

Energy Audits



कार्यालय प्राचार्य, शासकीय नवीनकन्यामहाविद्यालय
बैकुण्ठपुरजिला- कोरिया(छ.ग.)

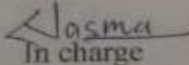
Affiliated To: Sant Gahira Guru Vishwavidyalaya Sarguja Ambikapur (C.G.)
Web Site = www.gvtsmbika.com Email Address = nbsmartsbika@gmail.com Phone No. = 9425256687

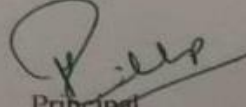
Energy Audits

1	Number of Air-conditioned and non Air-conditioned Buildings.	2(NON-AC)	
2	Air ventilation and daylighting facilities at indoor/outdoor seminar halls, auditorium and stadium.	YES	Natural ventilation is being increasingly proposed as a means of saving energy and improving indoor quality.
3	staff incharge for electrical equipment maintenance.	YES	Mr. Satyendra Paikra
4	RO water use in the campus and its current supply.	YES	This water is pure, by gienic rendering it highly suitable for human consumption.
5	Register for electrical energy savings and current bill payment receipts.	YES	College regularly maintain a register for electrical energy savings and current bill payment receipts.
6	Servicing and calibration of electrical equipment items.	YES	Because accurate and reliable monitoring results are crucial for data analysis and feather report.
7	No. of Light, Fans, LED Bulbs Report is attached.	YES	

Recommendations :-

1. Awareness about energy conservation should be increased among staff and students.
2. Eco friendly measures should be undertaken to save energy.
3. Power saving electrical equipments and solar energy Generator should be installed.


In charge
Energy Audit
NACC Cell
Nasma Begam

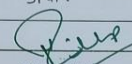


Principal
PRINCIPAL
Gmt Naven Girls Collar

2020-21

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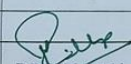

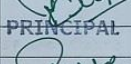
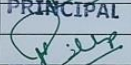

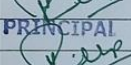
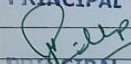


क्रमांक	माह	चेक नंबर	राशि	बिल क./तिथि	आवरण तिथि	भुगतान तिथि	जानकारी
1.	Advance Bil)	2/20 से अंतिम चेक अंतिम भुगतान	20,000/-	63/5.2.21	18.2.21	23.2.21	 PRINCIPAL Govt. Naveen Girls College Baikunthpur, Korea C.G
2.	---	070019709092 dt. 12.2.21	15000/-	79/24.2.21	26.2.21	01.3.21	 PRINCIPAL Govt. Naveen Girls College Baikunthpur, Korea C.G

2019-20

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1.	1,2/19	No. 785000248822 dt. 12.3.19	1190/-	20/22.5.19	29.5.19	01.06.19	 PRINCIPAL	
2.	3/19	722010046492 dt. 14.4.19	780/-		29.5.19	01.06.19	 PRINCIPAL	
3.	4,5,6/19	712019101011 dt. 14.7.19	14,370/-	36/23.7.19	26.7.19	29.7.19	 PRINCIPAL	
4.	7/19	708027949264 dt. 4.8.19	1830/-	46/20.08.19	21.8.19	21.8.19	 PRINCIPAL	
5.	8/19	1006229232	1770/-	58/11.9.19	18.9.19	18.9.19	 PRINCIPAL	
6.	9,10/19	31450551 dt. 6.11.19	5390/-	99/27.1.20	04.2.20	04.2.20	 PRINCIPAL	
7.	11/19	742003176566 dt. 18.11.19	20/-		4.2.20	4.2.20	4.2.20	 PRINCIPAL
8.	12/19	31450551 dt.	7560/-		4.2.20	4.2.20	4.2.20	 PRINCIPAL
9.	1/20	Bill dt. 20.2.20	32990/-	114/24.2.20	28.2.20	12.3.20	 PRINCIPAL	

