



# **SGT UNIVERSITY**

## **ENERGY AUDIT REPORT**

**2023-2024**



Prepared by  
**EHS ALLIANCE**

# Table Of Content

Certificate.....	2
Acknowledgement.....	3
Disclaimer.....	4
Abbreviations .....	5
Overview Of University.....	6
Vision & Mission .....	7
Audit Participants.....	9
Executive Summary .....	10
Energy Audit Analysis .....	10
1. Energy Consumption.....	10
2. Diesel Consumption .....	14
3. Analysis of DG Sets.....	15
4. AC System.....	16
5. Fan Analysis .....	17
6. Lightening System Analysis.....	18
7. Other Power Consumption.....	20
8. Capacitor Bank.....	22
Annexure I – Noteworthy Photographs .....	22

# Certificate



## CERTIFICATE

PRESENTED TO

## SGT UNIVERSITY

Budhera, Gurugram-Badli Road, Gurugram- 122505, Haryana, India.

That has been assessed by EHS Alliance Services for the comprehensive study of Energy Audit on institutional working framework to fulfill the requirement of

## ENERGY AUDIT

**ACADEMIC YEAR 2023-24**

The energy-saving initiatives carried out by the institution have been verified in the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards all types of energy used in the institution and sustainability are highly appreciable and noteworthy.

A handwritten signature in blue ink, appearing to read 'H. Singh'.

SIGNATURE



11.06.2024  
DATE OF AUDIT

EHS ALLIANCE SERVICES, PLOT A-72, SURYA VIHAR, GURUGRAM, 122001  
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## Acknowledgement

EHS Alliance Services extends its heartfelt gratitude to the management of Shree Guru Gobind Singh Tricentenary University (SGT University) for entrusting us with the crucial task of conducting the Energy Audit. We deeply appreciate the cooperation provided by all teams involved, which facilitated the successful completion of the assessment.

Firstly, we would like to express our sincere thanks to **Prof. S.P. Aggarwal, Pro-Vice Chancellor (SGT University)**, for giving us the opportunity to evaluate the environmental performance of the campus.

Our appreciation also goes to **Prof. (Dr.) Joginder Yadav, Registrar, SGT University**, for his unwavering support and guidance, without which the project could not have been completed.

Additionally, we are grateful to the other staff members who actively participated in data collection and field measurements. We also extend our thanks to

Dr. Archana Chaudhary	Chairperson, Environment Committee
Mr. Gaurav Chaudhary	Admin Officer
Dr. Shikha Sharma	Secretary, Environment Committee
Mr. Vijay Kumar Ghai	Assistant Manager Admin

for their valuable contributions and assistance throughout the process.



## Disclaimer

The EHS Alliance Services Audit Team has prepared this report for SGT University based on the input data provided by the University's representatives, supplemented by the expert team's best judgment.

While reasonable care has been taken in preparing this report, the details contained herein have been compiled in good faith based on the information available. The conclusions are based on best estimates, and no representation, warranty, or undertaking, express or implied, is made. The Audit Team accepts no responsibility for any direct or consequential loss arising from the use of the information, statements, or forecasts in this report.

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**Vijay Singh**

**Lead Auditor EMS & Energy**



**Dr. Uday Pratap**

**Co-Auditor EMS & Energy**

## Abbreviations

According to the ICC, Environmental Auditing is defined as:

<b>A</b>	<b>Amps</b>
<b>AC</b>	<b>Air Conditioner</b>
<b>AC</b>	<b>Alternating Current</b>
<b>AMET</b>	<b>Academy of Maritime Education and Training</b>
<b>CFL</b>	<b>Compact Fluorescent Lamp</b>
<b>CIP</b>	<b>Comprehensive Inspection Program</b>
<b>DC</b>	<b>Direct Current</b>
<b>HSD</b>	<b>High Speed Diesel</b>
<b>Hz</b>	<b>Hertz</b>
<b>kg</b>	<b>Kilogram</b>
<b>kVA</b>	<b>Kilo-Volt-Ampere</b>
<b>kW</b>	<b>kilo Watts</b>
<b>kWh</b>	<b>Kilowatt Hour</b>
<b>kWp</b>	<b>Kilowatt Peak</b>
<b>LED</b>	<b>Light Emitting Diode</b>
<b>LPG</b>	<b>Liquefied Petroleum Gas</b>
<b>MMS</b>	<b>Module Mounting Structure</b>
<b>MPPT</b>	<b>Maximum Power Point Tracker</b>
<b>NAAC</b>	<b>The National Assessment and Accreditation Council</b>
<b>SEC</b>	<b>Specific Energy Consumption</b>
<b>SPV</b>	<b>Solar Photovoltaic</b>
<b>TV</b>	<b>Television</b>
<b>V</b>	<b>Volts</b>
<b>W</b>	<b>Watts</b>
<b>W/m<sup>2</sup></b>	<b>Watt Per Square Meter</b>

## Overview Of University

SGT (Shree Guru Gobind Singh Tricentenary) University, Gurugram, spans over 70 acres of lush green campus, enveloped in serene beauty and a tranquil environment. Situated at Chandu-Bhudera on the outskirts of Gurgaon, it is less than five kilometers from the Delhi border at Daurala, offering convenient access from Indira Gandhi International Airport.



SGT University was established by the Haryana Private Universities (Amendment) Act No. 8 of 2013 to provide educational opportunities to all segments of society under the umbrella of Dashmesh Educational Charitable Trust. The Trust was founded in 1999 with the noble mission of spreading the teachings of Shree Guru Gobind Singh Ji, the great philosopher and social reformer who believed that "the spread of learning is the best service to mankind." The foundation for the university's growth was laid in 2002 with the establishment of the SGT Dental College.

