



kerala state drugs and pharmaceuticals ltd.
a government of kerala enterprise

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SEALED QUOTATION

Name of Work : Energy audit at KSDP

Sealed Quotation publishing date	: 25/08/2025
Closing date & time	: 08/09/2025, 4.00 PM
Opening date & time	: 08/09/2025, 4.30 PM

TERMS AND CONDITIONS

Kerala State Drugs and Pharmaceuticals Ltd, Kalavoor invites sealed quotations from qualified and competent persons/organizations for conducting an Energy Audit of its facility at Kalavoor, Alappuzha. The audit must be carried out through a competitive bidding process among empaneled firms/organizations/professionals registered with Energy Management Centre (EMC), Kerala.

1. Scope of Work

The Energy Audit shall cover the following areas:

- Review of historical energy consumption and utilization patterns to suggest suitable energy-saving measures.
- Analysis of current energy consumption in relation to operational utilization.
- Examination and assessment of the existing electricity distribution system.
- Evaluation of boiler efficiency and steam distribution system.
- Electrical load study, Power Quality analysis, Thermographic analysis of energy systems, equipment and building.
- Efficiency assessment of pumping systems through flow measurements for heat exchangers, pumps, chillers, cooling towers, etc.
- Performance evaluation of pneumatic systems and air compressors.
- Power quality and harmonic analysis of the existing system with respect to fault levels.
- Development of energy performance indices for effective monitoring and management at various levels.
- Calculation of specific energy consumption per production footprint.
- Recommendations for energy conservation measures with cost-benefit analysis.
- Suggestions for potential renewable energy integration.
- Any Other work/activity required for statutory energy audit

2. BREAKDOWN OF SCOPE & DELIVERABLES IN THE DETAILED PROJECT REPORT

2.1. ENERGY CONSUMPTION & BILLING

Summarization analysis for the past 3 year's monthly energy consumption (electricity, diesel and Gas), Calculation of specific energy (Energy Performance Index) and observations, recommendations on the same.

2.2. ELECTRICAL DISTRIBUTION NETWORKS:

Performance evaluation of major electrical parameters (V, I, KW, PF etc) at various points viz., PCC, MCC, load centers, Motors, etc., and analysis of the same. Measurements & analysis of electricity consumption by various sections, panels & equipment.

2.2.1. Power Quality

- Measurement & analysis of power quality at various distribution points and main load centers.
- Compare and analysis of the causes of PQ issues for addressing and give suggestions for mitigating the same.
- Comparison with standards

2.2.2. Power Factor:

- Performance analysis of installed Capacitors and APFC panel.
- Measurements of power factor at various points viz., PCC, MCC, load centers etc., and analysis of the same for optimizing the network losses.

3. UTILITY ANALYSIS

3.1. Motors: The study would cover loading conditions, loading analysis, drive matching for the motors, whichever in operation can be done by using power analyzer. Operating parameters such as kW, kVA, pf, Voltage, Current and Frequency will be measured.

Based on the above analysis the following practically implementable energy conservation recommendations will be made.

- Proper sizing of motor

- Application of Energy Efficient Motors
- Energy-efficient transmission
- Reactive power compensation for motors operating at low PF

3.2. Air compressor

- Performance evaluation of air compressors by analyzing the FAD, pressure requirement at various areas and pipe lines.
- Optimization of usage and recommendations.

3.3. Blowers

- Performance evaluation of blowers using pitot tube or vane flow meter and optimization of its working.

3.4. Boilers

- Insulation survey of boiler Indirect efficiency analysis, Steam traps survey, Measurement of draught, Energy conservation opportunities in the boilers

3.5. Pumping system

- Performance evaluation of pumping system
- Energy saving proposals in pumping system

3.6. Chiller and AHU

- Chiller and AHU performance analysis
- Energy saving Proposals in Chilling system

3.7. Lighting

- Study and validation of illumination levels at various areas
- Measurements and analysis of light loads considering the electrical parameters viz. Voltage, current, PF, kW Study of type of lamps and chokes used; day and night time lighting etc.
- Application potential for various energy saving retrofits such as LED with respect to the required luminance level in corresponding locations

3.8. All equipment/machine

- All machine/equipment performance analysis
- Energy saving Proposals.

3.9. Energy Monitoring and Accounting system

- Detail review of present energy monitoring & accounting system in terms of metering, record keeping, data logging, periodic performance analysis etc
- Recommend for effective energy monitoring and accounting system

3.10. Others

Review of present maintenance practice, replacement policies applicable to our industry

Actions for the good engineering practice followed by the industry and its critical review

4. DELIVERABLES IN THE DPR

- Methodology adopted for the study.
- Present energy scenario of the industry and buildings.
- Detailed analysis of the data obtained through field visits, measurements by portable gadgets, discussion with concerned personnel etc.
- Recommendations for energy saving options in all possible areas with cost-benefit analysis.
- Technical and economic viability of energy saving proposals.
- Other data required for statutory energy audit.

5. PERIOD OF COMPLETION:

- within 15 days from date of issue or work order.

6. TERMS OF PAYMENT

After successful completion of audit.

7.ELIGIBILITY

- The applicant must be an empaneled person/firm/organization/agency registered with Energy Management Centre (EMC), Kerala.

8. BIDDING FORMAT

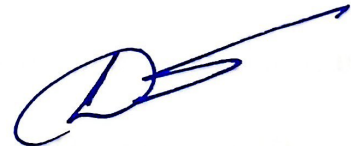
SL NO	ITEM	AMOUNT (EXCLUDING GST)*
1	Statutory Energy Audit fee as per the scope in the sealed Quotation.	

*GST will be paid as actuals.

9.GENERAL CONDITIONS

- You should work as per the rules and regulations applicable to employees of the company.
- You should be responsible for the welfare and safety of the men employed by you inside the company.
- Statutory deduction if any apply to the contract value.
- In case of the dispute, jurisdiction will be Alappuzha, Kerala.
- All safety measures should be taken during repairing and commissioning
- Power and water supply for the repair work will be provided at free of cost.

Please send your sealed quotation to the managing director, Kerala state drugs and pharmaceuticals, Kalavoor Po Alappuzha through postal or by hand on or before 08.09.2025 at 4.00 Pm.



Deputy Manager
(Project)