2018-19

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1	2/18	Bill dt. 13.3.18	350=	23-Pou.6.18	12.06.18	13.6.18	PRINCIPAL
2	3/18	Bill No 7200102 dt. 12.4.18	20=		12.06.18	13.6.18	PRINCIPAL
3	4/18	No. 706021236656 dt. 13.5.18	520=		12.06.18	13.06.18	PRINCIPAL
4	5/18	No. 778001692523 dt. 14.06.18	1490=	32 / 30.06.18	9.7.18	11.07.18	PRINCIPAL
5	6/18	No. 730005762786 dt. 19.7.18	1550=	39 / 28.7.18	01.8.18	04.08.18	PRINCIPAL
6	7/18	No. 716014562373 dt. 22.08.18	5100=	46/30.08.18	6.9.18	6.9.18	PRINCIPAL
7	8/18	No. 790500035264 dt. 23.9.18	1110=	54/4.10.18	18.10.18	23.10.18	PRINCIPAL
8	9/18	No. 754001397951 dt. 16.10.18	2060=	69/30.10.18	5.11.18	5.11.18	PRINCIPAL
9	10/18	No. 784000207990 dt. 13.11.18	1580=	72/30.11.18	5.12.18	5.12.18	PRINCIPAL
10	11/18	Bill. 1006229232	850=	88/21.12.18	31.12.18	02.1.19	PRINCIPAL
11	12/18	No. 737005016561 dt. 16.1.19	830=	104/19.2.19	25.2.19	6.3.19	PRINCIPAL

2016-17

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1	NEW Conn	331/28.11.16	3400=	63- 13.1.17	23.01.17	23.01.17	PRINCIPAL
2	1/17	120 unit	530=	94- 20.3.17	27.3.17	27.3.17	PRINCIPAL
2017-18							
1	4/17	1006229232	40=	22- 23.06.17	7.7.17	10.07.17	PRINCIPAL
2	5/17		290=		-	-	10.07.17
3	3 Phase Conn. 7 kw	AEB/Est-15/356 dt. 22.5.17	25075=	64- 14.11.17	23.11.17	24.11.17	PRINCIPAL
4	6/17	Bill dt. 28.7.17	800=		23.11.17	24.11.17	PRINCIPAL
5	10/17	Bill dt. 2.11.17	210=	83/ 21.12.17	4.1.18	6.1.18	PRINCIPAL
6	11/17	Bill dt. 11.12.17	130=		4.1.18	6.1.18	PRINCIPAL
7	12/17	Bill dt. 12.1.18	160=	100/6.2.18	15.2.18	19.2.18	PRINCIPAL
8	1/18	Bill dt. 11.2.18	740=	114/ 23.2.18	28.2.18	5.3.18	PRINCIPAL

Chhattisgarh State Power Distribution Company Limited

Welcome, PRINCIPAL GOVT GIRLS COLLEGE BKP

Logou

My Account

Consumers Information as per CSPDCL records

BP No. : 1006229232
Name of Consumer : THE PRINCIPAL .
Consumer Type : LT Consumer
Tariff Category : Domestic State Govt. Connection (KWH)
Address : NEW GOVERNMENT GIRLS COLLEGE TALWAPARA BAIKUNTHPUR KORIYA 497335
Mobile No. : 7746055132
e-Mail Id : navingirls.bkp@gmail.com

Information submitted by User of Web Self Service

First Name : PRINCIPAL
Last Name : GOVT GIRLS COLLEGE BKP
Mobile No. : 7746055132
e-Mail Id : navingirls.bkp@gmail.com

Dear Consumer, Please update your mobile no. and email id for availing CSPDCL SMS and email services. Please go to Update My Account link to update.

Selected Alerts

My Primary Account

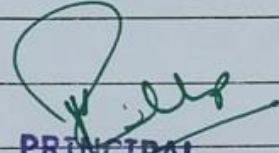
BP No.	Consumer Name	Address	Mobile No.	Meter No.
1006229232	PRINCIPAL GOVT GIRLS COLLEGE BKP	NEW GOVERNMENT GIRLS COLLEGE TALWAPARA BAIKUNTHPUR KORIYA 497335	7746055132	GENUS311250

Date

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विद्युत देयक पंजी

सर्विस क्र. 1006229232



PRINCIPAL
Govt. Naveen Girls College
Baikunthpur, Korea C.G

DISTRICT WATER TESTING LABORATORY
(NATIONAL DRINKING WATER MISSION)

P.H.E.D.- KORIYA (C.G.)

