

## **BID NOTICE**

Chief Engineer (B&R), on behalf of Maharashtra State Electricity Distribution Company Limited (the Employer), hereby invites sealed bids from eligible bidders for **“Request for proposal (RFP) for carrying out annual energy audit in Maharashtra State Electricity Distribution Company Limited (MSEDCL) as per Bureau of Energy Efficiency Regulation dated 06-10-2021”**. Entire bidding document is available on MSEDCL e-Tendering Website <http://etender.mahadiscom.in> as per date indicated below. Any changes in the Bid Schedule, corrigendum etc. shall also be notified via MSEDCL’s website. Prospective bidders are therefore requested to regularly check the website for any updates.

<b>Timelines of tender</b>	<b>Date and Time</b>
Tender Document Sale/download	27.05.2022
Date and time of Pre-bid Meeting through Video conferencing Google Meet link: <a href="https://meet.google.com/uae-xpeo-ydw">https://meet.google.com/uae-xpeo-ydw</a>	31.05.2022 at 15:00 Hrs.
Due date and time of submission of Bids	06.06.2022 at 17:00 Hrs.
Date of Technical Bid Opening	06.06.2022 at 17:15 Hrs.

**Tender Fee: Rs. 1,180/-** incl. 18% GST via online payment only (Non-Refundable)

Interested parties may register on MSEDCL E-tendering website: “<http://etender.mahadiscom.in>” and purchase Tender by online payment of Tender fees Rs.1,180/- including GST.

**Bid Security:** The bid must be accompanied with Bid Security (EMD) for an amount in Indian Rs.6,000/- (Rupees Six Thousand only) by way of **online payment** through e-tendering website or be **in the form of a demand draft or an unconditional Bank Guarantee** from any Nationalized / Scheduled Bank in favour of Maharashtra State Electricity Distribution Company Limited, payable at Mumbai.

## **QUALIFICATION CRITERIA:**

The bidder (individual or members of Consortium collectively unless explicitly mentioned) should meet the Qualification Criteria as mentioned in below table:

<b>Sr.no</b>	<b>Type</b>	<b>Description</b>	<b>Evaluation</b>
1	Definition of Bidder	<p><b>1] Bidder:</b></p> <ul style="list-style-type: none"> <li>The bidder can be an individual organization/company/ firm or consortium of maximum two (2) organizations/ companies/ firms registered in India under companies Act 1956 or Companies Act 2013, or Societies Registration Act or Firm registered with Registrar of firms in India who fulfils the eligibility criteria.</li> </ul> <p><b>Lead Bidder/ Lead Consortium Member:</b></p> <ul style="list-style-type: none"> <li>In case of consortium, one of the consortium members responsible for performing key components of the contract</li> </ul>	<p>1] Certificate of Incorporation issued by Registrar of Companies or Article of Association or certificate issued by Registrar of Firms or Societies or Registered Partnership Deed / In case of Proprietor Udyam Certificate (SSI) or Shop &amp; Establishment License</p>

