

ENERGY AUDIT REPORT

SESSION 2018-19 TO 2019-20

**GOVT. RANI DURGAWATI COLLEGE WADRAFNAGAR,
DISTT.-BALRAMPUR (C.G.)**

SUBMITTED

To

Principal,

**Govt. Rani Durgawati College Wadrafnagar,
Distt.-Balrampur(C.G.)**

By

Dr. Toyaj Shukla

Asst. Prof. Chemistry

&

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Guest Lecturer (Physics)

Collaboration of Chemistry & Physics Department

Govt. Rani Durgawati College Wadrafnagar, Dist.- Balrampur(C.G.)

PREFACE

Data collection for energy audit of Govt. Rani Durgawati College Wadrafnagar campus was conceded by the collaboration of chemistry and physics department for the period of 01 April 2018 to 31 March 2020. This audit was over sighted to inquire about convenience to progress to energy competence of the campus. This audit required to recognize the mainly energy proficient appliances. The energy audit survey was completed by collaboration of Department of chemistry and Physics. The work is complete by considering how much fans, LED Bulbs, CFL, Tube light, Computers, Printers, Projector and Other electronics in each rooms. All data are collected from office, class room, laboratory, outside campus, courtyard, gallery etc.

EXPERIMENTAL AND DATA COLLECTION-

All required data is collected by Department Of Physics & Chemistry. In every room, office, how much fans, tubes, fans, projector, cooler, computer, instrument etc. These are Measured According to Survey, following data are collected.

Total Power Requirement of various Equipment

2018-19

DEPARTMENT/INSTR	FAN	LED BULB	CFL TUB	COMPUTER	PRINTER	PHOTO COPY MACHINE	SCANNER	PROJECTOR	FRI DGE	WATER COOLAR	CFL	COOLAR	TV	CCTV CAMERA
Principal office	03	02	02	02		01							01	01
Office	02	01	01	01		01								01
Staff room	03	02	02						01					01
Scholarship room	01	01		01	01		01	02						01
Office tc/cc	02		01	01	01						01			
Chemistry lab	02	01	01								03			
Zoology lab	04	01	01	01										
Botany lab	02	02												
Physics lab	03													
Geography lab	01	01						01						
Red crass room	01	01												
Computer lab	02			04										
Stor room	02		01								01			
Library	05	03	06	02	01							2		
Exam department	05	02												01
N.S.S.room	02													
Gallery	01	01	04								01			06
Building courtyard			02											
Out side			04											
Student coman room	01													
Hall	10	08	04											
Naac room	01	03		01		01								
Class room	31	05	08											05
Total	84	34	37	13	03	03	01	03	01	04	6	2	01	16
TOTAL POWER REQUIREMENT OF ALL INSTRUMENT =2675 unit														

EXPERIMENTAL AND DATA COLLECTION-

All required data is collected by Department Of Physics & Chemistry. In every room, office, how much fans, tubes, fans, projector, cooler, computer, instrument etc. These are Measured According to Survey, following data are collected.

Total Power Requirement of various Equipment

2019-20

DEPARTMENT/INSTR	FAN	LED BULB	CFL TUB	COMPUTER	PRINTER	PHOTO COPY MACHINE	SCANNER	PROJECTOR	FRI DGE	WATER COOLAR	CFL	COOLAR	T.V	CCTV CAMERA
Principal office	03	02	02	02		01							01	01
Office	02	01	01	01		01								01
Staff room	03	02	02						01	01				01
Scholarship room	01	01		01	01		01	02						
Office tc/cc	02		01	01	01						01			
Chemistry lab	02	01	01								03			
Zoology lab	04	01	01	01										
Botany lab	02	02												
Physics lab	03													
Geography lab	01	01						01						
Red crass room	01	01												
Computer lab	02			06										
Stor room	02		01								01			
Libreary	05	03	06	02	01							2		
Exam department	05	02												
N.S.S.room	02													
Gallery	01	01	04							03	01			11
Building courtyard			02											01
Out side			03											
Student coman room	01													
Hall	10	08	04											01
Naac room	01	03		01		01		02						
Class room	31	05	08											09
Reading room			01											01
Total	84	34	37	15	03	03	01	05	01	04	6	2	01	26
TOTAL POWER REQUIREMENT OF ALL INSTRUMENT =2825 unit														

Energy Audit Report of

GOVT. RANI DURGAWATI COLLEGE WADRAFNAGAR

In India the entire field of education and other fields of intelligent activities had been cornered by a handful of men before independence. But today we are travelling towards the desirable status of a sustained one. For achieving such an interminable development energy management is essential. The country has motivated strategy to enlarge its renewable energy resources and policy to establish the nuclear power plants. Energy conservation means reduction in energy consumption without making any sacrifice of quantity or quality. It will lead to sufficient rating of equipment's, using high efficiency equipment and change of habits which causes enormous wastage of energy. By observing all these studies lack of electricity and huge electricity it is necessary to plan to be self-sufficient in electricity requirement. Energy conservation is the decision and practice of using less energy, turning off the light, fans and other electronic device when you live the room unplugging appliances when they are not in use. In the present study, college, electricity audit has been done. In this study there are considered practical laboratory, instrument, fans, air coolers, computers, freeze, water filter, LED bulb, tube light, projector etc.

