

Expression of Interest
FOR
ENERGY AUDIT
AT
JAMIA HAMDARD



JULY, 2016

E&M DEPARTMENT
JAMIA HAMDARD

HAMDARD NAGAR

NEW DELHI – 110062

Jamia Hamdard
(Hamdard University)
Hamdard Nagar, New Delhi – 110062

Expression of Interest for the Selection reputed agencies/ consultants to carry out Energy Audit of about 3000 KVA load at Jamia Hamdard.

The Registrar, Jamia Hamdard (Hamdard University) invites Prequalification of reputed consultancy to conduct Energy audit of about 3000KVA load at Jamia Hamdard and preparation of Energy Management Guidelines with emphasis on the use of Non Conventional Energy Sources for Jamia Hamdard Buildings and Campus Infrastructure. The Short listed firms fulfilling the pre-qualification criterion as per details bellow will be invited to participate. Preference shall be given to those firms certified by Bureau of Energy Efficiency (Government of India).

Last date of the receipt of pre-qualification offer shall be 05-08-2016 and the same be deposited in the tender box of Purchase Section (basement administrative block) by 1.00PM.

Prequalification Criterion:

- i) The complete profile of the firm along with organizational structure.

S. No.	Particulars	Remarks
1.	Two similar consultancy works each of minimum Rs.10 Lakhs in consultancy, in the last one year or	
2.	One similar consultancy work for Rs.20 Lacs during last one year ending 31-03—2016. At least one completed work should be in Central/State Government Organization/Central autonomous bodies/Central Public Sector Undertaking.	
3.	The firms should have valid Service Tax, TIN, ROC-CIN (if applicable) registration. The experience of promoter be given due weightage to count the minimum experience.	

ii) Complete List of Machinery and Equipments and details of Technical Manpower along with supporting staff and in house capability duly signed and sealed on company's letter head.

iii) Copies of Completion and Performance Certificates (duly attested) for similar scope of works issued by the officer of the Client/Department of the rank of Executive Engineer/equivalent or the Head of the Institution will have to be furnished along with the application. The completion certificate must clearly indicate the following:

The date of completion of work with cost of completed work with letters of successful completion. Nature and Scope of work, Time period of completion.(Attach Client's List)

IGBC/USGBC Certified Professionals should submit supporting documents. will be given preference.

BEE, Govt.of India Registered or approved firms will be given preference.

Similar work means Energy Audit/Monitoring of all buildings and campus services/infrastructure for a period of 9 months to cover the peak and lean phases and Preparation of Energy Management Framework for Energy Retrofit of existing buildings and Design Criterion/Technology integration for New Buildings, use of Non conventional Energy(Solar Power) .

The consultants will be required to prepare a methodology for conduct o audit, documentation of data and analysis and thereby formulation of guidelines supported by Design Calculations and Drawings. The entire work will be documented and Reports will be submitted separately for Audit /Management and Guidelines.

The firms are advised to enclose attested copies of all relevant documents along with valid PAN,Service tax, TIN,CIN registration.

1.Scope of Work :

- 1.Review of Electricity Bills, Contract Demand and Power Factor
- 2.Electrical Distribution System
- 3.Refrigeration & Air Conditioning
- 4.Pumps & Motors STP's
- 5.Lighting (internal and external)
- 6.DG Sets

Brief Head-wise description is given below :-

1.1 Review of Electricity Bills, Contract Demand and Power Factor:

For the last two year, in which possibility will be explores for further reduction of contract demand.

1.2 Electrical Distribution System:

Review of present electrical distribution like Single Line Diagram (SLD), transformer, cable loading, Feeder wise loading, normal and emergency loads, electricity distribution in various areas/ floors etc.

Study of Reaction Power Management and option for power factor improvement

Study of power quality issues like power factors, voltage, currents, active powers, reactive powers, apparent powers, THD & Harmonics at various load feeders.

Various graphs showing the voltage level current levels & harmonics.

