



THE-Impact Ranking

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7.2.5 Energy Wastage Identification (A)

- **1.** Sri Sri University (SSU) maintains a proactive approach to energy efficiency and sustainability through a well-structured process of annual review and improvement. Here is an overview of this approach:
 - 1. Year-End Energy-Saving Meetings: At the end of each year, SSU organizes comprehensive meetings of the campus-wide energy-saving group. These meetings serve to evaluate the effectiveness of the energy-saving policies implemented during the year and to strategize for the following year. The director of operations presides over these meetings, which include representatives from the respective building management units as team members.
 - 2. **Building-Specific Energy Tracking:** Each building within the university has its energy management unit, responsible for monitoring the electricity consumption of that building over the course of a year. These units use a combination of incentives and penalties to motivate everyone within the building to actively save electricity.
 - 3. Identifying Major Energy Consumers: The review results from previous years have revealed key insights into the sources of energy consumption at SSU. Currently, air conditioning stands out as the most significant contributor to energy consumption, followed by lighting and fans, especially during the SSU official timing.
 - 4. **External Energy Audit:** In addition to internal assessments, SSU has engaged SAB ENERGY SERVICES & AUTOMATIONS to conduct an energy audit and thermographic testing. This external audit aims to identify areas of energy waste and inefficiency, providing valuable insights into further improvements.
- By combining internal assessments, energy-saving meetings, targeted incentives, and external audits, Sri Sri University demonstrates its commitment to effective energy management, sustainability, and continual improvement in reducing energy consumption. These efforts align with the university's broader goals of environmental responsibility and conservation.

https://drive.google.com/file/d/1JdC4hkf VJEu2 dW0ocQuao1ObB wjc/view?usp=share link

2. A wide range of measures can be applied to electric and power management systems to make them efficient. One of them is the power factor correction. The benefits of power factor correction include lower demand charges on a power system, prolonged load carrying skills in your existing circuits and reduction in power system losses. In Sri Sri university, the PF is always kept nearly equal to 1. Hence we consider there is a very negligible power loss in our campus.





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2. 250 KVA Incomer:

Date	Time	Vry	Vyb	Vbr	Ir	Iy	Ib	KW	KV A	TD	H-Volt:	nge	TDH	-Curr	ent	P.F.
9	3	S								Vr	Vy	١ъ	Ir	Iy	Ib	
09/1/22	17:16:00	<mark>241.5</mark>	243.1	241	25.4	11.6	30.3	1 <mark>6.1</mark>	16.1	2	2	2	6	4	9	0.999
09/1/22	<mark>19:14:00</mark>	240.7	241.9	239.7	41.4	33.1	54.7	30.9	30.9	2	3	3	9	8	8	0.999
09/1/22	21:12:00	246.4	247.8	245.5	40.1	30.1	59.5	31.7	31.7	3	3	3	9	9	9	0.999
09/1/ 22	23:10:00	246.1	247.4	246.3	55.3	38.4	54.5	36.3	36.3	3	3	3	6	8	8	0.998
10/1/22	01:08:00	249.4	250.2	249.4	37.5	<mark>3</mark> 1.5	44	27.9	27.9	3	3	3	9	9	8	0.999
10/1/22	03:06: <mark>0</mark> 0	250.7	251.3	250.4	27.5	19.6	35	19.6	20.1	3	4	3	8	9	8	0.973
10/1/22	05:04:00	248.4	249.2	248.5	35.5	19.3	35.3	21.5	22	3	3	3	8	8	9	0.977
10/1/22	07:02:00	235.1	236.2	234.9	30.2	15.5	33.4	18.5	18.5	2	2	2	5	4	8	0.997
10/1/22	09:00:00	228.6	229.6	227.7	47.5	25.1	48	27.3	27.5	1	1	1	3	3	3	0.992
10/1/22	10:58:00	238.7	239.7	238.4	50.6	41.7	58	34.2	35.8	1	1	1	3	2	4	0.953
10/1/22	12:45:00	239.9	240.8	239.4	26.6	15.5	28.9	17	17	3	2	2	6	5	7	0.999

Observation: Normal & Acceptable.





