



Govt. Rajmata Vijaya Raje Sindhiya Kanya Mahavidyalaya ,
Kawardha , Dist-Kabirdham(Chhattisgarh)

Email:- rvtgirlscolleekwd@gmail.com

website:- <http://www.rvtsgirlscollegekawardha.ac.in>

INTERNAL QUALITY ASSURANCE CELL (IQAC)

Submitted to:

Dr. B. S. Chauhan
(Principal In Charge)

Editor

Mr. Asit Kumar, Assistant Professor

ENERGY AUDIT REPORT 2019-2020

IQAC-Co-Ordinator
Govt.Rajmata Vijaya Raje
Sindhiya Kanya Mahavidyalay
Kawardha,Kabirdham

Principal
Govt.Rajmata Vijaya Raje
Sindhiya Kanya Mahavidyalaya,
Kawardha,Kabirdham(C.G.)

Govt. Rajmata Vijayaraje Sindhiya Kanya Mahavidyalaya

Energy Audit Assessment Team

Mr. Asit Kumar, Assistant Professor of Zoology,
Mr. Lawan Singh Kanwar, Assistant Professor of Hindi,
Miss. Mausami kulmitra, Guest Lecturer of Mathematics,
Mr. Ved Prakash Sahu, Guest Lecturer of Geography.



PREFACE

In the contemporary scenario, Energy has been identified as a crucial and balancing factor in the Indices for sustainable development. The heavy and unbalanced energy consumption adversely affects energy price and economic growth. The Energy Conservation Act, 2001, defines Energy auditing 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. It facilitates a systematic approach to the energy management in a system, trying to balance the total energy input with its use. It identifies all the energy streams in a system and quantifies the use of energy according to its discrete functions. It is a study to determine how and where energy is used, and to identify methods for energy savings.

CONTENTS

Sl. No.	Titles/Topics	Page No.
1	Introduction	4
2	Objective	4
3	Methodology	4
4	Data Collection	5
5	Data Analysis	5 to 15
6	Major Findings	16
7	Finding with Recommendations	17
8	Conclusion	18

Introduction

Govt.Rajmata Vijaya Raje Sindhiya Kanya mahavidyalaya,Kawardha an institution devoted to meet the needs of higher education especially for girls in Kabirdham District, has attained great heights during past years. The mission of the college is to spread education among the girls of this socially and economically challenged area. This college, having the status of only girls college in the district, has an important role to play in spreading higher Education. Keeping this fact in mind, every effort is being made to establish this college as a 'Role Model College'.

Govt.Rajmata Vijaya Raje Sindhiya Kanya mahavidyalaya,Kawardha July, 2005. The college is affiliated to Hemchand Yadav University, Durg, C.G. The college is offering Graduate Courses in 13 subjects and Three faculties i.e. Arts, Commerce and Science. The total students' strength of the college is more than 1312.This audit was undertaken in order to verify how effective these steps were, and also to identify loop holes, if any, in the existing practices, along with outlining measures for enhancing energy utilization.

Objectives

The primary objective of any energy audit is determining “ways to reduce energy Consumption per unit of product output or to lower operating costs” .The recommendations of the study will become a basis for future schemes of better energy consumption and preservation throughout the organization.

Specific objectives of the study are:

1. Verify the steps adopted for energy management in the campus
2. Spot the inefficient or inadequate practices, if any
3. Improve the energy preserving measures and methods
4. Identify potential energy saving opportunities
5. Formulate Possible steps and measures to be adopted in the campus

Methodology

An energy audit is an inspection, survey and analysis of energy flows, for energy conservation in a building, process or system to reduce the amount of energy input into the system without negatively affecting the output. Method use for Energy audit is a Preliminary Audit. Preliminary audit uses existing data to look extensively at the existing energy consumption patterns and identifies the areas for improvement.

Data collection

Data collection for energy audit of the **Govt.Rajmata Vijaya Raje Sindhiya Kanya mahavidyalaya** Campus was conceded by team for the period of JULY 2019 to JUNE 2020. All data collected from each classroom, laboratory, every room. The work is completed by considering, how much tubes, fan, A.Cs, electronic instruments, etc in each room. How much was participation of each component in total electricity consumption.

For the purpose of this audit, audit groups for specific areas were formed. Data was collected through

1. Inspection and observation (Data of month-wise consumption rate of energy is obtained by CSEB)
2. Identification of energy consumption.
3. Calculations, analysis.
4. Validation.

(NOTE: Data have not been collected from Hostel due to not in use since inception.)

Data analysis

The gathered data was then quantified and separated according to the following criteria:

1. Rate of Consumption equipment-wise.
2. Rate of consumption month-wise.
3. Rate of consumption time-wise.
4. Rate of consumption area-wise.

