

From The Principal : Re. :

dt. :

7.1.3: Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

- 1. Green audit / Environment audit
- 2. Energy audit
- 3. Clean and green campus initiatives
- 4. Beyond the campus environmental promotion activities

Energy Audit

2020-21: <u>http://sukantamahavidyalaya.ac.in/wp-content/uploads/2022/12/Green-</u> <u>Audit-Report-2020-21.pdf</u>

2021-22: <u>http://sukantamahavidyalaya.ac.in/wp-content/uploads/2022/12/Green-</u> Audit-Report-2021-22.pdf

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SUKANTA MAHAVIDYALAYA

NAAC Accredited with Grade B [A Govt. Aided College, Permanently Affiliated to North Bengal University Enlisted

Under Sec. 2(F) and 12(B) of the U.G.C. Act. 1956] SUKANTA NAGAR, P.O. DHUPGURI, DIST.- JALPAIGURI (W.B.) INDIA, PIN- 735210



Re. :



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From The Principal :

dt. :

Energy Audit Session 2020-21

3. ENERGY AUDIT

3.1 Reduction of energy consumptions, especially fossil fuel energy

3.1.1 Total electric consumption amount 42,378 kW/yr

3.1.2 Average electrical consumption in a month... 3531.51 kW/yr

- 3.1.3 Total require of energy
 - Table: Power consumption in a month

					Operation			Total
Electrical Appliances/ instruments	Number	Power (W/unit)	Total power (W)	kW	hours/day	kW-hr	No of days in month(Av erage)	consum ption per month (unit)
TUBE LIGHT	9	39	351	0.351	2	0.702	20	14.04
LED BULB	150	8	1200	1.2	2	2.4	20	48
LED TUBE	240	20	4800	4.8	2	9.6	20	192
METAL LED	15	20	300	0.3	6	1.8	20	36
PROJECTOR	9	150	1350	1.35	0.5	0.675	20	13.5
WiFi ROUTER	3	20	60	0.06	4	0.24	20	4.8
CCTV CAMERAS	28	15	420	0.42	6	2.52	20	50.4
FAN	381	65	24765	24.765	3	74.295	20	1485.9
COMPUTERS	92	120	11040	11.04	2	22.08	20	441.6
LAPTOPS	10	65	650	0.65	1	0.65	20	13
PRINTERS	25	50	1250	1.25	0.25	0.3125	20	6.25
XEROX	4	930	3720	3.72	0.25	0.93	20	18.6
COPIER	1	700	700	0.7	0.25	0.175	20	3.5
SCANNER	5	15	75	0.075	0.25	0.01875	20	0.375
INDUCTION	6	1200	7200	7.2	0.5	3.6	20	72
A/C	13	1203	15639	15.639	3	46.917	20	938.34
REFRIGERATOR	1	110	110	0.11	24	2.64	20	52.8
TABLE/STAND FAN	5	75	375	0.375	2	0.75	20	15
PUMP	2	750	1500	1.5	1.3	1.95	20	39
EXHAUST FAN	12	90	1080	1.08	2	2.16	20	43.2
AQUAGUARD	6	50	300	0.3	4	1.2	20	24
WATER FILTER	2	80	160	0.16	6	0.96	20	19.2
Total =						3531.51		

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JKANTA MAHAVIDYALAYA

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SUKANTA NAGAR, P.O. DHUPGURI, DIST.- JALPAIGURI (W.B.) INDIA, PIN- 735210 Fax/Ph. : (91)-(03563) 250067, 8436238571(O), Principal-9474390940, 9800783224 (M) e-mail : sukantamahavidyalaya@gmail.com

e-mail : sukantamahavidyalaya@gmail.com website : www.sukantamahavidyalaya.ac.in



From The Principal :

dt. :

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- 3.1.4 Whether college has any provision/choice of renewable and carbon-neutral electricity options:
 - Yes, college has solar power plant.

3.1.5 Whether college has planned to install solar panels:

Re. :

♦ Yes, college has installed solar power plant.

3.1.6 Whether college has efficient water heating system:

NA

3.1.7 Whether the staff members of all sectors are concerned in turning off electrical appliances when not in use in both commercial and residential area:

Yes, the staff members of all sectors are concerned about it.

3.1.7 Is there any monitoring system - like put off the main switch where there is no need of electricity:

Yes, Multi-Chip Package (MCP) is installed in every floors, and leads to avoid short-circuit and power saving.

