

REQUEST FOR PROPOSAL

**APPOINTMENT OF ENERGY AUDITING FIRM
FOR
INTELLIGENT STREET LIGHTING PROJECT UNDER BSCDCL**



Bhopal Smart City Development Corporation Limited

Zone -14, Bhopal Municipal Corporation, BHEL.Govindpura, Bhopal –462023

Contact us at: 0755—2477770, smartcitycell@bmconline.gov.in www.smartcitybhopal.com

CONTENTS

1.1	ADVERSTISEMENT	3
1.2	CRITICAL INFORMATION	5
2.0	BACKGROUND	7
2.1	ABOUT BSCDCL	7
3.0	TERMS OF REFERENCE	8
3.1	SCOPE OF WORK	8
4.0	APPROACH & METHODOLOGY	12
5.0	ELIGIBILITY CRITERIA	13
6.0	DELIVERABLES	14
7.0	TIMELINE	14
7.1	TOOLS REQUIRED	14
8.0	PROPOSAL	15
8.1	PREPARATION OF PROPOSAL	16
8.2	EVALUATION CRITERIA FOR REVIEW OF PROPOSAL	17
8.3	SUBMISSION OF PROPOSAL	18
8.4	SELECTION OF THE BIDDER	18
9.0	TERMS OF PAYMENT	18
9.1	FORCE MAJURE	18
10.0	GENERAL TERMS AND CONDITION	19
10.1	COST OF RFP	19
10.2	CONTENTS OF THE RFP	19
10.3	CONFLICT OF INTEREST	19
10.4	LANGUAGE OF BIDS	19
10.5	CONFIDENTIALITY	19
10.6	AUTHORIZED SIGNATORY (AGENCY/BIDDER)	19
10.7	AMENDMENT OF RFP	19
10.8	EARNEST MONEY DEPOSIT (EMD)	19
10.9	BID PROCESSING FEES	20

10.11	POWER OF ATTORNEY	20
10.12	DISCLAIMER	20
10.13	DISQUALIFICATION	20
10.14	TERMINATION OF CONTRACT	20
11.0	RFP FORM	21
11.1	RFP FORM 1: RFP LETTER PROFORMA	21
11.2	CORRESPONDENCE DETAILS	22
11.3	DOCUMENT FORMING PART OF RFP	23
11.4	RFP FORM 2: ELIGIBILITY AND OTHER DETAILS	
11.5	RFP FORM 3: PRIOR EXPERIENCE	24
11.6	RFP FORM 4: APPROACH AND METHODOLOGY	25
11.7	RFP FORM 5: PROPOSED WORK PLAN INCLUDING THE	26
11.8	RFP FORM 6: RESUMES OF THE MEMBERS IN THE	27
11.9	RFP FORM 7: DECLARATION LETTER	28
	Annexure-1 Format for financial proposal	29
	Annexure- 2 List of Roads	30

1. LETTER OF INVITATION

1.1. Advertisement

Reference No: _____

Project Name: Appointment of Energy Auditing firm for Intelligent Street Lighting Project

Name of the Ministry / Department: Ministry of Urban development/ Bhopal Smart city development corporation ltd.

LETTER OF INVITATION

Project Name: Request for proposal for hiring of energy auditing firm for energy audit work of street lighting under Intelligent street lighting project.

Name of Ministry / Department: Bhopal Smart city development corporation ltd

The Bhopal Smart city development corporation ltd (BSCDCL) (hereinafter called the “Employer”) is intending to appoint Agencies for conducting the energy audit work of Street lighting under Intelligent street lighting project located at various locations of Bhopal city.

1. The Employer intends to conduct the energy audit of street lighting spread across Bhopal city.
2. Interested energy auditing firm may download the RFP document from the website www.mpeproc.gov.in the submission of the RFP document must be accompanied with the payment of the bid processing fees of Rs. 5,000/- (INR Five Thousand only). The payment will be accepted only online on mpeproc portal.
3. All communication will be made through online only.

Yours sincerely,
(CEO)
BSCDCL

1.2. Critical Information

1	Availability of purchase of tender	05 th October, 2016
2	Website for tender submission	www.mpeproc.gov.in
3	Pre-bid Meeting	14 th October, 2016
4	Last date for Purchase of tender of proposal	20 th October, 2016 up to 17.30 Hrs
5	Last date for submission of proposal	21 st October, 2016 up to 17.30 Hrs
6	Date of opening of tender	22 nd October 2016 on 10.30 Hrs
7	Place of opening of Proposal	BSCDCL, Zone -14, Bhopal Municipal Corporation, BHEL.Govindpura, Bhopal –462023 Contact us at: 0755—2477770
8	Mode of Selection	Open Tender.
9	Type of Proposal Required	Technical and Financial
10	Proposal & Reports Should be submitted in following language	English
11	Taxes	Bidders are requested to quote prices inclusive of taxes unless stated otherwise
12	Currency	Consultants to state all costs in Indian Rupees(INR)
13	Validity	Proposals must remain valid for 120 days after the submission date
14	Earnest Money Deposit (EMD)	30,000/- (INR Thirty thousand only) in the form of DD drawn in favor of the CEO, BSCDCL and payable at Bhopal
15	Bid processing fees	Rs. 5,000/- (INR Five thousand only) in the form of DD drawn in favor of the CEO, BSCDCL and payable at Bhopal
16	Lead time for commencement Of work.	05 days from the date award of work to the successful bidders

17	No. of copies of Technical and Financial Proposal	Technical Proposal: Signed/Scanned PDF file to be submitting online only. Financial Proposal: to be submit online only (Annexure-1)
18	Email address for Clarification	smartcitycell@bmconline.gov.in

2. **BACKGROUND INFORMATION-**

Bhopal has a total population of 23, 71, 061 (as per Census, 2011) with municipal area of 413sq km. The literacy percent within the city is around 85%. City's economy is driven primarily by cotton, electrical goods, jewelry and chemical industry. Over 1200 MSMEs are currently existent in Bhopal. Tourism is also a thriving industry with several tourist spots such as UNESCO heritage site, lakes etc open for tourists. Over a period of time Bhopal has faced many challenges including;

- Low energy efficiency
- Lack of city infrastructure
- Citizen safety, etc

To mitigate aforementioned challenges pan-city smart solutions are considered to benefit the entire city through application of ICT and resulting improvement in local governance and delivery of public services.

