexure-'C') on companies' letter head should be UPLOADED along with the application. If the bank finds the undertaking / Certificate provided by the applicant to be false/forged at any time, including during the term of the empanelment (If empanelled), the applicant will be immediately disqualified / terminated by the bank.

#### **GENERAL TERMS & CONDITIONS:**

- 1. For assessing the Annual Turnover of the last 3 years, contractor must upload valid documents viz certificate from registered CA, copy of Income Tax Return, copies of IT assessment order, Profit & Loss Account and Audited Balance Sheet for the last 3 years. (i.e, FY2021-22,22-23.23-24)
- 2. The intending applicants are categorically advised to upload the empanelment documents strictly in the attached formats only through online portal "<a href="https://etender.sbi"/">https://etender.sbi</a> and scanned copies (in PDF format only) to be uploaded where ever it is specified. The information required should be filled / typed in each and every column and rows of the Formats.
  - The applications received with "partly filled formats" not containing desired information in each and every columns/ points/row of various annexures and where they have written "Uploaded/YES/NO/Submitted etc.," instead of filling the numerical/required data shall be treated as INCOMPLETE and such applications shall be summarily rejected without any reference to the applicant and at the applicant's risk and responsibility.
- 3. The prequalification criteria mentioned above are only provisional. Thus, the empanelment of Auditors shall be considered by the Bank purely on merits, performance of the contractor in timely execution of the project with quality, feedback / confidential reports of the firms/applicant received from other employers etc. Hence, merely fulfilling the prescribed minimum prequalification criteria shall not entitle the contractor for their empanelment with the Bank and no claims in this regard will be entertained.
- 4. The Bank reserves its right to empanel contractor as per its needs. The empanelment of Auditors shall be considered on merits within the sole discretion of the Bank and cannot be claimed as right by the applicant and no correspondence shall be entertained by the Bank in this regard.
- 5. Canvassing in any form including bringing influence from any person/ agency/ Officials/ authorities shall lead to disqualification of the firm in the empanelment exercise.
- 6. The Bank reserves the right to accept or reject any or all the applications without assigning any reason thereof and no correspondence will be entertained in this regard.
- 7. Empanelment does not mean allotment of works/tenders.
- 8. The Bank may choose to carry out physical inspection of works mentioned by the applicants in their application forms, in addition to calling for confidential reports from the respective employer/client/department to ascertain their capability and quality of works.
- 9. The performance of all the empanelled Auditors shall be reviewed by the Bank periodically and the Auditors with unsatisfactory performance and also those who do not respond to tender enquiries of the SBI for a period of <u>6 months</u>, disciplinary action shall be initiated as per Banks norms, without informing any valid reasons and no correspondence will be entertained in this regard.

#### EMPANELLMENT OF ELECTRICAL SAFETY AUDITORS

- 10. The selected Auditors shall be bound to make payment to their workmen through their Bank account and preferably to have their Bank account in State Bank of India branches. If the contractor do not have an account with SBI, they may open a Bank account with SBI for easiness of transactions.
- 11. Selected applicants will be intimated of their empanelment. The panel will be in force for three years or new empanelment whichever is later, subject to review at regular intervals.
- 12. All the applicants should be equipped with necessary infrastructure in their established Office with regards to measuring instruments, tools, staff strength, computer, required software, etc.
- 13. The eligible and interested parties shall download prescribed application form and other details from our website: "https://sbi.co.in/web/sbi-in-the-news/empanelment-of-vendors"
  - Submission of online application at following website: "https://etender.sbi".
- 14. Corrigendum/amendment, if any would be hosted on the website only. Hence, prospective applicants are advised to visit website regularly for the above purpose.

Bank reserves right to reject any or all applications without assigning reasons thereof.

**Assistant General Manager (P&E)** 

## **ANNEXURE "A"**

# EXPERIENCE OF AUDITORS (AS ON 31.03.2024)

Please furnish separate sheet for each Auditor; scan and upload in a single PDF file.