Power Consumption of electricity from 01.04.2019 to 31.03.2020

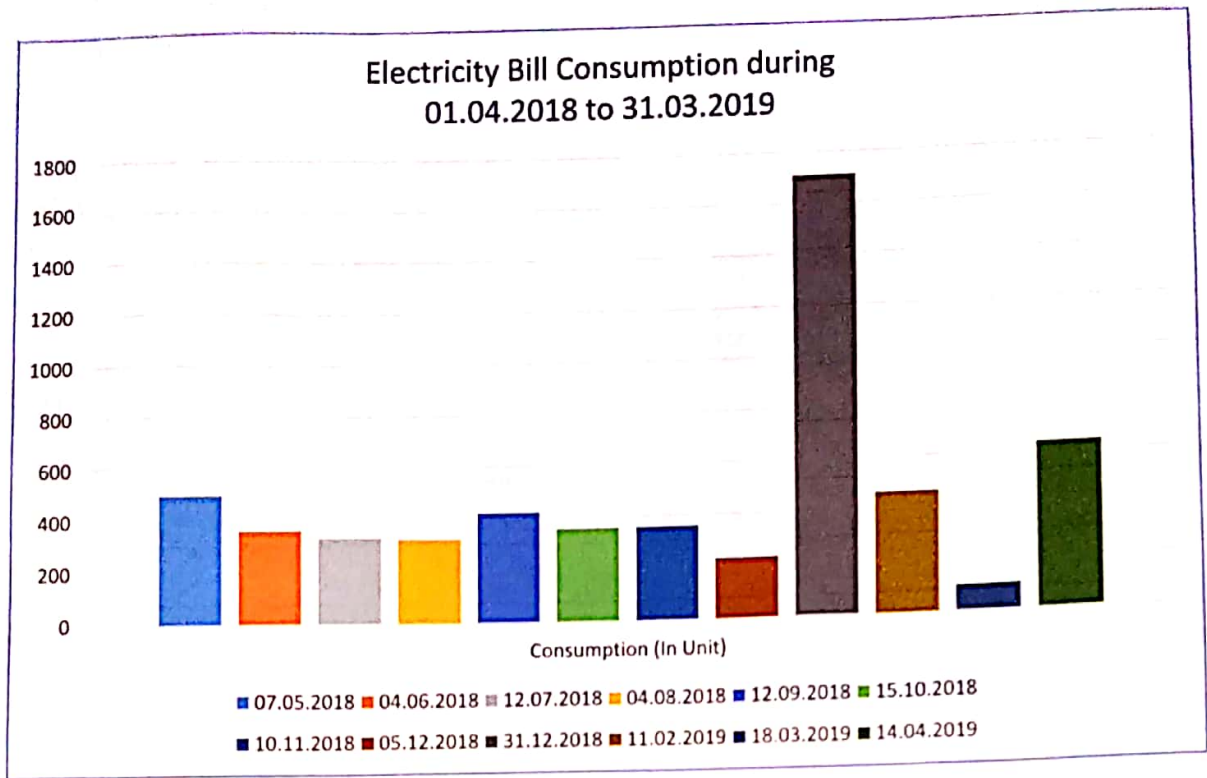
Sr. No.	Month	Consumption Unit
01	Apr. 2019	542 OK Meter-LT
02	May 2019	523 OK Meter-LT
03	Jun 2019	468 OK Meter-LT
04	July 2019	462 OK Meter-LT
05	Aug. 2019	596 OK Meter-LT
06	Sep. 2019	496 OK Meter-LT
07	Oct. 2019	546 OK Meter-LT
08	Nov. 2019	1193 OK Meter-LT
09	Dec. 2019	1246 OK Meter-LT
10	Jan. 2020	674 OK Meter-LT
11	Fab. 2020	100 OK Meter-LT
12	March 2020	0 OK Meter-LT
Total Power Consumption in Yearly		6846
Average power Consumption in Monthly		570.5

