

 <p><b>बैंक ऑफ महाराष्ट्र</b> Bank of Maharashtra भारत सरकार का उद्यम एक परिवार एक बैंक</p>	<p><b>अंचल कार्यालय इंदौर</b> Zonal office Indore टेलीफोन/TELE 2435924-0731 : ई-मेल/e-mail : <a href="mailto:ritc_ind@mahabank.co.in">ritc_ind@mahabank.co.in</a> / <a href="mailto:gad_ind@mahabank.co.in">gad_ind@mahabank.co.in</a> <b>प्रधान कार्यालय:</b> लोकमंगल, 1501, शिवाजीनगर, पुणे-5 <b>Head Office:</b> LOKMANGAL,1501,SHIVAJINAGAR,PUNE-5</p>	  <p>जनगणना से जन कल्याण</p>
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AX40/Indore Zone/Electrical and Energy Audit/2020-21

Date – 16/06/2020

**Conduct of Electrical Cum Energy and Safety Audit of 42 branches of Indore Zone, Zonal Office Indore and Currency Chest Indore.**

1. Bank of Maharashtra, Indore Zone intends to conduct Electrical Cum Energy and Safety Audit of 42 branches of Indore Zone, Zonal Office Indore and Currency Chest Indore.

For this purpose we intend to solicit Technical and Financial bids from prospective Consultants / firms on or before **04.07.2020 by 1700 hrs.**

2. Kindly mention contact numbers & email ids on the envelope.

3. The RFP documents can be downloaded from Bank's website [www.bankofmaharashtra.in](http://www.bankofmaharashtra.in). RFPs downloaded from website shall accompany the Pay Order / Demand Draft along with the Technical Bid.

<b>Date of Commencement</b>	<b>18.06.2020</b>
<b>Last date for submission of tender</b>	<b>04.07.2020 up to 05.00 P.M.</b>
<b>Opening of Technical Bid</b>	<b>09.07.2020 at 11:00 A.M</b>
<b>Opening of Financial Bid</b>	<b>09.07.2020 at 1:00 P.M</b>
<b>Cost of Tender</b>	<b>Rs.500.00</b>

4. No brokers/intermediaries shall be entertained. The Bank reserves the right to reject any / all applications without assigning any reasons whatsoever.

5. In case prospective service providers are fulfilling the required specifications, they may submit their Technical and Financial Bids (strictly in the format enclosed) in two separate sealed envelopes so as to reach us latest on **04.07.2020 by 1700 hrs.** The envelope should be marked as **“TECHNICAL BID / FINANCIAL BID for Electrical Cum Energy and Safety Audit for Indore Zone Branches and Office”** on its top and addressed to :- **Bank of Maharashtra, INDORE ZONAL OFFICE, 688, MG Road, 1st Floor, Maharashtra Sahitya Sabha Bhawan, Indore, MP - 452007”**

6. All conditions and parameters will be evaluated with reference to the firms submitting the tenders. The Bank reserves the right to reject any / all applications without assigning any reason whatsoever and also to confirm authenticity of the facts submitted by the bidders.

Zonal Manager,  
Bank of Maharashtra,  
Zonal Office, Indore

 <p><b>बैंक ऑफ महाराष्ट्र</b> Bank of Maharashtra भारत सरकार का उद्यम एक परिवार एक बैंक</p>	<p><b>अंचल कार्यालय इंदौर</b> Zonal office Indore टेलीफोन/TELE 2435924-0731 : ई-मेल/e-mail : <a href="mailto:ritc_ind@mahabank.co.in">ritc_ind@mahabank.co.in</a> / <a href="mailto:gad_ind@mahabank.co.in">gad_ind@mahabank.co.in</a></p>	 <p>2021 जनमण्डला से जन कल्याण</p>	
<p><b>प्रधान कार्यालय:</b> लोकमंगल, 1501, शिवाजीनगर, पुणे-5 <b>Head Office:</b> LOKMANGAL,1501,SHIVAJINAGAR,PUNE-5</p>			