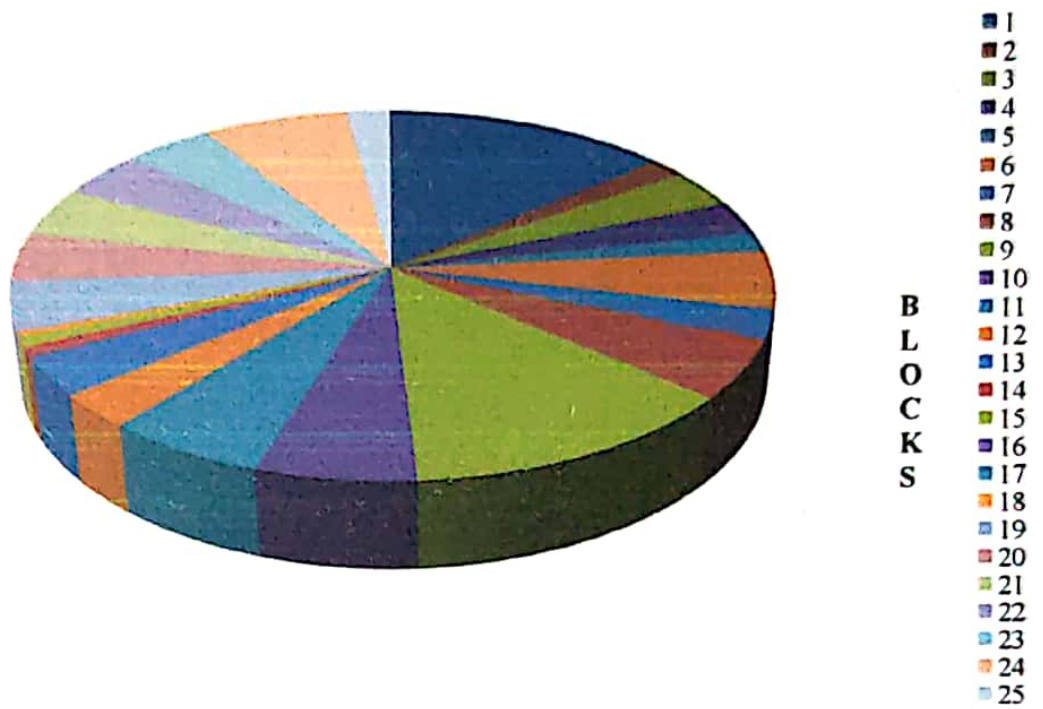
Equipment-data

S.No.		Tube	Bulb	LED tube	Fan	AC	Freeze	Computer	Lcd Proj.	Printer/photocopy	Coolar	Lab equipment	Water Cooler	Water Pump	CC TV Camera	LED TV
1	Corridor	4	15	-	8	-	-	-	-	-	-	-	2	-	4	-
2	Veranda	-	3	-	-	-	-	-	-	-	-	-	-	-	1	-
3	Account Sect.	2	1	-	1	-	-	2	-	2	-	-	-	-	-	-
4	Office	2	1	-	2	-	-	1	-	1	-	-	-	-	-	-
5	Staff room	2	-	-	1	-	-	1	-	-	-	-	-	-	-	-
6	Principal's Chamber	2	3	-	2	-	-	2	-	-	1	-	-	-	1	1
7	Stage	-	3	-	2	-	-	-	-	-	-	-	-	-	1	-
8	Library	4	1	-	4	-	-	1	-	1	-	-	-	-	1	-
9	Computer room	2	2	-	6	-	-	19	-	-	-	-	-	-	1	-
10	Biology Lab	-	-	4	4	-	1	1	-	1	-	3	-	-	-	-
11	Chemistry Lab	4	1	-	5	-	1	1	-	1	-	-	-	-	1	-
12	Geography Lab	2	2	-	2	-	-	1	-	-	-	-	-	-	-	-
13	store	2	2	-	4	-	-	-	-	-	-	-	-	-	-	-
14	Girls Toilet	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Boys Toilet	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Girls Toilet 1st Floor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Common Room	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Pricipal's room Toilet	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Class Room 5	4	2	-	4	-	-	-	-	-	-	-	-	-	-	-
20	Class Room 6	4	2	-	4	-	-	-	-	-	-	-	-	-	-	-
21	Class Room 7	2	3	-	4	-	-	-	1	-	-	-	-	-	-	-
22	Class Room 9	4	2	-	4	-	-	-	-	-	-	-	-	-	-	-
23	Class Room 10	4	2	-	4	-	-	-	-	-	-	-	-	-	-	-
24	Hall	-	-	8	8	-	-	-	1	-	-	-	-	-	-	-
25	Building's Outer Area	-	3	-	-	-	-	-	-	-	-	-	1	1	1	-
	TOTAL	49	48	12	69	-	2	29	2	6	1	3	2	1	11	1

The consumption of energy EQUIPMENTS-Wise.