3.1.8 Whether the users follow the appropriate and measurable targets for a reduction of energy, such as, computer, printers, electrical equipment when not in use:

NA

3.1.9 Is there any options for equipment's running on standby mode:

Yes, all electronic gadgets have set as automatic standby mode, which saves power.

3.1.10 Whether college has taken initiative to purchase efficient and environmentally sound appliances in order to fulfill the green budget:

- Yes, as follows:
- Eco chargers and Smart sockets.
- LED light bulbs.
- Solar panels.

3.1.11 Whether college has its own mechanism in repairing of electrical fault:

- Yes, Multi-Chip Package (MCP) is installed in every floors. College has own electrical staff, who repair as early as possible.
- 3.1.12 Whether the class rooms are with sufficient illumination in day time and ventilation:
 - Yes, all class rooms are well illumination in day time and has sufficient ventilation.

N. S. Das Principal ta Mahavidyalaya Principal Sukanta Mahavidyalaya Dhupguri, Jalpaiguri

UKANTA MAHAVIDYALAYA

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From The Principal :

dt. :

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Number of lights & fans in class room (average):

Re. :

✤ 4 LED, and 4 fan

Use of light & fans in the day time (average hours):

✤ 3-4 hours

Number of windows per class:

It depends on room size, on average it is 3.

Natural light source in day time (in hours) (average per class):

- Only cloudy weather and few rooms (Room number14 and 16) need electrical bulb/ tube.
- 3.1.13 How many (%) e-notice generated by the college for academic/administrative purposes in a month
 - All notices are circulated by e-governance.
- 3.1.14 How many (%) paper-notice generated by the college for academic/administrative purposes in a month
 - All notices are printed first then circulated by e-governance.
- 3.1.15 Total number of computer, printer, Laptop, Xerox machine
 - Computer 92, Printer 25, Xerox 4, Copier 1
- 3.2 Energy conservation strategies
- 3.2.1 Whether the architectural design for college is based upon use of natural lighting & ventilation, to save extra power for bulbs and fans:
 - Yes, as per Government standards.
- 3.2.2 Whether florescent bulbs are replaced with CFL bulbs/LEDs:
 - Yes. Maximum bulb used in 10-20 watt LED.
- 3.3 Minimize the use of unsustainable transport
 - Used bicycle by students, teachers, and staff to minimize the vehicular emission.

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3.3.1 What are the available/maximum transport facility used by the staff members/students etc., - mention the number (in average per day):

All faculties and staff are used personal car, bikeand bicycle.

Car	Bike	Bicycle
7	50	5

3.3.2 Whether college has any common car sharing/car pool among the students and faculty:

NA

Dr. N. S. Das Principal Sukanta Mahavidyalaya Principal Sukanta Mahavidyalaya Dhupguri, Jalpaiguri

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website : www.sukantamahavidyalaya.ac.in

From The Principal :

dt. :

Energy Audit Session 2021-22

3. ENERGY CONSERVATION

3.1 Reduction of energy consumptions, especially fossil fuel energy

3.1.1 Total electric consumption amount...... 35,656.2 kW/yr

3.1.2 Average electrical consumption in a month...... 2971.35 kW/yr

3.1.3 Total require of energy

* Table: Power consumption in a month

					Operation			Total
Electrical Appliances/ instruments	Number	Power (W/unit)	Total power (W)	kW	hours/day	kW-hr	No of days in month (Average)	consum ption per month (unit)
	1							
TUBE LIGHT	9	40	360	0.36	2	0.72	18	12.96
LED BULB	150	8	1200	1.2	2	2.4	18	43.2
LED TUBE	240	20	4800	4.8	2	9.6	18	172.8
METAL LED	15	20	300	0.3	6	1.8	18	32.4
PROJECTOR	9	150	1350	1.35	0.5	0.675	18	12.15
WiFi ROUTER	3	20	60	0.06	4	0.24	18	4.32
CCTV CAMERAS	28	15	420	0.42	6	2.52	18	45.36
FAN	381	75	28575	28.575	2.5	71.4375	18	1285.88
COMPUTERS	92	120	11040	11.04	1.5	16.56	18	298.08
LAPTOPS	10	65	650	0.65	1	0.65	18	11.7
PRINTERS	25	50	1250	1.25	0.25	0.3125	18	5.625
XEROX	4	700	2800	2.8	0.25	0.7	18	12.6
COPIER	1	500	500	0.5	0.25	0.125	18	2.25
SCANNER	5	20	100	0.1	0.25	0.025	18	0.45
INDUCTION	6	1200	7200	7.2	0.25	1.8	18	32.4
A/C	13	1500	19500	19.5	2.5	48.75	18	877.5
REFRIGERATOR	1	110	110	0.11	24	2.64	18	47.52
TABLE/STAND FAN	5	75	375	0.375	2	0.25	18	4.5
PUMP	2	750	1500	1.5	1	1.5	18	27
EXHAUST FAN	12	90	1080	1.08	1.5	1.62	18	29.16
AQUAGUARD	6	25	150	0.15	3	0.45	18	8.1
WATER FILTER	2	50	100	0.1	3	0.3	18	5.4
Total =						2971.35		