		<p>shall be designated as Lead Bidder. Evidence of this authorization shall be provided by submitting a power of attorney signed by legally authorized signatories of all consortium members along with the bid.</p> <ul style="list-style-type: none"> <li>The Bidder (in case of consortium, lead member of consortium) shall have a registered office and operations in India with at least 10 years of experience in the field of consultancy services/research area. Also each member of consortium shall have registered office in India.</li> </ul> <p>2] The Bidder (individual/ all members of consortium) shall have a valid PAN and GSTIN Number if applicable.</p> <p>3] The Bidder (individual/ all members of consortium) should not have been blacklisted or barred by any of the Central Government/ State Government /Public Sector Undertaking (s) (PSUs), Regulatory Agencies and private organizations.</p>	<p>2] Copy of relevant certificates indicating PAN number, GST registration number (GSTIN).</p> <p>3] Undertaking signed by its Authorized Signatories that bidder (individual/ all members of consortium) is not blacklisted.</p> <p>In case of consortium, each member should submit separate undertaking.</p>
2	Experience criteria	<ul style="list-style-type: none"> <li>The bidder should have carried out at least one project of Energy Audit in any Indian DISCOM on commercial basis during last 5 years.</li> <li>Free pilot project experience will not be accepted.</li> </ul>	<ul style="list-style-type: none"> <li>Documentary evidence of Satisfactory work completion report issued by DISCOM.</li> </ul>
3	Financial Strength	<ul style="list-style-type: none"> <li>The bidder should have minimum average Annual financial turnover of atleast Rs 1.8 lakhs for the last three financial years (i.e. FY 2018-19, 2019-20,2020-21).</li> <li>Net Worth for the each of the last three Financial Years should be positive.</li> </ul> <p>Net worth means the sum total of the paid up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated loses (including debit balance in profit and loss account for current year) and intangible assets.</p>	<p>1. Copy of the Audited Annual financial statements, Balance Sheet and P&amp;L Account for the respective financial years.</p> <p>2. Net worth certificate duly certified by Chartered Accountant to be submitted as a proof of net worth.</p>
4	Employee Capability	<ul style="list-style-type: none"> <li>Consultant shall have following as minimum team strength of 5 personnel- <ul style="list-style-type: none"> <li>1. Team Leader (1 no.)- Accredited Energy Auditor with Graduate in Engineering having 10 years working experience in power distribution sector.</li> <li>2. Team Member (1 no.)- Certified Energy Auditor Graduate in Engineering having atleast 5 years of experience in working on projects/assignments with DISCOMs.</li> <li>3. Team Member (2 nos.)- Electrical Engineer/Diploma Engineer having atleast 3 years of experience in working on projects/assignments with DISCOMs</li> <li>4. Sector Expert (1 no.)- Retired DISCOM official not less than rank of Superintending Engineer having more than 15 years' of experience.</li> </ul> </li> <li>The team should be led by BEE Accredited energy Auditor (AEA).</li> <li>Team Leader/authorized member should be reporting to MSEDCL as communicated by (Agency Name).</li> <li>The bidder should submit detailed resumes with contact information for all experts as above who are proposed to be deployed for this work.</li> </ul>	<p>Self-Certification from Authorized Signatory along with names of the experts</p> <p>Signed resumes of the employees/ experts.</p> <p>Necessary certificate/ document should be submitted.</p>

## **BRIEF SCOPE OF WORK:**

The following is the brief scope of services of the firm:

1. Energy Audit should be carried out in line with the Regulation to Conduct Annual Energy Audit in Electricity Distribution Companies, 2021.
2. Preparation of checklist/action plan for Energy Audit.
3. Proforma of Energy Audit will be shared with selected agency after the issuance of LoA. DISCOM visit should be carried out by all team members of the agency as per the team declaration in technical proposal. Energy Audit regulation, 2021, proforma's (formats) will be used for this audit. The regulations along with proforma's (formats) are enclosed.
4. Collection and Review of the energy related data of Financial Year (i.e. FY 2021-22 and FY 2022-23) in the Proforma by visiting the DISCOM physically.
5. Verification of existing pattern of energy distribution across periphery of electricity distribution company.
6. As part of energy auditing, the 20 number of substations are to be physically verified as a sampling plan and accordingly bidder can quote. All expenses required for this activity are to be borne by bidder.
7. Collection and verification of energy flow data of electricity distribution company at all applicable voltage level of distribution network (please refer energy audit regulation).
8. Collection of data on energy received and distributed by DISCOM and verify the accuracy of data.
9. Collection & analysis the data and prepare the same with report;
  - I. Input energy details:
    - a. Collection of input energy from recorded system meter reading
    - b. All the inputs points of transmission system
    - c. Details provided by transmission unit
    - d. Recorded meter reading at all export points (where energy sent outside the State (interstate as well as intrastate)is from the distribution system);
    - e. System loading and Captures infrastructure details (i.e. no of circle, division, sub-division, feeders, DTs, & Consumers)
  - II. Parameters for computation of distribution losses:
    - a) Details of open access, EHT sale, HT sale, LT sale and transmission losses
    - b) Number of consumers category wise in each circle
    - c) Consumers connected load category wise in each circle
    - d) Details of billed and un-billed energy category wise of each circle
    - e) Metered and un-metered details.
    - f) Division and Circle wise losses of all division and circles under DISCOM periphery
    - g) Boundary meter details
    - h) Energy Cost and Tariff data
    - i) Source of energy Supply (e.g. electricity from grid or self-generation), including generation from renewables;
    - j) Energy supplied to Open Access Consumers which is directly purchased by Open Access Consumers from any supplier other than electricity distribution company
- III. Monitoring and verifications of input energy and consumption pattern at various voltage levels

