## OTTOTRACTIONS Energy - Engineering - Environment







ISO 9001-2015, ISO 14001- 2015, ISO/IEC- 17020 - 2012, ISO 14067-2018

## **ENERGYAUDIT REPORT**

## ST. STEPHEN'S COLLEGE

**PATHANAPURAM** 

Executed by



2024







## ENERGY AUDIT REPORT ST. STEPHEN'S COLLEGE

## **PATHANAPURAM**





Energy Audit Report St. Stephen's College, Pathanapuram

Report No: EA 1195/EA 2023-24



Empaneled Accredited Energy Auditor, AEA 33 Bureau of Energy Efficiency Government of India



Empaneled Energy Auditor, EMCEEA-0211F, Energy Management Centre Government of Kerala.



Authorized Energy Auditor, GEDA/ENC/EAC: Autho/2014/8/103/2316, Gujarat Energy Development Agency Government of Gujarat



Empaneled Energy Auditor, India SME Technology Services Ltd A joint Venture of SIDBI, SBI, Indian Bank, Oriental Bank of Commerce & Indian Overseas Bank

### About OTTOTRACTIONS

Established in 2005, OTTOTRACTIONS is a renowned organization with extensive expertise in energy, engineering, and environmental services. We hold the distinction of being the first Accredited Energy Auditor from Kerala authorized to conduct Mandatory Energy Audits for Designated Consumers under the Energy Conservation Act of 2001. Our excellence in energy auditing was recognized by the Government of Kerala with the prestigious "Kerala State Energy Conservation Award 2009."

OTTOTRACTIONS is an ISO 9001:2015, ISO 17020:2012, ISO 14001:2015 and ISO 14067: 2018 certified organization, underscoring our commitment to quality and excellence in service delivery. With a proven track record, we have successfully completed over 3,000 audits across various domains, including Energy Audit, PAT, Electrical Safety Audit, Green Audit, Environmental Audit, Biodiversity Audit, Water Audit, and Air Audit.

## **Acknowledgment**

We were privileged to work together with the administration and staff of St. Stephen's College, Pathanapuram. We are grateful to them for the timely help extended to complete the audit and bringing out this report.

With gratitude, we acknowledge the diligent effort and commitments of all those who have helped to bring out this report.

We also take this opportunity to thank the bona-fide efforts of audit team for unstinted support in carrying out this audit.

We thank our consultants, engineers and backup staff for their dedication to bring this report.

Thank you.

For OTTOTRACTIONS

B V Suresh Babu Accredited Energy Auditor AEA 33, Bureau of Energy Efficiency Government of India



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## Certification

## This is to certify that

The data collection has been carried out diligently and truthfully;

All data monitoring devices are in good working condition and have been calibrated or certified by approved agencies authorised and no tampering of such devices has occurred;

All reasonable professional skill, care and diligence had been taken in preparing the energy audit report and the contents thereof are a true representation of the facts;

Adequate training provided to personnel involved in daily operations after implementation of recommendations; and

The energy audit has been carried out in accordance with the Bureau of Energy Efficiency (Manner and Intervals of Time for the Conduct of Energy Audit) Regulations, 2010.

SURESH BABU B V
ACCREDITED ENERGY AUDITOR (AEA 33)
BUREAU OF ENERGY EFFICIENCY
GOVERNMENT OF INDIA



	Executive Summary					
	Consolidated Cost Benefit Analysis of Energy Efficiency Improvement Projects					
	St. Stephen's Colle	ege, Pathanar	ouram			
SI No	Projects	Investment	Cost saving	SPB	Energy saved	
INO		(Lakhs Rs)	(Rs)/Yr	Months	kWh/Yr	
1	Energy Saving in Lighting by replacing existing 39 No's T8 (40W) Lamps to 18W LED Tube	0.12	0.08	18.6	824	
2	Energy Saving in Lighting by replacing existing 38 No's T12 (55W) Lamps to 18W LED Tube	0.11	0.09	14.8	1008	
3	Energy Saving by replacing existing 193 No's in-efficient ceiling fans with Energy Efficient Five star fans	5.79	0.76	91.5	8301	
	Total	6.02	0.93	41.65	10132	

(The saving are projected as per the assumed operation time observed based in the discussions with the plant officials. The data of saving percentages are taken from BEE guide books and field measurements.)