Details of source and location

Govt. Naveen girls college baikunthpur(c.g)

Particulars of sample

- (1) Date of collection 28-10-2021
- (2) Collection by - NASMA BEGAM
- (3) Date of received - 28/10/21
- (4) Date of analysis- 28/10/21

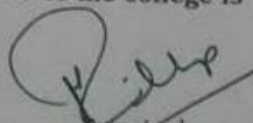
TESTING REPORT-: WITHIN PERMISSIBLE LIMIT

S. NO	PARAMETERS	UNITS TABLE	ACCEPTABLE	CAUSE OF REJECTION	RESULT	
					BORE WATER	WATER COOLER
1	PHYSICAL TEMPERATURE	°c	-	-	-	-
2	TURBIDITY	N.T.U	2.5	5.0	2.50	0.14
3	PH	PH Scale	7.0 to 8.5	below 7.00 to above 8.5	7.0	7.0
4	COUDUCTIVITY	Micro Mhes/cm	-	-	-	-
5	CHLORIDES	Mg/l	200	1000	130	90
6	FLUORIDE	Mg/l	1.0	1.5	0.6	0.5
7	NITRATES	Mg/l	45	45	25.0	10.0
8	TOTAL DISSOLVED SOLID(TDS)	Mg/l	500	1500	480	390
9	TOTAL SUSPENDED SOLID(TSS)	-	-	-	-	-
10	HEAVY METAL ANALYSIS	-	-	-	-	-
10	TOTAL HARDNESS Ca Co3	Mg/l	200	600	315	270
11	IRON	Mg/l	0.1	1.0	0.2	0.1
13	DISSOLVED OXYGEN	-	-	-	-	-

Note - I took a sample of water from the college and got it tested in the District Water Testing Laboratory. According to the given report the water of the college is potable. report submitted.

NASMA BEGAM
Guest lect. chemistry
Govt. naveen girls college

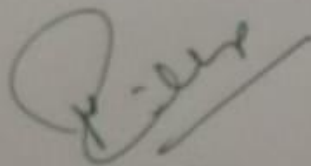
- ① अमन
- ② Kameez
- ③ Gyan Singh
- ④ Rohini


Principal
PRINCIPAL
Govt.Naveen Girls College
Baikunthpur, Korea (C.G.)

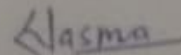
**GOVT. NAVEEN GIRLS COLLEGE
BAIKUNTHPUR KOREA (C.G.)**

Energy Audit Report

2020-21



Presented to
Dr. Ranjana neelima kachchap
Principal
Govt. naveen girls college
baikunthpur distt. korea (c.g.)



Presented by
Mis. Nasama begam
guest lecturer chemistry
Soniya rajwade - B.A. 3 rd year
Pooja rajwade - B.A. 2nd year
Sushma kurre B.Sc 3 rd year

Content :-

1. Introduction
 - 1.1 Objective of energy audit
 - 1.2 Need for energy audit and management
2. About the organization
3. Case study in campus
4. Steps in energy auditing
5. College campus surveying
6. Report
7. Suggestion and improvement

1. Introduction :- Energy audit is a systematic study on survey to identify how energy is being used in a building or plant, and identifies energy saving opportunities. By using proper audit methods and equipment on energy audit provides the essential information on how much, where and how energy is used within an organization.

1.1 Objective of Energy audit :-

- 1) Assessing present pattern of energy consumption in different cost centers of operations.
- 2) Relating energy inputs and production output.
- 3) Identifying potential areas of thermal and electrical energy economy.
- 4) Fixing of energy saving potential targets for individual cost centers.
- 5) Implementation of measures of energy conservation and realization of savings.

1.2 Need for Energy audit and management :-

The need for an energy audit is to advise the usage of energy and cutting costs. Mainly it focuses to advise the cost of electrical energy and find different ways to cut the cost of electricity bills.

