

Energy Audit Report (2020-21)

D.L.S. P.G. College, Bilaspur (C.G.)

Energy Audit Report

Total Electricity required in College Campus

College Campus	Energy requirement Unit/month
Admin Building	1567.03
New Building	1005.87
Total	2572.9

Electricity served by Chhattisgarh State Power Distribution Company Limited

Tariff Category	LV-2 ND3OT21
Connected Load	25 K
Average Unit consumption/Month	1572

Solar Pannel installed in the Campus

Solar Pannel installed in the Campus	Capacity (KW)
Admin Building	5
New Building	10
Total	15

Electricity generated By Solar Solar Pannel installed in the Campus

Power generation Unit /day	Power generation Unit /month
17	510
35	1050
Total	1100

Electricity Served By Solar Solar Pannel installed in the Campus

Power generation Unit /month	Power supplied to the campus Unit /month
1100	900

Energy saved by using LED

100 Unit/month	

Summary

Total Energy requirement Unit/month	2572.9
Electricity Procured from Chhattisgarh State Power Distribution Company Limited	1572
fullfill by Solar Pannel installed in the Campus	900
Energy saved by using LED	100
% Reduction in electricity consumption	39

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ENERGY CALCULATION FOR ADMIN BUILDING

	Fan	LED	Tube	AC	TV	STATUS	WATT	UNIT/DAY	MONTH	TOTAL UNIT OF MONTH
Wash room	0	1	1	0		CONTINUE	29	0.174	4.524	4.524
kitchen	1	1	1			CONTINUE	89	0.534	13.884	13.884
Office	5	5	0	0		CONTINUE	345	2.07	53.82	53.82
Vice Principal	1	2	5	1	2	CONTINUE	218	7.308	190.008	190.008
Chairman's Chamber	3	26	0	1	1		454	8.724	226.824	74.85192
Principal Chamber	4	18	6	1	1	CONTINUE	562	9.372	243.672	243.672
IQAC CELL	2	2	5	1	0	CONTINUE	238	7.428	193.128	193.128
SECRETARY	1	15	1	1	0	CONTINUE	215	1.29	33.54	33.54
INFRONT OF CHAIRMAN	1	2	0	0	0		78	0.468	12.168	4.01544
MICROBIOLOGY GALLERY	0	1	4	0	0		89	0.534	13.884	4.58172
MICRO BIOLOGY	4	0	2	0	0		288	1.728	44.928	14.82624
STAFF ROOM	1	1	0	0	0		69	0.414	10.764	3.55212
MICROBIOLOGY	2	0	2	0	0		280	1.68	43.68	14.4144
ROOM 9	2	0	2	0	0		280	1.68	43.68	14.4144
ROOM 10	2	0	2	0	0		280	1.68	43.68	14.4144
ROOM 11	2	0	2	0	0		280	1.68	43.68	14.4144
FEMALE WASHROOM	0	2	1	0	0	CONTINUE	38	0.228	5.928	5.928
MALE WAHSROOM	0	2	1	0	0	CONTINUE	38	0.228	5.928	5.928
ROOM 16	2	1	2	0	0		289	1.734	45.084	45.084
ROOM 15	1	0	2	0	0		100	0.6	15.6	15.6
HALL ADMIN. BUILDING	1	1	6	0	0		180	1.08	28.08	28.08
GARDEN	0	6	0	0	0		54	0.324	8.424	8.424
PARKING	0	7	0	0	0		63	0.378	9.828	9.828
SECURITY GARD ROOM	1	0	0	0	0	CONTINUE	60	0.36	9.36	9.36
									G.TOTAL	1005.87864

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Energy Calculation for academic Academic New Building