## Electrical Cum Energy and Safety Audit of Indore Zone Branches (42), Zonal Office and Currency Chest

Sr.No	DESCRIPTION	PARTICULARS
1	Ref. Number	AX40/Indore Zone/Electrical and Energy Audit/2020-21
2	Address for Communication	Bank of Maharashtra, Zonal Office, 688 MG Road , First Floor Maharashtra Sahitya Sabha Bhawan Indore, MP -452007
3	Contact Person	Yashvardhan Tejwal / Dhananjay Raktale – 0731-2435924 ext 207 / 200
4	Email ID	<a href="mailto:ritc_ind@mahabank.co.in">ritc_ind@mahabank.co.in</a> / <a href="mailto:gad_ind@mahabank.co.in">gad_ind@mahabank.co.in</a>

Bank of Maharashtra, Zonal office Indore, invites tender from Electrical and Energy auditors to conduct Electrical Cum Energy and Safety Audit for 42 branches of Indore Zone as per attached list, Zonal Office Indore and Currency Chest Indore.

<b>Date of Commencement</b>	<b>18.06.2020</b>
<b>Last date for submission of tender</b>	<b>04.07.2020 up to 05.00 P.M.</b>
<b>Opening of Technical Bid</b>	<b>09.07.2020 at 11:00 A.M</b>
<b>Opening of Financial Bid</b>	<b>09.07.2020 at 1:00 P.M</b>
<b>Cost of Tender</b>	<b>Rs.500.00</b>

### 1. SCOPE OF WORK

Bank of Maharashtra, INDORE ZONE intends to conduct Electrical Cum Energy and Safety Audit of 42 branches of Indore Zone covering Districts – Indore, Dewas, Ratlam, Burhanpur, Dhar, Ujjain, Khandwa, Khargone, & Jhabua as per attached list, Zonal Office Indore and Currency Chest Indore. Branches list, Guidelines & Format for the Audit is attached with tender document.

### 2. TERMS OF EXECUTION OF WORK

The services would begin within a period of 5 days after acceptance of the work order issued by the Bank and shall be completed within 40 days. Any delay in services will attract penalty of 1% of the contract value per week subject to maximum of 4% of the contract value. Bank reserves its right to recover these amounts by any mode such as adjusting from any payments to be made by the Bank to the service provider. Part of week will be treated as a week for this purpose. However, the Bank may condone the liquidity damages for delay of less than a week. The decision to further continue/ discontinue the contract with the service provider lies fully with the Bank.

### Eligibility Criteria:-

**1. Government certified auditor who are registered with Bureau of Energy Efficiency with capable team having minimum educational qualification of Electrical Engineering degree & five year experience of electrical audit work.**

**2. The firm must be a registered company or firm in India and should have been in the business in India from the last 3 years.**

**General Terms and Condition:-**

1. A non-Refundable Processing Fee of Rs. 500/- through DD/Pay order in favor of Bank of Maharashtra at Indore must be submitted along the application form in Technical Bid.
2. The vendors should submit all the relevant supporting documents as a part of Submission. All such documents should be sealed and signed by the Authorized Signatory.
3. If, any information furnished by the vendors is found incorrect at a later date, he shall be liable to be debarred from participating in any of the bidding process of the bank. The bank reserves the right to verify the particulars furnished by the applicant independently.
4. Response to tender should be submitted in Sealed Envelope. The sealed envelope should be super scribe “ **Tender for Electrical Cum Energy and Safety Audit for Indore Zone Branches and Office** ” and addressed to :- **Bank of Maharashtra, INDORE ZONAL OFFICE, 688, MG Road, 1st Floor, Maharashtra Sahitya Sabha Bhawan, Indore, MP - 452007**
5. The last date of submission is **04.07.2020 up to 05.00 P.M.** No tender will be accepted after this date. In case the designated day gets declared as a public holiday, the period for submission of tender may be extended to the next working day.
6. The Bank reserves the right to scrap the order at any time, without assigning any reason. The Bank's decision in this regard shall be binding and final. Any decision in this regard by Bank shall be final, conclusive and binding on the firms.
7. If there will be any electric shut down required in branch or office for doing electric audit then branch may give a suitable date/time for same (as per convenient ) and may call /visit on holiday or Sunday for complete the job. No extra payment/ charge will be entertained by Bank.
8. The Company/Firm shall be responsible for all injuries to the work or workmen, to persons, animals or things and for all damages to the structural and / or decorative part of property which may arise from the operations or neglect of himself or their, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out the electrical audit of branch/office. Insurance is compulsory and must be in effect during electric audit.