In an ever-evolving work environment, SGT University fosters a culture of continuous learning to develop future innovative leaders of international repute. These leaders are quick to learn and implement new skills, understand changing customer needs, and can revamp operations effectively with a significant return on investment.

SGT University's modern infrastructure and learner-centric pedagogy fully support its students. The university is focused on investing in "Nurturing Future Leaders" to produce resourceful and productive employees at all levels, from "Green Graduates" to "Tenured Senior Managers." The university is determined to instill domain-specific skills and soft skills in its emerging innovative leaders, making them future-ready. At SGT University, the focus is on developing skills and behaviors that align with a good cultural fit and the right academic background.



## Facilities in campus

### Hostel:

SGT University provides separate hostels for girls and boys with round-the-clock security. Each hostel features separate dining rooms, recreation rooms, and study rooms.

### Transport Services:

The university operates 60 buses across NCR and neighboring areas, serving both students and staff. Bus facilities are also available for hostellers for city visits, with charges based on actual usage.

### Gym:

SGT University offers well-equipped gyms in both the girls' and boys' hostels.

### Canteen:

The spacious cafeteria provides a wide variety of snacks to students and staff at reasonable rates.

### Labs:

The Department of Anatomy at SGT Medical College, Hospital, and Research Institute features a well-equipped museum, dissection hall, and research lab, with facilities for tissue processing, special staining, and research in genetics and embryology.

### Playgrounds:

SGT University offers a variety of sports facilities, including playgrounds for basketball, volleyball, football, table tennis, cricket, and badminton, promoting the all-round development of students

### Seminar Hall:

The Seminar Hall is an ideal venue for seminars and lectures by medical professionals, offering students insights into various fields. These sessions provide first-hand info & opportunities for students to ask questions and clear their doubts.

### Library:

The university's fully air-conditioned library, designed for comfort and natural lighting, can accommodate 450 users at a time. It offers modern facilities and resources, including CD-ROMs, online databases, books, journals, theses, WHO publications, and more.

## Vision & Mission

**Vision:** To nurture individual excellence through value-based, cross-cultural, integrated, and holistic education, adopting contemporary and advanced methods blended with ethical values, contributing to building a peaceful and sustainable global civilization.

### Mission:

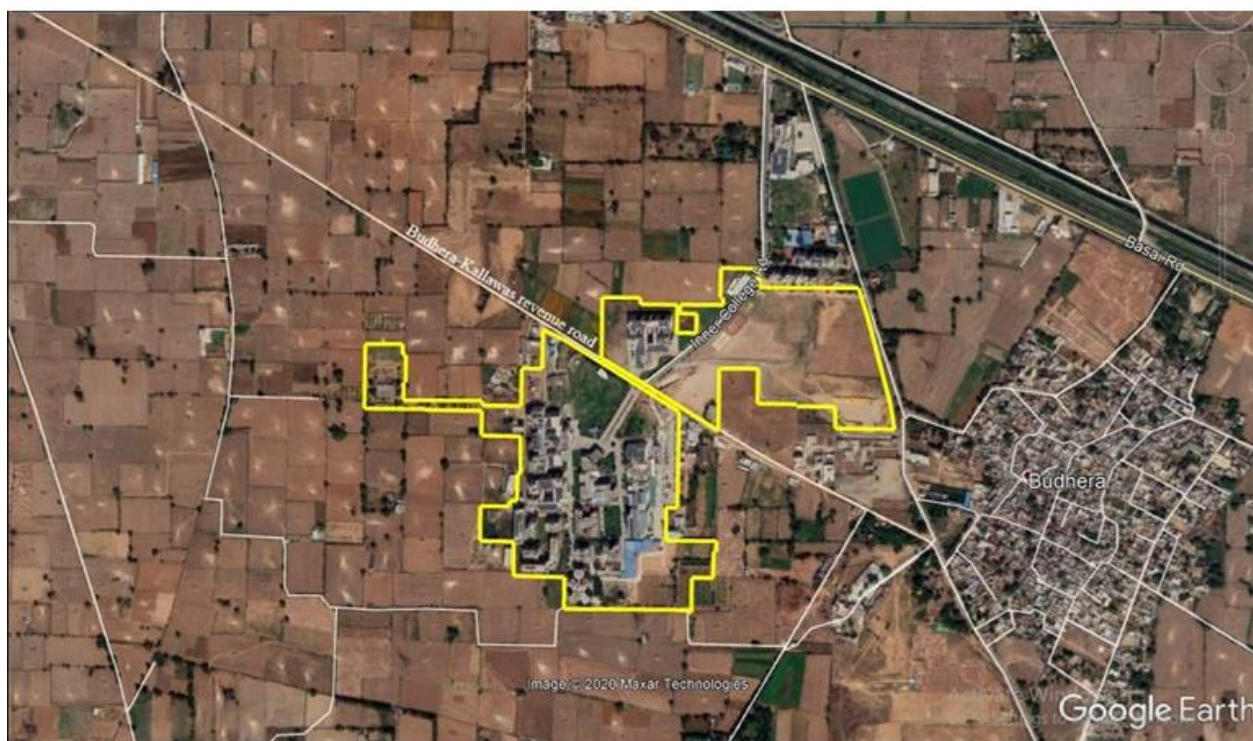
- To impart higher education that meets global standards and the changing needs of society.
- To provide access to quality education and improve the quality of life at individual and community levels through innovations and ethical research.