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3. 63 KVA Incomer:

Date	Time	Vry	Vyb	Vbr	Ir	Iy	Ib	KW	KV A	TD	H-Volt:	ige	TDH	I-Curre	ent	P.F.
		I								Vr	Vy	٧Ъ	Ir	Iy	Ib	<u>)</u> ;
10/1/22	16:24:00	238.9	239.6	239.2	25.4	23.2	26.1	16.4	16.5	3	2	2	5	4	4	0.991
10/1/22	16:31:00	239.3	239.7	238.8	23.1	23.3	27.3	16.4	16.5	2	2	2	6	4	3	0.992
10/1/22	16:38:00	238.5	238.9	238.5	24.1	23.1	24.7	15.7	15.8	2	3	2	5	4	5	0.991
10/1/22	16:45:00	239.9	240.4	238.6	22.8	23.5	29.8	16.9	17	2	2	2	5	4	3	0. <mark>9</mark> 94
10/1/22	16:52:00	238.5	239	238.8	23.4	23.2	24.9	15 <mark>.6</mark>	15.7	3	2	3	5	4	3	0.991
10/1/22	16: <mark>59:0</mark> 0	238.2	238.5	238	23	23.4	24.1	15.5	15.6	2	2	2	4	3	4	0. <mark>9</mark> 91
10/1/22	17: <mark>06:0</mark> 0	235.5	236.1	236.1	24.4	23.3	24.1	15.6	15.8	2	2	2	4	3	4	0.989
10/1/22	17:13:00	236	236	235.8	23.6	23.2	24.6	15.7	15.8	2	2	2	6	4	3	0.992
10/1/22	17: <mark>19:00</mark>	232.1	235.1	234.6	39.7	30.6	32.8	22.1	22.3	2	2	2	4	3	3	0.993

Observation: Normal & Acceptable.

3. Thermographic Report

Temperature is the physical property that quantitatively expresses the common notations of hot & cold. Every object emits energy in the electromagnetic spectrum. The wavelength of the Energy differs depending on materials. As shown below; if the wavelength is in the range between 400 nm to 720 nm i.e. visible range, then the body would be visible. If the energy emitted is having wavelength beyond 720 nm, then it would be invisible. This infrared energy can be captured using a Thermal Imager.





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Location: Shruti Building, Main EB DB



06-01-2022 12:06:29



FLIR1311.jpg FLIR C5 894015909

Visible Image

Description

Measurements	
Sp1	19.6 °C
Sp2	19.3 °C
Sp3	18.6 °C
Sp4	18.3 °C

Maximum Temperature	22.2	
Minimum Temperature	16	
Difference in Temperature	6.2	-

Referance diff. Temp.	Up to 10°C	Non Critical	No action is needed.	
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Observations: Normal & acceptable.





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Energy Wastage Identification (B)

SUI	MMARY OF A/C L	OAD STATUS-	1st Jan 2021- 1st Jan 2022
SI No.	Location	No of AC fitted	A/C load in (kWh)
1	Hostel 1	5	9.37
2	Hostel 2	9	16.87
3	Hostel 3	7	13.75
4	Hostel 4	8	18.75
5	Hostel 5	5	10.625
6	VCGH	16	28.75
7	Shruti-GF	30	
8	Shruti-1F	45	
9	Shruti-2F	47	
10	Shruti-3F	32	
11	Shruti-4F	39	813.125
12	Seminar Hall	8	35
13	Jaydev Block	53	96.87
14	Sevak Kutir	14	25.62
15	Atreya	26	115
16	Sindhu	8	15
17	Kaveri	8	15
18	Auyrvedic Hospital	17	31.25
19	New Project office	16	36.25
20	Faculty House	12	25
21	Staff Quarter 3	14	26.25
22	New Guruji Kutir	8	20
23	Didi Kutir	10	25
24	Vidya	3	5.625
25	Kailash-C	2	3.75
26	Family Quarter 1	1	1.875
27	Kaibalya	1	1.875
28	2BHK	21	39.375
	STUDIO PLUS	22	41.25
	Total	487	1471.23





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During zero hour, from 12.30 p.m. to 2 p.m., approximately, we are saving 2206.845 kWh of energy.

Description:

- 1. Sri Sri University Audit report is attached as in Pic. No# 1. It shows R phase has 180 Amperes more load than Y and B phase and it is recommended to balance the load. The corrective steps are taken.
- 2. Picture 2 shows the maximum energy which is utilized or consumed by the AC's of different buildings. The Shortcoming is identified and appropriate steps are taken to cut down the wastage.