GreenOx Oils Private Limited

Energy Management System

1. Introduction

The purpose of GreenOx Oils Private Limited's Energy Management System (EMS) is to systematically monitor, control, and optimize energy consumption within our operations. This system aligns with our commitment to sustainability and excellence by minimizing environmental impact, reducing costs, and enhancing operational efficiency.

2. Objectives

- Improve Energy Efficiency: Continuously identify and implement energy-saving opportunities.
- Reduce Environmental Impact: Minimize carbon footprint and energy waste.
- Compliance: Ensure adherence to national and international energy regulations.
- Sustainable Growth: Support the long-term energy goals of the company through strategic planning and investments in energy-efficient technology.

3. Scope

This EMS applies to all processes, facilities, and equipment used in GreenOx's operations, including but not limited to:

- Manufacturing plants (Rajasthan and Karnataka)
- Warehouses (Gujarat)
- Transportation and logistics activities
- Office spaces and administrative functions

4. Key Components of the EMS

4.1 Energy Review & Baseline

- Baseline: Establish a baseline by recording historical energy data, identifying major energy consumers (e.g., machinery, lighting, HVAC systems), and analyzing consumption patterns.

4.2 Energy Performance Indicators (EnPIs)

- KPIs: Establish key performance indicators (KPIs) to measure energy efficiency, such as energy usage per production unit, energy costs per unit produced, and CO2 emissions.
- Targets: Set measurable, realistic energy-saving targets (e.g., reducing energy consumption by 5% annually).

4.3 Energy Conservation Measures (ECMs)

- Efficient Equipment: Implement energy-efficient machinery, lighting (LEDs), and HVAC systems.
- Automation: Utilize automation and monitoring systems to reduce energy waste (e.g., auto-shutoff of machinery during idle times).
- Renewable Energy: Integrate renewable energy sources like solar power to reduce reliance on non-renewable energy.

4.4 Training & Awareness

- Employee Training: Regularly educate employees on energy-saving practices, including efficient machinery use, energy-saving behaviors, and monitoring of energy consumption.
- Energy Champions: Appoint dedicated "Energy Champions" in each department to monitor energy use and drive initiatives.

4.5 Monitoring & Reporting

- Energy Monitoring System: Install energy meters to continuously track real-time energy consumption for different areas and processes.
- Reporting: Generate monthly and annual reports on energy usage, cost savings, and progress toward energy goals.

5. Roles and Responsibilities

5.1 Energy Manager

The Energy Manager is responsible for:

- Overseeing the EMS implementation and improvement.
- Conducting energy audits and setting performance benchmarks.
- Coordinating energy-saving projects and reviewing results.

5.2 Departmental Heads

Each department head must:

- Monitor energy consumption within their department.
- Ensure the proper functioning of energy-saving measures.
- Encourage employees to adopt energy-conscious behaviors.

5.3 Employees

- Follow the energy-saving guidelines and report any inefficiencies or malfunctions in equipment that could lead to energy waste.

6. Energy Efficiency Measures

6.1 Operational Measures

- Shift Management: Optimize shift timing to reduce energy consumption during peak hours.
- Process Optimization: Streamline production processes to improve energy efficiency (e.g., reducing unnecessary machinery downtime).

6.2 Maintenance

- Regularly maintain and service all machinery to ensure energy-efficient operation.
- Conduct predictive maintenance to avoid energy loss from malfunctioning equipment.

7. Renewable Energy Integration

- Solar Power: Install solar panels on available roof space in plants and warehouses.

- Energy Storage Systems: Explore options for storing surplus renewable energy for peak usage times.

8. Legal and Regulatory Compliance
GreenOx will comply with all relevant national and international energy regulations, including:

- Energy Conservation Act, 2001 (India)
- ISO 50001 standards for energy management systems

9. Continuous Improvement

- Regularly review the EMS for new energy-saving opportunities, emerging technologies, and changes in energy prices.
- Set up a feedback loop from all departments to suggest improvements.

10. Conclusion
The Energy Management System is a crucial component of GreenOx's sustainability strategy, directly contributing to cost reductions, operational efficiency, and reduced environmental impact. By actively managing energy usage, we ensure a responsible and future-ready approach to energy management.