Sno	Please fill relevant	Details		
	category only	=		
		Name of the Auditor		
1	Electrical Safety Auditors should have	Designation of the Auditor		
	full time graduation degree in Electrical	Qualification	BE/B.Tech/BSC (Engg)/other	
	Engineering (B.E or B.tech or	Stream:		
	Bsc(Engineering) with Electrical &	Electrical & Electronics Engineering/		
	Electronics	Electrical Engineering/		
	Engineering/Electrical Engineering/power systems	Power systems Engineering/ Electrical power Engineering/ other		
	Engineering/Electrical	Name of college/university		
	power Engineering)	Year of passing		
	with minimum three	Certificate Details	Certificate no:	
	(3) years of relevant experience (as on		Passing Grade:	
	31.03.2024) in	Experience details of the	Total Experience in years	
	Electrical safety	Auditor:	(minimum 3 years):years	
	auditing work.	(in Dransintar/	Brief description of experience of the Auditor:	
		{ie.,Proprietor/ Partner/Director/one of their	the Additor.	
		Employee(who conducts the		
		Audits at our		
		Branches/offices)} The Electrical auditor must	Certificate No	
		have certified Energy auditor		
		by Bureau of Energy	Validity from:	
		Efficient, Govt. of India		
2	Should have full	Name of the Auditor		
_	supervising license			
	from concerned	Qualification		
	licensing authority of	Supervising License details	License No:	
	the state or central govt. with min 05		Valid up to:	
	years experience in	Experience details of the	Issued by: (i) Name of the Auditor:	
	electrical installations and safety related	Auditor:		
	work.	{ie.,Proprietor/	(ii) Designation of the person in the firm:	
		Partner/Director/one of their		
		Employee(who conducts the Audits at our	(iii) Total Experience in years:	
		Audits at our Branches/offices)}	(iv) Brief description of experience	
			(iv) Brief description of experience	

## EMPANELLMENT OF ELECTRICAL SAFETY AUDITORS

			of the Auditor:
		The Electrical auditor must have certified Energy auditor by Bureau of Energy	Certificate No Validity from:
		Efficient, Govt. of India	validity from:
3	Retired electrical Engineer (must be	Name of the Auditor  Qualification	
	less than 65 years	Qualification	
	old) from the PSU/ Central/state Govts,	Retired from PSU/Central/ state Govt.	
	employed as electrical engineers	(Please mention name of the company)	
	who dealt electrical installations and	Age of the Auditor (furnish the proof)	
	safety related work and not banned from	Experience details of the Auditor:	(i) Total Experience in years:
	re-employment.		(ii) Brief description of experience of the Auditor:
		The Electrical auditor must have certified Energy auditor	Certificate No
		by Bureau of Energy Efficient, Govt. of India	Validity from:

## **ANNEXURE "B"**

### **BIO-DATA OF THE PROPRIETORS/ PARTNERS / ASSOCIATES / DIRECTORS**

(Use one sheet per official)

1.	Name	
2.	Date of Birth	
3.	Professional Qualifications	
4.	Professional Experience	
5.	Professional Affiliation	
6.	Associated with the firm since	
7.	Membership in	•

Note: Please upload relevant copies of documents.

#### ANNEXURE - "C"

#### **DECLARATION**

- 1. All the information furnished by me/us here above is correct to the best of my knowledge and belief.
- 2. I/We have no objection if enquiries are made about the work listed by me/ us in the accompanying sheets / annexure.
- 3. I/We agree that the decision of Bank in selection of contractors will be final and binding to
- 4. I/We hereby confirm that our firm/agency/company has not been disqualified / debarred / blacklisted by any Governments, Semi-governments, PSUs and Banks including any of the Offices/Branch of State Bank of India Pan India during last 7 year from the date of application.
- 5. The details of the company are detailed below:
- 6. I hereby confirm that all information, particulars, copies of certificates & testimonials in connection with my empanelment are correct and genuine. I am, therefore, liable to face appropriate actions as deemed fit by the Bank in the event of any of the information, particulars, copies of certificates and testimonials are not found correct and genuine.