- To engage with and promote the growth and welfare of the surrounding community through extension and outreach activities.
- To develop socially responsible citizens, fostering ethical values and compassion through community engagement and promotion activities.
- To create a competitive and coordinated environment where individuals develop skills and a lifelong learning attitude to excel in their endeavors.
- To develop Centers of Excellence to achieve cutting-edge technology in all fields.

Presently, SGT University offers over 160 courses, including undergraduate, postgraduate, and PhD programs, across 18 faculties:

Faculty of Mass Communication & Media Technology	Faculty of Indian Medical System
Faculty of Hotel & Tourism Management	Faculty of Naturopathy and Yogic Sciences
Faculty of Fashion & Design	Faculty of Allied Health Sciences
Faculty of Commerce & Management	Faculty of Behavioral Sciences
Faculty of Engineering & Technology	Faculty of Dental Sciences
Faculty of Agricultural Sciences	Faculty of Nursing
Faculty of Education	Faculty of Medicine & Health Sciences
Faculty of Law	Faculty of Physiotherapy
Faculty of Science	Faculty of Pharmacy



Geo Coordinates from Google map: 28.4823843,76.8985063

## Audit Participants

On behalf of University

Name	Designation
Prof. S.P. Aggarwal	Pro Vice-Chancellor (Admin)
Dr. Joginder Yadav	Registrar
Prof. Nishith Kumar Mishra	Director IQAC
Dr. Archana Chaudhary,	Associate Professor, FOSC
Mr. Gaurav Chaudhary,	Admin. Officer
Dr. Mohit Sharma,	Hospital Quality Assurance Cell (HQAC)
Dr. Bhoopesh Kumar Sharma	Associate Professor, FOSC
Ms. Rachna	Assistant Professor, FON
Mr. Mohit Deswal	Assistant Professor, FAHS
Mr. Sarvjit Singh Jaswal	GM Administration
Mr. Umesh Kothari	Administrator
Mr. Anurag Khajuria	Registrar Office
Dr. Shikha Sharma	Assistant Professor, FDSC
Mr. Sripal Singh	Member, Environment Committee
Mr. Vijay Ghai	Assistant Manager Admin

On behalf of EHS Alliance Services

Name	Position	Qualifications
Mr. Vijay Singh	<i>Lead Auditor</i>	<i>M.Sc. M. Tech (Environment Science &amp; Engineering), Energy Auditor, Post Diploma in Industrial Safety Management</i>
Dr. Uday Pratap	<i>Co-Auditor</i>	<i>Ph.D., EMS: Lead Auditor ISO14001:2015, QCI-WASH</i>
Mr Puneet Kaushik	<i>Co-Auditor</i>	<i>M.Sc. M. Tech (Environment Science &amp; Engineering), Energy Auditor, Post Diploma in Industrial Safety Management</i>
Mr Arun Prabath	<i>Co-Auditor</i>	<i>Environment Expert</i>

## Executive Summary

The purpose of this Energy Audit was to identify opportunities to improve the energy efficiency of SGT University. Our primary concern was to reduce energy consumption while enhancing human comfort, health, and safety.

Beyond merely identifying the energy consumption patterns, this audit aimed to detect and categorize the most energy-efficient appliances. Additionally, we have shared some daily practices related to common appliances that may help reduce energy consumption. Data collection for this audit was conducted by the EHS Alliance Team, and the Energy Audit Report reflects the energy consumption patterns of the University based on an actual survey and detailed analysis during the audit.

The work comprehended area-wise consumption traced using suitable equipment. The analysis was carried out by our team with support from the staff members of SGT University. The report provides a list of possible actions to preserve and efficiently access the available resources, identifying their saving potential as well. We look forward to optimization efforts by the authorities, students, and staff members, who we hope will follow the recommendations in the best possible way.

The report is based on certain generalizations and approximations where necessary. The views conveyed may not represent the general opinion but rather the opinion of the team guided by interviews with clients. We are pleased to submit this Energy Audit Report to SGT University.

## Energy Audit Analysis

### 1. Energy Consumption

To understand the Energy Consumption trends and for analyzing the average monthly consumption we have collected electricity energy bills from April 2021 to March 2022

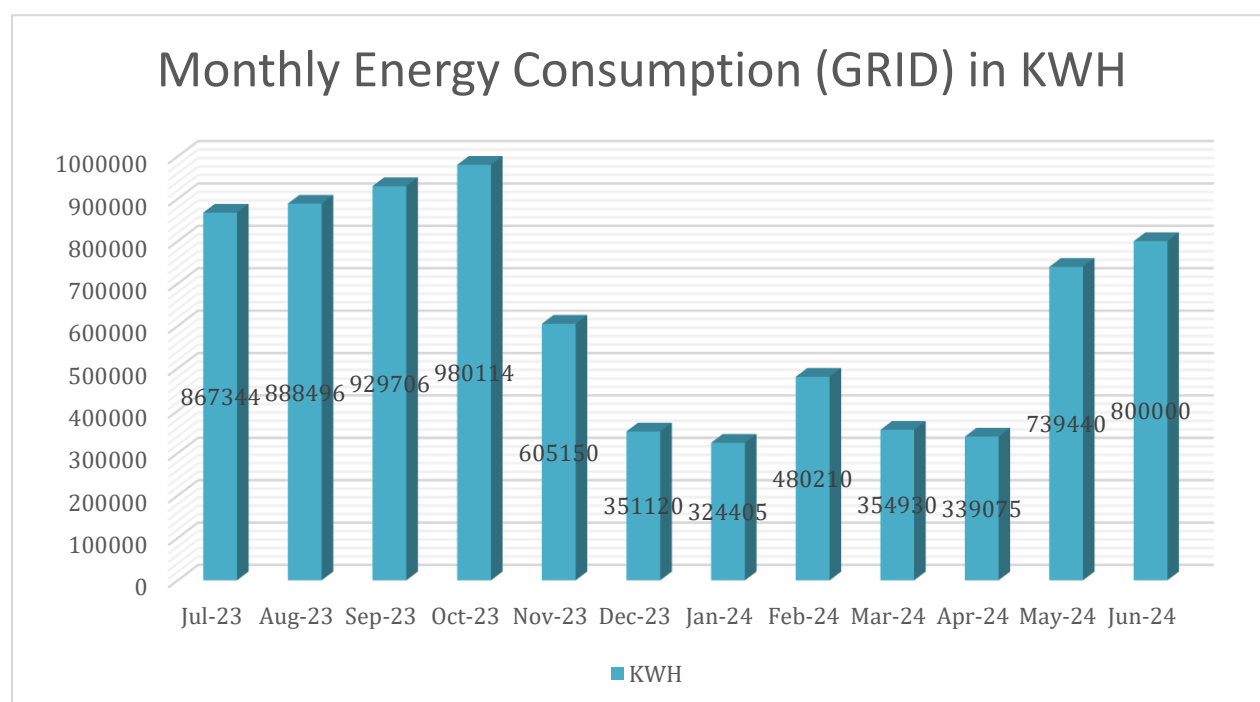
The details of “Meter Connection” at “SGT UNIVERSITY” are as follows-

