



ENERGY AUDIT REPORT FOR M.S. COLLEGE OF LAW



Elion Technologies & Consulting Private Limited

307, 3rd Floor, DDA Lal Market, H-Block

Vikas Puri, New Delhi-110018

Contact No: +91 9013923982, +91 9013890526

Web: www.elion.co.in



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Acknowledgement

Elion Technologies and Consulting Pvt Ltd places on record it's thanks to M.S. College of Law, Maharashtra for entrusting the task of conducting energy audit study.

We acknowledge with gratitude the whole hearted support and cooperation extended by all team members while carrying out the study.



Site Information

Name of College	M.S. College of Law
College Address	Devghar, Via. Kuduspost Khanivali, Tal Wada, Dist Plaghar. 421312
Execution Partner	ELION Technologies & Consulting Pvt Ltd
Communication Address	307, 3rd Floor DDA Lal Market H-Block Vikas Puri, New Delhi-110018
Date of Audit	16 th October 2024
Year of Audit	2024
Main Energy Consuming Machines/Equipment's considered for Energy Audit	<ul style="list-style-type: none">• Lighting & Fans• Air Conditioners• Motors & Pumps• Desktops & Printers



Executive Summary

A Visionary Er. Mohd. Shoeb Habibullah Khan , founded the Habib Educational & Welfare Society (HEWS) in the year 1993 with the objective of providing quality education & endeavour to bring education for all section of society irrespective of religion, caste & creed.

The college has grown rapidly in a short span creating a niche for itself in the educational field of Mumbai by starting M.S. College of Law, Hotel Management catering to the needs of more than 1500 students.

M.S. College of Law was founded by HEWS in the Year 2017 and is affiliated to University of Mumbai & recognized by Bar Council of India. The College with its rich history, vibrant academic community offers an extra-ordinary environment for studying law. Today we need young minds to study law to take up social cause because it helps to define society's value and provide means to solve problems without resorting to violence. **Our Vision**

The upliftment of Muslim minority students through quality education.

Our Vision

The upliftment of Muslim Minority students through quality education. To be a premier Law School with a vision to impart world class professional legal education & to transform our students by boosting their morale, harnessing their energy & moulding them into competent jurists.

To transform them into persons with the right combination of practical knowledge, academic excellence, personality development & spiritual values.

Our Values

- Academic Excellence
- Creating opportunities for all Dignity of the Individual
- Creating opportunities for all Dignity of the Individual
- Promoting Communal, Religious and Multi-Cultural Harmony

List of courses offered by the institute:

- Bachelor of Law (LL.B.)
- B.L.S. LL.B. LLM

Electricity is supplied by Local Distribution Company and for backup power supply DG set of rating 45 KVA is available.

The energy audit included detailed data collection, analysis of data and identification of specific energy saving proposals.



Chapter 01: Introduction

M.S. College of Law, Maharashtra evinced interest in availing the services of Elion Technologies and Consulting Pvt Ltd for conducting energy audit of their premises.

Elion Technologies and Consulting Pvt Ltd team conducted the Detail Energy audit on 16th October 2024.

This report is on the energy audit carried out in M.S. College of Law, Maharashtra. The detailed energy audit comprised of the following activities:

- Data collection of power consuming equipment's.
- A brief session on energy management was conducted to seek more inputs from the personnel engaged in operation and maintenance of electro mechanical services.
- Analysis of collected data.
- Discussion with the officials on the identified proposals.
- Discussion and reporting of the findings of energy audit with the Engineers and management staff.

All the identified energy savings proposals have been discussed with the executives concerned before finalizing the projects.

The contents of the report are based solely on the data provided by M.S. College of Law, Maharashtra officials during the energy audit.

The management should implement the suggestions made in the report after verifying requisite safety aspects.

Methodology for Energy Audit:

The following is a list of general procedure and information undertaken during the energy audit:

- General information of the site.
- Baseline energy description.
- Past energy consumption bills which include electricity bills.
- On site data collection



- Energy analysis of different sectors.
- Recommendation of energy conservation measures.



Chapter 02: Energy Consumption Details

List of equipment present in the campus:

Rating of Transformer (in KVA)	15KVA
Year of installation of the Transformer	NA
Rating of DG Set (in KVA)	45
Rating of Capacitor Bank (if present)	NA
Capacity of Solar Power Plant (if installed)	80 KW

The main areas of energy consumption as observed during the audit are as follows:

- Air Conditioners
- Lighting & Fans
- Motors & Pumps
- Desktops & Printers

The main sources of energy to meet the required consumptions are as follows:

- Electricity supply from Distribution Company.
- DG set of rating 45KVA.
- Solar power plant of capacity 80KW.