**Validity of offer**

The price finalized shall remain valid for a period of one year from the date of such finalization.

**Opening of offers**

The technical bids will be opened on **09.07.2020 at 11:00 A.M** in the presence of the service providers / their authorized representatives accompanied with valid ID proof and authority letter. No separate intimation will be given in this regard to the Service providers for deputing their representatives. The Price Bids / Commercial Offers will also be opened on **09.07.2020 at 1:00 P.M** as stipulated above irrespective of the number of offers or their representatives present.

**No commitment to accept lowest or any tender**

The Bank shall be under no obligation to accept the lowest or any other offer received in response to this tender and shall be entitled to reject any or all offers without assigning any reasons whatsoever.

### **Splitting of order**

The Bank reserves its right for splitting the order between the two service providers. The splitting of the order, provided the L-2 service provider agrees to match the prices quoted by L-1 service provider and agrees for all the terms and conditions. Or The Bank reserves its right to give full order to L-1.

### **Right to alter quantities**

The Bank will be free to either reduce or increase the number of branches for audit on the same terms and conditions. The Bank also reserves the right to place further/repeat order on same terms and conditions within a period of 12 months.

### **Reports Submission**

Vendor should submit the audit report of first branch immediately after visit for checking purpose, remaining branches can be carried out after confirmation from bank. Vendor should submit the electric audit report (softcopy/hardcopy) to us under copy to branches. Summary/Consolidated of reports of should be submitted separately (softcopy/hardcopy) to zonal office.

### **Payment terms**

The terms of payment are as under:

1. No advance payment against work order.
2. 100 % Payment will be made after receiving the Audit reports (softcopy & hardcopy) of all branches & separate Summary of reports (softcopy/hardcopy).
3. No additional payments will be considered for multiple visits.

### **Force Majeure**

If at any time during the period of the contract the performance in whole or in part by either party or any obligation under the contract shall be prevented or delayed by reasons of any war, hostilities, acts of God, public, enemy, civil commotion, sabotage, fires, floods, explosions, epidemics etc then, provided notice of the happening of the any such events is given by either party to the other within 15 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate their contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance. The whole or any part of the Party's obligations under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If force majeure event continues beyond the period of three (3) months the parties shall hold consultation to resolve the problem satisfactorily.

### **Zonal Manager**

### **Indore Zone**

## Annexure 1 - Technical Bid

### Basic Information

Sr.	Particulars	Details
01	Name of the Company/Firm/Applicant and address of the registered office:- Phone No:- Fax No:- E-mail:- Mobile No:- Website, if any:-	
02	Date and year of establishment (enclose documentary evidence)	
03	Type of the organization (whether sole proprietorship, partnership, private ltd. or Cooperative body etc.)	
04	Name of the proprietor/partners/Directors of application with address and phone no. (in case) a. b. c.	
05	Details of registration- whether partnership firm, company etc. Name of registering authority, Date and Registration number. (enclose documentary evidence)	
06	Whether the firm has worked for the Government/Semi-government/Municipal Authorities or any other public organization Banks etc. if so, give details.	
07	No. of years of experience in the relevant field. (enclose certificate)	
08	Yearly turnover of the organization during last three years(year wise)- as certified by the chartered accounted (enclose copy of balance sheet of last year)	
10	Income tax no:- Permanent A/c no: GST no: (enclose documentary evidence)	
11	Details of staff member who will execute the project ( may attach separate sheet)	
12	License Number/ name of the Licensing authority	

**List of important works completed**

Sr.	Name of the project/work and employer	Nature of work	Work Order No & date	Present stage of work	Value contract (Rs.) of	Brief details of the dispute (if any)

**Notes:**

- 1. Information has to be filled up specifically in this format. Please do not write remark “As indicated in Brochure”.**
- 2. Indicate other points, if any, to show your technical and managerial competency to indicate any important point in your favour.**
- 3. Eligibility certificates, supporting documents should be sealed and signed.**