## 1 Introduction

A detailed energy audit has been carried out at St. Stephen's College, Pathanapuram by OTTOTRACTIONS in December 2024. During the energy audit energy saving opportunities has been identified to help improving efficiency of the facility. OTTOTRACTIONS is an Accredited Energy Auditor of Bureau of Energy Efficiency and Empaneled Energy Auditor of Energy Management Centre, Government of Kerala.

This energy audit report complies with the clauses in *Energy Conservation Act,* 2001 on mandatory energy audit (**Form 4** [refer regulation 6(2)] guidelines for preparation of energy audit report) and complies with the G.O (Rt) No.2/2011/PD dated 01.01.2011 issued by Government of Kerala on mandatory energy audit.

## 1.1. General Building details and descriptions

St. Stephen's College, Pathanapuram Established in 1964 after the name of Saint Stephen, the college is the fulfilment of a long-cherished desire of its founder, His Grace Mar Thoma Dionysius, Metropolitan of Niranam Diocese of the Malankara Orthodox Church. The College, affiliated to the University of Kerala, offers undergraduate programmes in Botany, Chemistry, Mathematics, Physics, Zoology, Economics, English and Commerce and postgraduate programmes in Botany, Chemistry, Mathematics, Physics and Zoology. The department of Zoology and Chemistry are recognized as Research Centres under the University of Kerala. The



college was re-accredited by the NAAC Peer team at B++ Grade with CGPA 2.91 in 2022.

The college aims at the development of an integrated personality. The College Chapel serves as the nerve centre for ethical development. The college has a well-equipped library with more than books. It has a fine volley ball court. There are many academic and cultural societies and clubs functioning in the college to kindle interest in the students in their respective subjects as well as in socially relevant issues.

Occupancy Details			
Particulars	2023-24		
Total Students	698		
Staffs	77		
Total Occupancy of the college	775		

For calculating specific energy consumption, the total built-up area is considered.

## **Energy audit team**

The Energy Audit team is listed below. Besides this list various domine experts also participated in this project.

- 1. Suresh Babu B V, Accredited Energy Auditor, AEA 33
- 2. B. Zachariah, Chief Technical Consultant
- 3. Abin Baby, Project Engineer
- 4. Jomon J S, Project Engineer
- 5. Vishnu S S, Project Engineer
- 6. Reshma S P, Data Analyst
- 7. Anjana B S, Project Assistant



## 2

## **Building description**

The energy audit has been carried out at St. Stephen's College; Pathanapuram The following is the baseline data of this building.

	BASELINE DATA SHEET						
1	Name of the Organization	St. Stephen's College, Pathanapuram					
2	Address (include telephone, fax & e-mail)	St. Stephen's College, Maloor College P O, Pathanapuram, Kollam Dist 689695 Phone: 0475 2352385, 2354385 ststephenspathanapuram@gmail.com					
3	Year of Establishment	1964					
4	Name of building and Total No. of Electrical Connections/building	St. Ste	ephen':	s Colle	ge (8)		
5	Total Number of Students	Boys	278	Girls	420	Total	698
6	Total Number of Staff				77		
7	Total Occupancy				775		
8	Total area of green cover			52	2 acre		
9	Type of Electrical Connection	HT	-	LT		8	
10	Total Connected Load (kW)				122		
11	Average Maximum Demand (KVA)	-					
12	Total built up area of the building (M²)			2	3000		
13	Number of Buildings				5		
14	Average system Power Factor				0.99		
15	Details of capacitors connected				Nil		
16	Transformer Details (Nos., kVA, Voltage ratio)	TR 1	TR 2	TR 3	TR 4		
	voltage ratioj						
17	DG Set Details (kVA)	DG1	DG2	DG3	DG4	DG5	Remarks
4.0		Rating		Nos.		Remarks	
18	Details of motors	5 to 10		<u> </u>			





## 3

## **Energy and utility system description**

## 3.1.1 Electricity

Electricity is purchased from KSEBL under Eight LT Connection, the details are given below. A Diesel Generator is in operation at this campus

	Electricity Connection Details			
	St. Stephen's College, Pathanapuram			
1	Name of the Consumer	St. Stephen's College, Pathanapuram		
2	Tariff	LT-6A/ Three		
		1146853002589		
	Consumer Numbers	1146853002590		
		1146853002574		
3		1146855002571		
3		1146856002005		
		1146856001985		
		1146853018642		
		1146851002004		
4	Connected Load Total (kW)	122		
5	Annual Electricity Consumption (kWh)	19356		