Place:	Signature of the contractor with sea
Date:	

# APPLICATION FORM TO BE FILLED IN ONLINE PORTAL (i.e, https://etender.sbi)

Sno	Details	Please fill the data	Type of	<u>Attachment</u>
		(Don't mention as Enclosed/YES/NO/ Submitted etc.,)	Document to be Uploaded	
1)	Name of the Firm			
2)	Constitution of the Firm (Proprietorship / Partnership / Company)			
3)	Date, month & year of Establishment of the firm		Shop Establishment/ companies registration / partnership deed	0
4)	GST Number		GST	0
5)	PAN Number		PAN	
6)	Contact person name			
7)	Mobile Numbers & Telephone numbers			
8)	Email ID			
9)	Registered Office Address			
10)	Communication Address			
11)	Local Address in Mumbai/ Thane/ Navi Mumbai		Enclose valid proof	0
12)	Name of Partners /Associates /Directors.			
13)	Bio-data of Partners /Associates /Directors. Bio-data to be given in the Uploaded format		Annexure-B	0
14)	Details of major works of similar nature completed during last 3 years in PSU/Banks/Govt. Organizations / Software firms. Details to be given in Uploaded format		Annexure C	0
15)	Name and value of other similar major works on hand in PSU / Banks / Govt. Organizations / Software firms.			
16)	List of Technical Personnel employed with profession experience and qualification.		Enclose the details on company letter	Û
17)	List of other Personnel employed.		head	
18)	List of equipments/relevant tools owned by the Firm for conducting Audit works.			

19)	Banker's Name			
20)	List of registration with other		Enclose the	Nı
20)	Organizations		details on	0
	Organizations		company letter	
			head	
21)	supervising license from concerned	License No:	Enclose Copy of	Nı
21)	licensing authority of the State or	Valid till:	License	U
	Central Govt.	Issued by:	LICELISE	
22)	Declaration (Annexure-D)	100000 Dy.	Annexure-D	
,	, ,		7 IIII CAGIC D	U
23)	Turnover			
	FY 2023-24	₹	Certificate issued by	∩ı .
	1 1 2020 2 1	`	CA/ Profit & Loss	
			statement	0
	FY 2022-23	₹	Certificate issued by	0
			CA/ Profit & Loss statement	9
			Statement	
	FY 2021-22	₹	Certificate issued by	0
			CA/ Profit & Loss	U
24)	WORK-1		statement	
<u> </u>	Work Order Details for Work-1			Ωı
	Name of the Work			U
	Work Order No			
	Work Order Mo Work Order Amount		Work order	
	Work Order Amount Work Order Date		(work-1)	
	Work Order Date Work Completion Details for Work-1		(WOIK 1)	Ωı
	Work Completion Value			U
	Work Completion Value  Work Completion Date			
	Client Name			
	Client Address		Completion	
	Client Mobile Number and landline		Certificate	
	Client official email ID:		(work-1)	
25	WORK-2		, ,	
20	Work Order Details for Work-2		Work order	N
	Name of the Work		(work-2)	
	Work Order No		(11011(2)	
	Work Order Amount			
	Work Order Date			
	Work Completion Details for Work-2			N
	Work Completion Value			
	Work Completion Date			
	Client Name			
	Client Address		Completion	
	Client Mobile Number and landline		Certificate	
	Client official email ID:		(work-2)	
26	WORK-3			
	Work Order Details for Work-3			0
	Name of the Work			U
	Work Order No			
	Work Order Amount		Work order	
	Work Order Date		(work-3)	
	Work Completion Details for Work-3		, ,	N