S. N.	Block	NO OF ELECTRIC EQUIPMENTS BLOCK- WISE
1	Corridor	33
2	Veranda	4
3	Account Sect.	8
4	Office	7
5	Staff room	4
6	Principal's Chamber	12
7	Stage	6
8	Library	12
9	Computer room	30
10	Biology Lab	14
11	Chemistry Lab	14
12	Geography Lab	7
13	store	8
14	Girls Toilet	2
15	Boys Toilet	2
16	Girls Toilet 1st Floor	-
17	Common Room	-
18	Principals room Toilet	1
19	Class Room 5	10
20	Class Room 6	10
21	Class Room 7	10
22	Class Room 9	10
23	Class Room 10	10
24	Hall	17
25	Building's Outer Area	5
26	TOTAL	230

NO OF ELECTRIC EQUIPMENTS BLOCK- WISE



Month-wise consumption rate of energy for the year 2019-20

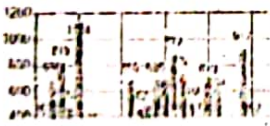
Consumer Information

BP No.: 100435811
 Consumer Name: SHRI. PRINCIPAL GOVT.
 Address: NAVIN GIRLS COLLEGE VILL - NEAR CHHIRPANI COLONY
 RAJAHMUNDA (T)

