



ENERGY MANAGEMENT CENTRE-KERALA

SREEKRISHNA NAGAR, SREEKARIYAM P.O, TRIVANDRUM

Phone No.: 2594922, Fax: 0471 2594923

www.keralaenergy.gov.in

TENDER NOTICE

Energy Management Centre- Kerala invites limited tenders from eligible bidders (Valid EMC Empanelled Energy Audit Firm) for Investment Grade Energy Audit at 6 selected MSME Rubber Units at Kottayam District, Kerala. Interested eligible Bidders may obtain further information from the office of Energy Management Centre during Office hours.

The bid shall be submitted in a two-cover system consisting of technical bid and price bid. The price bid of those who qualify in the technical bid shall only be opened.

Detailed terms and conditions as well as technical specifications are contained in the bid document of the above work, which is uploaded in the Website of Energy Management Centre

Sl No	Name of Work	Investment Grade Energy Audit at 6 selected MSME Rubber Units at Kottayam District, Kerala.
1.	TENDER No.	EMC/521/2022-ETB-3(EED)-T01 dated 29/10/2022
2.	Estimated Cost	Rs. 2,00,000/-
3.	EMD	Rs. 5,000/-
4.	Cost of tender form	Rs. 500/- (+ 12 % GST)
5.	Date of publishing bid documents	29/10/2022
6.	Document download starting date	29/10/2022
7.	Bid clarification starting date	30/10/2022
8.	Bid clarification closing date	08/11/2022
9.	Bid submission starting date	31/10/2022
10.	Deadline for submission of Hardcopy (Bid agreement) to the Office of the tendering authority.	14/11/2022 05:00 PM
11.	Bid opening date	15/11/2022
12.	Time of completion	60 days from the date of Execution of Agreement
13.	Bid validity	180 days

Director

Thiruvananthapuram

29/10/2022

ENERGY MANAGEMENT CENTRE-KERALA

SREEKARIYAM, THIRUVANANTHAPURAM – 695017

NOTICE INVITING TENDER (Limited Tender) for the Investment Grade Energy Audit at 6 Selected MSME – Rubber units at Kottayam District, Kerala.

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Competitive sealed tenders are invited from Valid EMC empaneled energy audit firms. The firm should have conducted Minimum of one similar work (Energy Audit in Industry or MSME units with thermal utilities) in the immediate previous three years. Bidder shall enclose the completion certificates received from clients or Energy Audit reports as support of experience.

This tender is being published online for the **Investment Grade Energy Audit at 6 Selected MSME – Rubber Units at Kottayam District, Kerala**. The tender is invited in two cover system from the registered and eligible firms.

Tender no: EMC/521/2022-ETB-3(EED)-T01 dated 29/10/2022

Name of work: – Investment Grade Energy Audit at 3 Selected MSME – Rubber Units at Kottayam District, Kerala.

Scope of work: – Investment Grade Energy Audit (Detailed) at 3 Selected MSME – Rubber Units at Kottayam District, Kerala and submission of Energy Audit Report.

Location: Kottayam District District, Kerala

Tender documents can be downloaded from Energy Management Centre Website from X onwards.

Cost of tender document: Rs.500 (plus GST @ 12 %) in the form of NEFT / Online Bank Transfer to the below account or Demand Draft drawn from any Nationalized Bank favouring “The Director, Energy Management Centre Kerala”

Last date and time for submission of tender – 14/11/2022 17:00 hrs.

Period of Completion: 60 days from the date of Execution of Agreement

The Tenderer shall quote the rates including all taxes, duties and levies. The Tenderer shall submit the bid for the complete scope of the work and submission for part of the work will be rejected.

An Earnest Money Deposit (EMD) of Rupees Three Thousand only (Rs. 5000/-) and the non-refundable Tender document cost of Rs. 500/- + GST (12%), a total of Rs. 5,560/- (Two Five

Thousand Dive Hundred and Sixty only) including GST shall be remitted as one single transaction and not separate in the form of NEFT / Online Bank Transfer to the below account or Demand Draft drawn from any Nationalized Bank in favour of "Director Energy Management Centre Kerala" Payable at Trivandrum. In case of online transfer, a copy of transaction slip shall be enclosed as proof of payment. Separate or split remittance for tender document fee and EMD shall be treated as invalid transactions. Mode of payment other than Demand Draft on Behalf of Director Energy Management Centre Payable at Thiruvananthapuram will not be allowed. With the provisions of G.O (P) No.2/2019/SPD dated 24/01/2019, EMD and Tender Fees are exempted for MSMEs registered in Kerala with Valid Udyog Aadhaar Number / Udyam registration. The proof of the same shall be uploaded along with Tender submittals in the Technical Bid.

Account Name	Energy Management Centre
Account No	32860100005883
Bank and Branch	Bank of Baroda, Ullur Branch
IFSC Code	BARB0ULLOOR

Originals of Bid Document enclosed in a sealed envelope shall be submitted to the Director, EMC before the date and time mentioned. Tenderer shall supply the proof of having Energy Audits conducted with its completion certificate issued by the respective clients along with the tender.

The tender details are available in the EMC website www.keralaenergy.gov.in in the bidding authority reserves the right to modify/cancel any or all bids without assigning any reasons. EMC will not be responsible for any errors like missing of schedule data while downloading by the bidder/ non receipt of document/delay if any.

Further details can be had from

The Director

Energy Management Centre

Department of Power

Sreekrishna Nagar, Sreekaryam P.O

Thiruvananthapuram – 695017

Email: emck@keralaenergy.gov.in

Note: - If any of the dates mentioned above happens to be a holiday, the actual dates for the same will be the next working day. No separate intimation in this regard will be issued.

Tender closes for bidding on - 14/11/2022 at 17.00 hrs

**Director,
Energy Management Centre
Sreekrishna Nagar, Sreekariyam,
Thiruvananthapuram,
Kerala, - 695017
Thiruvananthapuram**

Tender Document

For

**Investment Grade Energy Audit at 6 selected MSME
Rubber Units at Kottayam District, Kerala.**

Tender No: EMC/284/521-ETB-3(EED)-T01 dated 29/10/2022

**Energy Management Centre - Kerala,
Sreekariyam.P.O
Thiruvananthapuram - 695 017
Kerala**

Table of Contents

SECTION-I	4
SUMMARY	4
1. Tender Number & Title	4
2. Background	5
3. TERMS & CONDITIONS	5
c. Documents Comprising Bid:	5
d. Tender Document Fees and Earnest Money Deposit (EMD)	6
4. Tender Schedule/Critical Dates	6
SECTION-II	7
INSTRUCTION TO BIDDERS	7
1. Eligible Bidders	7
2. Cost of Bidding	7
3. The Bidding Documents	7
4. Amendment of Bidding Documents	7
5. Preparation of Bids	8
5.1. Language of Bid	8
5.2. Documents comprising the Bid	8
6. Bid Prices	8
7. Bid Currencies	9
8. Documents Establishing Bidders' Eligibility and qualifications	9
9. Earnest Money Deposit (EMD)	9
10. Validity of Bids	10
11. Variations in bidding conditions	10
12. Submission of bids	11
13. Evaluation of Tender	11
14. Award of Contract	11
15. Notification of Award	11
16. Signing of Contract	12
17. Performance Security	12
GENERAL CONDITIONS OF CONTRACT	14
1. Definitions	14
2. Time of Completion	14
3. EMC's right to vary quantities at the time of award	14
4. EMC's Right to Accept Any Bid and to Reject Any or All Bids.	14
5. Acceptance of Communication of Assignment	15
6. Authenticity of Data	15
7. Acceptance of Reports	15
8. Submission and Presentation of the Draft report:	15

10. Mode of Payments	15
11. Subcontract/Outsourcing	16
12. Insolvency or Liquidation	16
13. Events of default	17
14. Termination due to Events of default	17
15. Governing Law & Jurisdiction	18
16. Appropriation from Payments	18
17. Letter and/or notice to be served	19
18. Revision of Rates	19
19. Disqualification	19
20. Acceptance of Penalty Clause	19
21. Lump Sum Firm Price and Taxes & Duties	19
22. Special conditions if any	19
23. Agreement	19
24. Insurance & Safety	20
25. Liquidity Damages	20
25. Force Majeure	20
26. Resolving Dispute	20
SECTION-IV	22
Scope of Work	22
Annexure 1	30

SECTION-I

SUMMARY

1. Tender Number & Title

Tender No: EMC/521/2022-ETB-3(EED) dated 29/10/2022

Tender Title: Investment Grade Energy Audit at 8 selected MSME Rubber Units at Kottayam District, Kerala.

About EMC: Energy Management Centre –Kerala (EMC) was established in 1996 as an autonomous organization under the Department of Power, Government of Kerala. Government of Kerala, vide G.O (P) No./3/03/PD dated 18.12.2003 has notified Energy Management Centre (EMC) as the State Designated Agency (SDA) to co-ordinate, regulate and enforce the provisions of the Energy Conservation Act, 2001 within the State of Kerala.

