

INDIRA GANDHI GOVT. COLLEGE PANDARIA,
DISTT. – KABIRDHAM (C.G.)



ENERGY AUDIT ANNUAL REPORT

2023

Energy Audit Assessment Team

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Acknowledgement

The Energy Assessment Audit Team of Indira Gandhi Government College, Pandaria is very thankful to Principal Dr. B.S.Chauhan, IQAC Coordinator for motivating us to prepare the Annual Energy Audit for Evaluation of Electrical Instruments, Bills, Safety & Conservation of Electricity of an Institution via Audit Report.

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Introduction

The 'Energy audit' aims to be a technique used to establish the pattern of energy use, and identifies the areas where energy can be saved or where energy can be used judiciously.

An energy audit consists of a detailed examination of how a facility uses energy, what the facility pays for that energy, and finally, a recommended program for changes in operating practices or energy-consuming equipment that will effectively save on energy bills.

About our College

Indira Gandhi Government College, Pandaria is an emerging college in Kabirdham District of Chhattisgarh. It was established in 1984 and enlightened the student fraternity of Pandariya and nearby villages. The most respected first Principal, Dr. V. B. Choudhary gave special attention to college. The college has touched new heights by making its goal meaningful. The college was established in 1984, when the college had a system of study in the arts faculty till graduation. Started 37 years ago with about 100 students, the college is today imparting education to about 1500 students. Earlier, the college was being run in an additional room of the basic primary school, Pandaria, which is today operating from its own 15 acre building in Village-Rauha (Pandaria). In this college, from the academic session 1984 to 2008 only B.A. Classes of the Faculty of Arts continued to be conducted. In the education session 2008-09, B.Sc. and B.Com. Classes were started under public participation and from the session 2010-11, MA in Sociology M.Com Begins in 2019 Session, History and Hindi literature classes are conducted under the state government. Today, the study-teaching work of all the faculties of the college is being done continuously.



Geographical location of Indira Gandhi Government College,
Pandariya Distt.- Kabirdham (A/C To Google earth)

Objectives

The main objectives of carrying out the Energy Audit are:-
The primary objectives of an energy audit are to identify and evaluate opportunities to reduce energy consumption per unit of product output and reduce operating costs through energy conservation and planning.

The energy audit provides a "bench- mark" for managing energy in the organization and also provides the basis for planning a more effective use of energy throughout the organization.

Electricity Bill Analysis.

ELECTRICITY BILLS FOR ACADEMIC YEAR 2022-23

Bill Mo nth	Current Reading	Previous Reading	Consum- ption	Energy Charge	Fixed charge	Meter Rent	FCA	Previous Arrear s	Surcharge	Net Bill	
Mar- 23	28680	26788	1892	22853.5	720	35	2213.64	83600.79	5761.67	115180	
Feb- 23	26788	26107	681	7787.5	720	35	797.16	74261.13	4507.66	88110	
Jan- 23	26107	24960	1147	13638.25	720	35	1893.1	57974.78	3393.71	77650	
Dec- 22	24960	24392	568	5655.85	480	35	832.7	50971.23	2524.12	60500	
Nov- 22	24392	23527	865	10782.4	960	35	844.21	38349.59	1759.55	52730	
Oct- 22	23527	22911	616	6213.25	480	35	500.81	31120.53	1184.31	39530	
Sep- 22	22911	20821	2090	28174.75	1200	35	1462.86	48081.2	2166.72	81120	
Aug- 22	20821	20461	360	3945.6	960	35	241.92	44344.18	721.22	49527	
Jul- 22	20461	19614	847	8754.25	480	35	214.51	34216.94	643.48	43701	
Jun- 22	19614	18574	1040	12300	720	35	296.4	20354.32	501.22	33716	
May- 22	18574	17419	1155	14686	960	35	351.12	24021.40	567.8	40054	
Apr- 22	17419	16537	882	11014.95	960	35	253.98	11430.15	327.32	23694	
										TOTAL	705511

Recommendations

According to the energy auditors we can easily save between 5 and 10% of their energy consumption (and costs) by changing our behavior such as switching electrical equipment off at the mains rather than leaving it on stand-by, turning off lights when they're not being used.

Today's major appliances don't hog energy the way older models do because they must meet minimum federal energy efficiency standards. These standards have been tightened over the years, so any new appliance you buy today has to use less energy than the model you're replacing.

Lighting

- Get into the habit of turning lights off when you leave a room. Saving Energy 0.5 %
- Use task lighting (table and desktop lamps) instead of room lighting
- The ordinary regulator would take 20 watts extra at low speed.
- The energy loss can be compensated by using electronic regulator.
- Buy efficient electric appliances:
- They use two to 10 times less electricity for the same functionality, and are mostly higher quality products that last longer than the less efficient ones. In short, efficient appliances save you lots of energy and money.
- In many countries, efficiency rating labels are mandatory on most appliances. Look Energy Star label is used.
- The label gives you information on the annual electricity consumption. In the paragraphs below, we provide some indication

of the consumption of the most efficient appliances to use as a rough guide when shopping. Lists of brands and models and where to find them are country-specific and so cannot be listed here. Average consumption of electric appliances in different regions in the world, compared with the high efficient models on the market. Educate everyone in the home, including children and domestic helpers.

CONCLUSION

An energy audit is a tool, which is the start of every activity to improve energy efficiency. Under the concept of an energy audit, many activities actually take place – from simple analyses of energy consumption, which are implemented within expert groups in organizations, to comprehensive energy audits, which enable the creation of a quality mid-term energy strategy.

If a comprehensive review of possibilities for energy consumption optimization isn't implemented, some opportunities are lost, which is evident in higher energy costs. Based on good cooperation with expert groups within organizations, we can identify and also implement simpler measures that don't require higher investments.

Within the energy audit, we create a plan, which proposes possible organizational and investment measures and also enables systematic achievement of savings. With every measure, the level and return of investment and a sensible priority of measure implementation are determined alongside energy and cost savings.

Recorded energy cost savings, which fluctuate between 5 and 15 percent of total energy cost in organizations, depend on multiple factors. These factors are mostly energy complexity of organizations, existing energy use control and organizational and expert qualifications of responsible persons.