Bill Information

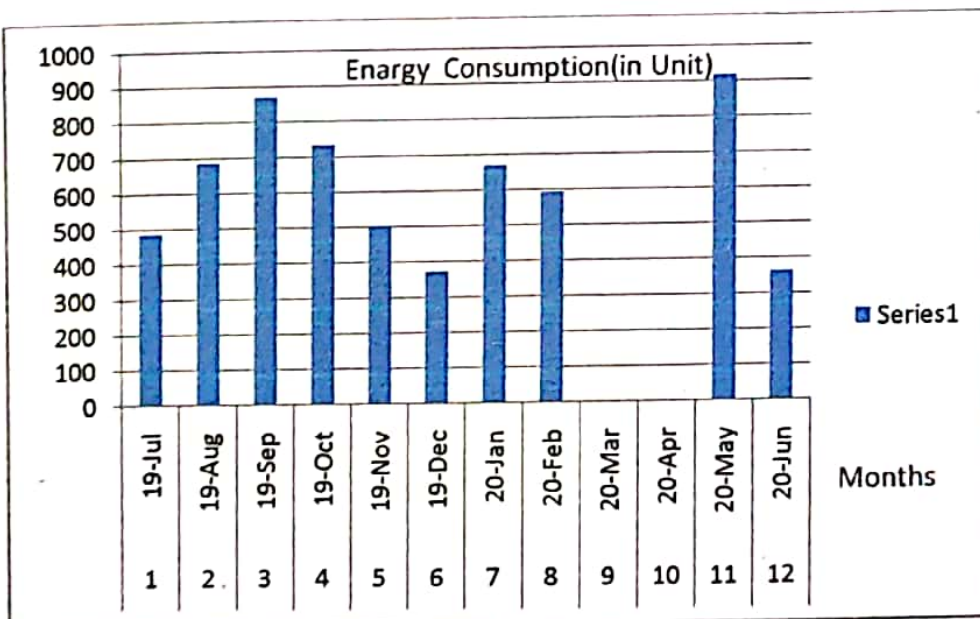
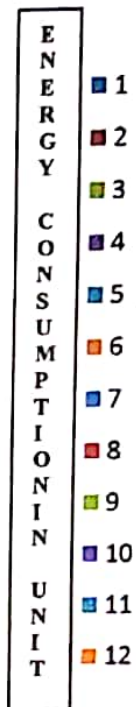
Bill Month	Date of Issue	Current Reading	Previous Reading	Consumption	Energy Charge	Fixed Charge	Duty	Cess	Meter Rent	LT/WT	P&A	Additional SO	Rebate	Misc Charge	Average Adjustment	Previous Arrears	Demand Adjustment	Surcharge	Net Bill
Jun-2020	05-Aug-2020	8069	7879	210	1495.00	380.00	0.00	0.00	35.00	0.00	7.14	0.00	0.00	0.00	-0.75	2107.15	0.00	0.00	4970
Jun-2020	06-Jul-2020	7839	7476	363	2359.50	380.00	0.00	0.00	35.00	0.00	14.81	0.00	0.00	0.00	7.15	-391.66	0.00	5.00	2506
May-2020	04-Jun-2020	7476	6559	917	1550.00	720.00	0.00	0.00	35.00	0.00	0.00	0.00	0.00	0.00	0.00	4.34	0.00	0.00	0
Apr-2020	06-May-2020	6559	6559	0	0.00	480.00	0.00	0.00	35.00	0.00	0.00	0.00	0.00	0.00	-4.34	4865.34	0.00	0.00	9750
Mar-2020	26-Mar-2020	6559	6559	0	0.00	480.00	0.00	0.00	35.00	0.00	0.00	0.00	0.00	0.00	5.34	-3.56	0.00	0.00	4870
Feb-2020	05-Mar-2020	6559	5976	584	4442.80	720.00	0.00	0.00	35.00	0.00	287.41	0.00	0.00	0.00	6.24	-3.87	0.00	0.00	5960
Jan-2020	07-Feb-2020	5976	5375	601	4445.40	960.00	0.00	0.00	35.00	0.00	255.13	0.00	0.00	0.00	6.11	0.00	0.00	0.00	7510
Dec-2019	08-Jan-2020	5385	4271	1114	8202.20	960.00	0.00	0.00	35.00	0.00	23.80	0.00	0.00	0.00	4.70	0.00	0.00	0.00	5740
Nov-2019	09-Dec-2019	4932	4430	502	3612.70	960.00	0.00	0.00	35.00	0.00	156.43	0.00	0.00	0.00	5.20	4.57	0.00	0.00	6280
Oct-2019	07-Nov-2019	4430	3686	744	7115.20	960.00	0.00	0.00	35.00	0.00	197.71	0.00	0.00	0.00	4.17	0.00	0.00	0.00	9746
Sep-2019	08-Oct-2019	3686	2524	1162	8202.20	960.00	0.00	0.00	35.00	0.00	177.58	0.00	0.00	0.00	4.48	173753.28	0.00	2606.30	1368
Aug-2019	09-Sep-2019	2524	2139	385	3772.40	161200.00	0.00	0.00	35.00	0.00	-70.72	0.00	0.00	0.00	-3.22	0.00	0.00	0.00	173750
Jul-2019	09-Aug-2019	2139	1656	483	3632.20	20.00	0.00	0.00	35.00	0.00	35.40	0.00	0.00	0.00	4.50	0.00	0.00	0.00	4820
Jun-2019	08-Jul-2019	1656	1194	462	3762.30	720.00	0.00	0.00	35.00	0.00	-4.62	0.00	0.00	0.00	-4.50	1.92	0.00	0.00	4510
May-2019	10-Jun-2019	1194	40395	40395	3947.00	350.00	0.00	0.00	35.00	0.00	-4.85	0.00	0.00	0.00	-4.22	1.90	0.00	0.00	3770
Apr-2019	09-May-2019	40395	40395	0	1435.00	480.00	0.00	0.00	35.00	0.00	23.36	0.00	0.00	0.00	7.28	2379.51	0.00	71.31	4840
Mar-2019	08-Apr-2019	40395	40395	0	1841.80	480.00	0.00	0.00	35.00	0.00	11.68	0.00	0.00	0.00	5.13	4.73	0.00	35.62	2420
Feb-2019	04-Mar-2019	40395	40395	292	1841.80	480.00	0.00	0.00	35.00	0.00	11.68	0.00	0.00	0.00	-4.73	-0.05	0.00	0.00	2378
Jan-2019	04-Feb-2019	40395	40395	292	1841.80	480.00	0.00	0.00	35.00	0.00	11.68	0.00	0.00	0.00	9.95	134.10	0.00	0.00	1860
Dec-2018	03-Jan-2019	40395	40200	195	1196.75	480.00	0.00	0.00	35.00	0.00	7.80	0.00	0.00	0.00	-1.62	0.00	0.00	0.00	8880
Nov-2018	05-Dec-2018	40200	39366	834	8265.30	480.00	0.00	0.00	35.00	0.00	46.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.66
Oct-2018	04-Nov-2018	39366	37077	2289	7048.85	480.00	0.00	0.00	35.00	0.00	2.87	0.00	0.00	0.00	6.07	0.00	0.00	0.00	93.09
Sep-2018	07-Oct-2018	37077	37778	701	5707.05	480.00	0.00	0.00	35.00	0.00	54.98	0.00	0.00	0.00	8.02	0.68	0.00	0.00	6340
Aug-2018	05-Sep-2018	37778	37070	708	4719.60	480.00	0.00	0.00	35.00	0.00	13.76	0.00	0.00	0.00	-0.68	41.54	0.00	0.00	5270
Jul-2018	03-Aug-2018	37070	36723	347	2710.55	480.00	0.00	0.00	35.00	0.00	-7.31	0.00	0.00	0.00	-0.78	0.00	0.00	0.00	1270

Consumption History



Sr.No.	MONTHS OF SESSION 2019-20	ENERGY CONSUMPTION(IN UNIT)
1	JULY-2019	488
2	AUGUST-2019	685
3	SEPTEMBER-2019	872
4	OCTOBER-2019	734
5	NOVEMBER-2019	502
6	DECEMBER-2019	373
7	JANUARY-2020	670
8	FEBRUARY-2020	594
9	MARCH-2020	0
10	APRIL-2020	0
11	MAY-2020	917
12	JUNE-2020	363

MONTHS OF SESSION (2019-20)