2. About the organization :-

This College is located in BKP, the district headquarters of Korea district, C.G. wherein girls from distance places come to study. This college was established in 2007. At present it is affiliated to Sant Gahira Guru Vishwavidyalaya Ambikapur, previously it was affiliated to Guru Ghasidas University Bilaspur. The college, had began in a single room of P.G. college campus of Bkp. But now it is running in a double story building built on 1.2 acres of land. The college is currently conducting classes in Arts, Science, Commerce & Post graduate classes in sociology. At present 704 students are enrolled while it

had began with only 74 girls. Equipped with quite a good no. of modern equipments required teaching- learning, college has produced a good No. of students, who are now the creamy products of society. Situated in the lap of nature in a land of rural tribal area, girls hail from different socio-economic backgrounds. In spite of various problems and challenges, college is actually making efforts to make the girls self reliant, inculcate confidence & energy through academic, sports, cultural activities, NSS camps, where they are exposed to various challenges of societal surroundings, they are given guidance to face & Tackle the on coming problems. Proceeding on the mantra of tamaso Ma Jyotirgamaya this college is leading the girls to the aura of knowledge from the darkness of ignorana.

3. Case study in campus :-

- 1) Collection of colleges records regarding electricity power bills, power distribution diagram, specification for major power handling equipment such as fans, lighting and other electrical equipment.
- 2) Analysis of above calculations, isolating the areas vulnerable to energy consumption not related to production.
- 3) Recommendation of various methods of rectification.

4. Steps in energy auditing : -

- 1) 1st step :- The first step is indentifies that areas where energy is wasted and reduced energy without affecting the outputs of various functions.
- 2) 2nd step :- The second step is to implement energy efficient appliance in place of normal appliances which reduce energy use by paper operations and maintenance.

Energy audit depends on following factor :

- Building equipment operation
- Lighting system
- Power system
- Building envelop
- Miscellaneous service.

3) 3rd step :- The third step would require investment for remodeling, rebuilding on introducing further control upgrade to the building.

4) 4th step :- The fourth step is carry out large scale energy reducing measures when existing facilities have post then useful life, or require extensive repairs or replacement because of obsolescence in this case higher energy savings may be achieved.

5. College campus surveying :- The primary stage of energy auditing is survey. Survey means knowledge about the college campus are, their building structure, and their equipment used in it, how much energy consumed etc. The survey of college building can be divided into two parts.

5.1 Preliminary survey :- In this preliminary survey, the audition may need to know the building envelope and its energy consumption the data of building can be obtained from –

- Building electrical lighting and power drawings.
- Electrical bills and operational logs for the year preceding the audit.

5.2 Walk through :- In the walk through audit the buildings envelope can be study by a walk around the building. In this type of audit typical lighting and power requirements occupancy and space usage are noted.

5.3

6. Report :-

R. NO.	FAN	LIGHT	COOLER	SYSTEMS	EXHAUST FAN	CAMERA	OTHER ELECTRIC APPLIANCES
1	2	TL-3(40W.) B-4 (20W.)	1	printer-2 computer-1	1	1	REFRIGERATOR-1
2	2	TL-3	1	printer-3 computer-2			

		B -3					
3	2	TL-2 B - 2	1				
4	1	TL-2 B-1					
5	4	TL-4			1	1	
6	4	TL-4			2	1	
7	2	TL-2					
8	2	TL-2					
9		B-1			1		
10	5	TL-4			2		
11	5	TL-4 (40W)			2	1	
12		TL-1			1		
13	2	TL-2					
14	2	TL-2					
15	4	TL-4			2		
16	4	TL-4			2	1	
17	6	TL-3 B-4					REFRIGERATOR-1
18	12	TL-8			1	1	PROJECTOR-1
19	5	TL-4			2	1	
20	6	TL-4			2		
21	6	TL-4			2		
22	6	TL-4			2		
23	5	TL-4			2	1	
24	2	TL-2					
25	2	TL-2					
26	4	TL-3			2	1	
27	4	TL-4			2	1	
28	6	TL-2 B-2(LED)	1	computer-1	1	1	
29 CORRIDOR	5	B-10	4				2- BELL 2-WATER COOLER
30 (GROUND)		H-1					PUMP-1
TOTAL	110	114	08	09	30	11	08

7. Suggestion and improvement :-

- By implementing renewable energy resources like solar energy, wind energy, bio-gas energy we can reduce up to 20% of power consumption.
- Then by replacing LED lamps instead of CFL we can reduce up to 10% of energy consumption.

It can be reduced by switch off the equipment when they are not required.