

ENERGY EFFICIENCY POLICY

Version 1.0



ASSAM
DON BOSCO
UNIVERSITY



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Assam Don Bosco University

Guwahati - India

Contents

- I. Rationale of the Policy**
- II. Introduction**
- III. Strategies and Implementation**
 - **Natural Air Cooling System**
 - **Roof Top Solar Panels**
 - **Mini-Hydel Project**
 - **Thermostat Set Point**
 - **LED Lights**
 - **Energy Audit**
 - **Maintenance of Equipment**
- IV. Conservation Behaviour**
- V. Expected Outcomes**
- VI. Policy Enforcement**
- VII. Internal Energy Audit Committee**

I. Rationale of the Policy

The Energy Efficiency Policy of Assam Don Bosco University is drawn for the management and conservation of energy in all the campuses of the University. This policy outlines the practices which have been implemented and also plans to be implemented in the future as the University's infrastructure and community grow larger. The Policy will act as a guideline and a standard operating procedure to ensure energy conservation is accomplished by developing a progressive and proactive approach to sustainable energy consumption, cost effective and responsible consumption on the campuses of the University. This policy will be reviewed periodically as the demand of energy grows with the growth of the University.

This policy will be applicable to all the staff, students, faculty and visitors to all the campuses of the University – Tapesia Campus, Azara Campus and Kharguli Campus.

II. Introduction

Assam Don Bosco University spends around INR 700,000 monthly on energy consumption. This consumption includes petrol and diesel consumption by the electric generators and vehicles apart from the consumption of electricity obtained from the utility. The bulk of the energy consumption comes from various construction equipment being employed in the ongoing University constructions, as the University is still in the stages of infrastructure development. The energy consumption is expected to go down remarkably once these construction activities are completed. Energy consumption in academic Blocks, libraries, class rooms, faculty cabins, students and faculty residences are considerably low as care is taken at the initial stages of construction to make use of natural air ventilation systems in the buildings with energy conservation in mind.

The University set for itself certain goals given below for the effective conservation of energy on all its campuses:

- Construct University buildings using passive architectural design, in a way to utilize natural air-cooling system.
- Have an energy consumption limit once the constructions are completed in all the campuses and thus maintain a set limit for a zero net growth in consumption.
- Conduct periodical awareness programs among the University Community on Energy Conservation.
- Replace non-renewable energy as much as possible with renewable energy sources.
- Conduct regular energy audit.
- Use more efficient electrical appliances for new installations for lower energy consumption.
- Compliance with 2017 ECBC (Energy Conservation Building Code) to ensure installation of renewable energy systems and that a proportion of total electricity demand is met through renewable energy systems.

III. Strategies and Implementation

Based on the goals set by the University for effective conservation of energy on all the campuses, the following strategies have been adopted by the University:

- a. **Passive Architectural Design of the Buildings:** In all its new building constructions, the University is to make sure that, right from the architectural design, buildings are making use of the natural air-cooling system in every possible way to allow free flow of cool air which percolates throughout the corridors and the rooms. Accordingly, the

University has constructed Academic Block 1, 2, 3 and 5 of the main campus, as per this policy – either by making airflow tunnels under each floor or by leaving ample gaps between the walls and the roofs.

- b. **Roof Top Solar Panels:** The University will make sure that Rooftop Solar Panels are installed on its buildings. Accordingly, the University has installed 320 kW grid-connected solar photovoltaic power systems by using the free rooftop spaces which is estimated to reduce the energy cost incurred by the University by 16-20% at an average on a monthly basis.
- c. **Micro-Hydel Project:** The University will take steps in establishing micro-hydel projects in its Tapesia Campus where perennial stream has been tapped to create Major Water Reservoir with an aim to generate 10 kW of hydro-electricity.
- d. **Thermostat Set Point:** The University will encourage those who use Air Conditioning system to maintain a set point of 23 degree Celsius at all times.
- e. **LED Lights:** The University will make every effort in using only LED lighting system in all its new installations in all the campuses. The existing lighting systems are to be replaced by LED lightings in a phased manner.
- f. **Energy Audit:** The University will conduct energy audit every year to ensure that the energy consumption in the University remains as per the expected set level and that no energy is wasted unnecessarily. The areas of energy conservation and saving are to identified through the process of audit by following the recommendations.
- g. **Maintenance of Equipment:** The Administrative Officers of each of the campuses will be responsible for timely maintenance services of electrical equipment installed in the University, with an objective of keeping their efficiency at maximum level.

IV. Conservation Behaviour

The University will encourage the University community in developing an energy conservation behaviour by organizing workshops, seminars, talks, competitions and awareness events on the effects of climate change, depletion of fossil fuels, and on the importance of having consciousness in energy conservation etc. at regular intervals. For achieving this purpose, each School will be responsible for organizing such events and the Directors of each School will spearhead such activities.

V. Expected Outcomes

By following the University's Energy Conservation Policy, the following outcomes are expected:

- The cost of energy consumed by the University will be reduced and maintained at a certain affordable level.
- It will reduce the greenhouse gas contribution of the University.
- It will extend the life of electrical equipment at the University.
- It will create a better and healthier environment for the University community to live in.
- Lastly, it will help in moulding the behaviour of the students towards environmental consciousness while making them aware of the importance of energy conservation.

VI. Policy Enforcement

The University's Energy Efficiency Policy will be enforced by the Administrative Officer of each Campus in collaboration with the Directors of various Schools of the University.

VII. Internal Energy Audit Committee

Team Members and Coordinators		Assisted by	Campus to be audited	Email ID	Contact Number
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