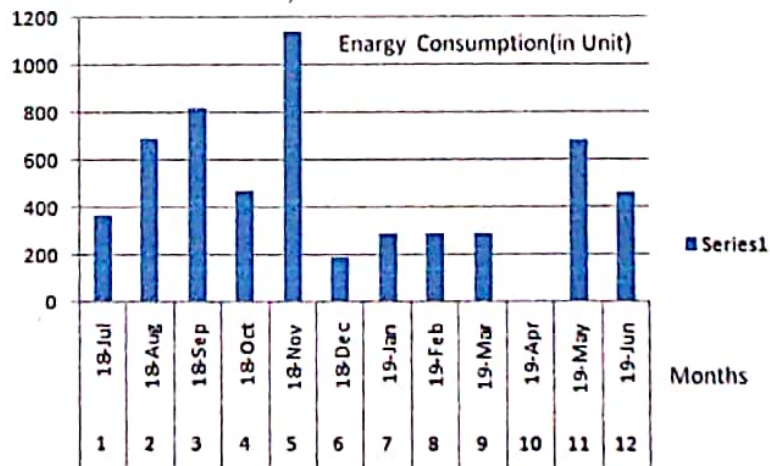
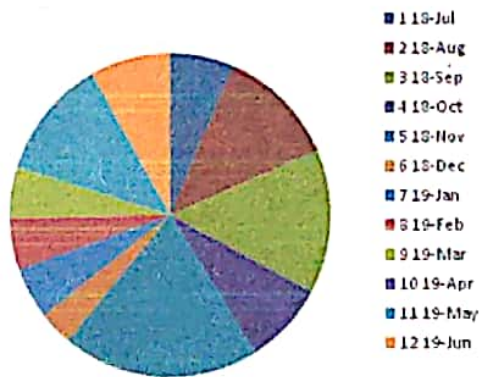


