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## **ENERGY MANAGEMENT POLICY**

Energy plays important role in the development of Nation as well Organization. Energy requirement is linked with GDP development. Out of various costs Energy cost is one of major cost. Energy intensity is Energy requirement per GDP Energy intensity of our country is 3.7 times of Japan, 1.55 times of USA. 1.47 times of Asia and 1.5 times of world average Energy intensity indicates development stage of country and Efficiency of Energy Use Our country is not Energy secure country and energy requirement is met through import of coal and petroleum product. Around 70% of countries Energy requirement is met through) Electricity generation using thermal power plants Use of fossil fuels leads to environmental pollution Energy conservation 2001 was enacted to improve Energy efficiency and reduce Energy intensity for sustainable development it is necessary to provide focus on Energy. Environment and Ecology Energy Management is Judicious and Effective use of Energy without curtailing requirement to maximise profit and minimise Environmental degradation There is substantial potential to conserve Energy by implementation of Energy Management Program in all sectors of Economy Energy conservation awareness at all level is important to engage involve all stake holders in Energy Management program Engineering colleges can play significant role in creating awareness about Energy management program among Engineering students schools and society and guide Industry in the area of Energy management Energy Audit is one of the important tool to identify Energy conservation potential Energy Audit would give positive orientation about Energy cost reduction Energy audit is translation of Energy conservation into realities taking into consideration techno commercial aspects.

### **Mission**

- Minimise Energy consumption by use of Energy efficient Equipments and maximum use of day light, natural ventilation and Energy substitution.
- Maximize use of renewable Energy.
- Create Awareness about Energy conservation

### **Objectives**

1. Improvement in Energy efficiency to reduce Energy consumption and cost
2. Eliminate wastages by use of good housekeeping practices.
3. Minimize Environmental degradation

### **Energy Management Principles**

Various Energy management principles are:

1. Procure Energy at lowest cost.

2. Use Energy at Highest possible efficiency
3. Use low investment technologies.
4. Reduce, reuse and recycle.
5. Fuel substitution
6. Use of renewable energy

### Energy Management Structure

There is an energy management center at Institute level headed by Dr. P Sridhar. Each department has representatives, are part of the energy management center. The following are the representatives of the energy management center.

S. No	Name of the Representative	Department
1	Dr. E. GANESH	CSE
2	Dr. A.S. SALMA BANU	ECE
3	Dr. S. RAMKUMAR	MECH
4	Dr. D. ZUNAITHUR RAHMAN	CIVIL
5	Dr. S. ARIF ABDUL RAHUMAN	IT
6	Dr. M. PRABU	AIDS
7	Dr. A. MOHANA SUNDARAM	EEE
8	Er. M.S. RAJAN	EEE

### Types and Use of Energy

S. No	Type of Energy	Energy usage
1	Electrical energy	<ul style="list-style-type: none"> <li>&gt; Indoor and outdoor illumination</li> <li>&gt; Air conditioning</li> <li>&gt; Water Pumping.</li> <li>&gt; Computers and peripherals</li> <li>&gt; Laboratory Equipment</li> <li>&gt; Workshop Equipment</li> </ul>
2	Solar energy	In addition to the raw power, a solar power plant of 20 kW is installed. Grid interfacing facilities are provided.

### Electrical Supply System

Electrical power to campus is through an 11kV HT supply line, at the institute the required voltage of 415KVA is achieved with 630kVA Step down a transformer. The 415 KVA supply is distributed to various sections of the institute through underground cable. The underground network is adequately protected against local pressures, mechanical and any other damages. The solar energy (20KW) and electrical raw power are interfacing through bidirectional

switches whenever raw power is not sufficient to meet the demand at the institute. The power generation from solar is uploaded to the grid daily if it is excess.

### **Backup Power Supply**

The institute is equipped with diesel generators as:

1. 250KVA
2. 180KVA
3. 125KVA

In addition to the backup facilities, all the departments and laboratories, ICT facilities in classrooms, and common facilities are connected to the UPS system. Institute having 150 KVA installed UPS system for backup facility.

### **Reactive power management**

The institute have the capacitive bank with the capacity of 200 KVAR

### **Plan of achievement**

1. Manage efficient utilization of Energy resources by use of cleaner and more efficient technologies.
2. Train faculties, students, Industry professionals to make the institute the pace setter in the area of Energy conservation.
3. Promote awareness related to Energy conservation among various sections of society.
4. Enrich our experience on Energy conservation by exchange of ideas with other organizations.
5. Encourage faculty members to obtain certification as certified Energy auditors and managers.
6. Carry out regular internal energy audits to identify energy conservation opportunities.
7. Provide expertise to industry and other organizations in the area of Energy management by offering Energy audit services.