### **EMPANELLMENT OF ELECTRICAL SAFETY AUDITORS**

	Work Completion Value		
	Work Completion Date		
	Client Name		
	Client Address		
	Client Mobile Number and landline	Completion	
	Client official email ID:	Certificate (work-3)	
27	WORK-4		
	Work Order Details for Work-4		0
	Name of the Work		U
	Work Order No	Work order	
	Work Order Amount	(work-4)	
	Work Order Date		
	Work Completion Details for Work-4		0
	Work Completion Value		U
	Work Completion Date		
	Client Name		
	Client Address		
	Client Mobile Number and landline	Completion	
	Client official email ID:	Certificate (work-4)	
28	WORK-5		
	Work Order Details for Work-5		N
1	Work Order Betaile for Work o		IIII
	Name of the Work		U
			U
	Name of the Work	Work order	U
	Name of the Work Work Order No	Work order (work-5)	U
	Name of the Work Work Order No Work Order Amount		
	Name of the Work Work Order No Work Order Amount Work Order Date		U
	Name of the Work Work Order No Work Order Amount Work Order Date Work Completion Details for Work-5		
	Name of the Work Work Order No Work Order Amount Work Order Date Work Completion Details for Work-5 Work Completion Value		
	Name of the Work  Work Order No  Work Order Amount  Work Order Date  Work Completion Details for Work-5  Work Completion Value  Work Completion Date	(work-5)	
	Name of the Work  Work Order No  Work Order Amount  Work Order Date  Work Completion Details for Work-5  Work Completion Value  Work Completion Date  Client Name	(work-5)  Completion	
	Name of the Work  Work Order No  Work Order Amount  Work Order Date  Work Completion Details for Work-5  Work Completion Value  Work Completion Date  Client Name  Client Address	(work-5)  Completion Certificate	
29	Name of the Work  Work Order No  Work Order Amount  Work Order Date  Work Completion Details for Work-5  Work Completion Value  Work Completion Date  Client Name  Client Address  Client Mobile Number and landline  Client official email ID:	Completion Certificate (work-5)	0
29	Name of the Work Work Order No Work Order Amount Work Order Date Work Completion Details for Work-5 Work Completion Value Work Completion Date Client Name Client Address Client Mobile Number and landline	(work-5)  Completion Certificate	
29	Name of the Work  Work Order No  Work Order Amount  Work Order Date  Work Completion Details for Work-5  Work Completion Value  Work Completion Date  Client Name  Client Address  Client Mobile Number and landline  Client official email ID:	Completion Certificate (work-5) Annexure -A and relevant	0
29	Name of the Work  Work Order No  Work Order Amount  Work Order Date  Work Completion Details for Work-5  Work Completion Value  Work Completion Date  Client Name  Client Address  Client Mobile Number and landline  Client official email ID:	Completion Certificate (work-5) Annexure –A and relevant documents	0

NOTE: Separate sheets, photographs, documents, etc. requirement to the proposed work in support of above can be uploaded.

#### A. SPECIAL TERMS AND CONDITIONS

### I. OBJECTIVE

The objective of conducting Electrical safety is to review the condition of the existing electrical installation and to recommend measures for further strengthening the system in order to eliminate/reduce the electrical/fire hazards and to improve the safety of the personnel. The audit shall mainly focus on:

- 1. Identifying the potential electrical/fire hazards
- 2. Boosting employee morale by providing safe working environment.
- 3. Smoothening the operation and maintenance of electrical installation.
- 4. Avoiding loss of properties, human life and costly equipment.
- 5. Ensuring the compliance with relevant codes and practice, statutory rules and regulations.
- 6. Establishing procedures and process of safe working in electrical installation.

#### II. INSTRUCTIONS

- 1. The work shall be considered as complete only after submission of hard copy of the Electrical Safety Audit Report (as per Bank's prescribed format) to the respective Branches/Offices & RBO's and submission of soft copy of the Electrical safety Audit report at P&E Department at LHO. The Electrical safety Audit report has to be entered in Bank's online portal by the respective Electrical Safety Auditors within the given time period.
- 2. The Fee quoted by the applicant for conducting the electrical safety audit should include all expenses for the satisfactory conduct of the electrical safety audit including transportation, lodging and TA / DA of their own representatives and Bank will not entertain any additional claim whatsoever in this respect.
- 3. The Safety Auditor must get prior permission from the concerned Branch Manager and RBO for conducting audit of the Branch / Office.
- 4. The Safety Auditor must interact with the concerned Branch Manager / In charge for obtaining data (electricity bill copy, AMC details of equipment, inspection report by statutory agencies etc.), problems/issues faced etc for conducting audit of the Branch.
- 5. The duration of electrical safety audit should be minimum 2 hrs. for small sized branches, 3 hrs for medium sized branches, 4 hrs. for Main / Big sized Branches and minimum 8 hrs for multistoried buildings with more than 3 main offices/branches and more than 3 floors.