In line to the guidelines issued by Ministry of Urban Development (MoUD)/ Government of India (GoI) Government of Madhya Pradesh has created a Special Purpose Vehicle (SPV) Bhopal Smart City Development Co. Ltd (BSCDCL) for implementing the Smart City mission at the city level. BSCDCL will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects. BSCDCL is headed by a full time CEO and have nominees of Central Government, State Government and ULB on its Board.

The key functions and responsibilities of BSCDCL are to;

- Approve and sanction the projects including their technical appraisal.
- Take measures to comply with the requirements of MoUD with respect to the implementation of the Smart Cities program.
- Undertake review of activities of the Mission including budget, implementation of projects, etc and co-ordination with other missions / schemes and activities of various ministries.

BSCDCL has signed project for Intelligent Street lighting in PPP model, in this model a independent energy auditor is to be appoint for monitoring of the work to meet the requirement, the RFP is being published for the aforesaid work.

3. **TERMS OF REFERENCE-**

3.1 Scope of Work-

The scope of work of the Independent Energy Auditor for the Third Party Energy Audit to be undertaken in the presence of both BSCDCL and CONCESSIONAIRE for establishing **the energy baseline consumption for 20000 street lights** (Annexure-2) in Bhopal city.

1. Pre-implementation energy audit at every feeder panel to analyze/compare the metered energy consumption recorded by DISCOM on such feeder panels and corroborate it with the wattage of fixtures/ bulbs in working condition for a particular billing cycle (latest two months of energy audit work), thus fixing the baseline for each street light feeder panel considered under CONCESSIONAIRE project.
2. Establishment of feeder panel-wise baseline energy consumption and lux level requirements for the city roads with reference to IS standards (National Lighting Code).
3. The 'pre-implementation stage' baseline for energy consumption and lux level for each feeder panel is to be clearly defined and after completion of the Energy Audit study, same will be again to be verify and correct after installation of new smart feeder panels.
4. The monitoring and verification of ongoing savings during the 'post-implementation' stage for arriving at the actual savings will also follow the same methodology with some adjustment factors predefined in the M&V mechanism and mutually agreed between BSCDCL, CONCESSIONAIRE and third party energy auditor.
5. Feeder panel-wise accurate street lighting asset base/ inventory is to be verified. Inventory includes feeder panel locations, connected load, inventory of streetlight fittings, poles and fixtures mounted, details of types of lamps, types/names of roads, number of poles on each feeder panel and their types etc. Thus a fairly accurate estimate could be developed for theoretical energy consumption (assuming 12 hrs. of daily operation) at each feeder panel proposed to be considered in CONCESSIONAIRE project
6. Review of Actual/ metered and billed energy by DISCOM for individual feeder panels for pre-implementation period.
7. The analysis of monthly bills for the preceding one year provides the monthly kWh consumption on each feeder panel. One of the possibilities could be that for areas which are under development and where new poles are getting added to the street light feeder panel system may provide large variation in baseline for calculating kWh consumption for the concerned feeder panel. To address these issues, it is proposed to provide adjustment factor to baseline energy consumption to such feeder panels where it is found that energy consumption has substantially increased in the past 12 month

electricity bills based on analysis. The adjustment factor will be computed by third party energy audit Company from the methodology proposed for energy consumption identification from asset inventory process and energy audit study report.

8. Energy auditor has to take reading of the check meter installed by CONCESSIONAIRE and compare the same with the DISCOM meter reading and submit the analysis of variation if any found.
9. The Energy auditor has to propose scientific approach for making adjustment in the energy savings / energy consumption data during the post-implementation phase arising due to unavoidable practical issues of power outage, non-functioning of bulbs/ fixtures, power supply conditions not met, temporary installation of lights during festivals with connections taken from existing street light feeders, increase in the connected load due to addition in baseline street light fixtures or installation of higher wattage lamps because of road widening etc.
10. Instances of changes in lighting infrastructure where historical utility billing as baseline may not be appropriate, In such cases the third party energy auditor has to revise the baseline as per the initial connected load and post implementation connected load and receipt of first month's bill post revised load, the energy savings should be established by understanding the incremental energy consumption and providing the adjustment factor to the future bills for rest of the monthly billing cycles.
11. Verification of the lighting parameters like efficacy of lamps, lux levels, lumen depreciation rate, color temperature and applicable lighting standards to the street lighting system will be measured once in six months by third party energy auditor on sample basis for the period of CONCESSIONAIRE contract and compare them with the pre-implementation baseline established earlier for this project. The impact of lighting aspects on reduction of energy consumption will also be established and accordingly adjusted from the monthly savings achieved by CONCESSIONAIRE.
12. Verification of the Documentation process for establishing Savings: 1. Based on existing electricity meter data; 2. Using calibrated energy audit meters; and 3. Based on connected load on the feeder panel with recorded hours of operation of lamps. The CONCESSIONAIRE shall install Feeder panels which will enable remote operation, monitoring and data logging facility to be controlled through a centralized call centre/ data centre to be operational zed by the CONCESSIONAIRE at the earliest from date of commencement of work, but in no case later than 6 months from the date of commencement of work. The energy consumption data on daily basis will be compiled by CONCESSIONAIRE from the centralized monitoring system by the end of each month in line with the monthly billing cycle of DISCOM. It will be correlated to the baseline data and actual metered energy consumption from DISCOM meter. The energy savings will be evaluated by the CONCESSIONAIRE for each month. The copy of report on monthly energy savings will be sent to the engineer in charge of the project from BSCDCL and third party energy auditor. The engineer in-charge will approve the energy savings based on the comparison of the data provided and the baseline established. The Engineer may ask for any additional data to

substantiate/evaluate the savings. In case the CONCESSIONAIRE is in disagreement of the proposed savings approved by engineer in-charge, the third party energy auditor will review/analyze the energy consumption data and provide recommendations on report to decide what should be the accurate way for establishing the savings. Based on the decision of third party energy auditor, the energy savings achieved for that month will be established and the payments to the CONCESSIONAIRE will be made accordingly.