2. Background

Energy Management Centre –Kerala (EMC) with the support of Bureau of Energy Efficiency (BEE) intended to carry out Investment Grade Energy Audit (Detailed) at 8 selected MSME Rubber Units at Kottayam District, Kerala. The energy audit activity shall be Investment Grade (IGEA) converging to Detailed Project Report (DPR) and broadly comply with the Energy Audit Manual prepared by EMC and National Productivity Council and applicable IS and BEE specifications and guidelines.

EMC, BEE and Sector experts, if any, by EMC shall monitor each phase of the energy audit and the Energy Auditor shall be transparent to the energy performance evaluation and other field activities.

3. TERMS & CONDITIONS

Opening of Technical Bid and Bidder short-listing: The technical bids will be opened, evaluated and short listed as per the eligibility criteria and technical qualifications. All documents in support of technical qualifications shall be submitted on sealed covers. Failure to submit any of the requisite documents will attract disqualification. Bids short listed by this process will be taken up for opening the financial bid.

Opening of Financial Bids: Bids of the technically qualified bidders shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in the critical date's section.

c. Documents Comprising Bid:

i. The First Stage (Pre-Qualification or Technical Cover based on 1st cover of 2 cover tender system):

Pre-Qualification or technical proposal shall contain the following documents, which every bidder has to submit:

As mentioned in Clause 8 of Section II.

ii. The Second Stage (Financial Cover or as per tender cover system):

The Bidder shall complete the Price bid as per format given along with this tender.

Fixed price: Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable/variable price quotation will be treated as non-responsive and rejected.

d. Tender Document Fees and Earnest Money Deposit (EMD)

The Bidder shall pay a tender document fee of Rs. 500/- + GST (12%) and Earnest Money Deposit or Bid Security of Rs.5000/-. With the provisions of G.O (P) No.2/2019/SPD dated 24/01/2019, EMD and Tender fees are exempted for MSMEs registered in Kerala with Valid Udyog Aadhaar Number / Udyam Registration. The proof of same shall be uploaded along with Tender submittals in the Technical Bid. The Bid security is required to protect EMC against the risk of Bidder's conduct, which would warrant the forfeiture of bid security. No bidders are exempted from paying the EMD and the tender fees.

4. Tender Schedule/Critical Dates

Publish Date	29/10/2022	Bid Submission start Date	31/10/2022
Document Download Start Date	29/10/2022	Bid Submission End Date	14/11/2022
Clarification Start Date	30/10/2022	Date of opening of technical cover	15/11/2022
Clarification End Date	08/11/2022	Date of opening of price bid	16/11/2022

SECTION-II

INSTRUCTION TO BIDDERS

1. Eligible Bidders

1.1 This invitation for Bids is open to all eligible bidders as per the eligibility criteria of this bidding document and that possess necessary license/certificate issued by Competent Authorities.

1.2 The bidder

Shall be Energy Management Centre Empaneled Energy Audit Firm currently having the validity and having previous experience in the field of Energy Efficiency study and energy audit of Industries.

2. Cost of Bidding

2.1 The Bidder shall bear all costs associated with the preparation and submission of his bid, and the ENERGY MANAGEMENT CENTRE-KERALA, hereinafter referred to as "EMC ", will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

3. The Bidding Documents

3.1 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidders risk and may result in the rejection of its bid.

4. Amendment of Bidding Documents

4.1 At any time prior to the deadline for submission of bids, EMC may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by amendment.

4.2 The amendment will be notified in the website and will be binding on all the bidders who submit the tender document.

4.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, EMC may, at its discretion, extend the deadline for the submission of bids.

5. Preparation of Bids

5.1. Language of Bid

The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the Bidder and EMC, shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the bid, the English translation shall govern.

5.2. Documents comprising the Bid

The bid prepared by the Bidder shall comprise the following components:

- a) A Bid Form and a Price Schedule
- b) Documentary evidence established in accordance with the relevant clause that the Bidder is eligible to bid and is qualified to perform the contract if bid is accepted.
- c) Documentary evidence established in accordance with the relevant clause that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the Bidding Documents; and
- d) Earnest Money Deposit furnished details.

6. Bid Prices

6.1 Unless stated otherwise in the bidding documents, the contract shall be for the *Investment Grade Energy Audit at 3 selected MSME Rubber Units at Kottayam District, Kerala* as described in the invitation for bid based on the lump sum rates and prices submitted by the bidder.

6.2 The bidder shall fill in rates and prices for all items described in the Schedule of quantities, whether quantities are stated or not. Items against which no rate is entered by the bidder shall not be paid for by EMC when executed and shall be deemed to have been covered by the other rates in the schedule of quantities.

6.3 Fixed price

The rates and prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subjected to adjustment on any account.

6.4 Price adjustment

Rates and prices quoted by the bidder shall not be subject to adjustment during performance of the contract to reflect the change in the costs of labour and material components.

6.5 The Tenderer shall quote the rates including all taxes, duties and levies. But the successful tenderer shall produce proof of payment of all taxes and duties. The

Tenderer shall submit the bid for the complete scope of the work and submission for part of the work will be rejected.

7. Bid Currencies

For all goods and services covered in this Bidding Document, prices shall be quoted in Indian Rupees only.

8. Documents Establishing Bidders' Eligibility and qualifications

8.1 The Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualification to perform the Contract if its bid is accepted. For the purpose of this bidder shall meet the following qualification criteria as a minimum.

8.2 The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted shall be established to EMC's satisfaction that, the Bidder has the financial and business capability necessary to perform the Contract. To this end, all bids submitted shall include the following information.

- Details of valid empanelment with EMC and related experience documents of the last three years.
- Copy of balance sheet and Profit & Loss statement for last three years duly certified by Chartered Accountant.

9. Earnest Money Deposit (EMD)

9.1 The Bidder shall furnish, as part of its bid, Earnest Money Deposit (EMD) for the amount as Online NEFT transfer as per the following bank account of EMC or Demand Draft to Director Energy Management Centre drawn from any nationalized bank Payable at Trivandrum. With the provisions of G.O (P) No.2/2019/SPD dated 24/01/2019, EMD is exempted for MSMEs registered in Kerala with Valid Udyog Aadhaar Number / Udyam Registration. Energy Management Centre

Account Name	Energy Management Centre
Account No	32860100005883
Bank and Branch	Bank of Baroda, Ullur Branch
IFSC Code	BARB0ULLOOR

9.2 The Earnest Money Deposit (EMD) is required to protect EMC against the risk of Bidder's conduct, which would warrant the security's forfeiture.

9.3 The Earnest Money Deposit (EMD) of the unsuccessful bidders shall be refunded as promptly as possible, after the expiry of the period of bid Validity as prescribed in these documents

9.4 The Earnest Money Deposit (EMD) of the successful bidder will be adjusted towards the security deposit that will have to be deposited for the satisfactory fulfillment of the contract.

9.5 No interest shall be paid by EMC on the Earnest Money Deposit (EMD) furnished by the bidder.

9.6 The Earnest Money Deposit (EMD) may be forfeited:

- a. If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- b. In the case of successful Bidder, if the Bidder fails:
 - I. To sign the contract in accordance; or
 - II. To furnish performance security.

10. Validity of Bids

10.1 Bids shall remain valid for 180 days after the date of bid opening prescribed by EMC, A bid valid for a shorter period shall be rejected by EMC as non-responsive.

10.2. In exceptional circumstance, EMC may solicit the Bidders consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable or mail). The bid security provided under shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

11. Variations in bidding conditions

11.1 The bidder shall submit offer, which comply fully with the requirements of the bidding documents. Conditional bids are liable to be considered as non-responsive.

11.2. Bidder's Clarification

- a. The bidders can raise issues relating to the bid document and seek answers to queries on any matter before the bid clarification closing stage.
- b. The bidder is requested to submit any question in writing or by email to recheck before the submission of the bid clarification closing date of the bid.
- c. Clarifications on bid will be published on the website.

12. Submission of bids

12.1. Bid Submission

The bidders are required to submit their bids on the sealed covers to EMC

- a. The bid shall be in two parts viz. Pre-Qualification bid and Price bid
- b. The price bids of those who qualified in the pre-qualification criteria will only be opened.

12.2. The bidders are also required to forward the documents mentioned in the submittals part as hardcopy to Energy Management Centre Kerala within the date of closing of the tender.

13. Evaluation of Tender

13.1 The tender will be evaluated separately for technical bid and financial bid. The technical bid will be evaluated first, based on the eligibility of the tenderer and scope of work as attached in Section IV. The financial bid of only technically qualified bidders shall be opened. The tenderer who qualifies the technical bid and has quoted lowest financial bid shall be given the work.

14. Award of Contract

14.1. Award criteria

EMC shall award the contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest, provided further that the bidder has the capability and the resources to carry out the contract effectively.

14.2. EMC's Right to Accept Any Bid and to Reject Any or All Bids. EMC reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for EMC's action.

