



PRATHYUSHA ENGINEERING COLLEGE

CRITERIA-7

7.1 Institutional Values and Social Responsibilities

- 7.1.6 Quality audits on environment and energy regularly undertaken by the Institution.**

Energy Audit



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7.1.6 Quality audits on environment and energy regularly undertaken by the Institution.

ENERGY AUDIT



Members of Internal Energy Audit Committee

1. Mr. Sathiyasekar – HOD / EEE
2. Ms. Shobana – AP / EEE
3. Mr. Preetha – AP / EEE
4. Mr. Madhu – AP / Management Coordinator
4. Ms. Pirakathiswaran - AP / Chemistry

INTRODUCTION:

An energy audit is an inspection survey and an analysis of energy flows for energy conservation in a building. It may include a process or system to reduce the amount of energy input into the system without negatively affecting the output

OBJECTIVE:

The objective of the audit was to study the energy consumption pattern of the facility

OBSERVATIONS:

Electrical energy is used for various applications, like: Computers, Lighting, Air-Conditioning, Fans Other Laboratory Equipment, Printers, Xerox machines, CCTV, UPS, LCD Projector, , Pumping motor etc.

SOLAR ENERGY

Solar energy is radiant light and heat from the Sun that is harnessed using a range of ever-evolving technologies like such as solar heating, photo voltaic, solar thermal energy, etc.

Total power requirement in units : **2,69,228 Units**

Power requirement met by renewable energy sources : **83,252 Units.**

USE OF LED BULBS/ POWER EFFICIENT EQUIPMENT

In PEC, all blocks had LED bulbs are used to save electricity, It helps to save more energy than the usage of Incandescent or CFL.

Total Lighting requirements : **77280**

Percentage Lighting through LED bulbs : **10%**

Percentage Lighting through other sources : **90%**

LOCATION OF LED BULBS TO SAVE POWER CONSUMPTION

S.No	Location	Sub location	No.of LED	WATT	TOTAL USAGE THROUGH LED
1	Main Block	Class Rooms	19	18	342
2		Corridor	15	9	135
3		Restrooms	10	10	100
4	ECE	Class Rooms	2	18	36
5		Corridor	16	9	144
6		Restrooms	2	10	20
7	Mess	Dining Hall	29	18	522
8		Cooking Area	1	20	20
9	Boys Hostel	First Year	30	20	600
10		Second Year	60	18	1080
11		Third Year	30	18	540
12		Final Year	30	18	540
13		Corridor	80	10	800
14	Girls Hostel	Hostel rooms	40	18	720
15		Corridors & Restrooms	13	10	130
16	Street Light	Near Work shops	4	18	72
17		Inside Campus	35	36	1260
18		Out side Campus	10	50	500
19		Near Mechanical Block	1	36	36
20		Near Back Gate	1	20	20
21		Near Bus Shed	1	18	18
22		Near STP Plant	1	18	18
23		Girls Hostel Entrance	1	20	20
24		Girls Hostel Entrance	2	36	72
25		Temple	Inside temple	4	10
26	Shed		4	18	72
					7857