PSC & KVSC GOVERNMENT COLLEGE
RE-ACCREDITED WITH 'B' GRADE BY NAAC
NANDYAL

A REPORT ON ENERGY AUDIT

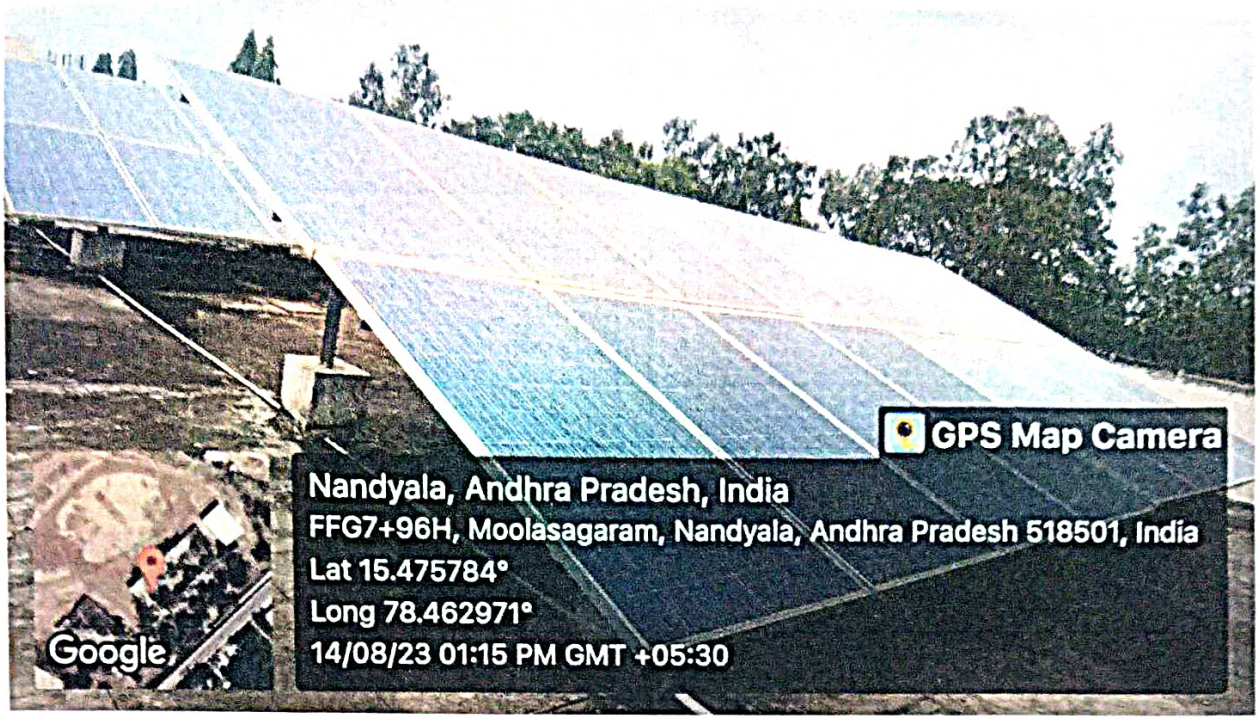
ENERGY AUDIT COMPLETION CERTIFICATE

I, B. RAVI KUMAR acknowledge and confirm that the Energy Audit was conducted on 04.11.2023 by the request of Dr.N.Shashikala, Principal PSC & KVSC Govt. College, Nandyal, Andhra Pradesh, India. This report is based on site visits and evidence collected from the site and is issued in accordance with metric 7.1.3 of NAAC Accreditation Manual. All efforts have been made to assess the extent of Energy saving and conservation practices on campus. The focus is on making a positive impact on the environment and society for better living. I will also verify and sign this certificate. We provide this report far beyond legal or mandatory compliance. This report is presented as per the statutory requirements of the NAAC Accreditation Regulations. Any changes, modifications and errors made after site visit are exclusive.