Collection of inventory data of all connected load including Capacitors to be recorded showing details on rated wattage per kW, operating hours/ Peak load on daily basis.

Load unbalance with respect to voltage and current shall be checked.

Thermography: Analyze the heat dissipation from electrical equipments & identify the hot points & provide suggestion to reduce the losses due to heat dissipation.

Exploration the Energy Conservation Option (ENCON) in electrical distribution system to optimize transformer loading & improving in level metering

Exploring the solution for improving the power quality

1.3 Refrigeration & Air Conditioning:

Review the performance of the refrigeration & air conditioning systems including AHU, Chillers & Cooler tower.

Find out Energy Efficiency Ratio, kW/TR Specific TR loading and KWh Calculation, available TR in the area through measuring velocity of air flow, temperature & humidity requirement as per existing & for the proposed recommendation to suggest energy conservation means to improve the same.

Collection of Inventory data of Air conditioners/ Sample size selection and testing of power consumption and capacity (TR) delivered under the existing weather conditions/ air conditioned floor area.

1.4 Pumps & Motors:

Performance assessment of lift system, water pumping, storage and distribution systems.

Measurement of Head/ pressure, flow, power and determination of pump/ motor loading motor loading based on measured parameters.

Exploring the Energy Conservation Option (ENCON) in water pumping system. All saving & recommendation will be backed by detail calculation providing the technical details of each recommendation.

1.5 Lighting:

Measurement of light intensity, lux levels at all locations Study of type of lamps used; day time lighting requirements & improvements etc.

Collection of inventory data of fixtures/ lux measurement and power consumption measurement at each location.

Analysis and calculation of zone wise lux/ Lighting power consumption in term of kW/fixture along with the diagrammatic representation.

Recommendations for energy savings while maintaining required luminaire at each room/ floor level shall be provided

1.6 DG Sets:

Review of operation & performance of DG set through units generated, combustion analysis and diesel consumption

Specific fuel consumption in terms of g/kWh, g/kVAh & to suggest for energy conservation opportunity and suggestion for optimization

The entire recommendations would be backed up with techno-economic calculation including the estimate investment period required for implementation of suggested measurements and simple payback period. Measurement would be made using appropriate instrumentation support for lapse and continuous record of the operational parameters.

2- CHECK LIST OF THE DOCUMENTS TO BE SUBMITTED BY THE TENDERER/S ALONG WITH PART-I

- i) Firm's registration details and full name and address of the tenderers written on bottom left hand corner of sealed envelope.
- ii) Power of attorney in case the tender is signed by the authorized representative of the tenderer.
- iii) Permanent income tax account number.
- iv) Average annual financial turnover during the last three years ending 31st March of the previous financial year, should accompany a certification from the registered Chartered Accountant.
- v) Copy of Service Tax registration/ Particulars of registration/ Declaration on stating willingness to comply with the provision of PF authority on award of work.
- vi) Every bidder will have to submit a declaration in support of the authenticity of credentials submitted by him along with the Tender in the form of an AFFIDAVIT (DULY NOTARIZED) as per the format provided in the tender document.

3- Evidence of possessing adequate working capital (at least 20% of the annualized value of this work) inclusive of access to lines of credit and availability of other financial resources to meet the requirement. Note: Financial turn over and cost of completed works of previous works shall be given a weightage of 5% per year (average annual rate of inflation) to bring them at current price level.)

- i) Sub contractors experience and resources will not be taken into account in determining the Bidders' compliance with qualifying criteria.
- ii) Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements.

4-STATUS OF THE FIRM:

Copy of the following as applicable should be enclosed to indicate status of the firm. :-

- a) Partnership deed.
- b) Memorandum and Articles of Association.

through Jamia Hamdard web site even on last date of availability of tender document.

10) Declaration

Stating that the firm/institution is not banned or delisted by any Govt./Quasi Govt. agencies or PSU's .If this is not given the bid will be rejected as non responsive.

11) Details of bank account for payment through Electronic Fund Transfer (EFT) (Format enclosed).

Register

(Signature with Seal of bidder)