

Best Practice 2 “TREES” Towards Renewable Energy and Environmental Sustainability

Introduction

Al - Ameen College is always committed to and responsible for taking initiatives for protecting and conserving the earth, energy and environment and pledges to achieve carbon neutrality in 2024. All the energy and environment conservation efforts of different department, clubs, cells are coordinated under the initiative “TREES-Towards Renewable Energy and Environmental Sustainability”. Towards a carbon neutral and Sustainable campus TCNSC

Objective

Al Ameen College launched the initiative “TREES”-Towards Renewable Energy and Environmental Sustainability (for a Carbon Neutral Campus)” with an objective mould a generation that follow the principle for a sustainable environment.

- To create an awareness on Energy and environment conservation among the students, staff and society to achieve a carbon neutral campus
- To promote the Renewable Energy resources and integrating green technologies in all walks of life to address the prevailing social and environmental challenges
- To conduct Value Added Courses, implement Energy Conservation Techniques, use Renewable Energy Sources as an alternative of conventional energy sources
- To conduct energy audit, water audit and Biodiversity audit (Green Audit) and carbon audit periodically in association with the students and staff to sensitize them the significance of efficient utilisation of energy.

The Context

To achieve sustainability and protecting the environment as well as natural resources it is essential to use renewable energies and energy efficiency measures which will ultimately help to protect environment and the resources. Creating awareness on environment and pollution impacts, climate changes, natural disasters among students thereby spreading the message to the whole society as a whole is undertaken with joint efforts with NGO's, Government organisations and other

institutions and work for building a carbon neutral campus by the end of 2024.

The Practice

“Energy Conservation Activities for A Sustainable Future” – Adoption of Green Energy Technologies -Al Ameen College, Edathala installed on grid 50 KW Solar Power Module and the complete energy needs of college is now met by this alternate energy. An energy audit is undertaken by the students of our college under the guidance of faculty in association with an external agency Tropical Institute of Ecological Sciences(TIES). College replaced all the conventional light sources with energy efficient and eco-friendly lights, conventional fans with BLDC fans, CRT monitors of computers with LED monitors and implemented the policy of buying the star labelled products Trainings, Awareness classes, Campaigns for Students, Staff and Society related to Energy Conservation To sensitize the students, staff and society about the energy conservation, energy conservation club, nature club and department of physics organised various awareness classes .energy literacy drives, hands on expertise workshop for assembling LED lamps etc.

Water Conservation – Rigorous and systematic efforts are taken in Maintenance and preservation of water bodies in the campus. Students are keeping regular vigil on water usage and methods such as generating awareness of water conservation through banners and posters. Need for regular discussions among the group members for bringing new methods and ways for conserving water in and around the campus. Rain water harvesting system is constructed in the campus. A big pit in the backyard of college helps rain water to seep into the earth. Sloping roof and channels in college create an easy to flow the rain water to such pits. A pond is also maintained in our campus which is the main source of water in the campus. Besides this pond, a well and bore well is also maintained.

Sustainable energy conservation - As a measure of reducing the carbon emission, the institution take intensive care and replaced the consumption of fossil fuel in the college canteen by installing a biogas plant of 20 Kg capacity. Eight bicycles were purchased for the local travel from office and students are encouraged to use bicycle for their travel to college. Carpooling among staff and the use of college bus are encouraged to reduce the carbon emission.

Evidence of Success

Due to the implementation of Solar power and replacement of conventional equipment's with energy efficient equipment's, the College could save a huge unit of electrical energy. An Incubation unit of Energy efficient lighting source is set up in the College. Students were moulded as master trainers in assembling these light sources. Students of Physics department have made energy efficient lights for Christmas – Enlit Xmas and sale was also made in the campus.

The Nature club and Department of Biotechnology together with faculty, staff and students has undertaken a great role in the effective management of waste in the institution. Wastes were segregated as biodegradable and non-biodegradable. Biomedical wastes are properly decontaminated before disposal. E wastes are handed over to external agency for recycling. Food wastes are collected and used in Biogas plant installed in college canteen. These steps implemented in our institution are the milestones in our journey towards achieving carbon neutral campus by the end of 2024.

Problems encountered

These carbon reduction goals are very aggressive and only feasible with significant financial investment. The current budgetary constraints, standard practices for evaluating projects and purchasing rules are hindrances faced to reach the goal of achieving a carbon neutral campus.