## 3.2. Thermal Energy / Transportation

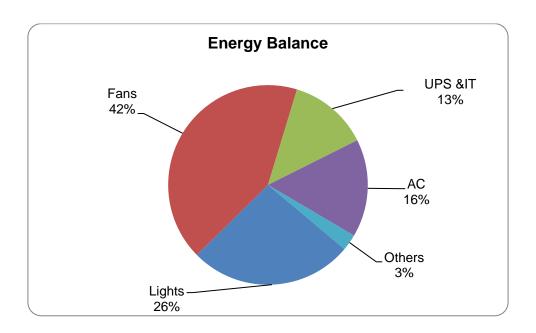
LPG is used for cooking in the canteen and Lab. Diesel is used to operate Diesel Generator.





## 4

## **Energy Balance**



In this facility, a comprehensive analysis of energy consumption breakdown highlights the following distribution:

Fans contribute the most, constituting 42% of the total energy consumption. This includes various fans utilized throughout the facility for ventilation and air circulation purposes.

Lighting accounts for 26% of the energy usage. This encompasses the illumination needs across different areas within the facility, including offices, corridors, and production areas.



Miscellaneous uses make up 3% of the energy consumption. These miscellaneous uses may include small appliances, equipment, or other electrical devices not categorized under specific areas.

The combined energy consumption of Uninterruptible Power Supply (UPS) and Information Technology (IT) systems amounts to 13%. This includes the power required to run IT infrastructure, servers, and associated backup systems.

Air conditioning systems represent the remaining 16% of the total energy consumption. This includes both heating and cooling systems employed to maintain optimal indoor temperatures for comfort and operational requirements.

Understanding this breakdown is crucial for implementing targeted energy-saving strategies aimed at optimizing efficiency and reducing overall energy consumption in the facility



## 5

## Performance evaluation of major equipment's / systems.

## 5.1. List of equipment and process where performance testing was done.

5.1.1. Electrical System

5.1.2. Lighting & Fans

## 5.2. Results of performance testing

## **5.2.1. Electrical System**

The average unit cost of electricity is **9.15 Rs/kWh**. This is taken as the basis for the financial analysis of electrical energy efficiency projects. The information on average energy consumption is taken from the historical electricity bill analysis.



## **Electricity Consumption**

	Electricity Connection Details				
	St.Stephen's College, Pathanapuram				
1	Name of the Consumer	St.Stephen's College, Pathanapuram			
2	Tariff	LT-6A/ Three			
		1146853002589			
	Consumer Numbers	1146853002590			
		1146853002574			
3		1146855002571			
3		1146856002005			
		1146856001985			
		1146853018642			
		1146851002004			
4	Connected Load Total (kW)	122			
5	Annual Electricity Consumption (kWh)	19356			

## **Diesel**

The campus has a Diesel Generator. The details of Diesel consumption are given below.

Electricity Generated through DGs				
Voor	Generator	kWh /yr	cost	
Year	in L		in Rs	
2023-24	63	187.5	6000	



## **LPG**

## LPG is consumed in Canteen and laboratory operations

LPG Consumption Details	
	2023-24
No Cylinders	12
Canteen/Lab LPG Consumption in kg	180.0
Total in kg	180.0



Base Line Energy Data					
	St. Stephen's College, Pathanapuram				
SI No	Particulars	2023-24			
1	Electricity KSEBL (kWh)	19356			
2	Electricity DG (kWh)	188			
3	Electricity Solar, Off grid (kWh)	0			
4	Electricity (KSEB + DG + Off grid) kWh	19544			
5	Electricity Grid Tied (kWh)	12775			
6	Diesel (L)	62.5			
7	LPG (kg)	180.00			
8	Biogas generated/year (kg)	165.00			



	Energy Consumption Profile				
SI	Fuel	2023-24			
No	Fuel	kCal			
1	Electricity	16807520			
2	Diesel	656250			
3	LPG	2160000			
4	Biogas	770000			
	Total 20393770				

### Lux Measurement

Lux per watt (lm/W) is a measure of luminous efficacy, indicating the amount of light (in lumens) produced per unit of electrical power consumed (in watts). In the context of lighting on a college campus, lux per watt is a critical metric that reflects the efficiency of the lighting system in converting electrical energy into visible light

A higher lux per watt value signifies that the lighting system is more energy-efficient, as it produces more lumens of light output for each watt of electricity consumed. This efficiency is essential for several reasons in a college campus setting.