- IV. Identify the areas of energy leakage, wastage or inefficient use;
  - V. Identify high loss-making areas/networks, for initiating target based corrective action;
  - VI. Identify overloaded segments of the network for necessary capacity additions.
  - VII. Computation of agriculture consumption (approved by MERC(Maharashtra Electricity Regulatory Commission))
  - VIII. Methodology for loss computation various losses.
  - IX. Computation of Average Billing Rate (ABR)
    - a) Total revenue billed category wise.
    - b) Category wise ABR with tariff subsidy.
    - c) Category wise ABR without tariff subsidy.
  - X. Collection Efficiency (Category wise) and computation of AT&C loss.
10. Observe and compile various Energy Conservation (ENCON) options implemented by the DISCOM and prepared report containing details of expenditure made by DC along with saving and payback period.
  11. Recommendations to facilitate energy audit, energy accounting and improve energy efficiency
  12. Study the details of loss/gain of DISCOM, analysis of Average Cost of Supply (ACS) and Average Revenue realized (ARR) gap, details of energy charges/Power purchase cost along with the financial analysis.
  13. Current System Metering Status at various voltage level of DISCOM
    - Status of Functional meters for all consumers, transformers and feeders.
    - Status of default meters (non-functional meters) for all consumers, transformers and feeders
  14. Current status of pre-requisites mentioned in regulations (Please refer energy accounting regulation).
  15. Copies of relevant authentic and certified documents should support the report. Each document should be sealed and signed by DISCOM authorized representative as well as by agency's AEA.
  16. Prepare final report of DISCOM as per the scope of work and as per the regulation of Energy Audit, 2021, in a standard format duly indexed, covering profile of the unit and its details of energy related data w.r.t DISCOMs Sector, analytical & Statistical details and any other relevant information. The queries with respect to the audit report raised by BEE need to be complied by agency.
  17. The agency shall adhere to the timelines for submission of annual energy audit report to BEE as below:

Sr. no.	Financial year	Timeline
1	FY 2021-2022	On or before 4 <sup>th</sup> July-2022
2	FY 2022-2023	On or before 4 <sup>th</sup> July-2023

The timelines as mentioned above are as per present BEE Regulations, 2021. However, if there is any change the same shall be adhered to by the agency.

**Important Note:**

If Bidder has not participated in any tender of MSEDCL in the past, then it should go through 'Vendor Registration manual' for Works Tenders available on e-Tender portal and create the 'Contractor' Account for participating in Works tender at e-Tender portal which can be created at no cost. Vendor manuals for Registration & Bid Submission can be found at MSEDCL's eTender Portal (Download Section). Bidder will be solely responsible for any mistake in account creation/wrong category. After creation of account, kindly go through 'Bid Submission manual' for Works Tender to understand the procedure of uploading Bids on e-Tender portal. Please note that Bidder has to purchase the tender (by paying Bid Fee) before submitting their Bid.

**Chief Engineer (B&R)**

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