15. Notification of Award

15.1 Prior to expiry of the period of bid validity prescribed in the bid documents EMC will notify the successful bidder by AOC (Award of Contract) confirmed in writing that his bid has been accepted. This letter (hereinafter and in the conditions of Contract referred to as "Letter of Acceptance") shall name the sum which EMC will pay to the tenderer in consideration of the execution, completion of the study by the tenderer as prescribed by the Contract (hereinafter and in the Conditions of the Contract).

15.2 The notification of the award will constitute the formation of the Contract.

15.3 Upon the furnishing by the successful bidder of a performance security in accordance with the clause 17, EMC will notify the unsuccessful bidders that their bids have been unsuccessful.

16. Signing of Contract

16.1 At the same time as EMC notifies the successful Bidder that its bid has been accepted, EMC will send the Bidder the Contract Form provided in the Bidding Documents, incorporating all agreements between the parties.

16.2 Within 15 days of receipt of the Contract form the successful Bidder shall sign and date the Contract and return it to EMC

16.3 A specimen of the form of contract is attached as Annexure 1.

17. Performance Security

17.1 The successful tenderer shall, before signing the agreement and within 15 days on receipt of notification of contract from EMC, deposit a sum equivalent to five percent (5 %) of the value of the contract as security for the satisfactory fulfillment of the contract less the amount of earnest money deposited by him along with his tender.

17.2 The proceeds of the performance security shall be payable to EMC as compensation for any loss resulting from Contractor's failure to complete its obligations under the Contract.

17.3 The performance security shall be denominated in Indian Rupees and shall be in the following form:

1. At least 50% of the performance guarantee shall be in the form of Demand Draft Drawn in favor of Director EMC, Payable at Trivandrum; Remaining shall be in the form of Bank guarantee issued by a Nationalized Indian Bank/New Generation Bank/Scheduled bank/foreign bank operating in India.

2. The period of validity of security deposit shall be 60 days beyond the period of completion of all contractual obligations from the date of award of work.

17.4 The performance security will be discharged by EMC and returned to the tenderer after completion of the tenderer's performance obligations.

17.5 In the event of an increase in the Contract value, in actual execution, proportionate additional performance security shall be paid by the tenderer if called upon to do so.

17.6 In the event of a decrease in the Contract value the performance security shall be proportionately adjusted on the completion of the work.

17.7 No interest shall be paid by EMC for the amount deposited as Performance security with EMC.

17.8 If the successful tenderer fails to deposit the security and execute the agreement as stated above, the earnest money deposited will be forfeited by EMC. If the defaulting firm is a registered firm their registration is liable to be canceled.

17.9 In cases where a successful tender, after having made partial completion of work fails to fulfill the contracts in full, all or any part of the work have to be completed by means of another tender/quotation or by negotiation or from the next higher tenderer who had offered to carry out the work and the loss, if any, caused to the EMC shall thereby together with such sums as may be fixed by the EMC towards damages to be recovered from the defaulting tenderer. Even in cases where no alternate assignments are arranged for the work not completed, the security deposit of the defaulter shall be forfeited.

SECTION-III

GENERAL CONDITIONS OF CONTRACT

1. Definitions

1.1 In this contract, the following terms shall be incorporated as indicated

- a. "The Contract" means the agreement entered into between EMC and the Successful bidder, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all incorporated by reference therein:
- b. "The Contract Price" means the price payable to the tenderer under Contract for the full and proper performance of its contractual obligations;
- f. The "EMC" SHALL mean ENERGY MANAGEMENT CENTRE-KERALA
- g. "The Tenderer/Contractor" means the successful bidder whose bid has been accepted by EMC and on whom a work order has been placed and shall include his heirs, legal representatives and assignees.
- h. Engineer-in-charge means the Engineer or any other authorized representatives of EMC who is empowered to take a decision on behalf of EMC for the purpose of the Contract.
- j. "GCC" means the General Conditions of Contract contained in this section.
- l. "EMD" means Earnest Money Deposit.

2. Time of Completion

The work shall be completed within a period of 60 days from the date of execution of an agreement which is reckoned on 15 days from the date of acceptance of the work order. The time of completion shall not be changed unless the extension of the period is ordered by agreement authority in writing on the request of the contractor. EMC reserves the right of extension of time or not after taking into consideration of occurrence of an event which leads to delay in completion of work

3. EMC's right to vary quantities at the time of award

EMC reserves the right at the time of award of contract to increase or decrease the number of units to be studied specified in the schedule of the requirement without any change in unit price or other terms and conditions.

4. EMC's Right to Accept Any Bid and to Reject Any or All Bids.

EMC reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for EMC's action.

5. Acceptance of Communication of Assignment

Communication of acceptance of the tender normally constitutes a concluded contract. Nevertheless, the successful tenderer shall also execute an agreement for the due fulfillment of the contract within the period to be specified in the letter of acceptance. The contractor shall have to pay all stamp duty, lawyer's charges and other expenses incidental to the execution of the agreement. Failure to execute the agreement within the period specified will entail penalties.

6. Authenticity of Data

In the case of assignments, technical details collected by the successful tenderer should guarantee the authenticity of the data collected from the field

7. Acceptance of Reports

EMC reserves the right to accept/reject or to modify the draft/final reports of the assignment. The tenderer shall comply with the direction of EMC in this regard and shall complete the modification/suggestion within the time limit prescribed by EMC.

8. Submission and Presentation of the Draft report:

One hard copies of the draft report shall be submitted to Energy Management Centre – Kerala along with the soft copy within 60 days from the date of execution of the agreement

There will be a draft report presentation with EMC officials, Sector experts, representatives from the selected MSMES etc. The final report shall be prepared based on the feedback on the presentation of the draft report.

The final report shall be prepared based on the feedback of presentation on Draft Report and suggestions/observations given by EMC and the technical committee.

Two hard copies of the Final report shall be submitted to the Energy Management Centre – Kerala along with the printable soft copy after the approval of the draft report within 15 days from the date of approval of draft report.

10. Mode of Payments

(i) All payments to the contractors will be made by EMC in the due course, by cheques or NEFT.

(ii) All incidental expenses incurred by EMC for making payments outside the district in which the claim arises shall be borne by the contractor.

(iii) Ordinarily, payments will be made only after the completion of work as per the terms and conditions and are actually verified and certified by the Competent Authority. The firms will produce a stamped pre-receipted invoice for the release of payments (advance/Part/Final).

The Payment schedule would be linked to following milestones:

Milestones	Percentage	Cumulative
Field study and acceptance of the submitted draft report by the technical committee / EMC.	40%	40%
Submission of final Energy Audit Report Based on the comments by energy audit by technical committee / EMC.	40%	80%
Acceptance of the final Energy Audit Report.	20%	100%

11. Subcontract/Outsourcing

The contractor shall not assign or make over the contract on the benefits or burdens thereof to any other person or body corporate. The contractor shall not underlet or sublet to any person or persons or body corporate the execution of the contract or any part thereof without the consent in writing of the EMC who shall have absolute power to refuse such consent or to rescind such consent (if given) at any time if he is not satisfied with the manner in which the contract is being executed and no allowance or compensation shall be made to the contractor or the sub contractor upon such decision. Provided always that if such consent is given at any time, the contractor shall not be relieved from any obligation, duty or responsibility under this contract. However for layout, artwork, printing and related specific work the tenderer can engage professionals with intimation to Energy Management Centre – Kerala. Intimation and acceptance of EMC is not relieving the successful tenderer in meeting professional quality of printed materials.

12. Insolvency or Liquidation

In case the contractor becomes insolvent or goes into liquidation, or makes or propose to make an assignment for the benefit of his creditors or proposes any composition with his creditors for the settlement of his debts, carries on his business or the contract under inspection on behalf of or his creditors, or in case any receiving order or orders, for the administration of his estate are made against him or in case the contractor shall commit any act of insolvency or in case in which under any clause or clauses of this contract the contractor shall have rendered himself liable to damages amounting to the whole of his security deposits, the contract shall, thereupon, after notice given by the EMC to the contractor, be determined and the EMC may complete the contract in such time and manner and by such persons as the EMC shall think fit. But such determination of the contract shall be without any prejudice to any right or remedy of the EMC against the contractor or his sureties in respect of any breach of contract therefore committed by the contractor. All expenses and damages caused to EMC by any breach of contract by the contractor shall be paid by the contractor to EMC, and may be recovered from him under the provisions of the Revenue Recovery Act in force in the State.

13. Events of default

Any of the following events shall constitute an event of default by the contractor unless caused by force majeure event

1. Any delay occurring due to negligence on the part of the auditor.
2. Technical inconsistency inadequacy in data collection, field test computations, techno economic evaluations and similar discrepancies
3. Delay in time of completion
4. Non compliance with the scope of work with due diligence
5. The bidder fails to submit the security deposit within 15 days from the date of execution of the agreement.
6. The bidder has failed to complete the assignment within time of completion or extended time of completion as given in writing by EMC.
7. The bidder is in breach of any of its commitments under the agreement and has failed to cure breach within the time period specified.
8. The bidder has repudiated the agreement otherwise expressed its intention not to be bound by the agreement.
9. The bidder has been ordered for wound up by the liquidation.