Firstly, energy efficiency helps to reduce electricity consumption, leading to cost savings for the institution. By optimizing lux per watt, colleges can minimize their energy bills while still maintaining adequate lighting levels across campus facilities.

Secondly, energy-efficient lighting contributes to sustainability efforts by reducing the carbon footprint of the campus. Lower energy consumption means fewer greenhouse gas emissions associated with electricity generation, aligning with environmental conservation goals.

Moreover, efficient lighting enhances the overall quality of illumination on the campus. Adequate lighting levels are essential for creating safe and comfortable learning environments in classrooms, libraries, study areas, and outdoor spaces. By ensuring optimal lux per watt, colleges can provide well-lit spaces conducive to student productivity, concentration, and well-being.

Additionally, in the context of ongoing sustainability initiatives and the increasing focus on energy conservation in educational institutions, monitoring and optimizing



lux per watt can serve as a performance benchmark. It allows colleges to track improvements in lighting efficiency over time, identify areas for further optimization, and demonstrate their commitment to sustainable practices to students, faculty, and the broader community.

In summary, lux per watt is a crucial metric in college campus lighting as it reflects the efficiency, cost-effectiveness, sustainability, and quality of illumination provided. By prioritizing energy-efficient lighting solutions and optimizing lux per watt, colleges can create well-lit, environmentally friendly, and conducive learning environments for their students and faculty.

SI. No	Location	Avg
1	Principal Room	112
2	Room 4	123
3	Room 2	80
4	Room 5	80
5	Room 11	164
6	Lab	153
7	Room 12	159
8	Room 8	164
9	Room 13	88
10	Room 14	123
11	Room 15	97
12	Room 22	123
13	Room 18	125
14	Room 19	133
15	Room 21	111
16	Room 27	126
17	Room 26	125
18	Room 82	125
19	Room 83	80
20	Room 84	80
21	Room 85	164
22	Room 86	153
23	Room 38	159
24	Msc Chemistry Lab	164
25	Room 37	123
26	Room 29	97
27	Room 36	123
28	Seminar Hall	125
29	Chemistry Lab	133



30	Room 33	111
31	Bsc Physics Lab	146
32	Room 52	187
33	Room 51	171
34	Class 2	184
35	Room 50	169
36	Dept. Of Economics	196
37	Class 3	135
38	Room 49	167
39	Room 46	187
40	Room 47	176
41	Room 61	185
42	Computer Lab	153
43	Dept Of PG Maths	187
44	Library	145
45	Computer Lab	171



## 6

## **Energy efficiency**

The Energy Performance Index (EPI) is commonly computed by dividing the total energy consumption of the entire building by its total floor area. This calculation yields a crucial metric for evaluating the effectiveness of a building's energy utilization. By offering a standardized measure that adjusts for the energy requirements relative to the building's size, the EPI provides valuable insights into the energy efficiency of the structure.

This metric serves as a key tool for assessing and benchmarking energy performance. By accounting for both energy consumption and building size, the EPI offers a comprehensive understanding of how efficiently energy resources are utilized within the building. It allows stakeholders to compare the energy efficiency of different buildings, regardless of their size or occupancy.

Moreover, the EPI facilitates the identification of areas for potential improvement in resource utilization. Buildings with higher EPI values may indicate inefficiencies in energy usage, prompting further investigation into the underlying causes. This analysis can lead to targeted strategies for enhancing energy efficiency, such as upgrading equipment, improving insulation, or implementing energy-saving measures.

Overall, the Energy Performance Index is a valuable tool for evaluating, benchmarking, and improving the energy efficiency of buildings. Its standardized calculation method and consideration of both energy consumption and building size



provide a nuanced understanding of energy performance, enabling stakeholders to make informed decisions and drive sustainable improvements in resource utilization.

	OTTOTRACTIONS- ENERGY AUDIT					
	St. Stephen's College, Pathanapuram					
	Energy Performance Index (EPI)					
SI No	Particulars	2023-24				
1	Total building area (m²)	23000				
2	Annual Energy Consumption (kCal)	20393770				
3	Annual Energy Consumption (kWh)	23714				
4	Total Energy in Toe	2.04				
5	Specific Energy Consumption kWh/m²	1.03				

The Energy Performance Index (EPI) is

1.03 kWh/m<sup>2</sup>

The EPI of 2023-24 may be taken as benchmark.