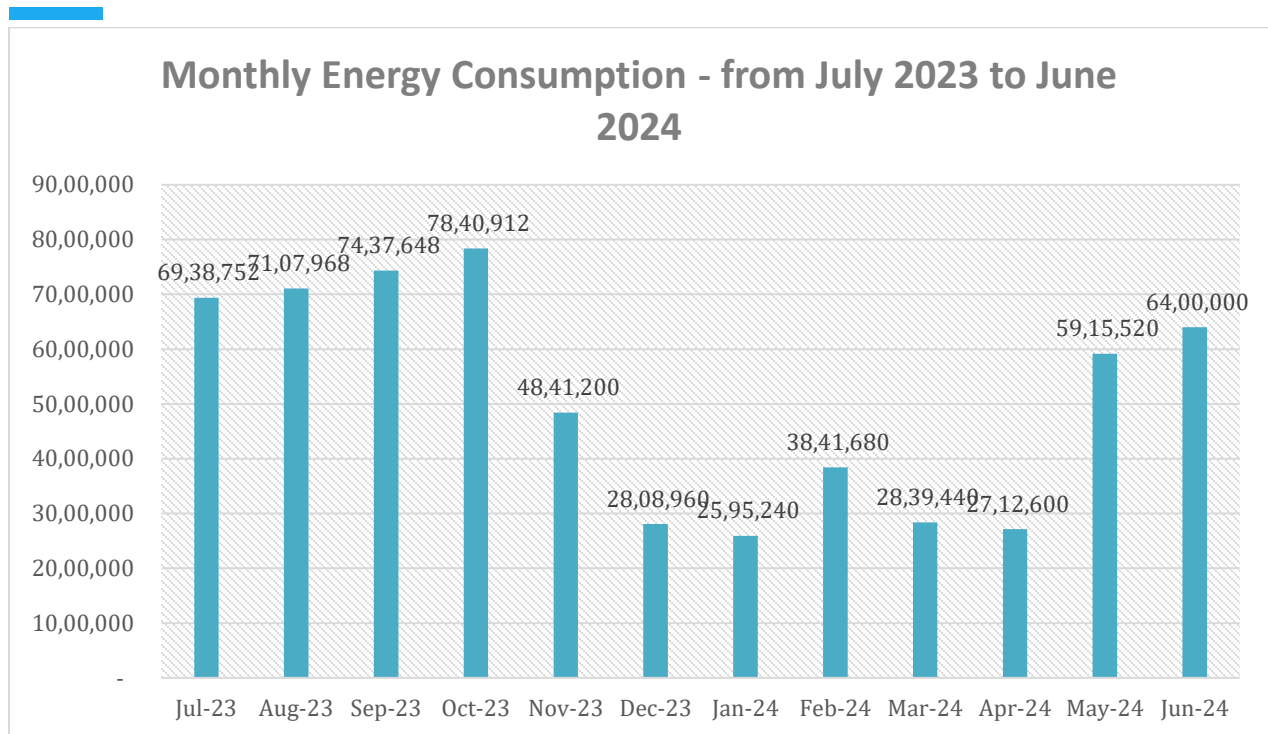
Name	-	Chairman Dasmesh
CA No.	-	1578781000

## 1.1 Summary of Monthly Electricity Consumption and Total Bill Amount

To understand the Energy consumption trend and for developing the baseline parameter we have collected monthly energy bill for the 12 months i.e. from July 2023 to June 2024

Month	Grid kWh	Solar kWh	Total	Net Grid kWh	Amount in INR
Jul-23	867344	67446	934,790	867,344	6,938,752
Aug-23	888496	76973	965,469	888,496	7,107,968
Sep-23	929706	82450	1,012,156	929,706	7,437,648
Oct-23	980114	79725	1,059,839	980,114	7,840,912
Nov-23	605150	49660	654,810	605,150	4,841,200
Dec-23	351120	53849	404,969	351,120	2,808,960
Jan-24	324405	44329	368,734	324,405	2,595,240
Feb-24	480210	63699	543,909	480,210	3,841,680
Mar-24	354930	88959	443,889	354,930	2,839,440
Apr-24	339075	87486	426,561	339,075	2,712,600
May-24	739440	89833	829,273	739,440	5,915,520
Jun-24	800000	90000	890,000	800,000	6,400,000
<b>SUM</b>	<b>7659990</b>	<b>874,409</b>	<b>8,534,399</b>	<b>7,659,990</b>	<b>61,279,920</b>