14. Termination due to Events of default

(i) Without prejudice to any other right or remedy which EMC may have in respect thereof under this agreement, upon the occurrence of an event of default by the contractor and the project is delayed more than 20 days, EMC be entitled to terminate this agreement hereinafter provided, under due intimation to the Contractor.

(ii) If the EMC decides to terminate this agreement, it shall in the first instance issue a preliminary notice to the contractor. Within 15 days of receipt of the preliminary notice, the contractor shall submit to the EMC in sufficient detail, the manner in which it proposes to cure the underlying event of default. In case of non-submission of the contractor's proposal to rectify within the said period of 15 days, the EMC shall be entitled to terminate the agreement by issuing the termination notice and to appropriate the performance security deposit.

(iii) In the event of termination after receipt of stage payment, the amount so paid shall be recovered with interest at bank rates.

(a) Termination Notice

If the EMC desires to terminate this agreement, it shall issue termination notice setting out

(i) In sufficient detail the underlying event of default

(ii) The termination date which shall be a date occurring not earlier than the 15 days from the date of the termination notice.

(iii) Any other relevant information.

(b) Obligation of the Contractor

Following the issue of termination notice and cancellation of the agreement, the project facilities shall be transferred back to the EMC free from any encumbrance.

(c) Withdrawal of Termination Notice

Notwithstanding anything inconsistent contained in this agreement, if the contractor who has been served with the termination notice cures the underlying event of default to the satisfaction of the EMC at any time before the termination occurs, the termination notice shall be withdrawn by the EMC.

15. Governing Law & Jurisdiction

In case any difference or dispute arises in connection with the contract, all legal proceedings relating to the matter shall be instituted in the Courts at Thiruvananthapuram, Kerala.

16. Appropriation from Payments

Any sum of money due and payable to the contractor (including security deposit, returnable to him) under this contract may be appropriated by the Director, EMC, Kerala and set off against any claim of the EMC for the payment of a sum of money arising out of or under any other contract made by the contractor with EMC or any other person authorized by EMC. Any sum of money due and payable to the successful tenderer or contractor from EMC shall be adjusted against any sum of money due to EMC from him under any other contracts.

17. Letter and/or notice to be served

Every notice hereby required or authorized to be given may be either given to the contractor personally or left at his residence or last known place of abode or business, or may be handed over to his agent personally, or may be addressed to the contractor by post at his usual or last known place of abode or business and if so addressed and posted, shall be deemed to have been served on the contractor on the date on which, in the ordinary course of post, a letter so addressed and posted would reach his place abode or business.

18. Revision of Rates

No representation for enhancement of rates once accepted will be considered.

19. Disqualification

Any attempt on the part of the tenderer or their agents to influence EMC in their favour by personal canvassing with the Officers concerned or in collusion with other contractors will disqualify the tenderer.

20. Acceptance of Penalty Clause

Tenderer should be prepared to accept orders subject to the penalty clause for forfeiture of security in the event of default in complying or failure to comply within the stipulated period.

21. Lump Sum Firm Price and Taxes & Duties

The prices quoted should clearly identify basic Lump-sum fixed price and details of all taxes, duties, cesses, etc., in percentage as well as actual amount which are or may become payable by the contractor under existing or future laws or rules of the country or origin/supply or delivery during the course of execution of the contract. The format for quoting the price is attached.

22. Special conditions if any

Special conditions, if any, of the tenderer attached with the tenders, will not be applicable to the contract unless they are expressly accepted in writing by the EMC.

23. Agreement

The tenderer should submit, along with his tender, an agreement executed and signed in Kerala Stamp Paper of value Rs.200/- purchased in the Kerala State. And also the tenderer should send the hard copy of the same to Energy Management Centre Kerala within the stipulated date. A specimen form of agreement is given in the submittals of this tender. Tenders without the agreement in stamp paper will be rejected outright. But in deserving cases where agreement has not been received, the EMC may exercise discretion and call upon such tenderer to execute the agreement within a period of ten days from the date of issue of such intimation, if the EMC is satisfied that the omission to forward the agreement along with the tender was due to causes beyond the control of the tenderer and was not due to any negligence on his part. The agreement received from a tenderer after the above time limit will not be considered.

24. Insurance & Safety

It is the sole responsibility of the successful bidder to furnish proper insurance coverage for his employees, equipment/instruments and all other properties for any possible damages/injuries that may be caused directly or indirectly during the course of the assignment.

The successful bidder shall be responsible for taking necessary permits and passes at Site and also to follow their safety guidelines while performing the energy efficiency study.

25. Liquidity Damages

The EMC will consider the time at which delay in completion has occurred and extent of losses at that time with respect to such delays will be calculated. The maximum amount of liquidity damages shall be 10 % of the contract amount or actual losses calculated for 90 days whichever is lower. If the delay exceeds more than 90 days, the contract is terminated at the risk and cost of the contractor.

25. Force Majeure

The tenderer shall be entitled to excuse performance of their respective obligations to the extent they are unable to perform the tender by an event of Force Majeure. A tenderer claiming relief on this account shall immediately on becoming aware of Force Majeure event give notice to the Energy Management Centre disclosing the manner in and the period during which performance of its obligation is likely to be affected.

Force Majeure means Acts of God, wars or similar action affecting Kerala Civil Commotions or general strike (Excluding by its own employees) lying beyond the reasonable control.

26. Resolving Dispute

- a) Save where expressly stated to the contrary in the Agreement, any dispute, difference or controversy of whatever nature between the parties , howsoever arising under , out of or in relation to the agreement including disputes, if any, with regard to any acts, decision or opinion of EMC and so notified in writing by any party to the other parties shall in the first instance be resolved amicably in accordance with the procedure set forth in clause (6) below
- b) Either party may require such dispute to be referred to The Director, EMC and The Managing Director, for the time being, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the dispute.
- c) If the dispute is not amicably settled within 30 days of such meeting between the two, the dispute may be referred to the Executive Committee of EMC and the decision of the Executive Committee shall be binding on both parties and shall be final.

SECTION-IV

Scope of Work

The scope of the work includes a detailed study for energy conservation options of various energy sources including Electrical and Thermal Sources like Electricity, Furnace Oil, LSHS, HSD, LPG, Briquette etc. in the unit and recommends actions for reducing the same. The audit shall concentrate on the review of the present energy consumption profile of Thermal and Electrical energy sources at various load centers like manufacturing units, molding, extrusion, heating units, driven equipments, lighting, ventilation etc.

The broad scope of the study will be as per the following.

A. Main Production Unit

- a) Review of the present arrangement of the plant, process layout and process flow, type of manufacturing processes used, details of equipment involved in production etc.
- b) Energy Performance assessment of the processing units and reach the Specific Energy Consumed (kWh/kg product or toe/kg of product or in any other suitable unit)
- c) Exploring the feasibility of Energy Conservation measures (ENCON) through any production line arrangements, process optimization, fuel switching, fuel and energy substitution, latest technology adaptation, circular economy, repair / replacement if due.

B. Electrical Power Systems

- a) Review of the present Electrical power distribution including the Single Line Diagram (SLD), Transformer loading, cable loading, normal & emergency loads, electricity distribution in various areas / floors etc.
- b) Transformer load study, Transformer efficiency separating possible losses, establishing daily load curve, loading patterns etc.
- c) Study of Reactive Power Management and option for power factor improvement. Correlation with harmonics and distortion power factor shall also be addressed.
- d) Power Quality study including harmonics up to 15th order, Voltage THD, Current THD, Voltage Flicker, Voltage Dips and Swells, Over and Under Voltage, Frequency Deviation, Study of power quality issues like Harmonics, current unbalance, voltage unbalance, Distortion Power factor, Transformer de-rating etc.
- e) Exploring the feasibility of Energy Conservation measures (ENCON) through Contract

Demand optimization, Power factor improvement, Power Quality Improvement, Transformer loading optimization, load scheduling, peak demand control, demand side management – peak shifting, valley filling, peak shaving etc.

C. Lighting System

- a) Review of present lighting system, lighting inventories etc.
- b) Estimation of lighting load at various important locations.
- c) Detailed Lux level survey at various locations and comparison with acceptable standards.
- d) Review Lighting arrangement.
- e) Study of the present lighting control system and recommend for Improvement.
- f) Analysis of lighting performance indices like Lux/m, lux/watt, lux/watt/m and comparison with norms for manufacturing units.
- g) Exploring the Energy Conservation Options (ENCON) in lighting
 - a. System through retrofitting, lighting controls, group control, natural light utilization, sky lights etc.

D. Diesel Generator (DG) Sets

- a) Review of DG set operation schedules
- b) Energy performance assessment of DG sets in terms of Specific Fuel Consumption (SFC i.e. KWh/Litre),
- c) Estimate the Energy Consumed in Thermal equivalent (kCal)
- d) Exploring the Energy Conservation Options (ENCON) in DG Sets through maintenance service attention, loading optimization, demand management, repair / replacement if due.