Asst.Executive Engineer
Distribution-III,A.P.S.P.D.C.L
NANDYAL

ENERGY AUDIT COMMITTEE

S.No	Name	Designation
1	Dr.N. Shasikala	Principal & Chairperson
2	Smt. A. Padmavthi	Convenor
3	Sri D. Rajender	IQAC Coordinator
4	Dr. R. Shasikala	Member
5	Dr. V. Ramesh Kumar	Member
6	Sri S. Ramesh babu	Member
7	Sri K. Sreenivasulu	Member
8	B. Kavya, III MPCs	Student Representative
9	P. Narasimha, III MPCs	Student Representative
10	D. Raheem, III MPCs	Student Representative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FFG7+96H, Moolasagaram, Nandyala, Andhra Pradesh 518501, India
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14/08/23 01:15 PM GMT +05:30
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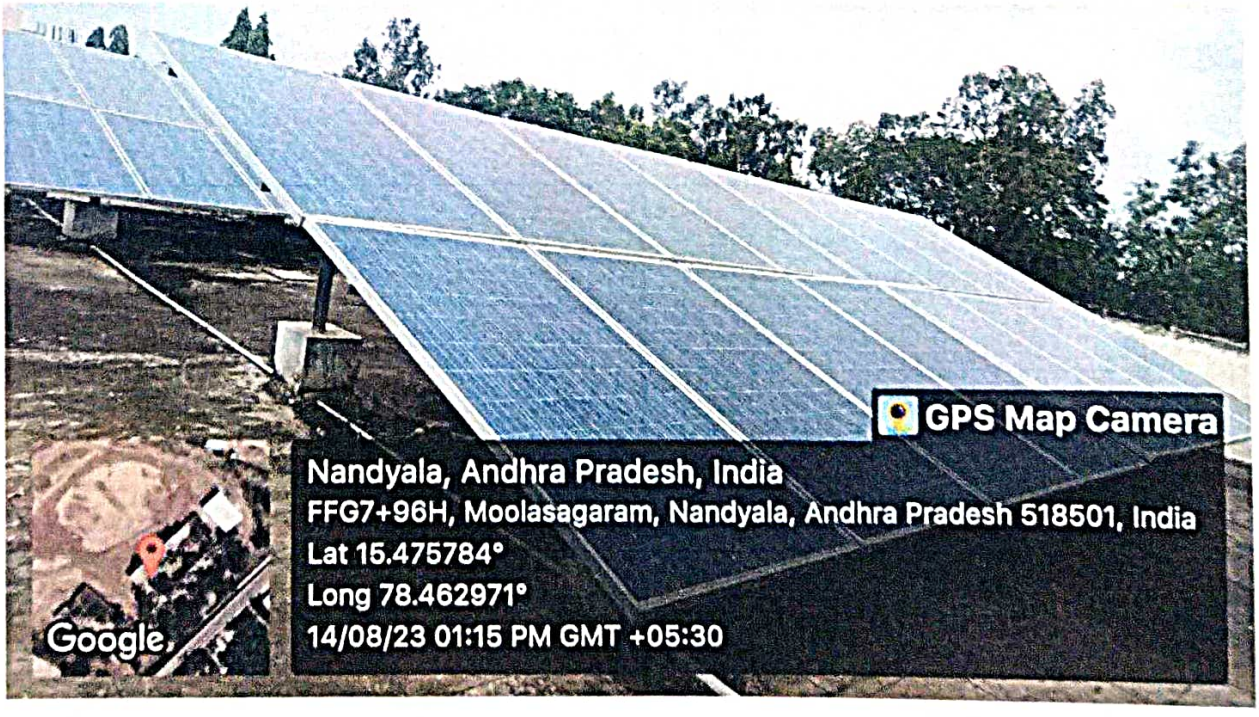
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ENERGY AUDIT REPORT

INTRODUCTION:

The increase in usage of electricity in any institution is a measure of its advancement in Academics, Information and Communication Technology, Research potentiality and so on. All the Higher Educational Institutions primarily require electricity for the infrastructural facilities such as class rooms, seminar halls, virtual class rooms, administrative block, various departments, laboratories, JKC and MANA TV room. The bulbs, LED bulbs, fans, ACs, computers, backups, inverters and electrical, electronic equipment used in the laboratories are the means of electrical consumption in an educational institution.

The 'Energy Audit' team has collected information on the total number of different kinds of electrical and electronic appliances which are presently in usage along with their power consumption wattage.

Table - 1: Average Electrical Load of the College

S.No.	Appliance	Power utilised in watt	Number used	Average time of use (in hours)	Average no. of days used in a month	Average monthly units
1	Lights	30	177	3	25	398.25
2	Fans	70	156	3	25	819.00
3	AC	1500	06	1	25	225.00
4	computers	100	76	2	25	190.00
5	Laptops	50	30	4	25	150.00
6	Printers	200	15	0.5	25	37.50
7	Printer &Scanners	200	03	0.5	25	7.50
8	Xerox Machine (Mini)	1400	01	0.5	10	9.00
9	RO System	3000	01	2	25	150.00
10	Motor	373	01	3	25	28.00

11	Routers	12	05	24	30	43.20
12	Interactive boards	170	03	1	10	5.10
13	PA System	200	02	1	10	4.00
				Average Number of Units per month		**2066.55**