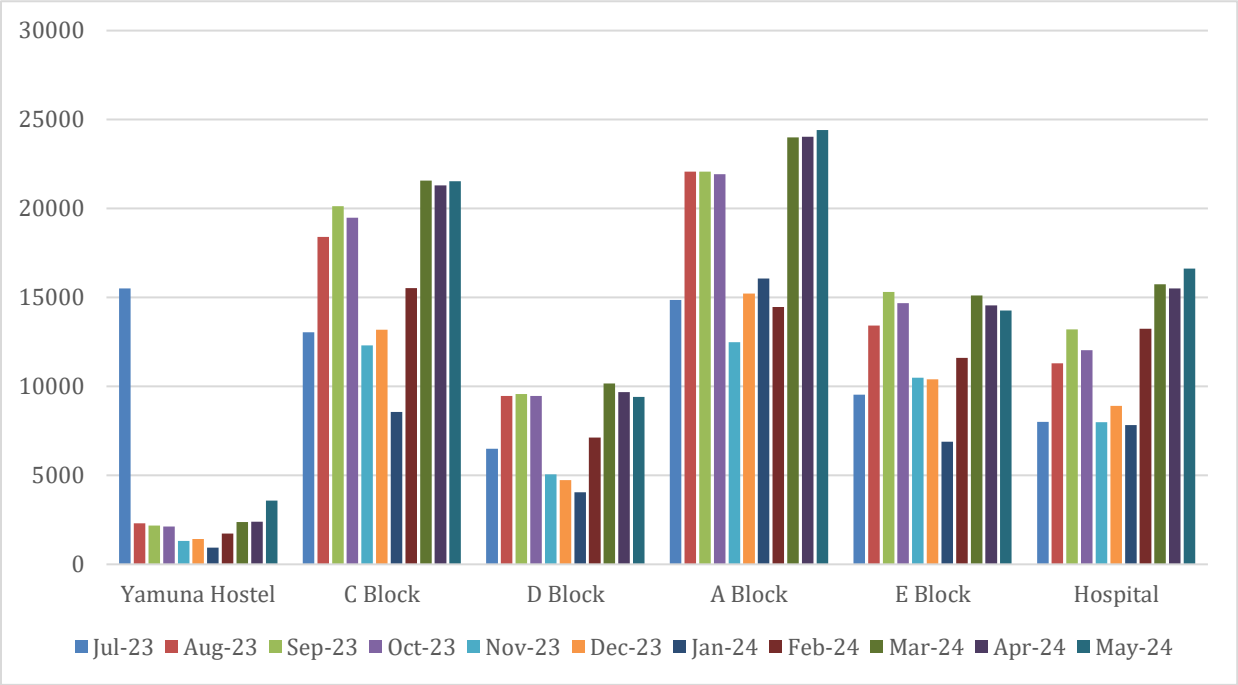
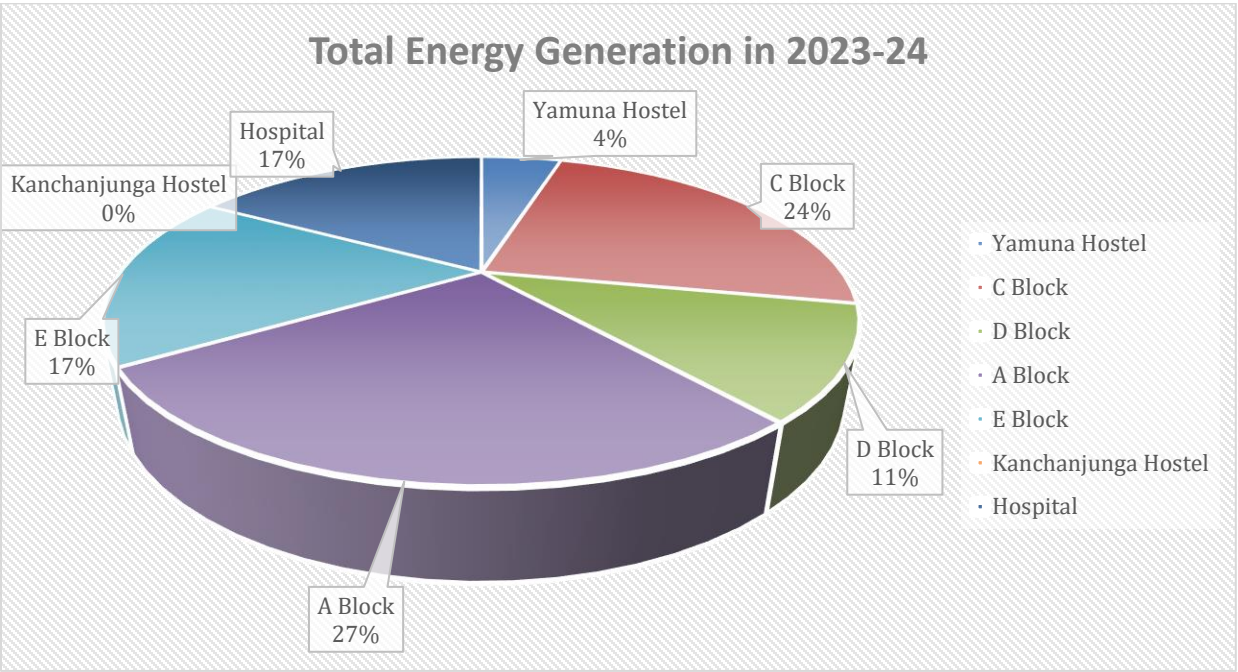


### Electricity generation from Solar PV

Due to issue in digital solar inverter meter, we have taken average number of power generated, considering the 910 KW capacity in Gurgaon location.