13. Format for Third Party Energy Audit Report on sample feeders

THIRD PARTY STREET LIGHT ENERGY AUDIT REPORT FORMAT (PROPOSED EVERY 6 MONTH FOR SAMPLE FEEDER PANEL M&V)																										
SECTION (Area)																										
WARD NO.																										
FEEDER NAME/NO.																										
TOTAL NO. OF E.B BOXES INSTALLED ON FEEDER																										
TOTAL NO. OF POLES																										
TYPE OF POLES and pole arrangements (FOR E.G. butterfly, one end of single road, both side of road)																										
DATE OF STUDY	READING TAKEN BY	E.B BOX NO.	TIME WHEN READING TAKEN	EB METER READING			ENERGY AUDITOR CALLIBRATED METER READING				Actual load (Watts)							Actual load not in operation (Watts)							AVG. LUX	Remarks
				OPENING READING (kWh)	CLOSING READING (kWh)	HOURLY CONSUMPTION (kWh)	VOLT AGE	CURRENT	POWER FACTOR	HOURLY CONSUMPTION (kWh)	40W TL	70W SVL	150W SVL	250W SVL	250W MHL	400W MHL	LED 70W	40W TL	70W SVL	150W SVL	250W SVL	250W MHL	400W MHL	LED 70W		
			HOUR 1																							
			HOUR 2																							
			HOUR 3																							
			HOUR 4																							
			HOUR 5																							
			HOUR 6																							
			HOUR 7																							
			HOUR 8																							
			HOUR 9																							
			HOUR 10																							
			HOUR 11																							
			HOUR 12																							
			HOUR 13																							
			HOUR 14																							

3.2 Verification of asset data / marking for 20000 street lights (Annexure-2)-

- (a) Verification and certification of switching points (metered connection points or feeder panels) and inventory of street lighting assets, including the following:
 - type of fixtures including wattages of bulbs, ballasts, chokes, etc. (as per actual consumption) and total number of fixtures of each type ;
 - total number and height of street lighting poles;
- (b) Switching point wise - Names of the streets to which the switching point electrical lighting circuit caters to, total length and widths of streets illuminated (lighting stretch catered to by the switching point) ;
- (c) Validation of switching point wise pole numbering/ marking, as done by CONCESSIONAIRE;
- (d) Validation of single line diagram and indicative maps, if any, indicating location of switching point, metering equipment, fixtures, poles, etc.

Measurements and analysis to be undertaken for a switching feeder post completion installation of feeder panel/ metering.

- (e) Installation of data loggers calibrated and certified by a recognized laboratory in series with energy billing meters on each switching point on receipt of intimation from BSCDCL/ CONCESSIONAIRE. The responsibility of installation and safety of data loggers shall lie with the Independent Energy Auditor;
- (f) Isolation of the voltage dimming, remote switching and all other circuits (if any) in the feeder panels installed by CONCESSIONAIRE, except the energy billing meter, from the street lighting circuit;
- (g) Measurement of the electrical parameters, such as voltage, current, active/ reactive power, power factor, etc. using calibrated instruments/data loggers for three (3) consecutive days (recording hourly energy consumption) on all street lighting feeders, for the entire duration of the time; Presence of BSCDCL and DISCOM members at the site for some time, during measurement is essential.
- (h) Logging of data on actual power availability during street lighting operating hours for the period during which measurements of electrical parameters are undertaken;
- (i) Half-hourly verification of the number of points glowing and not-glowing during street light operating hours for each day during which measurements of electrical parameters are undertaken;
- (j) The hourly data for switching points/ feeders must be developed in accordance with the formats given in the metering & verification plan for the period of three (3) days;
- (k) Calculation of per switching point/ per feeder energy baseline consumption norm based on kWh consumption per fixture per hour data and number of each of the type of fixtures connected to the switching point from the electrical measurements undertaken, after duly adjusting for the duration for which power remained unavailable and fixtures which were not glowing/ operational (with due consideration to the actual duration for which such fixtures remained non-glowing). The energy parameters measurements for the entire period of three (3) days during which the audit was conducted shall be used for arriving at the energy baseline consumption

norm; BSCDCL should ensure that all fixtures connected to the switching point are in working condition when the intimation is given to the CONCESSIONAIRE.

- (l) Certification of switching point/ feeder wise energy baseline consumption norm based on kWh/ fixture/ hour as the basis as described above.

3.3 Switching point wise report submission

- (a) Detailed report on data collected and analysis of hourly energy consumption along with details such as power availability duration, glowing/ non-glowing status of fixtures should be summarized to demonstrate the certified energy baseline consumption norm for a particular switching point. The reports should be submitted within five (5) working days from completion of field exercise for each switching point. The Independent Energy Auditor shall certify the per fixture hourly consumption norm or the baseline for the particular switching point catering to a particular stretch of street lighting fixtures.
- (b) Such baseline figures shall be signed off by both BSCDCL and CONCESSIONAIRE in addition to the Independent Energy Auditor and shall become binding for the entire life of the Project for the particular switching point.
- (c) Along with kWh consumption per fixture per hour data (baseline for the particular switching point) the number of each of the type of fixtures connected to the switching point shall be reported and accepted by all parties.
- (d) The CONCESSIONAIRE shall implement its ECMs on each stretch once the TPEA is conducted and the energy baseline consumption is determined and formally signed off.
- (e) Those ECMs which come embedded with the feeder panel shall be disabled/ by passed by the CONCESSIONAIRE before the TPEA, as mentioned earlier in 1.1(f).