Bill Month	Pre - MR	Cor - MR	Max De	Units	Energy Charge	Duty	Motor Rent	Prev Arrears	Surcharge	Payment Date
2015/04	13,474	14,063	0	589	4,101.00	517	29	98.19	82.58	08.06.2015
2015/05	14,063	14,524	0	461	3,036.75	384	25	111.4	65.46	02.07.2015
2015/06	14,524	14,891	0	369	2,637.15	332	25	151.59	59.27	20.07.2015
2015/07	14,891	15,205	0	312	2,118.20	280	25	-4.52	50.73	20.08.2015
2015/08	15,205	15,757	0	552	4,083.60	514	35	-7.8	83.98	23.09.2015
2015/09	15,757	16,466	0	709	5,541.70	691	35	-1.28	109.1	27.10.2015
2015/10	16,466	17,046	0	580	4,344.00	542	35	148.81	88.15	24.11.2015
2015/11	17,046	17,515	0	469	3,372.15	422	35	119.34	71.08	31.12.2015
2015/12	17,515	18,178	0	611	4,632.30	585	35	90.86	95.52	22.01.2016
2016/01	18,178	18,626	0	500	3,600.00	456	35	-2.27	75.92	25.02.2016
2016/02	18,626	19,231	0	605	4,576.50	575	35	102.45	93.26	30.03.2016
2016/03	19,231	19,890	0	659	5,078.70	641	35	122.83	102.11	13.04.2016
2016/04	19,890	20,505	0	615	5,701.50	684	35	0.33	108.48	25.05.2016
2016/05	20,505	20,959	0	454	4,004.10	480	35	146.98	79.75	22.06.2016
2016/06	20,959	21,451	0	492	4,351.80	522	35	107.82	85.64	14.07.2016
2016/07	21,451	21,895	0	444	3,912.60	470	35	-4.18	78.12	17.08.2016
2016/08	21,895	22,510	0	615	5,701.50	712	35	101.98	112.36	22.09.2016
2016/09	22,510	23,348	0	838	8,176.80	1,033.00	35	152.42	157.7	
2016/10	23,348	23,946	0	598	5,512.80	699	35	10,873.74	268.26	17.11.2016
2016/11	23,946	24,491	0	545	4,924.50	623	35	4.29	99.92	21.12.2016
2016/12	24,491	25,109	0	618	5,734.80	725	35	134.29	114.2	25.01.2017
2017/01	25,109	25,364	0	755	7,255.50	939	35	149.07	144.32	
2017/02	25,364	26,442	0	573	5,290.80	697	35	9,962.75	253.13	17.03.2017
2017/03	26,442	27,240	0	798	7,732.80	1,001.00	35	-3.15	153.09	12.04.2017
2017/04	27,240	27,904	0	684	6,892.80	827	35	-4.09	128.51	25.05.2017
2017/05	27,904	28,593	0	689	7,194.68	863	35	168.46	136.2	
2017/06	28,593	29,187	0	594	6,047.55	726	35	9,261.64	250.47	19.07.2017
2017/07	29,187	29,634	0	447	4,375.88	511	35	-0.41	83.93	24.08.2017
2017/08	29,634	30,253	0	619	6,349.43	749	35	107.39	119.12	21.09.2017
2017/09	30,253	31,039	0	786	8,365.95	950	35	160.13	148.4	02.11.2017
2017/10	31,039	31,722	0	683	7,122.23	807	35	201.27	128.81	28.11.2017
2017/11	31,722	32,279	0	557	5,600.78	640	35	-0.59	102.18	13.12.2017
2017/12	32,279	32,787	0	508	5,009.10	572	35	1.83	92.62	17.01.2018
2018/01	32,787	33,378	0	591	6,011.33	703	35	1.89	111.14	16.02.2018
2018/02	33,378	33,935	0	561	5,649.08	660	35	-0.34	105.06	20.03.2018
2018/03	33,935	34,787	0	848	9,114.60	1,069.00	35	3.98	152.81	10.04.2018
2018/04	34,787	37,745	0	2,958	34,149.15	4,013.00	35	3.86	577.6	
2018/05	37,745	38,011	0	266	2,503.35	295	35	39,277.03	630.68	
2018/06	38,011	38,723	0	1,688	-20,780.63	-2,439.00	0	49,685.55	362.18	
2018/06	38,011	38,411	0	400	3,840.00	454	35	43,656.55	706.12	13.07.2018
2018/07	38,411	37,090	0	367	2,340.55	0	41.3	-3.73	42.75	29.08.2018
2018/08	37,090	37,778	0	683	4,719.60	0	41.3	43.54	79.06	14.09.2018
2018/09	37,778	38,597	0	619	5,761.05	0	41.3	0.68	95.07	24.10.2018
2018/10	38,597	39,066	0	469	3,018.85	0	41.3	93.09	53.59	27.11.2018
2018/11	39,066	40,200	0	1,134	8,265.30	0	41.3	49.66	132.48	02.01.2019
2018/12	40,200	40,395	0	195	1,196.75	0	41.3	134.1	27.9	16.01.2019
2019/01	40,395	40,395	0	292	1,841.80	0	41.3	-0.05	35.62	20.02.2019
2019/02	40,395	40,395	0	292	1,841.80	0	41.3	40.35	35.69	
2019/03	40,395	40,395	0	252	1,841.80	0	41.3	2,450.82	71.49	24.04.2019
2019/04	40,395	40,395	0	0	1,435.00	0	35	68.77	5	27.05.2019
2019/05	40,395	1,194	0	685	3,388.00	0	35	0	56.58	18.06.2019
2019/06	1,194	1,656	5	462	3,762.20	0	35	1.92	67.72	19.07.2019
2019/07	1,656	2,139	5	483	3,985.80	0	35	4.5	72.31	21.08.2019
2019/08	2,139	2,824	685	685	9,620.00	0	35	0.7	2,606.80	
2019/08	2,139	2,824	5	0	-3,728.40	0	0	1,76,359.53	101.31	03.10.2019
2019/09	2,824	3,696	6	872	8,551.40	0	35	0.46	146.17	21.10.2019
2019/10	3,696	4,430	6	734	7,116.20	0	35	4.57	124.23	14.11.2019
2019/11	4,430	4,932	6	502	4,613.70	0	35	2.2	86.17	20.12.2019
2019/12	4,932	5,305	6	373	3,230.50	0	35	4.7	64.94	16.01.2020
2020/01	5,305	5,975	6	670	6,445.40	0	35	0.4	117.09	18.02.2020
2020/02	5,975	6,559	5	584	4,947.80	0	35	-3.87	89.8	17.03.2020
2020/03	6,559	6,559	0	0	4,354.00	0	35	-1.63	72.38	
2020/04	6,559	6,559	0	0	4,354.00	0	35	4,365.34	148.02	19.05.2020

Table:- Data collected from CSEB.

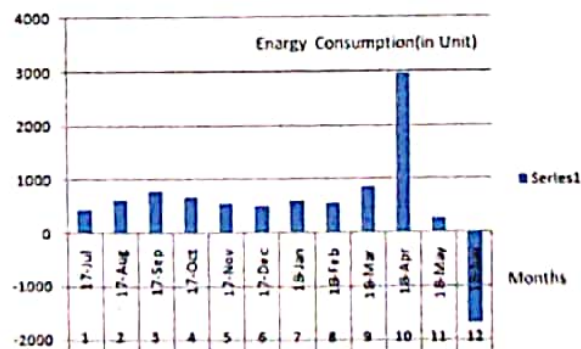
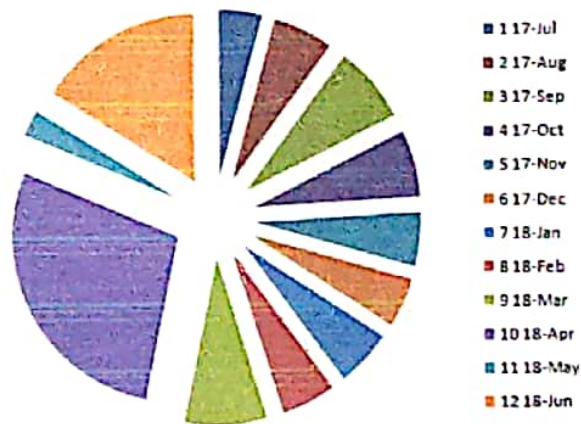
Month-wise consumption rate of energy for the year 2018-19

