

# Energy Audit 2021-22

**Energy Audit  
Report  
Of  
Rajasthani Sammelan's,  
Ladhidevi Ramdhar Maheshwari Night  
College of Commerce  
RSET Campus, S.V. Road,  
Malad, Mumbai – 400 064**

**ENERGY AUDITOR  
M/S UPENDRA DEUSKAR & ASSOCIATES  
513/E, RUIKAR TRUST BUILDING,  
NEAT ST STAND, KOLHAPUR.  
CONTACT – 9422044172**

**ACADEMIC YEAR 2021-22**

# DETAILS OF ELECTRICAL ENERGY AUDIT REPORT

**Name and Address of the customer:**

Rajasthani Sammelan's Ladhidevi Ramdhar Maheshwari Night  
College  
RSET Campus SV. Road Malad (W) Mumbai: 64

**Contact Person:**

Mrs.Seema Malani- 9049990930  
Mr.Bhushan Athale - 9423918700

**Date of Audit:**

15/02/2021

**Energy Auditor:**

Mr. Upendra Deuskar ( 9422044172 )  
Register No – EA- 1674

**Audit Team:**

- 1) Mr. Upendra Deuskar
- 2) Mr. Atul Chougule

**Instruments/ Meters used for Audit-**

- 1) Tong tester
- 2) Lux Meter
- 3) Earth Tester

## **1.1 Scope of Work, Methodology and Approach**

Scope of work and methodology was to study of Energy Pattern in the college. While undertaking data collection, field trials and their analysis, due care was always taken to avoid abnormal situations so as to generate normal/representative pattern of energy consumption at the facility.

## **1.2 Approach to Energy Audit**

We focused our attention on energy management and optimization of energy efficiency of the systems and equipments. The key to such performance evaluation lies in the sound knowledge of performance of equipments and system as a whole.

## **1.3 Energy Audit Methodology**

Energy Audit Study is divided into following four steps

### 1) Historical Data Analysis

The historical data analysis involves last 6 months energy consumption.

### 2) Actual measurement and data analysis

This step involves actual site measurement and field trials using various portable measurement instruments. It also involves input to output

analysis to establish actual electrical load data. 3) Identification and evaluation of Energy Conservation Opportunities This step involves evaluation of energy conservation opportunities identified during the energy audit. It gives potential of energy saving and

investment required to implement the proposed modifications.

### 4) All recommendations for energy saving measures.

## ENERGY METER DETAILS & CONSUMPTION

|  |                     |
|--|---------------------|
| 1) Consumer No.                          | 266514051313        |
| 2) Type of Load                          | Lighting and UPS    |
| 3) Load catered on Meter                 | Classrooms & IT Lab |
| 4) Supply                                | 3 Phase, 4 Wire     |
| 5) Sanctioned Load                       | 7.20 KW             |
| 6) Connected Load                        | 15 KW               |
| 7) Billed Power Factor                   | 1.00                |
| <b>LAST SIX MONTHS ELECTRICITY BILLS</b> |                     |

| SR. NO | MONTH          | NO. OF UNITS | AMOUNT (RS.) |
|--------|----------------|--------------|--------------|
| 1      | AUGUST -2021   | 208          | 3,380 /-     |
| 2      | SEPTEMBER-2021 | 220          | 3,470 /-     |
| 3      | OCTOBER-2021   | 301          | 4,380 /-     |
| 4      | NOVEMBER-2021  | 289          | 3,630 /--    |
| 5      | DECEMBER- 2021 | 309          | 3,880 /-     |
| 6      | JANUARY- 2021  | 368          | 4,480 /-     |

**Avg. Billing Unit per Month – 283.5 Units**

**Avg. Amount of Bill per Month – Rs. 3,870 /-**

**Avg. Rate per Unit = Rs 3870 / 283.5 = Rs.13.65.**

## **Observations:-**

- 1) The above data shows that the Bill was decreased in August. September due to less presence & occupancy in classes due to Covid situation.
- 2) The average rate for lighting consumption Rs. 13 to Rs. 14.
- 3) Use Lead Acid Batteries for UPS Increases maintenance.

## **RECOMMENDATION FOR ENERGY SAVINGS**

- 1) Air-conditioners in the office area are running are at 20-22 Degree temperature Substantial power can be saved if they are put at 24-25 Degree for human working areas.
- 2) Some areas LED Tube Lights are installed. Replace rest of the light fixtures with LED to save about 30% lighting energy.
- 3) The earthing resistance needs improvement. New earthing to be done in from safety point of view.
- 4) All employees to be trained to conserve energy. Training to be given to them that TURN OFF lights, fans & air-conditioners when you are not in the room / department. Occupancy sensors also serve above purpose automatically.
- 5) Use of Solar ON-GRID SYSTEM of 5 KW as per Load with Nett-metering from MSEDCL will be play a major role in energy savings.



# Sahyadri Group Enriching Nature, Environment and Science

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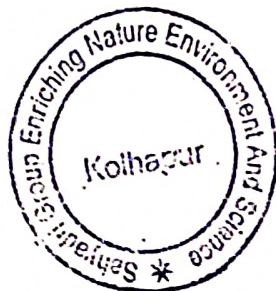
Date - 14<sup>th</sup> December 2021


## Energy Audit

### Certificate

This is to certify that Rajasthan Sammelan's Ladhidevi Ramdhar Maheshwari Night College of Commerce, Mumbai has conducted a detailed Energy Audit of their campus with systematic identification, quantification reporting and analysis of components of Environment.

It was initiated with the motive of inspecting the effort within the institution whose exercises can cause threat to the health of inhabitants and the Environment. The activities and measures carried out by the college have been verified based on the report submitted and was found to be **Satisfactory**. The efforts taken by the faculty and students towards Environmental and sustainability is highly appreciated and commendable.



  
President  
Sahyadri-GENES  
Kolhapur