Chapter 03: Lighting System

The lighting inventory of the colleges present in the university were collected and following is the summary:

Type of lights (LED/CFL/Conventional Bulb/Tube Light)	Location	Rating	Quantity	Number of Hours being turned on
LED Tube lights	Ground floor	10-20W	71	08
LED Bulbs and Tube lights	1 ST Floor	10-20W	92	08
LED Bulbs and Tube lights	2 ND Floor	10-20W	88	08
LED Bulbs and Tube lights	3 rd Floor	15-25W	101	08
LED Bulbs and Tube lights	4th Floor	10-20W	114	08

Observation:

It was observed that energy efficient LED lights are installed in the campus. College management has replaced all the conventional lights with LED lights.

Recommendation:

- Occupancy sensors can be installed in cabins and spaces where continuous lighting is not required.
- Sticker to SWITCH OFF LIGHT and SAVE ENERGY to be displayed.
- Regular cleaning of light fixtures to be done to get maximum lux level.





Chapter 04: Pumps and Motors

Pump is generally used for pumping of ground water to the water tank. The details of the pumps are given below:

Name of Pump and make	Running Hours	Rated Capacity in KW
Kirloskar 3 Phase Monoblock	5	7.5

Name of Motor and make	Running Hours	Ampere
Kirloskar 3 Phase Monoblock	5	12

Observation:

All pumps and motors are functioning properly and well maintained.

Recommendation:

Proper maintenance and upkeep of pump and motor to be done.





Chapter 05: Air Conditioning

Split ACs are used in facility for air conditioning. Following is the list of ACs present in the campus:

Type of AC (Windows/Split/Package and Location)	Capacity in Ton	Whether any star rating available	Set Temperature	Running Hours	Whether AC performance is satisfactory (Yes/No)
Split AC Room no. 107 (Management Office)	2	5	24	08	Yes
Split AC Room no. 111 (Principal Cabin)	2	5	24	10	Yes
Split AC Room no. 111 (Fee's Counter)	2	5	24	08	Yes
Split AC Room no. 111 (President Cabin)	2	5	24	08	Yes
Window AC Room no. 111 (Secretary Cabin)	1	5	24	08	Yes
Split AC Room no. 112 (Principal office)	1	5	24	10	Yes
Split AC Room no. 112 (Administrative office) Quantity- 02	2	4	24	08	Yes
Split AC Room no. 201 (Computer Lab) Quantity - 05	2	3	24	08	Yes
Split AC Room no. 209 (Staff room)	1.5	3	24	06	Yes
Split AC Room no. 215 (Conference room)	2	-	24	01	Yes

Observation:

- All air conditioners are found to be functioning properly and well maintained.
- Most of the air conditioners used are 3-star which is a good practice.

Recommendation:

- All doors to be kept closed while using the air conditioners and regular annual service of AC's should be carried out.
- Set Temperature of Air Conditioner shall be maintained at 26°C.



- A reduction in 1°C set point temperature, the energy cost comes down by 5%. By carefully selecting the seasonal temperature in different areas as per requirement considerable saving on account of power consumption can be achieved.
- Whenever Air Conditioners are replaced in future, BEE 5 star rated air conditioners shall be considered which are energy efficient.
- University management should consider installation of programmable microprocessor-based energy saver for air conditioners to achieve savings up to 30%.





Chapter 06: Photographic Evidence



LED Lights



Solar Lights



Air Conditioners



DG Set



Conclusion

The energy audit conducted at MS College of Law has revealed that college is doing good work in having sustainable college. To further reduce energy consumption, college should implement the recommendation made in report.

End of Report



Elion Technologies & Consulting Private Limited

Registered Office:

307, 3rd Floor, DDA Lal Market, H-Block

Vikaspuri, New Delhi-110018

Phone No: 011-28541888, 9013890526

Email: support@elion.co.in

Website: www.elion.co.in

DISCLAIMER

All information contained in this report is based on the data available and observations made during the audit. All recommendations made in this audit report should be duly evaluated by the management before implementation.

Elion Technologies and Consulting is not liable for any damages incurred by the organization through implementation of the energy saving proposals either to it or to any third party getting impacted by the implementation of this report.

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