## 7

## Evaluation of energy management system

## **Energy management policy**

There is no written energy policy available, but environment policy is available which includes energy conservation also. A draft energy management policy is given below. The management may constitute an energy management policy and display the same in the plant to motivate the staff.

## ST. STEPHEN'S COLLEGE PATHANAPURAM

ENERGY POLICY (Draft)

We are committed to optimally utilize various forms of energy in a cost effective manner to effect conservation of energy resources. We are committed to conserve the energy which is a scarce resource with the requisite consistency in the efficiency, effectiveness in the cost involved in the operations and ensuring that production quality and quantity, environment, safety, health of people are maintained. We are also committed to increase the renewable energy share of the total energy we use.

We are also committed to monitor continuously the saving achieved and reduce its specific energy consumption by minimum of 2% every year.

Date		
Неаа	of the	Institution



## 7.1. Energy management monitoring system

- Energy Management Cell has to be constituted with an objective to revise action plan for energy conservation thereby reducing the production cost.
- Energy conservation tips/ posters are displayed in crucial points.
- Use of renewable energy has to be encouraged.

## 7.2. Training to staff responsible for operational and documentation.

- The staff and students need to be made more aware of the importance of energy saving and management.
- Log books shall be maintained to record Electricity Consumption and Diesel consumption.
- Meter reading shall be taken and compared with KSEB regularly.
- Better operating practices regarding appliances and fixtures should be taught to the staff.

### 7.3. Best Practices

- Have solid Waste management program.
- Have different social and environmental clubs
- Conducted Energy Conservation Training Programs.
- Conducted Green Audit.
- Installed solar power plant
- Installed Biogas plant





## **Energy Conservation Measures and Recommendations**

## OTTOTRACTIONS- ENERGY AUDIT

**Energy Saving Proposal** 

Energy Saving in Lighting by replacing existing 39 No's T8 (40W) Lamps to 18W LED Tube

### **Existing Scenario**

39 numbers of T8(40 W) lamps were identified during the energy audit field survey in the facility. During discussion with officers it is observed that the average utility of these fittings are of 30%.

### **Proposed System**

The existing T8 may be replaced to LED Tube of 18W in phased manner and the savings will be of 55% (inclusive of improved light output and reduced energy consumption)

Financial Analysis	
Annual working hours (hr)	2400
No of fittings	39
Total load (kW)	1.56
Annual Energy Consumption (kWh)	1498
Expected Annual Energy saving for replacing all fittings (kWh)	824
Cost of Power	9.15
Annual saving in Lakhs Rs (1st year)	0.08
Investment required for complete replacements [@Rs 300 per fittings](Lakhs Rs)	0.12
Simple Pay Back (in Months)	18.63



### OTTOTRACTIONS- ENERGY AUDIT

### Energy Saving Proposal

Energy Saving in Lighting by replacing existing 38 No's T12 (55W) Lamps to 18W LED Tube

## **Existing Scenario**

38 numbers of T12(55 W) lamps were identified during the energy audit field survey in the facility. During discussion with officers it is observed that the average utility of these fittings are of 30%.

### **Proposed System**

The existing T12 may be replaced to LED Tube of 18W in phased manner and the savings will be of 67% (inclusive of improved light output and reduced energy consumption)

## **Financial Analysis**

· · · · · · · · · · · · · · · · · · ·	
Annual working hours (hr)	2400
No of fittings	38
Total load (kW)	2.09
Annual Energy Consumption (kWh)	1505
Expected Annual Energy saving for replacing all fittings (kWh)	1008
Cost of Power	9.15
Annual saving in Lakhs Rs (1st year)	0.09
Investment required for complete replacements [@Rs 300 per fittings](Lakhs Rs)	0.11
Simple Pay Back (in Months)	14.83



### OTTOTRACTIONS- ENERGY AUDIT

### **Energy Saving Proposal**

Energy Saving by replacing existing 193 No's in-efficient ceiling fans with Energy Efficient Five star fans

### **Existing Scenario**

There are 193 numbers of ceiling fans installed in the facility with minimum 8 hrs a day operation. All are conventional type and most of them are very old.

### **Proposed System**

Simple Pay Back (in Months)

There is an energy saving opportunity in replace the existing fans with new five star labelled fans. The five star labelled fans give a savings up to 30% with higher service value (air delivery/watt).