Block	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Total
Yamuna Hostel	15500	2304	2177	2123	1320	1418	930	1727	2386	2402	3588		35875
C Block	13050	18410	20127	19482	12314	13183	8566	15523	21571	21307	21533		185066
D Block	6500	9461	9567	9466	5055	4742	4045	7125	10166	9681	9403		85211
A Block	14856	22071	22077	21924	12491	15212	16056	14465	23998	24033	24419		211602
E Block	9537	13427	15302	14685	10484	10393	6901	11613	15105	14547	14272		136266
Kanchanjunga Hostel *													0
Hospital	8003	11300	13200	12045	7996	8901	7831	13246	15733	15516	16618		130389
<b>TOTAL</b>	<b>67446</b>	<b>76973</b>	<b>82450</b>	<b>79725</b>	<b>49660</b>	<b>53849</b>	<b>44329</b>	<b>63699</b>	<b>88959</b>	<b>87486</b>	<b>89833</b>	<b>90000</b>	<b>874,409</b>

\*Kanchanjunga Hostel Solav PV (50KW) was under breakdown for current period.

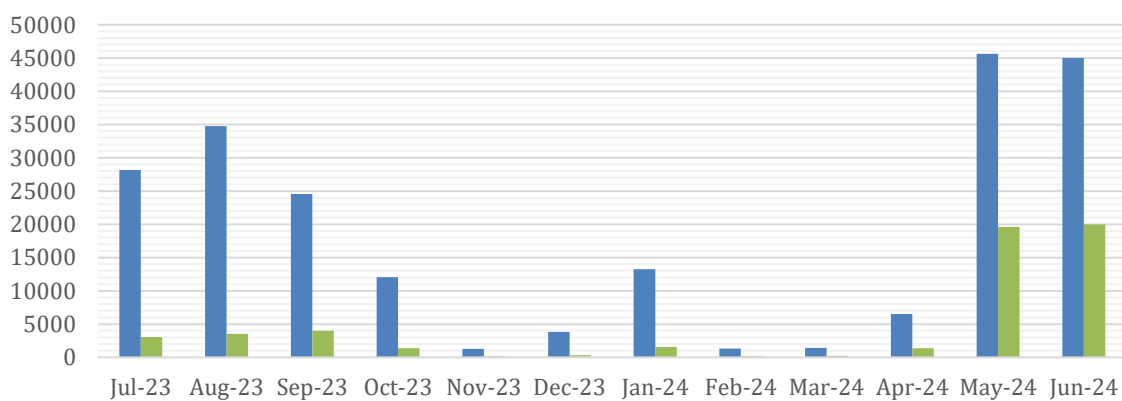


## 2. Diesel Consumption

Below is the diesel consumption details in liters from July 2023 to June 2024.

Month	Medical Wing	Engg. Wing	Total Diesel (Liters)
Jul-22	28177	3060	31237
Aug-22	34775	3540	38315
Sep-22	24550	4019	28569
Oct-22	12050	1390	13440
Nov-22	1280	160	1440
Dec-22	3800	310	4110
Jan-23	13240	1555	14795
Feb-23	1335	175	1510
Mar-23	1400	230	1630
Apr-23	6510	1355	7865
May-23	45629	19599	65228
Jun-23	45000	20000	65000
<b>Total</b>	<b>217746</b>	<b>55393</b>	<b>273139</b>

### Monthly Diesel Consumption - from July 2023 to June 2024



	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
■ Medical Wing	28177	34775	24550	12050	1280	3800	13240	1335	1400	6510	45629	45000
■ Engg. Wing	3060	3540	4019	1390	160	310	1555	175	230	1355	19599	20000



### 3. Analysis of DG Sets

In the University, there are 9 Diesel Generator (DG) sets for its electrical power needs in case of Grid power failure. Total installed DG sets capacity is 6510 kVA.

DG station	Capacity	Hz	Sl No.	Make	Volts	PF	Phase	RPM	Amps	Mfg.
Station-1	1250	50 HZ	25467438	Cummins	415 Volts	0.94	3	1500	1739 Amps	2020
Station-2	1250	50 HZ	25474119	Cummins	415 Volts	0.94	3	1500	1739 Amps	2022
Station-3	1250	50 HZ	25470765	Cummins	415 Volts	0.94	3	1500	1739 Amps	2022
Station-4	750	50 HZ	25381383	Cummins	415 Volts	0.94	3	1500	1043 Amps	2012
Station-5	500	50 HZ	25349907	Cummins	415 Volts	0.94	3	1500	696 Amps	2010
Station-6	250	50 HZ	25764515	Cummins	415 Volts	0.94	3	1500	348 Amps	2010
Station-7	1010	50 HZ	25467438	Cummins	415 Volts	0.94	3	1500	1405 Amps	2021
Station-8	125	50 HZ	62687154	Cummins	415 Volts	0.94	3	1500	174 Amps	2008
Station-9	125	50 HZ	62687156	Cummins	415 Volts	0.94	3	1500	174 Amps	2008

DG Set Operation details		
Operating hours during testing	Hours	0.50
% Loading	%	72.76
Energy Generation	kWh	34.98
Load	kVA	87.74
Fuel consumption during testing	Litre	12
Specific energy generation	kWh/litre	3.22

#### Analysis:-

As per the trial taken during the energy audit the percentage loading of DG set is 72.76% which is ok and specific energy consumption of DG Sets 3.22 KWH/Litre which is satisfactory because as per manufacturer recommendation, best practices for SEC in DG sets range from 3.0 to 3.5 kWh/litre and above.