Sr.No.	MONTHS OF SESSION 2018-19	ENERGY CONSUMPTION(IN UNIT)
1	Jul-18	367
2	Aug-18	688
3	Sep-18	819
4	Oct-18	469
5	Nov-18	1134
6	Dec-18	195
7	Jan-19	292
8	Feb-19	292
9	Mar-19	292
10	Apr-19	0
11	May-19	685
12	Jun-19	462



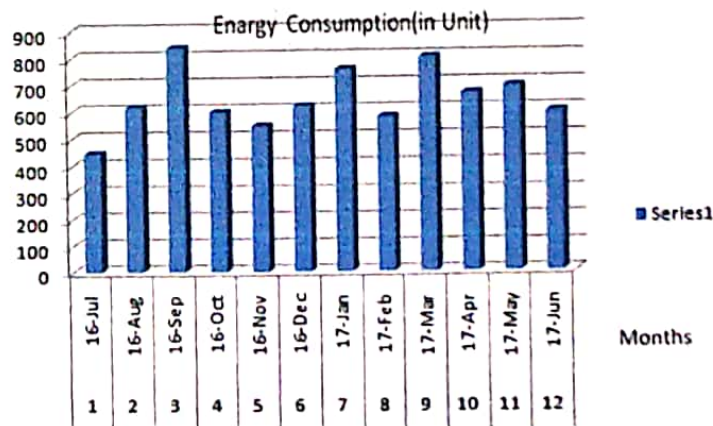
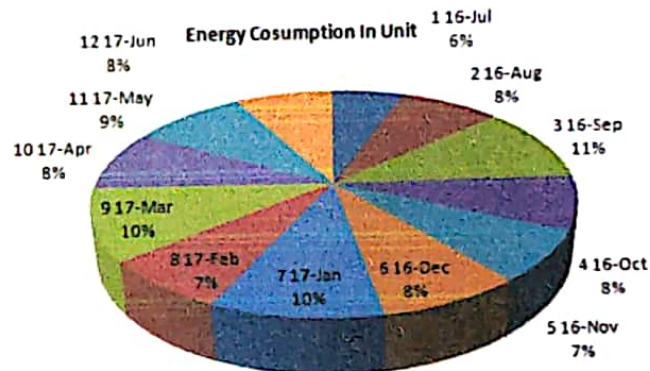
Month-wise consumption rate of energy for the year 2017-18

Sr.No.	MONTHS OF SESSION 2017-18	ENERGY CONSUMPTION(IN UNIT)
1	Jul-17	447
2	Aug-17	619
3	Sep-17	786
4	Oct-17	683
5	Nov-17	557
6	Dec-17	508
7	Jan-18	591
8	Feb-18	561
9	Mar-18	848
10	Apr-18	2958
11	May-18	266
12	Jun-18	-1688



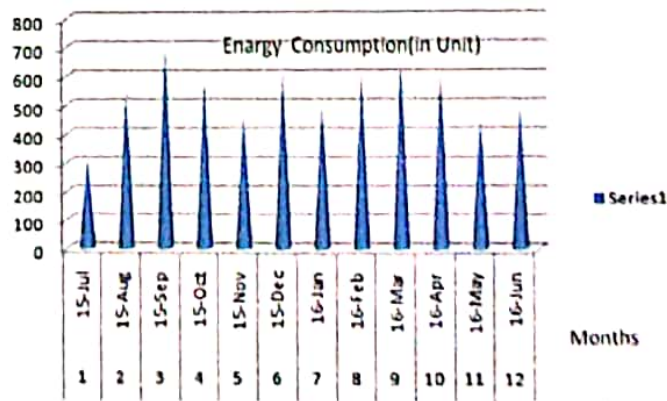
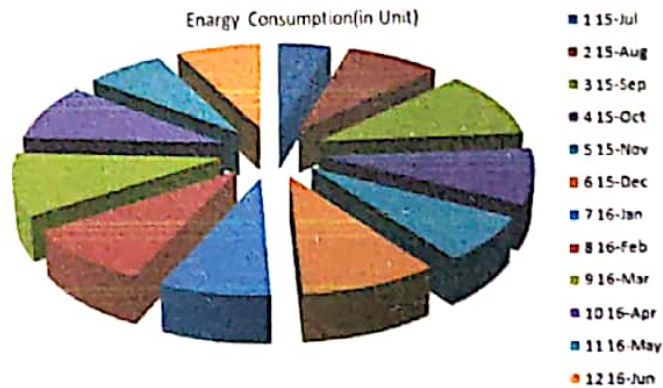
Month-wise consumption rate of energy for the year 2016-17