- 6. While conducting the safety audit, the Electrical Safety Auditor and accompanying person/s should take all standard safety precautions such as safety shoes, safety gloves, proper tools and tackles etc for self protection and for the safe conduction of the audit. Bank will not be responsible for any electrical or other accidents happened to the auditor/s due to their negligence and non compliance to safety precautions.
- 7. The Safety Auditor shall submit the Progress report on weekly basis to the P&E Department at LHO & Concerned RBO. The work should be completed in all aspects within the given time period.
- 8. The audit report must consist of all connected equipment details as per Annexure-I & II, Layout drawing (Not To Scale) of the branch premises showing the bifurcation of the areas such as BM cabin, banking hall, UPS Room, Locker Room, Strong Room, Dining hall etc along with location of major electrical equipment, MSB, DBs, UPS, ATM etc, Single Line Diagram (SLD) of existing electrical system (from Energy meter to sub DBs such as LDB, PDB etc. and the position of critical faults which need immediate attention / rectification should be clearly marked in the SLD.
- 9. Inspection/recommendation report of existing electrical system of the Branches/Offices and connected ATM with your observations and remarks.
- 10. To obtain photo copy of last three months electricity bill of the branch/office/ATM and submit the same along with final audit report including marking any discrepancy, if any.
- 11. The Safety Auditor have to submit the "PROFORMA OF ELECTRICAL AUDIT" enclosed herewith as Annexure-I & Annexure-II duly completed and signed by Auditor and concerned Branch Manager / Administrative Officer.
- 12. The Safety Auditor is required to submit the Final Audit Report along with required data in Excel format contains all Equipment details, highlighting of Risk categories, softcopy of report etc within the given time period after issue of the work order.
- 13. The Safety Auditor has to check the earth resistance, checking the terminals for any loose connection/over heating, checking of proper rating of protective devices, checking of all distribution boards etc.
- 14. The Safety Auditor has to check and submit the details of all the Electrical Installations/ UPS/DG SET/ AC ( Conventional/ Inverter/ VRF/ Ductable) / Lights (CFL/ LED) / APFC Panel connected in the Branch

- 15. The Auditor has arranged to enter Electrical Audit report of all branches / offices allotted to them on our online portal at LHO at no additional cost.
- 16. The Auditor should not alter this document as well as Audit report.
- 17. A copy of the handwritten report to be submitted to the Branch at the time of inspection and acknowledgement to be obtained from Branch Manager with sign and seal.

### III. SCOPE OF WORK FOR ELECTRICAL FIRE SAFETY AUDIT

- 1. Physical inspection of the SBI branches/Offices and attached ATMs with reference to applicable Indian standards, Indian Electricity Rules and other relevant codes of Practice & identifying electrical fire hazards (shocks, fires, etc.).
- 2. Calculation of actual Electrical Connected load at the Branch / Office and to report if it is less than sanctioned load by the DISCOM.
- 3. Whether APFC panels are in working condition and maintaining power factor within the required range.
- 4. Whether penalty is imposed in electricity bill on account of excess connected load or poor power factor and if yes, it should be clearly mentioned in the report.
- 5. Whether APFC panel needs to be installed for the Branch / Office.
- 6. Review of protection devices such as LBS/ACB/MCCB/MCB/ELCB system of the electrical installation and whether the performance is satisfactory or not Review of adequacy of Wires/Cable sizes based on actual load current measurements, insulation resistance, tightness of terminations.
- 7. Review of electrical accidents to identify root cause of the accidents, if happened any, review the EPM (Electrical Preventive Maintenance) program if any, in the branch to suggest recommendations as per applicable standards.
- 8. To evaluate the earthing system (installation and maintenance) in the plant based on IS 3043 and to suggest recommendations including the measurement of Earth resistance.
- 9. Opening and checking for any loose contacts at the mains switches, DB, Switch boards etc. Inspection of UPS and batteries for its adequacy in the capacity for the load requirement of the branch.
- 10. Reliability of the electrical distribution system with the equipment's like air conditioners, UPS's, Generators etc. Checking whether the AMC of these items are in place.
- 11. Evaluating whether the demand load is within the sanctioned load with proper load balancing.
- 12. Verification of the operation of ATM & UPS/System room Air conditioners with timer mechanism.

