

ENERGY AUDIT REPORT

Year: 2021

PRAGJYOTISH COLLEGE

GUWAHATI – 781009

Prepared By Department of Physics, Pragjyotish College



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DISCLAIMER:

Energy Audit of Pragjyotish College, Guwahati 09, for estimating the annual power consumed by lights is conducted by Physics Department, Pragjyotish College, fully based on the data shared by the college, office and the energy audit report of 2019 conducted by PPS Energy Solutions Pvt. Ltd.



ENERGY AUDITING:

As per the Energy Conservation Act, 2021, Energy Audit is defined as “the verification, monitoring and analysis of use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption”.



DETAILED AUDIT:

The electricity supply for Pragjyotish College is provided by Assam Power Distribution Company Limited.

Based on the data available from the college office, it is found that as compared to the previous audit report a significant change has taken place in terms of replacement of non-LED lights with LED lights. Thus this audit estimates the annual power consumed by lights.

ANNUAL POWER CONSUMED BY TUBE LIGHTS:

There are 682 non-LED tube lights as per the last audit out of which now 75 are replaced by LED ones. Thus the total power consumed per year by those tube lights is 16,705 kWhr. (Please refer Table 1)

ANNUAL POWER CONSUMED BY CFL/LED LIGHTS:

There are 99 CFL lights as per the last audit out of which now 44 are replaced by LEDs. Thus the total power consumed per year by those lights is 1,093 kWhr. (Please refer Table 1)

GRAND TOTAL OF POWER CONSUMED BY TUBE LIGHTS:

The grand total of the above two categories is 17,798 kWhr/Yr.



OBSERVATIONS:

Total energy saved by the replacement of CFL and Non-LED Tube Lighting by LED and LED-tube during the year 2021 is 1162 kWhr. (Please refer Table 1)



RECOMMENDATION:

If all the remaining non-LED lights are replaced by LED lights an additional amount of 8,104 kWh/Yr can be saved. (Please refer Table 1)



Table 1: Energy saved and can be saved use of LED instead of non-LED lights in Pragjyotish College.

Replacement of CFL and Non-LED Tube Lighting by LED and LED-tube during the year 2021									
Already replaced									
Light Type	Power (W)	Replaced By	Power (W)	No. of Replacement	Average Hour per Day	Active Days in a year	Power Consumed by Non-LED Lighting	Power Consumed by LED Lighting	Power Saved (kWhr/ Yr)
CFL	18	LED	12	44	3	240	570	380	190
Non-LED Tube	36	LED-Tube	18	75	3	240	1944	972	972
						Total	2514	1352	1162
Still need to replace									
CFL	18	LED	12	55	3	240	713	475	238
Non-LED Tube	36	LED-Tube	18	607	3	240	15733	7867	7867
						Total	16446	8342	8104
						Present power consumption			17798



PRAGJYOTISH COLLEGE

[ESTD: 1954; NAAC ACCREDITED (3RD CYCLE); RECOGNISED UNDER SECTIONS 2(F) AND 12(B) OF UGC]

Guwahati – 781009


Assam

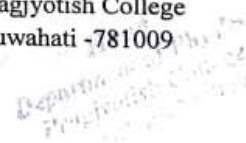
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Date: 02/05/22

TO WHOM IT MAY CONCERN

This is to certify that Physics Department, Pragjyotish College, has conducted the Energy Audit of Pragjyotish College, Guwahati 09, for estimating the annual power consumed by lights and found that compared to the previous year power saved is 1,162 kWh in one year because of replacement of many non-LED lights with LED lights. Further, it has also been found that if all the remaining non-LED lights are replaced by LED lights an additional amount of 8,104 kWh/Yr can be saved.


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