3.4 Undertaking periodic third party verification of lux level measurements on street lighting fixtures on sample basis

- (a) Undertaking lux level measurements on randomly selected five per cent (5%) of the street lighting fixtures covered under the Project. Such sampling may be decided in mutual consultation with BSCDCL. In case of non-agreement in sampling during mutual consultations, fifty per cent (50%) of the sample size (two point five per cent (2.5%) of street lighting fixtures) would be decided by BSCDCL.
- (b) The Independent Energy Auditor shall be responsible for arranging all requisite measuring equipments duly calibrated and certified from a recognized laboratory required for undertaking the lux level measurements on the selected sample points in adequate quantity.
- (c) The Independent Energy Auditor shall deploy adequate number of personnel required for undertaking the lux level measurements on the selected sample within the timeframe specified by BSCDCL.
- (d) Such lux level measurements shall be undertaken in accordance with standard procedures including measurements along the pole, under light fittings, middle of the road and both edges of the road. Between two poles, the lux level should be measured towards verge, middle of the road and both edges of the road.

The procedure of calculating the lux level measurements based on the nine point methodology to be adopted for the lux level measurements, as per the guiding principles of the Bureau of Energy Efficiency Lighting Code, 2006, shall be as outlined below:

- The measurements should be conducted in night. The lamps must be switched on at least thirty (30) minutes before the measurements to allow for the lamps to completely warmed up;
- The dimming controls should be fixed at different levels as agreed in energy performance contract and simultaneous power and lux measurements should be carried out for selected lamps;
- Stray light from the surrounding areas should be minimized at the time of measurements;
- The measurement height should be one (1) meter above the road surface;
- The measurement grid should be positioned to cover a representative area of the working plane. The lux meter should be positioned at minimum nine (9) number of measurement points as per the diagram provided below

Measure illuminance using a calibrated lux meter at each point. Calculate the average value of measured illuminance at all points. If E1, E2,..., En are illuminance measurements at points 1,2,..., n

$$\text{Average illuminance, } E_{av} = \frac{E1+E3+E9+E7+D2+D6+D8+D4+C5}{16 \quad \quad \quad 8 \quad \quad \quad 4}$$

3.5 Report submission

The Independent Energy Auditor shall submit within five (5) days of completion of field exercise of measurements its detailed report meeting the following requirements:

- (a) providing point wise results, giving the asset number indicated in the pole marking for each such point, the results of the lux level measurements;
- (b) comparison of the results of lux level measurements with the recommended lux level for each point; and
- (c) Percentage of points found to be compliant with the recommended lux level standards.

The Independent Energy Auditor shall also provide detailed report of survey highlighting the above mentioned points and provide switching point/ street wise results of measurements with stress on bringing out instances where non-compliance is high.

3.6 Duration of project-

Duration for the project will be of three years for 20000 streets light.

4. APPROACH & METHODOLOGY:

The assignment will cover all aspects of the project as set in the project proposal to establish whether the planned activities and anticipated outputs have been attained, and whether there are outcomes to document emanating from the project's interventions. While maintaining independence/neutrality, the review shall adopt a participatory approach.

The consultant will be expected to provide a detailed evaluation design that includes key evaluation questions, key indicators, sources of data/information, and data collection methods and instrument including key tasks, activities and timelines.

Furthermore, the review shall be structured in respect to the three evaluation criteria i.e. relevance, efficiency and effectiveness against original project objectives, taking into account of the realities on the ground; and the extent to which the project addressed the needs of its stakeholders.

5. ELIGIBILITY CRITERIA

The agencies/ Lead Consortium agencies interested in being considered for this task must fulfill the following criteria:

- ✓ Should be an agency / firm / company registered/ incorporated in India. Necessary documents should be provided to substantiate the claim.
- ✓ Should have at least 1 BEE Accredited/UVNL Empanelled Energy Auditors and 1 BEE Certified Auditors as on the date of applying. A photocopy of the certificates of BEE Certified Energy Auditors should be enclosed as proof.
- ✓ Should have experience of carrying out Energy Audit in Municipal Corporation, Council, other ULB's, Government buildings.
- ✓ Should have average minimum annual turnover of INR 10 lakhs (INR or its equivalent in foreign currency) in two of the last three years i.e. FY 2013-14, 2014-15 and 2015-16.
- ✓ The audited annual/Chartered Accountant certified statements for the last three years should be submitted to substantiate the claim.
- ✓ Should have net worth of at least INR 20 lakhs (INR or its equivalent in foreign currency) in two of the last three years i.e. FY 2013-14, 2014-15 and 2015-16. The audited annual statements for the last three years should be submitted to substantiate the claim.
- ✓ Bidder should submit list of required tool of reputed make with calibration certificate.

The Composition for the team is give below:

Designation	Number	Qualification	Total Experience	Area of Experience
Team Leader	1	BEE Accredited/UVNL Empanelled Energy Auditor	7 years	Energy Auditing
Team Member	1	Energy Auditor	5 years	Energy Auditing
Support Staff	1	Diploma Engineer	4 years	Energy Auditing

Note: Necessary documents along with CVs of the officials should be provided to substantiate the claim.

6. DELIVERABLES IN THE DETAIL PROJECT REPORT (DPR)

The Energy Audit Report should contain the following information:-

- Methodology adopted for the study.
- Present energy scenario of the Street lighting system.
- Detailed analysis of the data obtained through field visits, trial measurements by portable gadgets, discussion with concerned personnel etc.
- Data collection, information related to the equipment as per the suggestive template format
- Recommendations for energy saving options in all possible areas with cost benefit analysis (payback period)

Inception Report – This shall be prepared and submitted within 2 weeks after signing the contract. The Inception report shall include the Questionnaire/Survey forms, proposed evaluation design/plan, implementation plan and timelines.

Draft Report –

Stage-1- Pre implementation (Baseline Survey) This shall be submitted 4 weeks after commencing the assignment. Consultants may be requested to come and present the Draft Report to BSCDCL to obtain their comments and suggestions to improve the quality of the work.