### **Financial Analysis** Annual working hours (hrs) 2400 Total numbers of ordinary fans 193 15.44 Total load (kW) Annual Energy Consumption (kWh) 14822 Expected Annual Energy saving, for total 8301 replacement(kWh) Cost of Power (Rs) 9.15 Annual saving in Lakhs Rs (1st year) 0.76 Investment required for a total replacement (Lakhs 5.79 Rs)[@3000 Rs per Fan with 50W at full speed]

91.48



			St	.Stephe	n's Colle	ge, Path	anapur	am					
				Lig	hts		Fa	ns		IT		Α	C
SI.No		Location	T12	Т8	Led T	Led B	CF	EF	РС	Projector	Printer	1.5	2TR
1		Principal Room			4	8	4				1	1	
2		Room 4			2		2						
3		Room 2				12	8						
4		Room 5		2	2		2			1			
5		Room 11	4				3						
6		Lab			2		2						
7		Room 12			2		5						
8	First Floor	Room 8	2	1									
9	FIRST FIOOT	Room 13			1		2						
10		Room 14			5		5						
11		Room 15		2	3		5						
12		Room 22	2	2			3						
13		Room 18	2				2			1			
14		Room 19	2				2						
15		Room 21	2				2						
16		Room 27	2				2						
17		Room 26	1										
18		Room 25 & 24			4		6						
19		Room 82			2		3						
20	2nd Floor	Room 83			2		3						
21		Room 84			2		3						
22		Room 85			2		3						
23		Room 86			2		3						
24	75	Room 38			2				1				
25	unc	Msc che lab	8					2					
26	Ground Floor	Room 32,31 &30			6			3					
27		Room 37			2		2						



28		Room 29	1				3						
29		Room 36	1				1						
30		Seminar hall		7			6						4
31		Chemistry lab			10		1	3					
32	]	Room 33	8										
33		Room 78-80		3			3						
34		Bsc phy lab					12						
35		Room 52		2			1						
36		class 1		1			2						
37		room 51		2			2						
38	Block 2	class 2	2				1						
39	(Grnd	room 50			3		5						
40	floor)	Dept. of Econ. Staff			2		2						
41		class 3			1		1			1			
42		room 49			2		3						
43		room 46			3		5						
44		room 47			4		5						
45		Dept of layers	1		2		2						
46		room 61			2		2						
47	2nd Floor	computer lab			8				45	1	1		
48		class1-4			8		8						
49		Dept of pg maths			2		4						
50	Basement	Library			12		10						
51	Dasement	Computer lab			4		4		30	1	1		
52	Hostel	First foor		7		1	8						
53	1 103161	Ground floor		10			7						
54		Auditorium					23						
		Total	38	39	108	21	193	8	76	5	3	1	4



## KERALA STATE ELECTRICITY BOARD LIMITED (Incorporated under Indian Companies Act 1956) (Incorporated Under Indian Companies Act 1956) (Incorporated Under Indian Companies Act 1956) Balance Description **Total Paid** Surcharge Amount due KERALA STATE ELECTRICITY BOARD LIMITED (Incorporated under Indian Companies Act 1956) rain [Registered Office: Wydyuthi Bhavanam, Pattom, Thiruvananthapuram - 695004 Date: Balance Total Paid Surcharge Description Amount due Bill No. 1649,00 1649 00 1649.00 Total 649 00 Remarksance Current Charge - Regulars Rs. 414.00 JONCOUNTER Cashier [105人120] OrumaNET Ver. 2.3.8% 07-07-2023 02:44:11 04 KERALA STATE ELECTRICITY BOARD LIMITED

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(Incorporated under Indian Companies Act 1956) Registered Office: Vydyuthi Bhavanam, Pattom, Thiruvananthapuram - 695004 4595-Fathananuram Colic RECEIPT of rical Second 840 100KL2011SGC027424 Ele. Section 02-08-2023 15:45:4 Receipt No. 45950230808102117 Original # 1 Consumer No. : C 1146853002574 THE MANAGER of Electrical Date ion Pattarhy Payment Mode: Surcharge | Total Paid Amount due Description Bill No. 1 4 4685 + 30800156-ROCC 2410.00 2 Advance ·Total 2418.00 2410.00 Received Rs. 2418.00 (Rupees Two Thousand Four Hundred and Eighteen Only)