Table-2 Annual Electricity Bill for the Year2022-'23

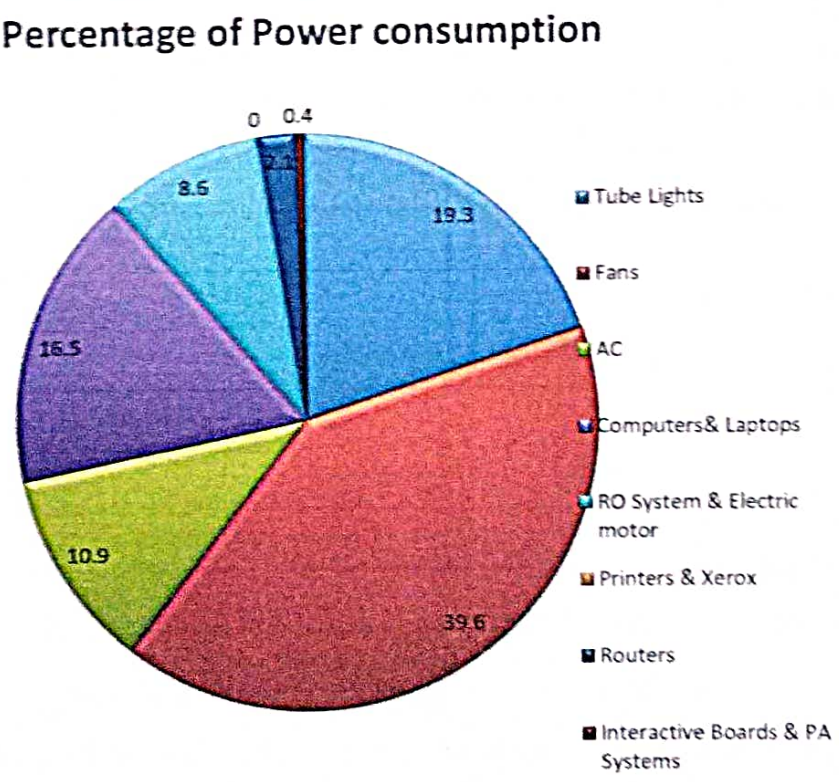
S.No	Month	Consumption Units (KWh)
1	March 22	1505
2	April 22	1658
3	May22	1726
4	June 22	1241
5	July 22	1431
6	August 22	1547
7	September 22	1446
8	October 22	1342
9	November 22	1296
10	December 22	1381
11	January 23	1341
12	February 23	1120
Total Power Consumed Yearly		17034
Average Power Consumed Yearly		1419.5

ANALYSIS OF DATA:

The above data is further analysed so as to obtain the numerical information as shown in the given table.

Table-3: Percentage power consumption of certain appliances out of total power consumption

S.NO	Name of Appliance	Percentage of Power consumption
1	Tube Lights	19.3
2	Fans	39.6
3	AC	10.9
4	Computers& Laptops	16.5
5	RO System & Electric motor	8.6
6	Printers & Xerox	2.5
7	Routers	2.1
8	Interactive Boards & PA Systems	0.4



INFERENCE FROM THE DATA:

The 'Energy Audit' team after a detailed study arrived at the following inferences.

- The electricity consumption percentage out for 177 Tube lights is 19.3% of total average consumption.
- For 156 Fans, the electricity consumption percentage is maximum and it is 39.6%
- For 61 Computers and 30 Laptops, the electricity consumption percentage is 16.5%
- For 5 submersible motor and RO System, the electricity consumption percentage is 8.6%
- For 19 Printers, Scanners and mini Xerox, the electricity consumption percentage is 2.5%
- The electricity due to Fans is maximum (39.6%) because of fact that in the place where our college is located is hot during most of the year and most of the Class rooms are on the First Floor.
- But Air conditioners which are regularly used are in the Ground floor and the remaining are in Virtual class room which is Occasionally used. Hence their percentage of total consumption is less less and is 10.9%.
- The total annual electricity of college is 17034 unit and expenditure incurred per annum is Rs. 2,76,047 /-.
- The electricity consumption of college will be low in the months of October and January on account of mid-term holidays.

SUGGESTIONS FOR REDUCING POWER CONSUMPTION:

The 'Energy Audit' team on the basis of inferences of the study proposes the following suggestions pertaining to the means to be implemented to cut short the Electricity consumption.

1. Presently the college has a 20KW of 'Solar Energy'. The electricity consumption could be drastically cut short by establishing a few more 'Solar Energy' units in the college campus.
2. All the class student representatives should be instructed to switch off fans and lights immediately after the completion of class.

3. All the students should be instructed to unplug the unused electronic appliances.

4. A centralized 'Switch Off' panel board should be arranged in college.

5. The lights set for illumination in the common areas of the campus should be maintained with perfect timings.

6. At present less number of LED bulbs are provided. So all the tube lights and bulbs may be replaced by LED bulbs in the college to save the power.