Stage-2- Post implementation- This shall be submitted as per requirement/stage of the project time period allowed 4 weeks.

Final Report -

Stage-1- Pre implementation (Baseline Survey) – This shall be submitted to BSCDCL in 5 week time after presenting the draft report. The Final Report shall have incorporated comments and suggestions from BSDCL, as well as any other data not fully captured at the time of writing the draft report. The format shall be agreed with BSCDCL after signing the contract.

Stage-2- Post implementation- This shall be submitted as per requirement/stage of the project time period allowed 5 weeks.

Stage-3- Monitoring- This shall submit as required or as per project status/in every six month.

6.1 TOOLS REQUIRED:-

The agencies must have the following tools of calibrated and reputed make.

1. Power analyzer and digital power logger to measure all electrical parameters such as KVA, KW, KWh, PF, Hz, KVAR, Amps, Volts and Harmonics measurement.
2. Power clamp meters
3. Lux meters- To measure the incident light (All light in the visible spectrum is measured, and evaluates that against the human day light sensitivity curve).
4. Digital ultrasonic distance meter
5. Infrared thermometer

7. TIMELINE:- Total duration of the project will be 3 (Three Years) including Pre implementation, Post-implementation and monitoring of the project for 20000 street lights.

8. **PROPOSAL**

8.1 **PREPARATION OF PROPOSAL**

The proposal should be in two parts: Part A – Technical; Part B – Financial, on A-4 sized pages (Font – Times New Roman; Font Size 11 with margins set at least 2.5cm all round); should include the following:

Part A: Technical

1. Background information that includes an interpretation and understanding of the terms of reference;
2. Methodology and approach outlining a clear conceptual and analytical framework for the audit;
3. Proposed work plan outlining clear timeframe and logical steps in conducting the assignment;
4. Profile of the consultant (s) and detailed CV;
5. Name and brief background of the consultants, including existing experience and expertise that will be of benefit to the proposed audit;
6. Names and contact information of referees for the three most recent and relevant projects.
7. List of tools of reputed make with calibration certificate as per RFP.

Part B: Financial

Financial offer should only indicate price without any condition or qualification whatsoever and should include all taxes, duties, fees, levies, and other charges levied by Central & State Government/ government bodies as may be applicable in relation to activities proposed to be carried out. If there would be any increase in the taxes, levies, duties, fee and other charges during tenure of the contract, the financial burden of the same shall be borne by the bidder. except service tax which shall be payable as per rate of GOI The Financial Offer in respect of the above assignment must be valid for 120 days from the date of opening of the Financial Offer. Bidders should express the price of their services in Indian currency only. To be submit in Annexure-1.

8.2 **EVALUATION CRITERIA FOR REVIEW OF PROPOSAL**

Technical Proposal:

The Technical bids shall be opened as specified in the data sheet at BSCDCL office by the Evaluation Committee. The qualification of the bidder shall be checked as per the eligibility criteria (Form 2). Technical evaluation will be done on the basis of the following criteria:

The minimum qualifying total score, for the technical bid shall be 25. The financial offers of only those bidders shall be opened who scores 25 or above during evaluation of technical offers. For those bidders whose proposals did not meet the minimum qualifying marks under technical evaluation or were considered non responsive to the terms of reference, the financial proposals will be returned unopened after

completion of the selection process. The list of bidders who have successfully obtained the requisite marks under the technical evaluation criteria will be informed about the opening of the financial offers. Such selected bidders shall attend the opening of financial bids at the BSCDCL office at the date and time notified by BSCDCL.

S.No	Criterion	Score
1.	Turnover (Min 10 Lacs)	
	Min 10 Lacs	10
	10-15 Lacs	12
	15-20 Lacs	15
	20-Above Lacs	17(Max)
2.	Experience (Min 1 Nos. Municipal Corporation Energy Audit)	
	1 Nos. Municipal corporation	10
	2 Nos. Municipal corporation	12
	3 Nos. Municipal corporation	15
	4 Nos. Municipal corporation and Above	17 (Max)
3	Experience (Min 2 Nos. Municipal Council Energy Audit)	
	2 Nos. Municipal Council/ Other ULB's	5
	5 Nos. Municipal Council/ Other ULB's	10
	6 Nos. Municipal Council/ Other ULB's	12
	7 Nos. Municipal Council/ Other ULB's	15
	8 Nos. Municipal Council / Other ULB's and Above	16 (Max)
	Total (Max No of Marks)	50

Financial Proposal:

The financial proposals (Annexure-1) of the technically pre-qualified bidders will be opened by the evaluation committee at BSCDCL. Evaluation will be done based on the total lump sum prices quoted by the bidder.

Work shall be awarded only to the lowest (L1) bidder after technical evaluation.

8.3 SUBMISSION OF PROPOSAL:

The proposal shall be typed and shall be signed by the head or a person duly authorized to bid by bidder agency. All pages of the offer, except for un-amended printed literature, shall be initialed by the person or persons signing the offer.

- a. The EMD as indicated in the data sheet shall be submit online only, Technical proposal will be opened only for those bidder who have submitted EMD.
- b. Proposals from Firms should be submitted in two distinct parts, technical & Financial online only as per requirement.
- c. Non-compliance to the above process will be liable to rejection

9.0. TERMS OF PAYMENT:

Payments will be made as per the following schedule:

- 30% of total payment will be release on completion of pre implementation audit (Base line survey).
- 20% of total payment will be release on completion of post implementation audit.
- 10% each of the total payment will be release on submission of six monthly monitoring report maximum 5 times.

Note: BSCDCL shall process the payment after the receipt of the invoice at each stage. However, the work schedule shall be adhered and shall not be affected due to payment related process

Penalty for delay of deliverables: 1% per week or part of the week limited to maximum 10% of the order value

9.1 FORCE MAJEURE

FORCE MAJEURE shall mean and be limited to the following:

- a) War/hostilities
- b) Riot or Civil commotion
- c) Earthquake, flood, tempest, lightening or other natural physical disaster.
- d) Restrictions imposed by the Government or other statutory bodies which prevents or delays the execution of the Contract by bidder.