E. Chillers and Chilled Water Systems

- a) Review of Chiller operation schedules
- b) Energy performance assessment of Chillers in terms of COP, IPLV, KW/TR etc.
- c) Energy performance assessment of Cooling Towers
- d) Energy performance assessment of Water Pumps
- e) Exploring the Energy Conservation Options (ENCON) in Chilled water systems through maintenance service attention, loading optimization, variable speed options, compressor settings, thermostat settings, repair / replacement if due.

F. Boilers / Thermic Fluid Heaters/Electrical heaters

- a) Energy performance assessment of Boilers / Thermic fluid heaters / Hot water generators/Electric Heating units in terms of thermal efficiency
- b) Separation of possible losses in the system
- f) Exploring Energy Conservation Options (ENCON) through maintenance service attention, air ratio optimization, feed water optimization, automatic air – fuel ratio control systems, blower

sizing and draft controls, heat loss reduction methods, waste heat recovery options, wet steam and flash team management, fuel switching, fuel optimization, repair / replacement if due. etc.

G. Pumps and Pumping Systems

- a) Review of water pumping, storage and distribution systems.
- b) Energy Performance assessment of all major water pumps i.e. power consumption vs. flow delivered, estimation of pump efficiency etc.
- c) Exploring the Energy Conservation Options (ENCON) in Water Pumping Systems by loading optimization, pump and motor sizing, best efficiency point matching, energy efficient motors and pumps, variable speed options, impeller trimming, reducing losses in transmission lines, repair / replacement if due etc.

H. Compressed Air Systems

- a) Review of Compressed air system and network, arrangement of various components, location, line diagram etc.
- b) Energy performance assessment of Compressors and Compressed air systems in terms of Free Air Delivery (FAD), Specific Power Consumption (SPC), leakage %, Efficiency etc.
- c) Exploring the Energy Conservation Options (ENCON) in Compressed Air Systems by loading optimization, compressor and motor sizing, leakage reduction, energy efficient motors and compressors, variable speed options, heat of compression, repair / replacement if due etc.

I. Electric Drives and Motor Load Survey

- a) Conducting the motor load survey of all drives to estimate the percentage loading.
- b) Prepare a detailed list of new / old / rewound motors including date of commissioning, number of times rewound etc.
- c) Energy performance assessment of selected motors in the facility in terms of efficiency, % loading etc.
- d) Exploring Energy Conservation Options (ENCON) in Electric Motors by loading optimization, energy efficient motors, variable speed options, repair / replacement if due.

J. Energy Monitoring & Accounting System

- a) Detailed review of present energy monitoring & accounting system in terms of metering / sub - metering, record keeping, data logging, periodic performance analysis etc.
- b) Recommend for effective energy monitoring & accounting system using SCADA / DCS / Plant Manager / Remote M & V software packages which can record periodic samples and give alerts on increased consumption and demand overshoot.

K. Renewable energy integration

Assess the Potential for Renewable energy applications, such as solar thermal, Solar-PV, Biogas, Waste-to-energy, with cost-benefit analysis and savings on commercial energy

L. E- Mobility adaptation

Potential for E-Mobility adaptation, by switching over to Electric vehicles, goods carries, installing EV Charging stations etc.

M. Others

- a) Review of present maintenance practice, replacement policies and safety practices as applicable to MSME units and recommend for improvements.
- b) Cost-Benefit Analysis of each ENCON options indicating simple payback period, return on

investment (ROI), and internal rate of return (IRR).

c) Preparation of IGEA report and submission of the same to EMC and the firm.

Deliverables in the Detail Project Report (DPR)

The DPR should contain the following information:

- Methodology adopted for the study.
- Present Energy scenario of the unit.
- Detailed analysis of the data obtained through field visits, trial measurements by portable gadgets, discussion with concerned personnel etc.
- Recommendations for energy saving options in all possible areas with cost-benefit analysis (Simple Payback period, Internal Rate of Return, Return over investment, all details required for an ESCO proposal etc.)
- Technical Specifications for any retrofit options,
- List of suppliers / manufacturers of energy efficient technologies.

Conduct of Energy Audit

Compliance with safety, health, hazards, accidents, damage, loss prevention and environmental standards, rules, regulations, accepted practices and similar statutes.

Energy Audit Firm:

It is the sole responsibility of the energy audit firm (who has been awarded the assignment of conducting energy audit) to ensure compliance, in its entirety, with the concerned and applicable standards, rules, regulations and accepted practices pertaining to the Occupational Safety and Health Hazard, accidents, damages, loss prevention, Environmental aspects, and other similar statutes. This shall cover its own personnel, employees, properties, instruments, tools and equipment, systems and all those associated with the energy audit activities within the plant/factory/building/facility/and-or any such premises, as applicable.

The energy audit facility:

It is the sole responsibility of the client company (whose facility is energy audited) to ensure that competent/qualified/certified personnel of the client company shall only extend the coordination and support to the energy audit team for the smooth conduct of energy audit, issue access permits, provide adequate office and storage space, ensure safe working place and conditions, provide data and drawings, extend field assistance and guidance to conduct instrumented trails and measurements and any or all such and similar needs and necessities to accomplish the energy audit.

Contents of Energy Audit Report

I.Acknowledgement

II.Energy Audit Team (Including team members from EMC)

III.Abstract and Objectives

IV.Table of Contents

V.List of Tables

VI.List of Figures

VII.Abbreviations / Nomenclatures

VIII.Certification

i.**Executive Summary** – The Executive Summary shall include the tabulation of specific energy consumption, annual energy consumption, annual energy cost, annual energy saving potential in physical terms and monetary terms including financial factors, Energy share, graphical representations etc.

ii.**Introduction** – This chapter shall include the Energy scenario in the state, introduction about the sector, significance of this sector in the developing economy of the state, Introduction about EMC and role of EMC (As provided by EMC to empanelled auditors), background of this study, basic details of the unit, its purpose of use, type of business, types of products developed, description of process, end use energy consumption pattern, annual energy share etc.

iii.**Production Process Description** – This chapter shall include a brief description of the manufacturing process, Process flow diagram, Details of major units operated, sequence of production line, details of major raw materials input, quantity and costs

iv.**Energy & Utility System Description** – This chapter shall include the list of utilities in the plant, a brief description of each utility

4.1 Main Production Unit – details of main production unit and its components – specifications etc.

4.2 Electrical System - details of Electricity supply, provider, tariff category and slab, sanctioned connected load, measured connected load, 24 Hours Load Curve, maximum demand, power factor etc. preferably in tabulated form, details of Electrical Panels and Distribution Boards / Single Line Diagram approved latest by Kerala State Electrical Inspectorate, details of highest capacity loads, Load Matrix mapping distribution of various loads area wise arriving total quantity, load and energy consumption, Breakup / Pie chart of different Electrical loads – both area wise and category wise, Breakup / Pie chart of different Energy consumption – both area wise and category wise

4.3 Steam System – details of steam consumption, source of steam, diagram representing the steam distribution network including all the controls and traps, specifications and settings, major load centers utilizing steam, Breakup / Pie chart of Steam consumption – area wise

4.4 Water System – details of water consumed in the plant, source of water, diagram representing the water distribution network including all the controls and valves, specifications and settings, major load centers utilizing water, Breakup / Pie chart of water consumption – area wise

4.5 Compressed Air System - details of compressed air consumed in the plant, details of compressors deployed, diagram representing the compressed air distribution network including all the controls and components, specifications and settings, major load centers utilizing compressed air, Breakup / Pie chart of water consumption – area wise

4.6 Chilled Water System - details of chilled air consumed in the plant, details of chiller units, cooling tower and pumps deployed, diagram representing the chilled water circuit including all the controls and components, specifications and settings, major load centers utilizing chilled water, Breakup / Pie chart of water consumption – area wise

- v. **Energy and Material Balance** – This chapter shall include the flow diagram showing flow rate, temperature, pressure, any other physical quantities for all input – output streams, mass of input raw materials, finished products, byproducts, waste products shall be balanced, input – output – lost – recovered energy shall be balanced, suitable Sankey diagram may be used
- vi. **Energy Performance of Utility and Process Systems** – This chapter shall include the tabulation of Measured Annual Energy consumption – Electrical, Thermal, Total, Annual Energy Cost, Measured Specific Energy Consumption (kWh/kg product), Measured Breakup of Energy – Thermal & Electrical, source wise etc. Energy Performance assessment of Boilers / Thermic fluid heaters, Furnaces, Chillers, Cooling Towers, DG Sets, Transformers, Compressed air system, Electric motors and drives, pumps and pumping systems, fans and blowers, lighting systems etc.
- vii. **Climate Impact** – This chapter shall include the tabulation of annual energy carbon footprint – source wise / fuel wise, carbon offsets from any source available etc., bar graphs etc. There shall be a projection showing how close the unit is towards carbon neutrality.
- viii. **Reactive Power and Power Quality Assessment** – This Chapter shall include a tabulation of major power quality issues analyzed including the order of voltage and current harmonics up to 15th, Voltage THD, Current THD, Voltage Flicker, Voltage Dips and Swells, Over and Under Voltage, Frequency deviation, Displacement Power factor, Distortion Power factor, Transformer derating factor, standard graphs etc., details and type of compensation available - power factor correction / harmonic filters, contribution of compensating devices on to the system parameters etc. Recommendation on type and sizing, location of compensating devices, impact on the existing system etc.