3.1.4 Whether college has any provision/choice of renewable and carbon-neutral electricity options:

✤ Yes, college has solar power plant. Its operation will be started very soon.

3.1.5 Whether college has planned to install solar panels:

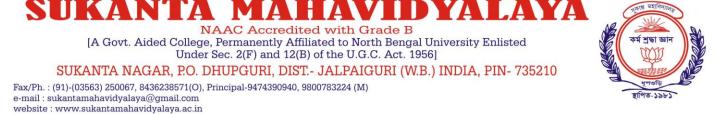
✤ Yes, college has installed solar power plant with the help of NBDT.

3.1.6 Whether college has efficient water heating system:

NA

3.1.7 Whether the staff members of all sectors are concerned in turning off electrical appliances when not in use in both commercial and residential area:

Yes, the staff members of all sectors are concerned about it.



From The Principal : Re. :

dt. :

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3.1.7 Is there any monitoring system - like put off the main switch where there is no need of electricity:

Yes, Multi-Chip Package (MCP) is installed in every floors as well as for every department, and leads to avoid short-circuit and power saving.

3.1.8 Whether the users follow the appropriate and measurable targets for a reduction of energy, such as, computer, printers, electrical equipment when not in use:

Yes, the stakeholders of the Institution are concerned about it.

3.1.9 Is there any options for equipment's running on standby mode:

Yes, all electronic gadgets have set as automatic standby mode, which saves power.

3.1.10 Whether college has taken initiative to purchase efficient and environmentally sound appliances in order to fulfill the green budget:

- Yes, as follows:
- Eco chargers and Smart sockets.
- LED light, bulbs.
- Solar panels.

3.1.11 Whether college has its own mechanism in repairing of electrical fault:

- Yes, Multi-Chip Package (MCP) is installed in every floors as well as for every department. College has own electrical staff, who repair as early as possible.
- 3.1.12 Whether the class rooms are with sufficient illumination in day time and ventilation:
 - Yes, all class rooms are well illumination in day time and has sufficient ventilation.

Number of lights & fans in class room (average):

✤ 4 LED, and 4 Fan

Use of light & fans in the day time (average hours):

✤ 2-3 hours

Number of windows per class:

It depends on room size; on average it is 3.



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19

Natural light source in day time (in hours) (average per class):

Only cloudy weather and few rooms (Room number 14 and 16) need electrical bulb/tube.

3.1.13 How many (%) e-notice generated by the college for academic/administrative purposes in a month

* All notices are circulated by e-governance.

Re. :

3.1.14 How many (%) paper-notice generated by the college for academic/administrative purposes in a month

* All notices are printed first then circulated by e-governance.

3.1.15 Total number of computers, printer, Laptop, Xerox machine

Computer - 122, Printer – 25, Xerox – 4, Copier - 1

3.1.16 Whether college has organized lectures on energy conservation in order to give awareness to the students:

NA, but Environmental Science teachers are aware students about it during class time.

3.2 Energy conservation strategies

- 3.2.1 Whether the architectural design for college is based upon use of natural lighting & ventilation, to save extra power for bulbs and fans:
 - Yes, as per Government Green Standards.

3.2.2 Whether florescent bulbs are replaced with CFL bulbs/LEDs:

✤ Yes. Maximum bulb used in 10–20-watt LED.

3.3 Minimize the use of unsustainable transport

3.3.1 What are the available/maximum transport facility used by the staff members/students etc., - mention the number (in average per day):

Used bicycle by students, teachers, and staff to minimize the vehicular emission.

All faculties and staff are used personal car, bike and bicycle.

Car	Bike	Bicycle		
7	35	5		

20

3.3.2 Whether college has any common car sharing/car pool among the students and faculty:

NA

. N. S. Das Principal ta Mahavidvalaya Principal Sukanta Mahavidyalaya Dhupguri, Jalpaiguri