SR.NO.	MONTHS OF SESSION 2016-17	ENERGY CONSUMPTION(IN UNIT)
1	Jul-16	444
2	Aug-16	615
3	Sep-16	838
4	Oct-16	598
5	Nov-16	545
6	Dec-16	618
7	Jan-17	755
8	Feb-17	578
9	Mar-17	798
10	Apr-17	664
11	May-17	689
12	Jun-17	594



Month-wise consumption rate of energy for the year 2015-16

SR.NO.	MONTHS OF SESSION 2015-16	ENERGY CONSUMPTION(IN UNIT)
1	Jul-15	312
2	Aug-15	552
3	Sep-15	709
4	Oct-15	580
5	Nov-15	469
6	Dec-15	611
7	Jan-16	500
8	Feb-16	605
9	Mar-16	659
10	Apr-16	615
11	May-16	454
12	Jun-16	492



MAJOR FINDINGS

Establish energy consumption in the organization from the quantitative analysis of the gathered data, the following findings have been reached.

1. The Computer room record the highest consumption based on total equipments in the block .
2. The Class rooms records the highest rate of consumption.
3. In Session 2019-20 the month of MAY-20 shows the peak while the month of JUNE-20 shows least consumption of energy, no use of energy in March-April 2020 due to Lock Down Period.
4. In Session 2018-19 the month of NOVEMBER-18 shows the peak while the month of DECEMBER-18 shows least consumption of energy due to winter season.
5. In Session 2017-18 the month of APRIL-18 shows the peak while the month of JUNE-18 shows negative consumption of energy due to over and wrong billing by CSEB in previous months.
6. In Session 2016-17 the month of MARCH-17 shows the peak while the month of JULY-16 shows least consumption of energy.
7. In Session 2015-16 the month of SEP-15 shows the peak while the month of JULY-15 shows least consumption of energy.
8. After analyzing above data of different session, we can say that it is not possible to identify the month of the highest and lowest consumption in a year. The fault in billing system of CSEB makes energy audit very tough task.
9. The time slots in the Afternoon record the highest consumption on a normal working day.

(A) Identify easiest areas of attention

Based on the physical observation and the analysis of data collected, certain areas have been identified as areas of attention.

1. Old wiring cables in many parts of the campus leading to loss of energy.
2. Old water pipelines in several parts of the campus leading to waste of water hence Ultimate loss in energy.
3. Use of incandescent bulbs, Old Fan, and tubes in certain rooms.
4. Institute is not using Renewable energy resources like solar panels etc.
5. Running of Electric equipments when not in use.

(B) Estimate the Scope for Saving

The study could identify a large scope for saving energy in the campus, including-

1. Updating of technologies in laboratory equipment.
2. Replacing old electrical cables and pipelines.
3. Replacing incandescent bulbs and tubes with LEDs.
4. Ensuring even lighting facilities in rooms.
5. Use of Solar panels as a main source of lighting, especially common areas.

(C) Identify immediate areas of improvement

Based on the study, certain areas were identified as requiring immediate improvement. These are-

1. Replacing incandescent bulbs and tubes with LEDs.
2. Repairing and updating laboratory equipment.
3. Encouraging students and staff to switch off electrical instrument.

Finding and recommendation of the Audit

SR.NO.	FINDINGS	RECOMMENDATIONS
1.	The electrical wiring of many buildings was found to be old and inefficient.	Replace old electrical cables with new Ones.
2.	There seem to be a lack of judicious use of power among students and staff. During the study, it was found that lights, fans and computers were kept on working mode in many rooms, without a single person present.	Students and staff should be exhorted Constantly to use energy judiciously. Posters and pamphlets should be distributed and notices about saving energy should be posted at major points of use.
3.	Many Departments still use incandescent bulbs causing heavy power loss.	Incandescent bulbs should be replaced with LEDs.
4.	The entire power requirement is met from the CSEB line.	Solar panels should be installed in key areas of the campus, and loads for common areas and grounds should be met from these.
5.	Refrigerators and Electric equipments used in many rooms uses obsolete technology and hence cause power loss.	Gadgets and equipment's should be repaired and/or replaced with latest ones to save energy.

Final Recommendation - A training /lecture for both students and staff to awareness for the need of energy conservation. If everyone ensures switching off lights, fans and electrical instrument that are not in use, roughly 10% of energy saving is possible. The scope for non-conventional energy should be utilized.

Conclusion

The opportunities lie in the use of existing renewable energy technologies, greater efforts at energy efficiency and the dissemination of latest technologies. As is known, energy auditing is an on-going process, a part of a larger procedure to ensure long-term sustainable development. We have enlisted credible solutions based on the outcome of our analysis of data, and our recommendations, which can be implemented totally in the campus in order to ensure minimizing energy waste and maximizing energy potential.



IQAC-Co-Ordinator
Govt.Rajmata Vijaya Raje
Sindhiya Kanya Mahavidyalay
Kawardha,Kabirdham



Principal
Govt.Rajmata Vijaya Raje
Sindhiya Kanya Mahavidyalaya,
Kawardha,Kabirdham(C.G.)