In the event of any force majeure cause, the bidder or the employer shall not be liable for delays in performing their obligations under this order and the completion dates may be extended, for a period not exceeding the period of delay attributable to the causes of Force Majeure. Neither Bureau (BSCDCL) nor Bidder shall be liable to pay extra costs provided it is mutually established that Force Majeure Conditions did actually exist.

The Bidder shall at all times, Indemnify and keep indemnified, the employer and its officer's servants and agents, from and against all/any claims whatsoever, arising as a consequence of, or in the course of execution of the work (including but not limited to property loss and damage, personal accident, injury or death of or to property or person, of the Agency or any JV partner or subcontractor, and / or the servants or agents of the ENERGY AUDIT FIRMS, or any other JV partner or any sub-contractor and / or of the Bhopal Smart city development corporation ltd)

10. GENERAL TERMS AND CONDITION**10.1. COST OF RFP**

The agency shall bear all costs associated with the preparation and submission of its RFP, including cost of presentation for the purposes of clarification of the bid, if so desired by the purchaser. BSCDCL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

10.2. CONTENTS OF THE RFP

The agency is expected to examine all instructions, forms, terms & conditions and Statement of Work in the RFP document. Failure to furnish all information required or submission of an RFP document not substantially responsive to the RFP in every respect will be at the Consultant's risk and may result in the rejection of the proposal.

10.3. CONFLICT OF INTEREST

The agency/agencies that are selected for the work will have to maintain the confidentiality of the information compiled. In no case the agency/agencies would be allowed to use the data or share the information with anyone else, except for the BSCDCL

BSCDCL shall hold the copyrights over any of the data collected or compiled during the course of the awards.

10.4. LANGUAGE OF BIDS

The Bids prepared by the agency and all correspondence and documents relating to the bids exchanged by the agency and the Purchaser, shall be written in the English language, provided that any printed literature furnished by the agency may be written in another language so long the same is accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

10.5. CONFIDENTIALITY

BSCDCL require that recipients of this document to maintain its contents in the same confidence as their own confidential information and refrain from any public disclosure whatsoever.

10.6. AUTHORIZED SIGNATORY (AGENCY/BIDDER)

The "agency/bidder" as used in the RFP shall mean the one who has signed the RFP document forms.

The agency should be the duly Authorized Representative of the agency, for which a certificate of authority shall be submitted. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the Authorized Representative. The power or authorization, or any other document consisting of adequate proof of the ability of the signatory to bind the agency shall be annexed to the bid. BSCDCL may reject outright any proposal not supported by adequate proof of the signatory's authority.

10.7. AMENDMENT OF RFP

At any time prior to the last date for receipt of bids, BSCDCL, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective agency, modify the RFP Document by an amendment. In order to provide prospective agency reasonable time in which to take the amendment into account in preparing their bids, BSCDCL may, at their discretion, extend the last date for the receipt of Bids and/or make other changes in the requirements set out in the Invitation for Proposals.

10.8. EARNEST MONEY DEPOSIT (EMD)

All bids must be accompanied by a EMD of INR 30,000 (INR Thirty Thousand only) to be submit online only.

- Proposals not accompanied by EMD shall be rejected as non-responsive.
- No interest shall be payable by the Employer for the sum deposited as earnest money deposit.
- No bank guarantee will be accepted in lieu of the earnest money deposit.
- The EMD of the unsuccessful bidders would be returned back within two months of signing of the contract.
- The EMD of the successful bidder will be treated as security deposit and will be refund after contract period.

10.9. BID PROCESSING FEES

The agencies / firms should submit a bid processing fee of Rs.5, 000/- (INR Five Thousand Only) online only.

10.10. CONTACT DETAILS OF THE AGENCIES / FIRMS

All the communication will be made online only on the given e-mail id in RFP.

10.11. POWER OF ATTORNEY

Registered Power of Attorney executed by the agency in favor of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this RFP. BSCDCL shall not be responsible for non-receipt / non-delivery of the RFP due to any reason whatsoever.

Consultants are advised to study the RFP document carefully. Submission of proposal shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications

10.12. DISCLAIMER

BSCDCL and/or its officers, employees disclaim all liability from any loss or damage, whether foreseeable or not, suffered by any person acting on or refraining from acting because of any information including statements, information, forecasts, estimates or projections contained in this document or conduct ancillary to it whether or not the

loss or damage arises in connection with any omission, negligence, default, lack of care or misrepresentation on the part of BSCDCL and/or any of its officers, employees.

Except where otherwise specified in the contract, the decision of BSCDCL shall be final, conclusive and binding on all agencies to the contract upon all questions relating to the meaning of the RFP specifications, scope of work, terms & conditions etc. here in before mentioned and as to the trustworthiness of measurement & suggestions, or as to any other question, claim, right, matter, or thing whatsoever in any way arising or relating to the contract, specifications, terms & conditions, orders, or otherwise concerning the works or the execution or failure to execute the same, whether arising, during the progress of the work or after the completion or abandonment thereof.

10.13. DISQUALIFICATION

BSCDCL may in its sole discretion and at any time during the process of bidding, disqualify any bidder from the tender process if the bidder has –

- Submitted the tender after the schedule date and time.
- Firms not meeting eligibility criteria.
- Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements.
- If found to have a record of poor performance such as abandoning works, not properly completing the contract, inordinately delaying completion, being involved in litigation or financial failures, etc.
- Submitted proposal which is not accompanied by required bid fees.
- failed to provide clarifications related thereto, when sought.

10.14. TERMINATION OF CONTRACT

BSCDCL has its rights under the conditions of this RFP to terminate the contract of the agency at any time. The contract may also be terminated if the agency's performance or competence fails to meet the standards required for the assignment

11. RFP FORMS

The proposal is to be submitted in the following format along with the necessary documents as listed. The proposal shall be liable for rejection in the absence of requisite supporting documents.

