



SIDDARTHA EDUCATIONAL ACADEMY GROUP OF INSTITUTIONS

An Integrated Campus for Engineering and MBA

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu

An ISO 9001:2015 & ISO 14001:2015 Certified Institution

7.1.3 INSTITUTIONAL ENERGY AUDIT ACTION TAKEN AND ACHIEVEMENTS REPORT

CRITERION 7

INSTITUTIONAL VALUES AND BEST PRACTICES



SIDDARTHA EDUCATIONAL ACADEMY GROUP OF INSTITUTIONS

Siddhartha Educational Academy Group of Institutions acknowledges the pivotal role of energy sustainability in its commitment to excellence in education. With a firm dedication to environmental stewardship and resource optimization, the institution embarked on an Energy Audit for the academic year 2023-2024.

The Energy Audit serves as a comprehensive evaluation of energy consumption patterns, infrastructure efficiency, and opportunities for optimization within the campus of Siddhartha Educational Academy Group of Institutions. Undertaken by a team of seasoned professionals and experts in energy management, this audit aims to provide insightful recommendations for enhancing energy efficiency, reducing carbon footprint, and ultimately fostering a sustainable campus environment.

Throughout this audit, meticulous attention has been given to various facets of energy consumption, encompassing electricity, heating, ventilation, air conditioning (HVAC) systems, lighting, water usage, and renewable energy integration. By analyzing historical data, conducting on-site assessments, and engaging with stakeholders, we have gained valuable insights into the energy dynamics of the institution.

The findings of this audit will not only guide Siddhartha Educational Academy Group of Institutions towards more efficient energy utilization but also align with its broader vision of responsible citizenship and global sustainability. As we delve into the specifics of energy consumption and explore avenues for improvement, we remain steadfast in our commitment to fostering a culture of environmental consciousness and operational excellence.

In the subsequent sections of this report, we will present a detailed analysis of energy consumption patterns, highlight key areas for improvement, and propose actionable recommendations tailored to the unique needs and aspirations of Siddhartha Educational Academy Group of Institutions.

Through collaborative efforts and a shared commitment to sustainability, we endeavor to propel Siddhartha Educational Academy Group of Institutions towards a greener, more resilient future, where energy efficiency serves as a cornerstone of academic excellence and institutional advancement.

**ACTION TAKEN
REPORT
2023-2024**

I. Recommendation Report: Energy Audit for Siddhartha Educational Academy Group of Institutions (SEAGI)

Introduction:

This report outlines recommendations for improving energy efficiency at SEAGI based on the identified existing practices.

Existing Practices:

- Building design promotes natural ventilation and lighting.
- 3-star rated distribution transformer with amorphous core reduces energy losses.
- Drip irrigation in some areas conserves water.
- Canteen utilizes borewell water for RO treatment, reducing reliance on treated water.
- Efficient water usage with minimal leaks.
- Dusk-to-dawn photocells control streetlight operation.

Recommendations:

1. **Sub-metering:** Install sub-meters in labs, canteen, offices, and each block. This allows for:
 - Monitoring monthly energy consumption of individual departments and sections.
 - Identifying areas for targeted energy reduction efforts.
2. **Awareness Programs:**
 - Conduct frequent seminars and workshops on energy conservation for staff and students.
 - Promote adoption of alternative energy sources like solar and wind power.
 - Encourage students to conduct rural outreach programs on energy conservation.
3. **Water Management:**
 - Install water flow meters on submersible motors to record monthly water consumption.
 - Maintain a register for daily generator diesel consumption, energy generated, and other parameters. Review this register weekly
4. **Solar Power Integration:**
 - Implement a 100 kWp rooftop solar power plant based on cost analysis indicating significant savings in electricity charges.

II. Action Taken Report: Energy Efficiency Practices at SEAGI

Objective:

This report details the actions taken at SEAGI to implement the recommended energy-efficient practices.

Actions Taken:

1. **Sub-metering:** sub meter installation is initiated.
2. **Awareness Programs:**
 - seminars on energy conservation are conducted for staff. An annual workshop on alternative energy sources is organized for students. Additionally, student-led awareness campaigns are held in nearby villages quarterly.

3. **Water Management:**

- Initiation of installations of Water flow meters for submersible motors. Monthly water consumption data is going to be recorded and analyzed.
- A register for daily generator diesel consumption, energy generated, and other parameters will be maintained and reviewed.

4. **Solar Power Integration:**

- The proposal for a rooftop solar power plant has been put forward- The tendering process and installation is expected in the near future.

III. Achievements: Energy Efficiency at SEAGI

Summary:

This section highlights the positive outcomes that are going to be achieved, if the above mentioned energy-efficient practices are implemented.

- Reduced energy consumption across departments based on sub-metering data.
- Increased awareness and behavioral changes among staff and students towards energy conservation.
- Potential reduction in water usage through monitoring and leak detection.
- Reduced reliance on grid power and cost savings through solar power generation.



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Siddhartha Educational Academy
Group of Institutions
Near C.Gollapalli, Tirupati-517 505