Power Consumption of electricity from 01.04.2018 to 31.03.2019

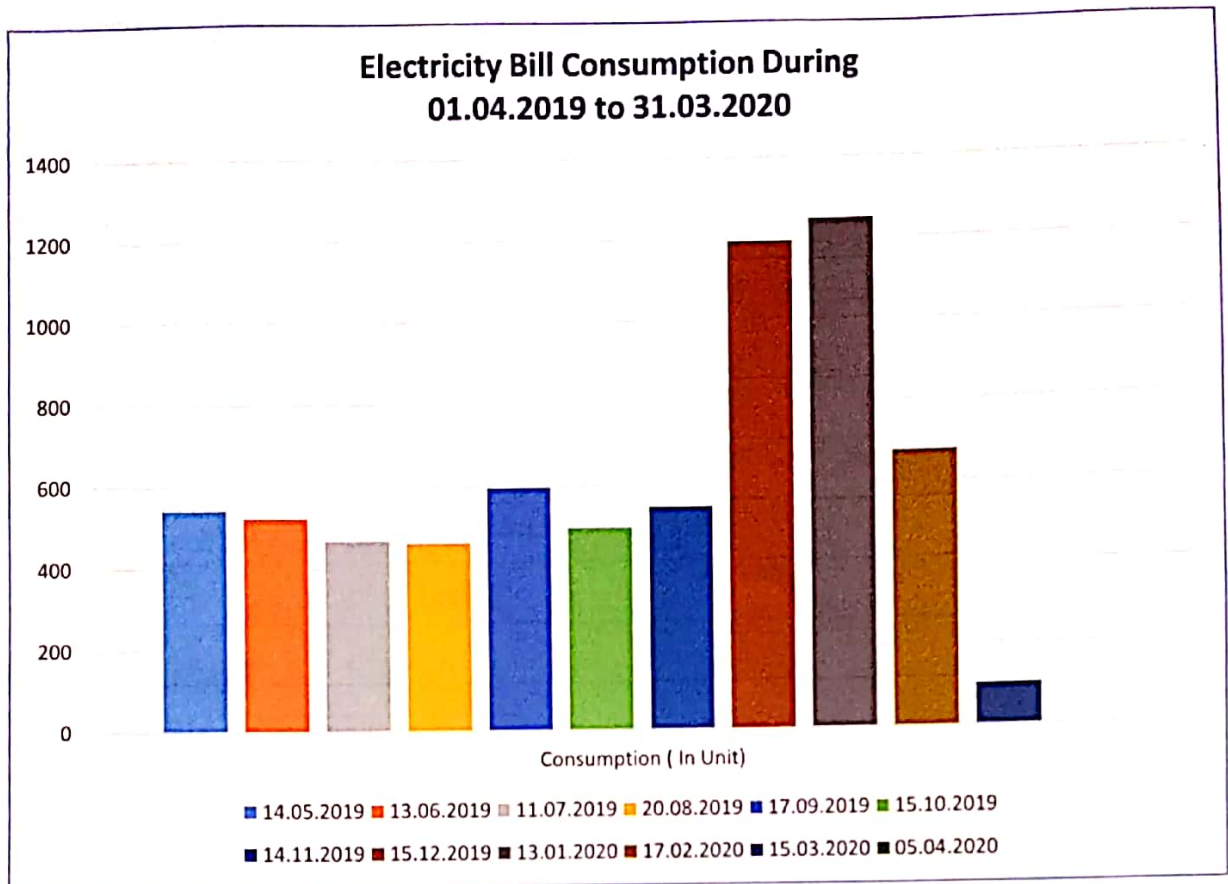
Sr. No.	Month	Consumption Unit
01	Apr. 2018	496 OK Meter-LT
02	May 2018	358 OK Meter-LT
03	Jun 2018	328 OK Meter-LT
04	July 2018	324 OK Meter-LT
05	Aug. 2018	421 OK Meter-LT
06	Sep. 2018	358 OK Meter-LT
07	Oct. 2018	358 OK Meter-LT
08	Nov. 2018	230 OK Meter-LT
09	Dec. 2018	1707 OK Meter-LT
10	Jan. 2019	463 OK Meter-LT
11	Fab. 2019	98 OK Meter-LT
12	March 2019	633 OK Meter-LT
Total Power Consumption in Yearly		5774
Average power Consumption in Monthly		481.16

S. Bardhan

Junior Engineer
CSPNCL, Westbengal



Electricity Bill Consumption (in unit) from 01.04.2018 to 31.03.2019



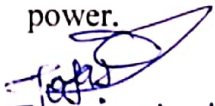
Electricity Bill Consumption (in unit) from 01.04.2019 to 31.03.2020

CONCLUSION:

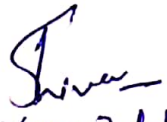
All these data are generated in energy audit are effectively useful for understand the energy distribution and utilization of college. All the collected from practical laboratory, fans, bulb, computer etc in the above study. The college needs maximum 2675.0 of unit electricity but college consumption only 481.16 units per month.

RECOMMENDATION:

1. Use solar energy.
2. Replace all CFL and Tube light using LED bulb for saving the more power.


Dr. Toyaj Shukla

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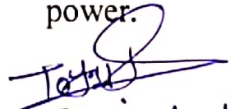

Principal
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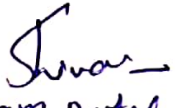
CONCLUSION:

All these data are generated in energy audit are effectively useful for understand the energy distribution and utilization of college. All the collected from practical laboratory, fans, bulb, computer etc in the above study. The college needs maximum 2825.0 of unit electricity but college consumption only 570.5 units per month.

RECOMMENDATION:

1. Use solar energy.
2. Replace all CFL and Tube light using LED bulb for saving the more power.


Dr. Toyaj Shukla
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