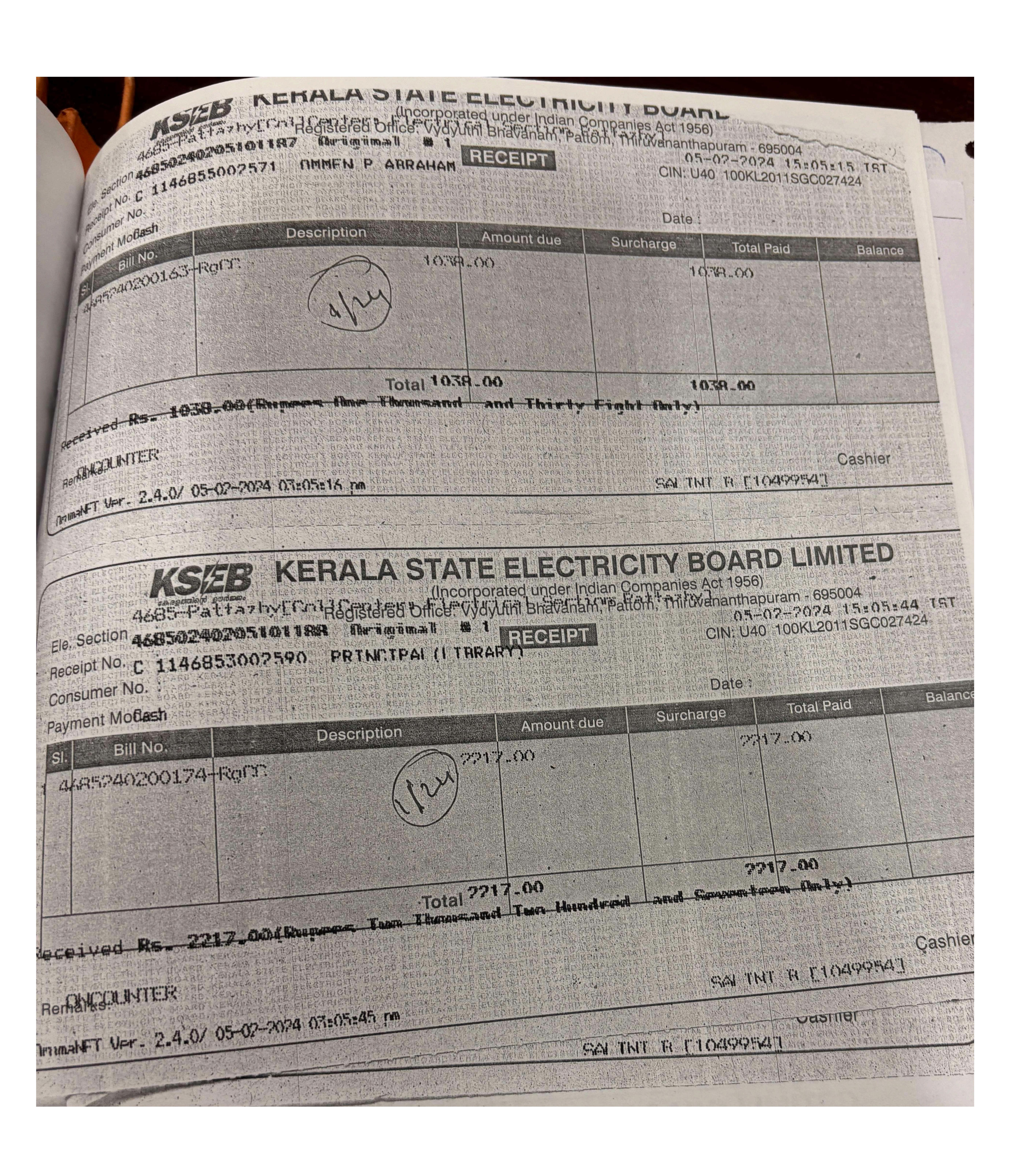
## KERALA STATE ELECTRICITY BOARD LIMITED (Incorporated under Indian Companies Act 1958) (Incorporated Under Indian Companies Act 1958) (Incorporated Under Indian Companies Act 1958) 45950240108102050 Driginal RECEIPT CIN: U40 100KL20178GC027424 12/23 Date: Surcharge Description Amount due Total Paid Balance 2544.00 25044.00 Total 2544.00 2544.00 ees Two Thousand Five Hundred and Forty Four Only Bemarks: Universe 2.4.0/ 08-01-2024 01:55:59 pm Cashier KERALA STATE ELECTRICITY BOARD LIMITED (Incorporated under Indian Companies Act 1956) (Registered Office: Vydyuthi Bhavaham, Pattom, Thiruvanahthapulant - 695004 G 1146853002589 ST STEPHENS CULLEGE (OFFICE) of Electrical Section Fattazhy consumer No. 12/23 Payment Mode: Cash , Date: Balance Total Paid Surcharge Description Amount due Bill No. 1.5695.00 4665240100255HBGCB 1.5695.00 15695.00 15695.00 ·Total and Manety Fave Unay) Cashier 1.41.11 VASLINEL T10561201 OrumalET Ver. 2.4.0/ 08-01-2024 01:56:18 pm KERALA STATE ELECTRICITY BOARD LIMITED (Incorporated under Indian Companies Act 1956) Begistered Officer Vydyuthi. Bhavanam , Rattom; Thiruvananthapuram - 695004 CIN: U40 100KL201TSGC027424 45950240108102032 Original WEGER Receipt No. C 1196855002571 OMMEN P ABRAHAM of Electrical Section Fattazhy Consumer No./ Date: Payment Mode:

SI.	Bill No.	Description	' Amount due	Surcharge	Total Paid	Balance
	1. 4.6650.4010	12/23				

1038.00

Total

1038.00



# KERALA STATE ELECTRICITY BOARD LIMITED

DEMAND CUM DISCONNECTION NOTICE (As per Regulation 122 & 123 of Kerala Electricity Supply Code 2014) [4685]-Electrical Section Pattazhy Section 1146853002589 Phone# 0475-2397666 consumer# Customer Care Reg. Mob# 944xxxx260 1912 Name & Mailing Address Regular CC Bill For redressing complaints/grievance approach the concerned CGRF KSEBL GSTIN: 32AAECK2277NBZ1 ST STEPHENS COLLEGE South: Chairperson, CGRF (South), KSEB Ltd, Vydythi Bhavanam, Kottarakkara-691506, Ph:0474-2060220 MALOOR Central: Chairperson, CGRF(Central), KSEB Ltd, Power House Building Ernakulam-682018, Ph:0484-2394288 North: Chairperson, CGRF(North), KSEB Ltd, Gandhi Road, Kozhikode-32, Ph:0495-2367820 State Electricity Ombudsman, Pallikkavil Building, Mamangalam, Edappally, Kochi-682024 Ph:0484-2346488 4685230200175 Bill Area Bill# M02/1 DTR 2/2023[Monthly] Billing Period MALOOR COLLEGE Tariff/Phase LT-6A/Three Pole# 01-02-2023 MLR Due Date Bill Date 11-02-2023 DC Date 27-02-2023 (Nil) VA [75%: OKV, 130%: OKV] contract Demand Connected Load 58581 Watts Security Deposit Rs.27982.00 L&T4685M0014689740 Meter# Average consumption(Monthly) Meter Digits 6.1 Power Unit/Zone CUMULATIVE Meter Type/Owner Static/KSEB KWH 1289 Last Billed Rdg. Date Prev. Rdg. Date Prev. Meter Rdg. Status Prst. Rdg. Date Prst. Meter Rdg. Status 01-01-2023 01-01-2023 Working 01-02-2023 Working Power Unit Zone Trading Initial Reading(IR) Final Reading(FR) Units\* OMF Cumulative Import KWH 115341.00 1221 116562.00

Remarks:

Last Paid Amount - Rs.12749.00 Last Payment Date - 12-01-2023

II De	tails		[INR] Amount(Rs.)
a)	Fixed Charges	Fixed Charge[FC]	4130.00
		Sub Total	4130.00
b)	Energy Charges	Energy Charge[EC]	8119.65
		Fuel Surcharge[FS]	3.66
		Sub Total	8123.31
c)	Other Charges	Electricity Duty[ED]	811.97
		Meter Rent[MR]	15.00
		Sub Total	826.97
d)	GST	MR-CGST	1.35
		MR-SGST	1.35
		Sub Total	2.70
e)	Round Off		0.02
f)	Total Amt.(Bill#468	5230200175) (a+b+c+d+e)	13083.00
g)	Surcharge		5.00
h)	Reconnection Fed	9	0.00
i)	Interim Bills		0.0
i)	Arrears		0.0
k)	Less paid/adj.		-0.0
1)	Less Advance		-0.9
	Net Payable(f	+g+h+i+j-k-l)	13088.0
		es Thirteen Thousand and Eig	

Payment Options: Cash, Cheque, DD, MO. Online: www.kseb.in (Debit/Credit Cards, Net Banking). Other Platforms: BBPS, Filands, Akshaya, CSC, NACH

