

7.1.3

(2) Energy Audit

The college has not carried out any energy audit separately by any competent authority. However, it was done along with Green Audit carried out by the University of Burdwan's committee.

Following is the summary of the Energy consumption:

3. ENERGY CONSERVATION

3.1 Reduction of energy consumptions, especially fossil fuel energy

3.1.1 Total electric consumption amount 28258. KWH/Yr

3.1.2 Average electrical consumption in a month 2354.83

3.1.3 Total No. of

i) LED-49

ii) CFL-21

iii) Tube lights-113

iv) Incandescent lamps-01

v) Fans-93

vi) Air conditioners/Air Coolers-01

3.1.4 Whether college has any provision/choice of renewable and carbon-neutral electricity options: "yes", "no" and "not applicable": Yes

3.1.5 Whether college has planned to install solar panels: "yes", "no" and "not applicable"

(if so, Project installed/working: Date/Month/Year): NA

3.1.6 Whether college has efficient water heating system: "yes", "no" and "not applicable": NO

3.1.7 Whether the staff members of all sectors are concerned in turning off electrical appliances when not in use in both commercial and residential area: "yes", "no" and "not applicable": Yes

3.1.7 Is there any monitoring system – like put off the main switch where there is no need of electricity? "yes", "no" and "not applicable": Yes

3.1.8 Whether the users follow the appropriate and measurable targets for a reduction of energy, such as, computer, printers, electrical equipment when not in use: "yes", "no" and "not applicable": Yes

3.1.9 Is there any options for equipment's running on standby mode: "yes", "no" and "not applicable": Yes

3.1.10 Whether college has taken initiative to purchase efficient and environmentally sound appliances in order to fulfill the green budget: "yes", "no" and "not applicable": NA

3.1.11 Whether college has its own mechanism in repairing of electrical fault:

"yes", "no" and "not applicable": No

3.1.12 Whether the class rooms are with sufficient illumination in day time and ventilation:

"yes", "no" and "not applicable": Yes

Number of lights & fans in class room (average): 4

Use of light & fans in the day time (average hours): 4

Number of windows per class: 4

Natural light source in day time (in hours) (average per class):

3.1.13 How many (%) e-notice generated by the college for academic/administrative purposes in a month: 90%

3.1.14 How many (%) paper-notice generated by the college for academic/administrative purposes in a month: 10%

3.1.15 Total number of computer, printer, Laptop, Xerox machine

Computer-27

Printer- 7

Laptop-2

Xerox Machine-03

3.1.16 Whether college has organized lectures on energy conservation in order to give awareness to the students: No

"yes", "no" and "not applicable"

3.2 Energy conservation strategies

3.2.1 Whether the architectural design for college is based upon use of natural lighting & ventilation, to save extra power for bulbs and fans: "yes", "no" and "not applicable": Yes

3.2.2 Whether florescent bulbs are replaced with CFL bulbs/LEDs: "yes", "no" and "not applicable": Yes

3.3 Minimize the use of unsustainable transport

3.3.1 What are the available/maximum transport facilities used by the staff members/students etc., - mention the number (in average per day):

Bi-Cycles- 150

Public Transport- 250

Motorecycle: 15

E- cycle – 02

Car-01

3.3.2 Whether college has any common car sharing/car pool among the students and faculty:

"yes", "no" and "not applicable": No

Energy Consumption and Management

Our college's mission is to save energy and provide clean, green energy. Even though the institution requires a large amount of energy to function properly.

Energy Consumption

Table-1: Energy Consumption Pattern

| Sl. No. | Accessories/equipment | Total | Wattage | Total Wattage | Total Energy Consumption (KW/Year) | Remarks (Average Hours) | Cost (in Rs.) |
|---------|-----------------------|-------|---------|---------------|-------------------------------------|-------------------------|---------------|
| 1 | LED Bulb | 49 | 3 | 147 | 188 | 7 HOURS PER DAY | 1416.00 |
| 2 | Tube light | 113 | 22 | 2486 | 3178 | 7 | 23956 |
| 3 | Ceiling fan | 93 | 75 | 6975 | 8917 | 7 | 67215.00 |
| 4 | Air Conditioner | 1 | 1000 | 1000 | 767 | 7 | 5782.00 |
| 5 | Desktop Computer | 27 | 50 | 1350 | 740 | 3 | 5576.00 |
| 6 | Laptop | 20 | 50 | 1000 | 548 | 3 | 4130.00 |
| 7 | Printer | 7 | 250 | 1750 | 1598 | 5 | 12046.00 |
| 8 | Water pump | 4 | 925 | 3350 | 857 | 1 | 6456.00 |

| | | | | | | | |
|----|------------------------|----|------|------|----------------|----|-----------------|
| 9 | CCTV | 32 | 7 | 224 | 1964 | 24 | 14802.00 |
| 11 | Projector | 03 | 250 | 750 | 411 | 3 | 3097.00 |
| 12 | Sound system | 04 | 30 | 120 | 66 | 3 | 495.00 |
| 13 | Xerox machine | 03 | 1000 | 3000 | 2739 | 5 | 20649.00 |
| 14 | CFL Bulb | 21 | 60 | 1260 | 1381 | 6 | 10077.00 |
| 15 | Wi-Fi | 02 | 15 | 30 | 38 | 7 | 290.00 |
| 16 | Warning Bell | 01 | 12 | 12 | 15 | 7 | 116.0 |
| 17 | Cook Top | 02 | 1500 | 3000 | 2739 | 5 | 20650.00 |
| 18 | Water Purifier | 06 | 25 | 150 | 438 | 8 | 3221.00 |
| 19 | Wall Fan | 09 | 55 | 495 | 1266 | 7 | 9540.00 |
| 20 | Vehicle Charging Point | 02 | 36 | 72 | 66 | 5 | 495.00 |
| 21 | Mobile charging point | 25 | 15 | 375 | 342 | 5 | 2582.00 |
| | Total | | | | 28258.0 | | 212591.0 |

NB: **Energy consumption is based on college hour (7 hours) for one year

** For water pumps average wattage is calculated for three different pumps. Time is calculated for 1 hour.

** For projector 2 hours' time is calculated.