- ix. **Thermal Imaging Study** – This chapter shall include the thermal imaging study of overloaded production units, loose contacts and overloading of Electrical Bus bars and switchgear, Motors, Capacitors, significant machineries, Heat infiltration through roof, leakages etc.
- x. **Recommendations for Energy Conservation** – This chapter shall include detailed Energy savings calculations of items mentioned in Executive Summary clearly electrical energy conserved showing pre and post fitted – watts, numbers, working hours, energy consumed, thermal energy conserved through production optimization and fuel switching, behavior change practices, renewable energy integration, E-mobility adaptation, indicating daily energy savings, annual energy savings, annual monetary savings, annual investment, annual carbon offset, simple payback period, internal rate of return. The recommendations shall be broadly classified as Energy Efficiency – Electrical and Thermal, Behavior change practices, Renewable Energy integration and E-Mobility adaptation with subtotal to these categories.
- xi. **Implementation Plan for Projects** – This chapter shall include the prioritization and implementation schedule for the projects proposed in the Chapter 10.
- xii. **Energy Policy** – This chapter shall include a draft energy policy that the management shall follow to work towards ISO 50001.

Annexure I – Energy Audit Worksheets

Annexure II - Load Matrix mapping distribution of various loads area wise arriving total quantity, load and energy consumption

Annexure III – Electricity Bills (Latest Bills from utility)

Annexure IV – Equipment Details – Name plate details of key equipment

Annexure V – Data obtained from instruments including plots

Annexure VI – Standard Data – shall include the value of standard watts of fittings, cost of fittings recommended, conversion of physical quantities etc.

Annexure VII – Name plate details of major energy consuming equipment

Annexure VIII – Vendor details - Details of multiple vendors and contact details who can supply the equipment mentioned in Recommendations for Energy Conservation.

Baseline Energy Consumption Details

The baseline energy consumption details of the Consumers to be audited are attached as separate documents and may be referred.

Annexure 1

AGREEMENT

(Specimen of the contract agreement to be prepared and submitted in Rs.200/- Kerala Stamp paper at the time of award of contract)

S.1 THE AGREEMENT

S 1.1 This agreement made and entered into on this th day of 2022 between The Director, Energy Management Centre, Under Department of Power, Government of Kerala having its office at Sree Krishna Nagar, Sreekariyam P.O, Thiruvananthapuram 695017 (hereinafter referred as “EMC” which expression shall where the context so admits include its successors and permitted assigns) of the OTHER PART.

And

S.1.2 The of the other part.

S.2 PREAMBLE

S.2.1 WHEREAS the EMC is taking up the work of “Investment Grade Energy Audit at 6 Selected MSME Rubber Units at Kottayam District, Kerala.”

AND WHEREAS the EMC has invited tenders for the work of Investment Grade Energy Audit at 3 Selected MSME Rubber Units at Kottayam District, Kerala.

AND WHEREAS the Bidder has tendered for Investment Grade Energy Audit at 3 Selected MSME Rubber Units at Kottayam District, Kerala as per specifications, drawings and conditions mentioned hereinafter and appended to this.

AND WHEREAS EMC has been pleased to accept the bid for Detailed Energy Audit of selected Site.

AND WHEREAS the Contractor has furnished Performance guarantee/ Bank Guarantee No.....Dated.....for sum of Rs/- (Rupees.....only), excluding the amount of earnest money deposited by him along with his tender, for the proper performance and the completion of the contract in every aspect, Now these presents witness and it is hereby mutually agreed as follows.

In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to.

S.3 SCOPE OF THE AGREEMENT

S.3.1. Scope of work:

Objective: Investment Grade Energy Audit at 3 Selected MSME Rubber Units at Kottayam District, Kerala and preparation of the Energy Audit Report which shall comprise an implementable Action plan of the energy saving proposal. All works specified in the technical documents shall be completed and submit the Energy Audit Report in manner Specified in the tender document No. _____ and work order No. _____

S.4 FINANCIAL ARRANGEMENTS

S.4.1 In consideration of the work to be carried out, the EMC shall pay to an amount of Rs/- (Rupees.....only) inclusive of all applicable taxes (presently at 18%) for undertaking this work.

The Payment schedule would be as following

- 40% payment shall be released on completion of Field study and acceptance of the submitted draft report by the technical committee/EMC.
- 40% payment shall be released on submission of final Energy Audit Report Based on the comments by energy audit.
- 20% payment shall be released on acceptance of the final report.

In case the fail to execute the work, shall refund the amount (paid by EMC as part of the project) in full to EMC.

S.5 RESPONSIBILITIES OF (The successful bidder).....

S.5.1 The shall complete the ACTIVITY including the field study related to energy audit as per the scope within 60 days from the date of execution of the agreement and submit the final report.

S.5.1 The shall submit four Hardcopies of the Final Energy audit report, five copies of the consolidated report and soft copy-printable, color, professional quality in word and pdf and ready-to-print –to- press-version. (So that EMC can take as many copies as required)

S.5.2. The time of completion shall not be changed unless the extension of the period is ordered by agreement authority in writing on the request of the bidder. EMC reserves the right of extension of time or not after taking into consideration of occurrence of an event which leads to delay the completion of work.

S.6 RESPONSIBILITIES OF EMC

S.6.1 Fulfillment of all procedural, legal, commercial requirements for implementing the results of

the ACTIVITY shall be the responsibility of the EMC.

S.7 COMPLETION OF ACTIVITY

S.7.1 The ACTIVITY shall be deemed to have been successfully completed on submission of the Final Energy Audit report as hereinbefore by the to the EMC.

S.7.2 In case of delay in the work execution based on the representation of the is accepted by EMC in writing, the date of completion shall be further extended upto the period of extension in the completion of work accepted by EMC in writing.

S.8 RESULTS OF ACTIVITY

S.8.1 If the results of Activity are such that intellectual property rights could be secured through legal instruments i.e., (patents / designs / trademark / copyright) then EMC shall apply, secure and maintain the rights. The decision of the Director of the EMC on whether or not intellectual property rights should be sought and the territory where these shall be secured and final and binding on the The ownership of intellectual property rights shall vest in the EMC.

S.8.2 The shall not file any application for seeking intellectual property rights in its own name or in the name of its associates or any other person on any matter relating to the information disclosed to it by EMC. The shall not also oppose or direct or cause any person to oppose any application seeking intellectual property rights relating to the ACTIVITY filed by EMC.

S.8.3 The final energy audit report prepared will be archived in EMC.

S.9 CONFIDENTIALITY

S.9.1 During the tenure of the agreement both and the EMC undertake on their behalf and on behalf of their employees/representatives/associates to maintain strict confidentiality and prevent disclosure thereof, of all the information and data, exchanged/generated pertaining to work under this agreement for any purposes other than in accordance with the agreement.

S.10 FORCE MAJEURE

S 10.1. Neither PARTY shall be held responsible for non-fulfilment of their respective obligations under this agreement due to the exigency of one or more of the force majeure events such as but not limited to Acts of God, war, flood, earthquakes, strike, lockouts, epidemics, riots, civil commotion, etc. provided on the occurrence and cessation of any such events, the PARTY affected thereby shall give a notice in writing to other PARTY within one month of such occurrence of cessation. If the force majeure condition continues beyond one year the parties shall then mutually decide about the future course of action.

S.11 EFFECTIVE DATE, DURATION, TERMINATION OF THE AGREEMENT

S.11.1 The agreement shall be effective from the date of signing and shall remain in force for a period of one year from the said date or till completion of the project including final settlement of payments and submission of final Energy audit report whichever comes first

S.11.2 The agreement shall be deemed to expire on completion of the period, as in clause S.11.1 unless extended by both the parties.

S.11.3 During the tenure of the agreement, parties hereto can terminate the agreement either for breach of any of the terms and conditions of the agreement or otherwise by giving notice in writing to the defaulting PARTY. Failure of either PARTY to terminate the agreement on account of breach or default by the other shall not constitute a waiver of that PARTY's right to terminate this agreement.

S.11.4 In the event of termination of the agreement vide S.11.3 the rights and obligations of the parties thereto shall be settled by mutual discussion; the financial settlement shall take into consideration not only the expenditure incurred but also the expenditure committed by

S.12 NOTICES

S.12.1 All notices and other communications required to be served on the EMC under the terms of this agreement shall be considered to be duly served if the same shall have been delivered to, left with or posted by registered mail to the EMC at its last known address of business. Similarly, any notice to be given to the shall be considered as duly served if the same shall have been delivered to, left with or posted by registered mail to the at its registered address in

S.13 AMENDMENT TO THE AGREEMENT

S.13.1 No amendment or modification of this agreement shall be valid unless the same is made in writing by both the parties or their authorized representatives and specifically stating the same to be an amendment of this agreement. The modification/changes shall be effective from the date on which they are made/executed unless otherwise agreed to.