- 13. Report must consist of your Observations on account of the Electrical fire safety and various measures suggesting for the improvement of the safety existing systems.
- 14. The audit report must consist of all connected equipment details as per Annexure-l & II, Layout drawing (Not To Scale) of the branch premises showing the bifurcation of the areas such as BM cabin, banking hall, UPS Room, Locker Room, Strong Room, Dining hall etc along with location of major electrical equipment, MSB, DBs, UPS, ATM etc, Single Line Diagram (SLD) of existing electrical system (from Energy meter to sub DBs such as LDB, PDB etc. and the position of critical faults which need immediate attention / rectification should be clearly marked in the SLD.
- 15. Review of the Existing condition of the HT Transformer, Substation, Main panels, Load break switch, DG sets, elevators, UPS if any.
- 16. Auditor has to submit a copy of photo taken in front of the name of the Branch.
- 17. **Study of existing safety measures**, procedures and system for controlling electrical hazards being followed in the office with respect to statutory and regulatory requirements, electricity rules etc. and suggest for further measures in case of any gap.
- 18. Preparation of Lay out drawing and single line diagram (SLD) of Electrical Installation from HT panel to Floor panels / DBs, covering transformers, main LT panel, capacitor panel, DG set, UPS Panel, LDb, PDB etc. The SLD should indicate the ratings of the equipment, switch gears, cables (wherever possible) etc.

#### 19. Earth Resistance Testing

- I. The earth resistance testing shall be carried out to measure the earth resistance on all the earth pits and its compliance with respect to Indian Electricity Rules may be verified.
- II. The continuity of earth strip/conductor from the earth pit the earth terminal of the respective electrical equipment shall be checked and verified.
- 20. Identification of any unbalancing of loads. The unbalancing/overloading, if any, in the electrical installation viz. transformers, LT panels, Emergency panel, Floor Distribution Panels, Distribution Boards etc shall be identified with the help of measuring equipment.
- 21. **Identification of Hot Spots using thermal camera**: The hot spots, if any, in the electrical installation panels and distribution boards shall be identified with the help of thermal imaging/thermography.

- 22. **Checking Record of test reports** carried out by the OEMs or their authorized representatives for proper functioning of transformers, HT/LT switchgear and proper functioning of their protective relays, failsafe interlocking of Circuit breakers.
- 23. Physical inspection of the sources of power supply viz Transformers, substation equipment, DG set , UPS installations and associated power distribution electrical installations including power supply systems & wirings for server rooms, IT equipment etc shall be done with reference to applicable Indian standards, Indian Electricity Rules and other relevant codes of practice. Any leakage of oil in transformer, capacitor banks, and diesel/water/oil in DG sets, leakage of oil/refrigerant in AC plant, leakage of water in lift shaft, leakage of water over any electrical equipment etc to be checked.
- 24. Identification of Electrical hazards such as loose wire hanging, cables not dressed properly, broken switches, plugs and sockets etc. shall be done.
- 25. Checking of the protection devices in upstream and downstream switchgears and their settings to ensure that the same are in the desired graded manner as designed as per the requirements of existing standards including setting/adequacy of ELCB and their ratings for earth leakage protection.
- 26. Inspection of the Lightning protection system of the building and ensuring that lightning arrestors are connected to two isolated earth pits. These pits should not be connected to electrical system earth.
- 27. Checking of the provision of electrical shock treatment chart in Hindi and local language near electrical equipment and substation. Checking the record of the training provided to the electrical staff on electrical safety, shock treatment and to handle emergencies and artificial respiration.
- 28. Checking the log of electrical accidents maintained.
- 29. Checking of the provision of Danger sign Boards indicating the voltage at a prominent location of electrical installation.
- 30. Checking of the cable terminations at various panel and distribution boards to avoid phase and earth fault.
- 31. Checking of the provision of protective guards and belt covers for all the rotating electrical equipment.
- 32. Checking the provision of firefighting equipment and fire alarm system detectors near all the electrical installations. It is to be ensured that Fire buckets filled with

free flowing sand and DCP/CO2 fire extinguishers are provided near electrical substation and electrical panel locations.

- 33. Verifying provision of First Aid boxes and their periodic replacement of expired medicines.
- 34. To check the provision of insulated mats of ISI mark in front of all the electrical panels.
- 35. To check the provision of proper ventilation of substation, transformer rooms, electrical panel rooms and battery rooms etc.
- 36. In addition to above, checking for any shortfalls in the existing electrical systems which impact on human and fire safety.

#### IV. STATUTORY REQUIREMENTS:

Electrical Safety Audit (ESA) of the Building and Electrical Installations shall be carried out with reference to applicable Indian Standard, Indian Electricity Rules (IE) and other relevant codes of Practice to identify potential electrical hazards to prevent or minimize accidents. The Audit should be carried out using calibrated instruments and personal protective equipment during field visits for inspection and data collection.