11.1. RFP Form 1: RFP Letter Performa

To,

The CEO,
BSCDCL

Sub: Technical Proposal for Hiring of Energy Auditing Firm for Smart Street light project.

Sir/
Madam,

The undersigned is the authorized representative of the (Name of Bidder), having read and examined in detail the complete RFP document in respect of selection of agency for **Energy Auditing work for Smart Street light project** for BSCDCL do hereby express their interest to provide Consultancy Services as specified in the scope of work.

11.2. Correspondence Details

Our correspondence details are:

1	Name of the Agency	
2	Address of the Agency	
3	Name of the contact person to whom all references shall be made regarding this tender	
4	Designation of the person to whom all references shall be made regarding this tender	
5	Address of the person to whom all references shall be made regarding this tender	
6	Mobile No. &Telephone (with STD code)	
7	E-Mail of the contact person	
8	Fax No. (with STD code)	

11.3. Document forming part of RFP

We have enclosed the following:

- RFP Form 2: Eligibility and Other details
- RFP Form 3: Prior Experience
- RFP Form 4: Approach and Methodology
- RFP Form 5: Proposed Work Plan
- RFP Form 6: Resumes of the members in the proposed team.
- RFP Form 7: Declaration Letter.
- EMD of INR 30,000 (INR Thirty Thousand)
- Bid processing fees of INR 5,000/- (INR Five Thousand Only)

Registered Power of Attorney executed by the agency in favour of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this RFP.

(Bidder shall mention the Form No. clearly over the respective enclosure of the technical proposal)

We hereby declare that our Proposal is made in good faith and the information contained is true and correct to the best of our knowledge and belief.

Thanking you,
Yours faithfully

(Signature of the Authorized Representative)

Name :
Designation :
Seal :
Date :
Place :

Business Address:

Witness

s:

Name -
Address -

Date -

Name -
Designation -

Company -
Date -

11.4. RFP Form 2: Eligibility and Other Details

1	Name of Firm/Company *			
2	Year and Place of Registration/Incorporation			
3	Prior experience in the field of Energy Audit	Yes OR No		
	If, Yes Number of Audits done for Municipal Corporation or Municipal Council (effective FY 10-11)			
	If, No Number of Projects done in (effective FY 10-11)			
4	Total Number of years of work experience in the field of Energy Auditing			
5	Number of Employees in India as on March, 2016			
		FY	FY 2014-	FY
6	Annual Turnover from Consultancy Services**			
7	Annual Profits **			

* Enclose a copy of Registration document

** Enclose a copy of Audited Financial Statement

Witness:

Signature

Name

Address

Company

Date

Consultant:

Signature

Name

Designation

Date

11.5. RFP Form 3: Prior Experience

[Please indicate the experience in the field of energy auditing (minimum requirement is 3 years) in the format provided below, mention the details of at least 1 assignment directly related to the relevant field. Firms having larger experience must furnish the details of all other similar assignments separately in the same format as provided below. Kindly Note, the bidder shall mention the details of assignments done during last 4 years only

Name of Agency/Firm:	
Assignment/job name:	
Nature of Assignment:	
Description of Project:	
Approx. value of the contract (in Rupees):	
Country:	
Location within country:	
Duration of Assignment/job (months) :	
Name of Employer:	
Address and contact details:	
Total No of staff-months of the Assignment/job:	
Approx. value of the Assignment/job provided by your	
Start date (month/year):	
Completion date (month/year):	
Total duration (months)	
Name of associated Consultants, if any:	
No of professional staff-months provided by associated	
Name of senior professional staff of your firm involved	
Description of actual Assignment/job provided by your	

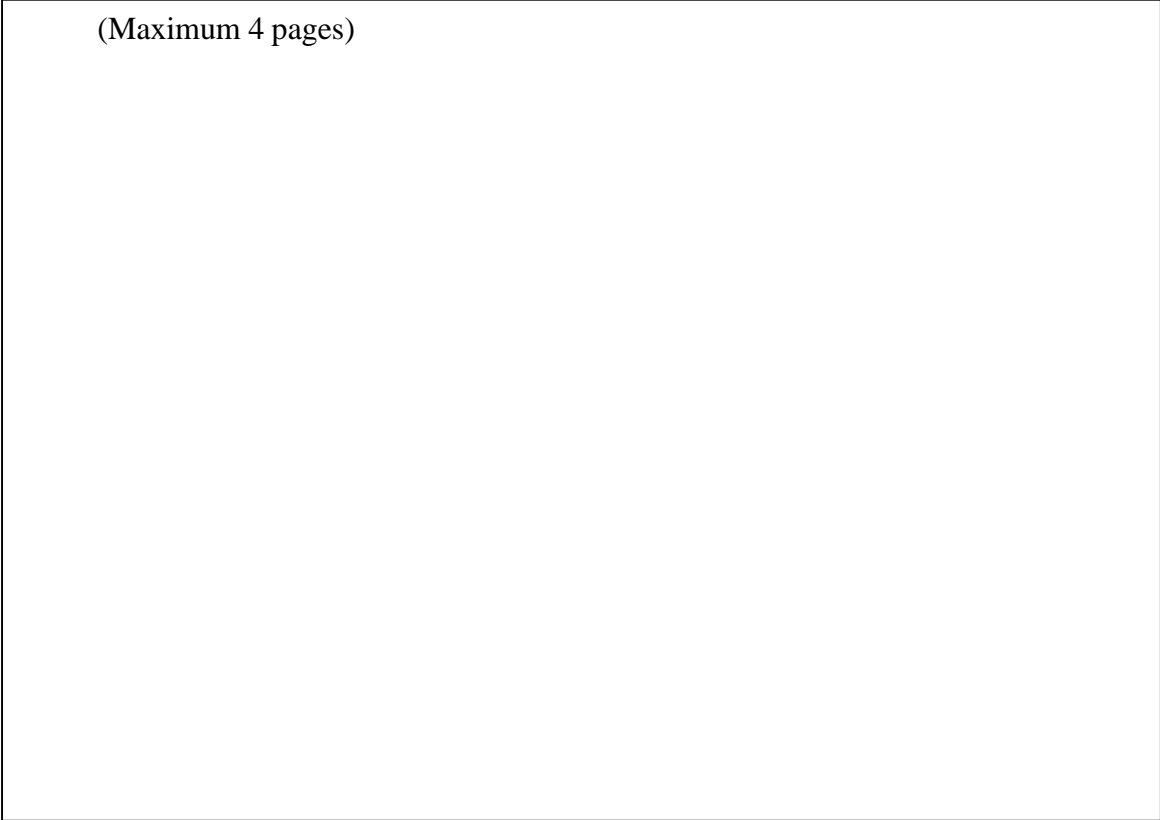
Note: Please attach Letter of Intent or Purchase Order or certificate of successful completion for each project, from the respective Client(s).