S.14 ASSIGNMENT OF THE AGREEMENT

S.14.1 The rights and/or liabilities arising to any PARTY to this agreement shall not be assigned except with the written consent of the other PARTY and subject to such terms and conditions as may be mutually agreed upon.

S.15 DISPUTE RESOLUTION

a) Save where expressly stated to the contrary in the Agreement, any dispute, difference or controversy of whatever nature between the parties, howsoever arising under, out of or in relation to the agreement including disputes, if any, with regard to any acts, decision or opinion of EMC and so notified in writing by any party to the other parties shall in the first instance be resolved amicably in accordance with the procedure set forth in clause (6) below

b) Either party may require such dispute to be referred to The Director, EMC and The Managing Director, for the time being, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the dispute.

c) If the dispute is not amicably settled within 30 days of such meeting between the two, the dispute may be referred to the Executive Committee of EMC and the decision of the Executive Committee shall be binding on both parties and shall be final.

S.15.1 Except herein before provided, any dispute arising out of this agreement, the same shall be referred to the arbitration of two arbitrators, one to be appointed by each party to the dispute and in case of difference of opinion between them to an umpire appointed by the said two arbitrators before entering on the reference, and the decision of such arbitrators or umpire, as the case may be, shall be final and binding on both parties. The venue of arbitration shall be at such place as may be fixed by such arbitrators or umpire and the arbitration proceedings shall take place under the Indian Arbitration & Conciliation Act 1996.

S.16. Governing law of jurisdiction: In case any difference or dispute arises in connection with the contract, all legal proceedings relating to the matter shall be instituted in the court at Thiruvananthapuram, Kerala.

SEAL OF PARTIES

In witness whereof the parties have signed this agreement on the day, month and year mentioned hereinbefore

Parties

For and on behalf of

For and on behalf Of EMC

Signature

Signature

Name
Director

Name
Director

Seal

Seal

Witness: (Name& Address)

Witness: (Name & Address)

Date

Date



ENERGY MANAGEMENT CENTRE- KERALA

Submittals (to be Submitted in Sealed Cover)

Qualification Documents & Agreements

Submittals of Bids

Bids shall be submitted in the following designated online covers:

I. Cover I- Bid Agreement General Conditions of Contract:-

Bidder shall submit the following documents for technical qualifications.

- a. Eligibility Details: The firm shall have valid empanelment with EMC as on bid submission starting date (Details of previous works conducted in past three years (Energy Audit in Industries/MSME units with thermal utilities)) Duly signed copy of Completion Certificate or Copy of the Energy Audit report; work orders will not treated as Experience Document).
- b. The details of the applicant as per the format in Annexure 1 of submittals.
- c. The proof of remittance of EMD and tender fee. Tender fees exemption is applicable for MSMEs registered in Kerala with Valid Udhayog Aadhaar Number / Udyam Registration, if applicable.
- d. Copy of the bounden agreement as per Annexure 2 of the General Conditions of Contract in Kerala Stamp Paper worth Rs.200/-
- e. Copy of bid form (Annexure 3) in Company Letterhead.
- f. Copy of Declaration letter for non-performance/litigation (Annexure 4) in Company Letterhead.
- g. Copy of balance sheet and Profit & Loss statement for last three years duly certified by Chartered Accountant.

II. Cover II- Price Bid

- a. BOQ (Price Bid)

Annexure 1

Details of Applicant

1. Name of Organization/firm /consultancy <i>(Attach copy Registration certificate)</i>			
2. EMC Empaneled Energy Audit Firm empanelment number.			
3. Details of similar work detailed energy audits in industries.	(attach proof)		
4. Annual Turnover for the last three financial years	2018-19	2019-20	2020-21
5. Total years in Audit business	-----Years		
6. Address (Postal) Telephone/s (with STD code): Fax No. email ID URL (website /blog)	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> Pin code : <hr/> <hr/> _____ _____ / _____ _____ _____ _____ _____ _____		

7. Name of the owner and contact details	<div></div> <div></div> <div></div> <div></div> <div>Tele/Fax/Email:</div>
8. PAN Number	
9. Service tax/ GST Registration number	

Signature: _____

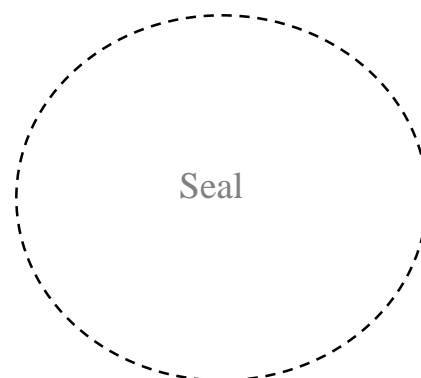
Name: _____

Designation: _____

Company/Firm: _____

Place: _____

Date: _____



Annexure 2

Agreement

(To be submitted along with the tender in Kerala stamp paper worth Rs.200/-)

Articles of agreement executed on this, the..... day of
.....Two thousand.....BETWEEN the
EMC (hereinafter referred to as EMC) of the one part and
Shri.....
.....
.....
.....

.....
(Name and address of the tenderer). (Hereinafter referred to as "the bounden") of the other part.

WHEREAS in response to the Notification
No.....dated..... The bounden has submitted to the EMC a
tender for the specified
therein subject to the terms and conditions contained in the said tender;

WHEREAS the bounden has also deposited with the EMC a sum of
Rs.....as earnest money for execution of an
agreement undertaking the due fulfillment of the contract in case his tender is accepted by the EMC
Now THREE PRESENTS WITNESS and it is hereby mutually agreed as follows:

1. In case the tender submitted by the bounden is accepted by the EMC and the contract
for.....is awarded to the bounden, the bounden
shall within.....days of acceptance of his tender execute an
agreement with the EMC incorporating all the terms and conditions under which the Government
accepts his tender.

2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms
and conditions governing the contract, the EMC shall have power and authority to recover from the
Bounden any loss or damage caused to the EMC by such breach as may be determined by the EMC
by appropriating the earnest money deposited by the bounden and if the earnest money is found
to be inadequate the deficit amount may be recovered from the bounden and his properties movable
and immovable in the manner hereinafter contained.

3. All sums found due to the EMC under or by virtue of this agreement shall be recoverable
from the bounden and his properties movable and immovable under the provisions of the Revenue
Recovery Act for the time being in force as though such sums are arrears of land revenue and in
such other manner as the EMC may deem fit.

In witness whereof ----- (name and designation)
for and on behalf of the EMC and -----the bounden have hereunto set
their hands the day and year shown against respective signatures.

Signed by----- (date) -----in the
presence of

Witness:

1-----

2-----

Annexure - 3

Tender Form

(To be submitted in Company Letter Head)

From

To

DIRECTOR
Energy Management Centre – Kerala
Sreekrishna Nagar,
Sreekariyam P.O,
Thiruvananthapuram,
Kerala-695017

Sir,

Having examined the specifications and tender schedule, schedule of work and having acquired the requisite information relating to the tender in all respects, I/We _____ hereby offer to execute the work as specified in this tender at the rates mentioned in the schedule of work attached in accordance with the specifications, conditions of the tender, the articles of the agreements and such other materials as may be prescribed from time to time.

Should this tender for be accepted, I/We hereby agree to abide by and fulfill the terms and provisions of the said conditions of contract annexed hereto so far as they may be applicable or in default thereof to forfeit the E.M.D. and pay the Energy Management Centre - Kerala, the amount mentioned in the said conditions.

I/we have deposited a sum Rs...../- Rupeesonly) as EMD in the form of online payment. Should I/we fail to

execute the agreement when called upon to do so, or to commence work as provided in the conditions, I/we do hereby agree that the Energy Management Centre - Kerala shall without prejudice to any right or remedy be at liberty to forfeit the EMD absolutely and also recover from me /us the entire loss that may be caused to the Energy Management Centre - Kerala by retender arrangement of the Work otherwise, under the provisions of Revenue Recovery Act or otherwise.

I/we agree that arbitration shall not be a means of settlement of any dispute or claim arising out of this contract.

Particulars of online payment:

Signature of the tenderer

Full Name and address:

Annexure-4

Declaration letter for non-performance/litigation

Declaration Letter on official letterhead 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

Consultant

Signature:

Signature:

Name:

Name:

Address:

Address:

Date:

Date:

Annexure-5

Check list of documents to be submitted along with the tender

SI N o	Particulars	Complied	Page no/flag
1.	Covering letter duly signed and stamped by the tenderer.		
2.	Duly signed and stamped <u>Annexure 1</u> that contains terms of reference, scope of work , deliverables and project duration		
3.	Duly filled and signed and stamped Annexure <u>2</u> i.e. details of applicant		
4.	Duly filled and signed and stamped Annexure <u>3</u>		
5.	Duly filled and signed and stamped Annexure <u>4</u> i.e. declaration for non-performance /litigation		
6.	The proof of EMD and Tender fees. Exemption is applicable for MSMEs registered in Kerala with Valid Udyog Aadhaar Number / Udyam Registration, Attach proof if applicable.		
7.	Experience document including financial & Technical		
8.	Tender document duly signed and stamped at the bottom of each page		

Price Bid

Name of Work: Investment Grade Energy Audit at 3 Selected MSME Rubber Units at Kottayam, Kerala.