During the Audit, the audit team should ensure that in addition to other provisions of the IE rules as per IE Act, the provisions contained in Para 29 of the IE act specifically listed as under are complied with:

**Para 29:-** Construction, installation, protection, operation and maintenance of electric Supply lines and apparatus-

- All electric supply lines and apparatus shall be of sufficient ratings for power, insulation and estimated fault current and of sufficient mechanical strength, for the duty which they may be required to perform under the environmental conditions of installation, and shall be constructed, installed, protected, worked and maintained in such a manner as to ensure safety of 2 [human beings, animals and property].
- 2. Save as otherwise provided in these rules, the relevant code of practice of the 3[Bureau of Indian Standards] 4[including National Electrical Code] if any may be followed to carry out the purposes of this rule and in the event of any inconsistency, the provision of these rules shall prevail.

- 3. The material and apparatus used shall conform to the relevant specifications of the 3[Bureau of Indian Standards] where such specifications have already been laid down.
  - a) Subs. by GSR 358, dt. 30.4.1987, w.e.f. 9.5.1987.
  - b) Subs. by GSR 45, dt. 1.1.1993, w.e.f. 23.1.1993.
  - c) Subs. by GR. 466, dt. 18.7.1991, w.e.f. 17.8.1991.

#### **Relevant Codes of Practices:**

Some of the relevant codes of practice are enumerated below:

- a. Indian Electricity Rules, 1956 (as amended up to date)
- b. IS: 5216 (Part-I) Recommendations on Safety Procedures and practices in Electrical Work.
- c. IS: 5216 (Part-II) Recommendations on Safety Procedures and practices in Electrical Work.
- d. IS: 1646-1961 Code of Practice for fire safety (General): Electrical works
- e. IS: 4770: 1968 Specifications for Rubber gloves for Electrical Purpose
- f. IS: 2309 Protection of Buildings and Allied Structures against Lighting
- g. Gazette Notification dated 20th September 2010 issued by Central Electricity Authority regarding Regulations for measures relating to safety and Electric Supply.
- h. National Building Code, 2005 (as amended up to date)
- i. Any other local guidelines / bylaws as applicable.

#### **Details of Electrical Installations in Bank's office building:**

Substation, Transformers, Switchgear, Electrical Panels, Capacitor Panels, Distribution Board, Distribution circuits, Electrical wiring consisting of power, lighting and fan circuits including earthing, Building and Equipment Earthing, Various types of motors, DG set, UPS, Central Air-conditioning Plant, Room Air conditioner, Air Handling Units, Lifts, Lightening Arrester, Kitchen Equipment, Water Pumps, Servers, switches, PCs, printers and other IT equipment and any other equipment and gadgets connected to power supply prone to fire hazards

#### **Equipment/measuring instruments**

All the equipment/instruments required for carrying out the Electrical Safety Audit will have to be arranged by the firm without any extra payment to the Bank. The firm should have the following minimum equipment/instruments for Electrical Safety Audit:

- ➤ Three—phase Power analyzer
- Thermography camera
- Earth tester
- Megger
- ➤ Any other equipment/instrument

Please note that the Bank will not provide any kind of assistance in the form of men/material and the firm will have to make their own arrangement for all assistance.

#### Work at site

The firm may visit the premises and ascertain site conditions. The work has to be carried out in a working office building without causing inconvenience to the normal working of the Bank. No power shut down will be provided during office hours. Power shut down required for the work will be given on holidays and after office hours at the discretion of the Bank. No extra claims will be admissible later on these grounds.

The firm should deploy only qualified and experienced Engineers/Technician having requisite licenses to carry out such works. Utmost care shall be exercised by the firm in carrying out the work to ensure that no damage is caused to persons and properties. The Bank will not be liable for any injury or damage to persons and any such happening will be entirely the responsibility of the firm. The persons carrying out the Electrical safety audit shall also use all the required Personnel protective equipment for their own protection.

### **Submission of Report**

After completion of the audit, post audit review meeting shall be held with the Bank's engineers detailing about their observations. The audit report shall include the status of the entire electrical installation observed by the audit team during the safety audit. The report shall also include the recommendations of the audit team for improvement in the electrical installations.