## **Annexure 2 - COMMERCIAL/ FINANCIAL BID**

Name of work: - Electrical Cum Energy and Safety Audit of 42 Branches, ZO and Currency Chest of Indore Zone

<b>Sr.</b>	<b>Description &amp; scope of work</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount in words</b>
01	Electric audit of all branches & Zonal office under jurisdiction of Indore Zone, Total 42 Branches, one Zonal Office and one Currency Chest office as per prescribed Guidelines & format attached with tender only. The rate shall include labor cost, travelling, equipment handling charges, etc.	Per branch		

Note: -

A. Cost **exclusive of taxes** such as GST, service tax, sale tax etc. and **inclusive of expenses like travelling, labour cost, Equipment handling charge etc.**

## 42 Branches, Zonal Office and Currency Chest Indore List

S. NO	BRANCH CODE	BRANCH NAME
1	106	INDORE MG RD
2	141	DEWAS
3	142	KHANDWA
4	143	PANDHANA
5	233	UJJAIN
6	427	RATLAM
7	436	INDORE GODHA COLONY
8	517	CHHEGAON MAKHAN
9	568	KHALGHAT
10	609	DAWANA
11	610	SUNDREL
12	611	RAJOD
13	616	GUDI KHEDA
14	640	DASAI
15	646	BALKUNWA
16	648	MANDWARA
17	657	GUNAWAD
18	660	KODRIA
19	670	HASSALPUR
20	690	SILAWAD
21	691	BARMANDAL
22	700	SULGAON
23	768	INDORE LOKMANYANAGAR
24	854	GHUGARIA KHEDI
25	855	RODIA
26	896	KHARGONE
27	897	DHAR
28	945	BURHANPUR
29	1052	BEHRAMPUR TEMA
30	1053	RAJGARH (CHHADAVAD)
31	1186	INDORE ANNA PURNA RD
32	1190	INDORE PALASIA
33	1224	INDORE VIJAYNAGAR
34	1325	UJJAIN C.T.HOSPITAL & R.CENTRE
35	1396	KANADIA ROAD
36	1540	PITHAMPUR
37	1616	BHICHOLI MARDANA
38	1617	DUDHIYA
39	1765	SOUTH TUKOGANJ
40	1847	JHABUA
41	1930	New Loha Mandi Indore.
42	1957	AHMC Bangar
43	<b>5527</b>	<b>Zonal Office Indore</b>
44	<b>768</b>	<b>Currency Chest Indore</b>



## **Minimum Standards & Methodology for Detailed Electrical cum Energy, safety and Fire Audit.**

1. Schematic & layout plan for electrical system & Earthing system, Review of present electrical distribution like Single Line Diagram (SLD), transformer loading, cable loading, normal and emergency loads, electricity distribution in various areas/ floors etc.
2. Ensure the work of Electrical cum Energy & Safety audit must be carried out by Government certified auditor who are registered with Bureau of Energy Efficiency with capable team having minimum educational qualification of Electrical Engineering degree & five year experience of electrical audit work.
3. Format of Audit is attached herewith.
4. Listing out all electrical gadgets working condition & performance with remark.
5. Review of present lighting system, lighting inventories etc.
6. Estimation of lighting load at various locations like different floors, outside (campus) light, pump house and other important locations.
7. Detail lux level survey at various locations and comparison with acceptable standards.
8. Study of present lighting control system and recommend for improvement.
9. Study of Reactive Power Management and option for power factor improvement.
10. Study of power quality issues like Harmonics, current unbalance, voltage unbalance etc.
11. Review of present HVAC system like central AC, window AC, split AC, package AC, Water Coolers and Air Heaters etc.
12. Performance assessment of window AC, split AC and package AC system.
13. Analysis of airconditioning system Performance like estimation of Energy Efficiency Ration (EER i.e. KW/TR) & insulation level.
14. Area wise calculations are done based on Temperature, RH, room size, equipment load, lighting load, occupancy and compared with details of existing Air-conditioning equipment.
15. Review of DG set operation.
16. Performance Assessment of DG sets in terms of Specific Fuel Consumption (SFC i.e. KWH/Liter).
17. Review, Performance, Safety measures assessment for UPS system & Batteries.
18. Review of water pumping, storage and distribution systems.
19. Performance assessment of all major water pumps i.e. power consumption vs. flow delivered, estimation of pump efficiency etc.
20. Review of present maintenance practice, replacement policies and building safety practices as applicable to high rising buildings and recommend for improvements.
21. Safety/statutory compliance.