## 4. AC System

Energy Efficiency Ratio (EER): Performance of smaller chillers and rooftop units is frequently measured in EER rather than kW/ton. EER is calculated by dividing a chiller's cooling Capacity (in Btu/h) by its power input (in watts) at full-load conditions. The higher the EER, the More efficient the unit. The cooling effect produced is quantified as tons of refrigeration (TR). The above TR is also called as air-conditioning tonnage.

Sl. No.	Location Details	Count of Acs
1	SGT UNIVERSITY, GURUGRAM.	16
2	A - BLOCK	171
3	E - BLOCK	233
4	KANCHANJUNGA	50
5	NILGIRI HOSTEL	14
6	SPORT OFFICE	28
7	LAW COLLEGE GROUND FLOOR	2
8	AYURVEDA HOSPITAL	39
9	GODAWARY	38
10	NARMADA HOSTEL	323
11	HOMI J BHABHA BLOCK	294
12	HOSPITAL	127
13	DENTAL BLOCK	104
14	GANGA HOSTEL	84
15	HIMALAYA HOSTEL	103
16	YAMUNA HOSTEL	38
17	C.V. RAMAN	30
18	KRISHNA HOSTEL	24
19	KAVERI GIRL HOSTEL	8
20	SARASWATI GIRL HOSTEL	3
21	ANIMAL HOUSE	4
	<b>TOTAL</b>	<b>1733</b>

**Remarks:** - We have checked Energy Efficiency Ratio of AC's and EER of AC's is fairly OK. But in future you should purchase 5-Star rated inverter based split AC's because power consumption of Inverter based BEE 5-Star rated AC's is less than non-star rated AC's.

## 5. Fan Analysis

In the SGT University, 5596 Ceiling Fans and 28 wall fans are installed. The observation and suggestion are given below.

Sl No.	Location/Identification	Ceiling Fan-60W	WALL FAN/65 watt
1	A Block	544	5
2	B Block	711	8
3	C Block	1013	
4	D Block	588	8
5	E Block	703	
6	Aryabhata	103	
7	Homi J Bhabha	78	
8	CV Raman	303	
9	Ganga	350	
10	Yamuna	148	
11	Krishana	96	
12	Narmada	80	
13	Godawari	80	
14	Saraswati	27	
15	Kaveri	30	
16	APJ Abdul Kalam	40	
17	Kanchanjanga	201	1
18	Nilgiri	135	4
19	Ayurveda	40	
20	Naturopathy	16	
21	Himalaya Hostel	230	
22	Common Area	80	2
	<b>Total Qty</b>	<b>5596</b>	<b>28</b>

### Analysis

In the University, majority of ceiling fans are of 60 W but BEE 5 Star Rated of 30W Ceiling Fans are present in the market. Considering the buyback period of BEE 5 star fans, we don't recommend university to replace BEE 5 Star rated fans of 30W, however university should consider purchasing 5star BEE fans for all future purchases.

**Note:-** Energy saving will increase or decrease if operating hours of machine /equipment will be increase or decrease and payback period will also increase or decrease if cost of investment(Cost of machine/equipment/accessories of machine) will increase or decrease because cost of investment is taken on tentative basis.

## 6. Lightening System Analysis

### 6.1 Brief description of existing system

For assessing energy efficiency of lighting system, Inventory of the Lighting System has been noted / collected, with the aid of a lux meter, measurement and documentation of the lux levels at various locations at working level has been done.

### 6.2 Inventory of Lights

SL NO.	LOCATION/ IDENTIFICATION	200W-LED HIGH	150 W-LED HIGH	120 W LED POLE	50 W-LED HIGH	400 WATT	6 WATT LED	7 WAT LED BLUB	12 WAT LED	15 WAT LED	18 WATT LED	20 WAT LED 4'	22 WAT LED	24 WATT LED	36 WATT LED	36 WATT TUBE
1	A Block								400	190	400	50			300	
2	B Block						86		108	109	579	579			278	216
3	C Block						10			407	43	62	353	52	654	
4	D Block								321			10	496	202	44	
5	E Block						19	10	96		76	179			389	
6	Aryabhata							62	35			186				
7	Homi J Bhabha							89	10			87				0
8	CV Raman						85	300		10		310				
9	Ganga						4	278	25	16	35	290	22			
10	Yamuna							152	8	10		240				4
11	Krishana						130	10	60			80				
12	Narmada						90	28	90			60			25	
13	Godawari						90	25	40			70				
14	Saraswati						24	71				7				
15	Kaveri						12	60				38				
16	APJ Abdul Kalam							40				53				
17	Kanchanjanga						362		15			204				0
18	Nilgiri						181		35			125				8
19	Ayurveda									6					45	
20	Naturopathy						51					2			10	
21	Himalaya Hostel						54	113		64		260	17			
22	Common Area	105	20	26	41	2									120	
	<b>Total Qty</b>	<b>105</b>	<b>20</b>	<b>26</b>	<b>41</b>	<b>2</b>	<b>1198</b>	<b>1238</b>	<b>1243</b>	<b>812</b>	<b>1133</b>	<b>2892</b>	<b>888</b>	<b>254</b>	<b>1865</b>	<b>228</b>

### 6.3 Lux Measurement

Description	Lux	Remark
Class Rooms	120 to 235	Acceptable
Offices	130 to 240	Acceptable
Corridors	35 to 90	Acceptable
Washrooms	45 to 76	Acceptable
Outdoor	36 to 95	Acceptable
Computer Lab	150 to 289	Acceptable
Parking area	45 to 94	Acceptable
Canteen	69 to 185	Acceptable

#### Analysis

SGT University has implemented LED based lighting solution in the campus. LEDs save energy, the life span is much greater and emit virtually no heat. The University has installed solar lights for street lights in the campus. SGT University is doing their bit for the energy conservation.