Witness:	Consultant:
s:	Signature
Name -	Name -
Address -	Designation -
	Company -
Date _____	Date -
-	-

11.6. RFP Form 4: Approach and Methodology

[Explain your understanding of the objectives of the Assignment/job, approach to the Assignment/job, methodology for carrying out the audit and obtaining the expected output, and the degree of detail of such output. You should explain the methodologies you propose to adopt].

(Maximum 4 pages)



Witness:
Signature
Name

Consultant:
Signature
Name

Address

Designation

Company

Date

Date

11.7. RFP Form 5: Proposed Work Plan including the timelines.

The work plan shall be task specific. However, the agency shall include a one page description on product understanding for each product under the respective group for which the consultant is submitting the proposal.

WORK SCHEDULE S.No.	Activity
No. of Days	

1.

2.

3.

4.

11.8. RFP Form 6: Resumes of the members in the proposed team.

Consultants shall submit full resumes of the team leader and members of the team proposed for the assignment, including contact information as per the following format (in max. 2 pages).

1) Name:

2) Complete Contact Information:

3) Proposed Position:

4) Educational Qualification:

5) Employment Record:

6) Relevant Work Experience / Work Undertaken that best illustrates capability to handle the proposed task:

7) Certification / Signature

11.9 RFP FORM 7: DECLARATION LETTER

Declaration Letter on official letter head stating the following:

We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract

We are not black-listed by any Central / State Government / Public Sector Undertaking in India

Witness:

Signature

Name

Address

Company

Date

Consultant:

Signature

Name

Designation

Date

Annexure – 1

Format for Financial Proposal

[Location, Date]

FROM: (Name of Firm)

TO: (Name and Address of Client)

Subject: Financial Proposal for Hiring of Energy Auditing Firm for Energy audit work Street lights for Intelligent street light project at various locations of Bhopal city.

I / We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated *[Date]*, with our Technical and Financial Proposals.

Our attached Financial Proposal (RFP No.) is Hiring of Energy Auditing Firm for Energy audit work Street lights for Intelligent street light project at various locations of Bhopal city is for the sum of *[Amount in words and figures]*.....Plus Service tax as applicable.

Our financial proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal, i.e., *[Date]*.

We confirm that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We understand you are not bound to accept any Proposal you receive.

Yours sincerely,
Authorized Signature:
Name and Title of Signatory:
Name of the Firm:
Seal

Annexure-2**List of Roads**

Sr No	Name of Road
1	BRTS Corridor
2	Main road no 2
3	Main road no 3
4	Kolar Triangle to Gehunkheda
5	Subhash schook to Rajeev Gandhi Collage
6	Karod square to Bhadbhada (Nishatpura Railway crossing DIG Banglow, Bhopal Talkies, Bus Stand, Railway stations, PHQ, Roshanpura)
7	VIP road
8	Air port to LalGhati
9	Plate form no 1 to Habibganj Naka
10	Bharat Talkies to Anand Nagar
11	74 Bunglow Area
12	Char Imli Area
13	45 Bunglow Area
14	Van Vihar to D B mall
15	Bans Khedi road
16	10 No market to K N Pradhan Estate
17	DRM Office to 4 B Saket Nagar
18	RRL Office to Aims
19	Best Price to DIG Bunglow
20	Royal Market Bhopal Talkies
21	Royal Market lady Hospital
22	J P Nagar to Plate form no 06
23	D B Mall to Lily Talkies
24	Gamon India to MANIT
25	Bharat Mata Square to Polytechnic square
26	Bharat Mata Square to C M house
27	P & T square to Shabri Nagar
28	Lalghati square to Nevri mandir
29	Kamla Nagar Ekta Market to Vaishali nagar
30	Kalpana nagar to J K road
31	Azad market Bhavani chowk, Somwara, Jumerati, Chowk Bazar, Ghoda Nikkas
32	New market area
33	Shahapura A, B,C sector
34	Eid Gah hills
35	Bairagarh
36	Shakti nagar,
37	Saket Nagar
38	Arvind Vihar
39	Bagh Mughaliya
40	Sindhi colony

41	Kabad Khana area
42	Lalghati Gufa Mandir
43	Danish Kunj, MP NAGAR ZONE1
44	Sarvdharm colony /MP NAGAR ZONE2
45	Misrod
46	Vidhya Nagar
47	Housing board colony Karod
48	Chholla
49	Ashoka Garden
50	Old and new Subhash nagar area
51	Ashok vihar, 80 feet road
52	Jeewan Jyoti
53	Ashbagh are
54	Pushpa nagar, chand bad,
55	Naveen Nagar, Dwarka nagar, Rajend nagar, Shankracharya Nagar
56	Punjabi bagh
57	Indrapuri A, B, C sector
58	Nehru Nagar
59	Kotra
60	Kamla Nagar
61	Rachna Nagar
62	Aradhna nagar
63	Gautam nagar
64	Shanti niketan
65	1100 Quarter
66	E 1 to E8
67	Sonagiri A,B,C Sector
68	Koh-E-fiza , Housing board and B D A
69	Shyamla hills area
70	Professor colony