22. Safety Measures for Electrical Installation.
23. O&M measures including housekeeping.
24. Detail review of present energy monitoring and accounting system in terms of metering, record keeping, data logging, periodic performance analysis etc.
25. Applicable Code compliance such as National Building Code, Energy Conservation Code State Fire Department guidelines etc.
26. Suggestions for Power Quality improvement (including Harmonics).
27. Formulation of conclusion and recommendation of Electrical cum Energy, safety & Fire audit and its compliance for rectification.

**Electrical Measurement :** The instrument used for measuring electrical parameter such as KVA, KV, PF, Hetz, KVA<sub>r</sub> , Amp and Volt which are applied online. The details are such as Voltmeter/Ammeter (Multimeter), Contact - Thermometer, Infrared Thermometer, Leak detector, Lux meter, Analyzer etc.

1. Measurement of illumination levels.
2. Measurement of Electrical Parameters for Lighting System.
3. Measurement of Electrical Parameters for Airconditioning system (For Fans, Compressors, Total) & UPS System.
4. Measurement of Electrical Parameters such as Voltage, Current, kVA, kVA<sub>r</sub>, THD<sub>v</sub>, THD<sub>i</sub>, Current harmonics for Capacitor Banks and non-linear loads such as UPS.
5. Analysis of Current Harmonics for feeders with high harmonic content.
6. Measurement of Temperature and RH.
7. Thermal imaging for identifying hot spots with possibility of safety risks, increased losses and increased maintenance.

## ELECTRICAL CUM ENERGY & SAFETY AUDIT FORMAT

### 1. General Information

1.	Name of Branches/Office & Zone	
2.	Type of branch/Office (Metro/ Urban/ Semi-Urban/ Rural)	
3.	Staff strength detail of Branch/Zonal Office/Building	Officers- Clerk- Sub Staff -
4.	Name of designated Security/GAD officer of branches/Office & Zonal office with contact no	
5.	Name of Electrical Auditor and contact no Registration No./License No.	

### 2. Last Audit

Sr. No.	Date of last electric audit	Electric risk rating (High/Medium/Low)	Compliance date	Closure date

### 3. Electrical Supply Details

Sr. No.	Electric supply company/Dept.	Sanction Load	Maximum Load (in last one year)	Average Load (in last one year)	Any penalty (in last one year)

#### 3.1 Electric supply (Single phase/Three phase) (please tick)

Phase-I	Phase-II	Phase-III

#### 3.2 Electric Load Distribution (in volt)-

R-phase(R-N)	Y-phase (Y-N)	B- phase(B-N)

### 4. Earthing System

Sr. No.	Separate Earthing for UPS and raw power (Yes/No)	Type of Earthing (chemical/Normal)	Earth resistance (in ohm)	Earth pit identified (Yes/No)
	Earthing System review	Status Functional/Nonfunctional	Observations	Recommendations

## 5. Protective & Switching Device

Sr. No	Equipment's	Quantity/ Rating/ Parameter	Status (Functional/ Non-functional)	Observations	Risk Level	Remarks
1.	Air Circuit Breaker					
2.	MCB					
3.	MCCB					
4.	ELCB					
5.	RCCB					
6.	Electrical Cable/Wires					

## 6. Details of Electrical Equipment

Sr. No	Equipment's	Quantity/ Rating/ Parameter	Status (Functional/ Nonfunctional)	Observations	Risk Level	Remarks
1.	Computers					
2.	Printers					
3.	Scanner/Color Printer					
4.	Public administration System					
5.	Split ACs/Window/Cassettes/Tower ACs					
6.	Fans					
7.	Router					
8.	Fire alarm and burglar alarm					
9.	CCTV					
10.	DG Sets					
11.	UPS System					
12.	Battery System					
13.	Gate pass machine					
14.	Flap barrier					
15.	Baggage Scanner					
16.	Door Scanner					
17.	Motor Pump					
18.	Others					