Tender No: _____

Name & Address of the tenderer:

BOQ (Price Bid):

Sl. No.	Specification and details	Quantity [A]	Unit Price** (Excluding GST) [B]	Amount (Excluding GST) [C= A X B]
1	Fee for Investment Grade Energy Audit at Selected MSME Rubber Units at Kottayam District, Kerala, as per the technical specifications mentioned in this tender document.	6 MSME Units*		
GST @ _____% [D]				
Total Amount inclusive of all taxes and duties [E = D+C]				

Amount in words including GST and all other taxes and duties. _____

_____ Only

*Presently 3 MSME units are selected under this tender. If more number of units were identified and selected by EMC, auditor shall be directed to carry out the same work as per this tender specifications in the above quoted **Unit Price.

Signature

Seal

INVESTMENT GRADE ENERGY AUDIT AT MSME UNITS

BASIC ENERGY DETAILS

RUBBER CLUSTER - KOTTAYAM

SL No	Items	Details
1	Name of the unit	TJP Rubber Industries (TJP)
2	Revenue District	Kottayam
3	Name of the contact person , Contact No., Mail ID	George P. Thomas, 9447042636
4	KSEB / Utility Consumer No.	1146270007459
5	Connected Load (kW)	117.122 kW
6	Contract Demand (kVA)	75 KVA
7	Tariff Category	LT - 4 A / Three Phase
8	Annual Electricity Consumption (Units)	64,152 Units
9	Annual Fuel Consumption	Diesel (Litres)
		LPG (kg)
		Firewood (kg)
		CNG (kg)
9	Annual Fuel Consumption	Briquette (kg)
		Furnace Oil (Litres)
		LSHS (Litres)
		Other (Please Mention)
10	Capacity of DG Set if, available (kVA)	
11	Capacity of Transformer, if available (kVA)	
12	Capacity of Solar PV, if available (kWp)	Nil
13	Number of employees	22 Employees
14	Number working hours/day	24 hrs
15	Number of Annual working days	300 days
16	Name and Capacity of Major Manufacturing Machineries	
17	Annual Production (Tonnes / Nos)	
18	Annual Turn Over (INR)	

INVESTMENT GRADE ENERGY AUDIT AT MSME UNITS

BASIC ENERGY DETAILS

RUBBER CLUSTER – KOTTAYAM

SL No	Items	Details			
1	Name of the unit	DOLPHIN RUBBER INDUSTRIES			
2	Revenue District	Kottayam			
3	Name of the contact person , Contact No., Mail ID	Ms Greeshma . 9400068004			
4	KSEB / Utility Consumer No.	1146277009168			
5	Connected Load (kW)	69 kW			
6	Contract Demand (kVA)				
7	Tariff Category	LT- 4A			
8	Annual Electricity Consumption (Units)				
9	Annual Fuel Consumption	Diesel (Litres)	LPG (kg)	Firewood (kg)	CNG (kg)
		Briquette (kg)	Furnace Oil (Litres)	LSHS (Litres)	Other (Please Mention)
10	Capacity of DG Set if, available (kVA)				
11	Capacity of Transformer, if available (kVA)				
12	Capacity of Solar PV, if available (kWp)				
13	Number of employees				
14	Number working hours/day				
15	Number of Annual working days				
16	Name and Capacity of Major Manufacturing Machineries				
17	Annual Production (Tonnes / Nos)				
18	Annual Turn Over (INR)				

INVESTMENT GRADE ENERGY AUDIT AT MSME UNITS

BASIC ENERGY DETAILS

RUBBER CLUSTER - KOTTAYAM

SL No	Items	Details			
1	Name of the unit	MASCOT MATS			
2	Revenue District	Kottayam			
3	Name of the contact person , Contact No., Mail ID	Ms Greeshma. 9400068004			
4	KSEB / Utility Consumer No.	114627600 7191			
5	Connected Load (kW)	105 kW			
6	Contract Demand (kVA)				
7	Tariff Category	LT-4A			
8	Annual Electricity Consumption (Units)				
9	Annual Fuel Consumption	Diesel (Litres)	LPG (kg)	Firewood (kg)	CNG (kg)
		Briquette (kg)	Furnace Oil (Litres)	LSHS (Litres)	Other (Please Mention)
10	Capacity of DG Set if, available (kVA)				
11	Capacity of Transformer, if available (kVA)				
12	Capacity of Solar PV, if available (kWp)				
13	Number of employees				
14	Number working hours/day				
15	Number of Annual working days				
16	Name and Capacity of Major Manufacturing Machineries				
17	Annual Production (Tonnes / Nos)				
18	Annual Turn Over (INR)				

INVESTMENT GRADE ENERGY AUDIT AT MSME UNITS

BASIC ENERGY DETAILS

RUBBER CLUSTER – KOTTAYAM

SL No	Items	Details			
1	Name of the unit	Dolphin Rubbers			
2	Revenue District	Kottayam			
3	Name of the contact person , Contact No., Mail ID	Ms. Gireeshma 9400068004			
4	KSEB / Utility Consumer No.	1146276008651			
5	Connected Load (kW)	146 kW			
6	Contract Demand (kVA)				
7	Tariff Category	LT-4A			
8	Annual Electricity Consumption (Units)				
9	Annual Fuel Consumption	Diesel (Litres)	LPG (kg)	Firewood (kg)	CNG (kg)
		Briquette (kg)	Furnace Oil (Litres)	LSHS (Litres)	Other (Please Mention)
10	Capacity of DG Set if, available (kVA)				
11	Capacity of Transformer, if available (kVA)				
12	Capacity of Solar PV, if available (kWp)				
13	Number of employees				
14	Number working hours/day				
15	Number of Annual working days				
16	Name and Capacity of Major Manufacturing Machineries				
17	Annual Production (Tonnes / Nos)				
18	Annual Turn Over (INR)				

INVESTMENT GRADE ENERGY AUDIT AT MSME UNITS

BASIC ENERGY DETAILS

RUBBER CLUSTER – KOTTAYAM

SL No	Items	Details			
1	Name of the unit	Universal Rubber Industries.			
2	Revenue District	Kottayam.			
3	Name of the contact person , Contact No., Mail ID	Siby Sebastian, Universal Mob 9446124139			
4	KSEB / Utility Consumer No.	1146386007666.			
5	Connected Load (kW)	77 kW.			
6	Contract Demand (kVA)	86 kVA			
7	Tariff Category	LT-4A Ind.			
8	Annual Electricity Consumption (Units)	32400 Units			
9	Annual Fuel Consumption	Diesel (Litres)	LPG (kg)	Firewood (kg)	CNG (kg)
		Briquette (kg)	Furnace Oil (Litres)	LSHS (Litres)	Other (Please Mention)
10	Capacity of DG Set if, available (kVA)	Nil			
11	Capacity of Transformer, if available (kVA)	Nil.			
12	Capacity of Solar PV, if available (kWp)	-			
13	Number of employees	6			
14	Number working hours/day	8 hrs/day.			
15	Number of Annual working days	300 days.			
16	Name and Capacity of Major Manufacturing Machineries				
17	Annual Production (Tonnes / Nos)				
18	Annual Turn Over (INR)				

INVESTMENT GRADE ENERGY AUDIT AT MSME UNITS

BASIC ENERGY DETAILS

RUBBER CLUSTER – KOTTAYAM

SL No	Items	Details			
1	Name of the unit	JK Rubbers.			
2	Revenue District	Kottayam.			
3	Name of the contact person , Contact No., Mail ID	Vinod, 8606013333			
4	KSEB / Utility Consumer No.	1146383010314			
5	Connected Load (kW)	126.128 kW			
6	Contract Demand (kVA)	99 kVA			
7	Tariff Category	LT-4A / Three			
8	Annual Electricity Consumption (Units)	87996 Units			
9	Annual Fuel Consumption	Diesel (Litres)	LPG (kg)	Firewood (kg)	CNG (kg)
		Briquette (kg)	Furnace Oil (Litres)	LSHS (Litres)	Other (Please Mention)
10	Capacity of DG Set if, available (kVA)				
11	Capacity of Transformer, if available (kVA)				
12	Capacity of Solar PV, if available (kWp)				
13	Number of employees	8 employees			
14	Number working hours/day	24 hrs.			
15	Number of Annual working days	300 days.			
16	Name and Capacity of Major Manufacturing Machineries				
17	Annual Production (Tonnes / Nos)				
18	Annual Turn Over (INR)				