We recommend replacing the tube lights with LEDs, additionally we recommend increasing motion sensor-based lights in common areas such as libraries, washrooms, corridors, etc.

**Table below shows the performance characteristics comparison of all luminaries.**

Table - Luminous Performance Characteristics of Commonly Used Luminaries					
Type of Lamp	Lumens/Watt		Colour Rendering Index	Typical Application	Typical Life
	Range	Avg.			
Incandescent	8-18	14	Excellent (100)	Homes, restaurants, general lighting emergency lighting	1000
Fluorescent lamps	46-60	50	Good w.r.t coating (67-77)	Offices, shops, hospitals, homes	5000
Compact fluorescent Lamps (CFL)	40-70	60	Very Good (85)	Hotels, shops, homes, offices	8000-10000

High-pressure mercury (HPMV)	44-57	50	Fair (45)	General lighting in factories, garages, and car parking. floodlighting	5000
Halogen lamps	18-24	22	Excellent (100)	Display, flood lightening, stadium exhibition grounds, construction areas	2000 - 4000
High-pressure sodium (HPSV) SON	67-121	90	Fair (22)	General lighting in warehouses, factories, street lighting	6000 - 12000
Low-pressure sodium (LPSV) SOX	101-175	150	Poor (10)	Roadways, tunnels, canals, street lighting	6000 - 12000
Metal halide lamps	75-125	100	Good (70)	Industrial bays, spotlighting, floodlighting, retail stores	8000
LED Lamps	30-50	40	Good (70)	Reading lights, desk lamps, night lights, spotlights, security lights, signage lights, etc.	40000 - 100000

## 7. Other Power Consumption

### 7.1 Water Pump Details

S.No.	Location	Quantity	H P
1	E-Block (STP Side)	1	7.5
2	Nilgiri Hostel	1	7.5
3	Farm House	1	7.5
4	Admin Block (Backside)	1	7.5
5	Medical College (Near Fire Pump Room)	1	10
6	Medical Back Side Boundary Wall (Near Animal House)	1	5
7	Nursery	1	7.5
8	Nursery (Borewell) Mono Block	1	10
9	Dental	1	7.5
10	Yamuna (Backside)	1	7.5
11	Aryabhata Block & Homi J. Bhabha Block	1	7.5
12	Student Gym Side	1	10
13	Agriculture (Mess Back Side)	1	7.5
14	Hospital	1	7.5
15	Waquaf Board (Security Gate No.4 Side)	1	7.5
16	C.V Raman Block Backside (Agriculture)	1	7.5

## 7.2 Other Load Details

Sl No.	Location/ Identification	60W Exhaust Fan	160W Exhaust Fan	180W-Desert Cooler	400 W-desert coller	GEYESER 2 KW	400 watt exhaust fan
1	A Block	50	48				
2	B Block	58		34		25	
3	C Block	10	35	4			
4	D Block	134					
5	E Block	32					
6	Aryabhata	63				54	
7	Homi J Bhabha	49				40	
8	CV Raman	52					
9	Ganga	7				130	
10	Yamuna	85				96	
11	Krishana	5					
12	Narmada						
13	Godawari	15					
14	Saraswati						
15	Kaveri						
16	APJ Abdul Kalam	40					
17	Kanchanjanga	10				8	
18	Nilgiri	7				2	
19	Ayurveda	20				2	
20	Naturopathy	5					
21	Himalaya Hostel	34				13	
22	Common Area		12	4	6	5	20
	<b>Total</b>	<b>676</b>	<b>95</b>	<b>42</b>	<b>6</b>	<b>375</b>	<b>20</b>

### Analysis

There should be a regular maintenance schedule of equipment like pumps, exhaust fans, and IT equipment. Electronics such as computers, printers, scanners, etc. more than 3 years or 5 years old (as per their life) should be replaced with new computers/laptops. Ideal temperature should be maintained for all electronic appliances.



## 8. Capacitor Bank

Sl. No.	Location/ Identification	Capacity in KVAR
1	Medical Substation	350
2	Medical Substation	550
3	Medical Substation	650
4	Engineering Substation	200

## Annexure I – Noteworthy Photographs



STP installed (250 KLD)



STP installed (250 KLD)



LPG cylinders placement



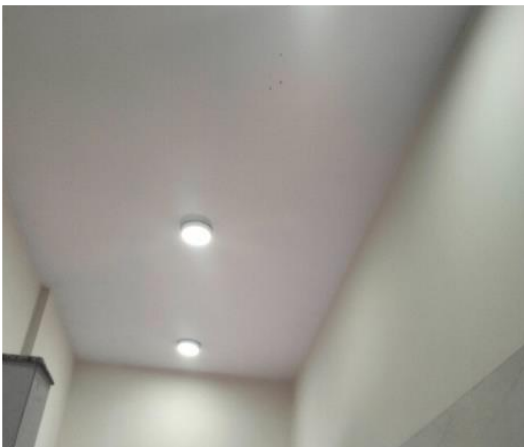
Washing machines usage  
in hostels to save water



Solar Panel Installed



Solar lights installed



LED lights installed



Split AC Installed

■ ■ ■ **END OF THE REPORT**