## 7. Lighting System

Sr. No	Details of Light Fittings (Conventional/LED /CFL)/ LUX Level Survey	Quantity/ Rating/ Parameter/ Observations	Status (Functional/ Nonfunctional)	Comparison with acceptable standards	Recommendations

## 8. Performance Assessment

1.	<b>UPS &amp; Batteries</b> (a) AMC Vendor & validity of AMC (b) UPS Connection (Three Phase/Single Phase Any overload in UPS (Yes/No) (if yes give reason/details) (Overload- more than 80% of UPS capacity) (c) Any battery bypassed with UPS (Yes/No) (if yes give details) (d) Any chemical rust or loose connection on battery terminal/ lug (Yes/No), (if yes give reason/ details) (e) Unwanted material kept inside UPS & battery room (Yes/No) (if yes give details) (f) No. of batteries (more than 03 year old) &having capacity below 80% of full capacity (g) Last date of battery back-up test on full load & have any deformity (give details)					Review/Status/Details
	Equipment's Study Review & analysis	Quantity/ Rating/ Parameter	Status (Functional/ Non-functional)	Observation	Risk Level	Remarks
2.	<b>AC Units</b> (a) AMC vendor & validity of AMC (b) Proper electric connection with compressor, contactor, relay and capacitor (c) Auto timer (functional/non- functional) (if provided) (d) Adequate rating MCB/fuse for ACs unit (Yes/No)					
	Equipment's Study Review & analysis	Quantity/ Rating/ Parameter	Status (Functional/ Non-functional)	Observation	Risk Level	Remarks
3.	<b>Diesel Generator</b> (a) AMC Vendor & validity of AMC (b) Date of last engine oil and filter replacement (Not more than 06 month or 250 running hrs.)					Review/Status/Details

	(c) All gauges like temp. meter, Voltmeter, ammeter, wattage, KWH, hour meter etc. are working properly (Yes/No) (If no give reason/detail)					
	(d) Any deformity noise, leakage, fuel consumption rate and spark in exhaust system (Yes/No) ( if yes give reason/detail)					
	Equipment's Study Review & analysis	Quantity/ Rating/ Parameter	Status (Functional/ Non-functional)	Observation	Risk Level	Remarks
4.	<b>Motor Pump/Geyser</b>					
	Equipment's Study Review & analysis	Quantity/ Rating/ Parameter	Status (Functional/ Non-functional)	Observation	Risk Level	Remarks

**9. Heating of wire/Panels-**

Sr. No.	Thermography of electric wire and panel (Yes/No)	No. of location/spot (where temp. is more than 78 <sup>0</sup> c)	Detail of heating equipment ( attach thermography image & system generated report)	Reasons

**10. Power Factor** (Reactive Power Compensation/Categorization of Reactive/Inductive Load/Harmonic Analysis/Power factor Improvement) Risk Rating with Graph and acceptable values-

Current & Voltage Distortion Overall electric risk category (High/ Medium/ Low)	Observations	Risk Level	Reasons	Recommendations

**11. Other Electrical Risk**

Sr. No.	Electrical Risk	Category (High/Medium/Low)	Observations	Reason/detail and recommendation (For High only)
1.	Any hanging electrical wire/temporary electric connection etc. in premises			

2.	Any multi pin plug or extension cable/board use in premises			
3.	Any dangling /loose electric connection or portion of live wire with damage jacket/insulation			
4.	Flammable combustible material dumped near electric panel(Those electrical equipment run on 24x7 basis)			
5.	Voltage fluctuation			
6.	Any MCB/Fuse etc. by pass from the electrical system			
7.	Any other electrical risk			

**12. Summary (Observations/Recommendations)**

<b>Sr. No.</b>	<b>Observation</b>	<b>Rating(High/Medium/Low)</b>	<b>Recommendations ( Strictly specify details of electrical equipment/wire etc. only)</b>

(Stamp & Signature of Electrical Auditor)

(Stamp & Signature of Zonal/Branch head/ in charge)

Date -

Date –