Department/Room	Fan	Fan unit	LED	led unit	Tube	tube unit	AC	AC Unit	Status	TV	WATT	UNIT/ DAY	MONTH	TOTAL UNIT OF MONTH
Chemistry	8	2.88	6	0.324	5	0.6	0	0	continue		29	3.804	98.904	98.904
Computer	12	4.32	14	0.756	6	0.72	2	12	continue		89	5.796	150.696	150.696
Staff Room	6	2.16	4	0.216	5	0.6	0	0	continue	1	218	2.976	77.376	77.376
Wash Room	6	2.16	1	0.054	1	0.12	0	0	continue	0	288	2.334	60.684	20.02572
Library	16	5.76	6	0.324	12	1.44	0	0	continue	0	280	7.524	195.624	64.55592
Principal room	2	0.72		0		0	1	6	continue		345	0.72	18.72	18.72
Yoga Room	1	0.36	0	0	2	0.24	0	0	continue	0	38	0.6	15.6	15.6
Room 45	7	2.52	8	0.432	2	0.24	0	0	continue	0		3.192	82.992	82.992
Wash room near zoology	0	0	0	0	2	0.24	0	0	continue	0		0.24	6.24	6.24
Room 23	6	1.08	0	0	5	0.3	0	0		0	454	1.38	35.88	11.8404
Room 24	6	1.08	1	0.027	4	0.24	0	0		0	562	1.347	35.022	35.022
Room 25	12	2.16	1	0.027	16	0.96	0	0		0	238	3.147	81.822	81.822
Room 26	6	1.08	0	0	0	0	0	0		0	215	1.08	28.08	28.08
Room 27	6	1.08	1	0.027	4	0.24	0	0		0	78	1.347	35.022	11.55726
Room 28	6	1.08	1	0.027	4	0.24	0	0		0	89	1.347	35.022	11.55726
Room 29	6	1.08	1	0.027	4	0.24	0	0		0	69	1.347	35.022	11.55726
Room 30	6	1.08	0	0	4	0.24	0	0		0	280	1.32	34.32	11.3256
Room 31	6	1.08	3	0.081	6	0.36	0	0		0	280	1.521	39.546	13.05018
Room 36	6	1.08	2	0.054	0	0	0	0		0	38	1.134	29.484	29.484
Room 37	6	1.08	3	0.081	2	0.12	0	0		0	289	1.281	33.306	33.306
Room 38 A	4	0.72	3	0.081	0	0	0	0		0	100	0.801	20.826	20.826
Room 38 B	2	0.36	5	0.135	0	0	0	0		0	180	0.495	12.87	12.87
Room 39	6	1.08	0	0	4	0.24	0	0		0	54	1.32	34.32	34.32
Room 40	6	1.08	1	0.027	4	0.24	0	0		0	63	1.347	35.022	35.022
Room 41	5	0.9	1	0.027	4	0.24	0	0		0	60	1.167	30.342	30.342
Room 42	6	1.08	3	0.081	4	0.24	0	0		0		1.401	36.426	36.426
Room 43	6	1.08	6	0.162	0	0	0	0		0		1.242	32.292	32.292
Room 44	6	1.08	6	0.162	0	0	0	0		0		1.242	32.292	32.292
Room 47	2	0.36	7	0.189	6	0.36	0	0		0		0.909	23.634	23.634

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Room 48	6	1.08	5	0.135	0	0	0	0	0	0	1.215	31.59	31.59
Room 49	6	1.08	4	0.108	0	0	0	0	0	0	1.188	30.888	30.888
Room 50	1	0.18	2	0.054	1	0.06	0	0	0	0	0.294	7.644	7.644
Room 51	6	1.08	1	0.027	2	0.12	0	0	0	0	1.227	31.902	31.902
Room 52	6	1.08	2	0.054	2	0.12	0	0	0	0	1.254	32.604	32.604
Room 53	6	1.08	2	0.054	2	0.12	0	0	0	0	1.254	32.604	32.604
Room 54	6	1.08	2	0.054	2	0.12	0	0	0	0	1.254	32.604	32.604
Room 55	6	1.08	1	0.027	4	0.24	0	0	0	0	1.347	35.022	35.022
Room 56	6	1.08	4	0.108	4	0.24	0	0	0	0	1.428	37.128	37.128
Auditorium	14	2.52	4	0.108	8	0.48	0	0	0	0	3.108	80.808	80.808
Chemistry lab													
First Flor	6	1.08	0	0	4	0.24	0	0	0	0			
E-Lab	6	1.08	4	0.108	4	0.24	0	0	0	0	1.32	34.32	34.32
Reception Hall	0	0	26	0.702	0	0	0	0	0	0	1.428	37.128	37.128
Canteen	8	1.44	13	0.351	0	0	0	0	0	0	0.702	18.252	18.252
Stationary	1	0.18	0	0	1	0.06	0	0	0	0	1.791	46.566	46.566
											0.24	6.24	6.24
G.TOTAL												1567.0356	

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Internal Energy Audit Committee:

1. Dr. Pratap Pandey
2. Dr. Neha Behar
3. Mr. Rajesh Singh
4. Mr. Rakesh Sharma

Pratap
- *Neha*
Rajesh
Rakesh

Remarks:

- 1) Sufficient number of LEDs are present in the college.
- 2) Solar panels are installed in both the buildings.
- 3) Energy efficient ACs are there in the rooms.

Feedback and Suggestion:

- 1) Lights should be properly switched off when not in the use.
- 2) More energy-efficient equipments should be used in the labs.
- 3) More solar panels can be installed.

