

CHAPTER 16

16.1 POLICY DOCUMENT ON ALTERNATE SOURCES OF ENERGY AND ENERGY CONSERVATION

The Alternative Energy Sources Policy of E.G.S. Pillay Engineering College, Nagappattinam is made for proper implementation and efficient utilization of renewable energy sources in such a systematic way so as for minimizing its impact on the environment. Alternative Energy Sources offer the opportunities for student's community to engage in initiatives for contributing to environmental protection. The policy implies to explore the effective implementation of renewable energy resources for various applications in the campus.

Objectives

- To utilize green energy
- Reduce CO₂ emission
- Conserve fossil fuel energy
- Minimize the air pollution
- Utilize the clean energy

Policies

1. Communicate the objectives of policy and action plan to staff and students.
2. Install and utilize the renewable energy systems such as roof top solar photovoltaic panel for electricity generation and connecting the produced power to the grid etc., in a span of time.
3. Transform the campus into a renewable energy campus.
4. Educate students on fossil fuel pollution, depletion, and need for energy conservation.
5. Celebrate renewable energy day to create awareness among staff and students.
6. Organize seminars and conference to provide an opportunity to understand and analyse the technology, recent developments, scope and feasibility of implementation in Indian context.
7. Encourage students to carry out renewable energy projects and motivate entrepreneurship in manufacturing the system.
8. To convert the existing LED street lights into solar operated street lights.
9. Carry out an external audit through a renewable energy bodies.
10. Students and staff members are informed through internal circulars, notifications and conducting the awareness programme about the importance of energy conservation.

Features

The college management has taken following facilities in conserving the energy.

1. **Solar Energy** – Solar Water Heater has been installed at the Girls and Boys Hostel and the generated hot water is supplied for the utilization in hostel. Solar street lamping system has been installed.
2. **Biogas plant** has been installed at the back side of hostel mess for waste and also to produce the gas at which is used as cooking fuel i.e. sustainable energy sources.
3. **Senor Based Energy Conservation** – Water level sensor is used in overhead water tanks. In the campus, ground water is pumped up to overhead tanks using water pumps which are controlled

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by electric motors. Automatic water level controller for overhead tanks that switches on/off the pump motor when water in the tank goes below/above the minimum/maximum level.

4. **Use of LED bulbs/power efficient equipment** – The CFL fittings with higher rating wattage are replaced with LED fittings with lower wattage with the same luminous level in street lights and other possible areas of campus. Energy star certified products are installed in air conditioners, microwave, refrigerators, ceiling fans and other in the campus.

Maintenance Procedure

1. The solar water collector shall be properly cleaned by the removal of dust formation and it must be monitored by the estate office staff.
2. Biogas plant shall be maintained clean and monitored for the level of gas production by the maintenance team in estate office.
3. The automatic water sensors are periodically monitored by the estate office team and ensure the proper functioning of the setup.
4. In the campus, all CFL bulbs will be replaced by LED in phased manner and it is maintained by the Estate Office.
5. Maintenance of energy efficient equipment such as air conditioners and refrigerators must be done periodically for the proper working of the system.

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