



Shri Vile Parle Kelavani Mandal's
Institute of Technology, Dhule

Survey No. 499, Plot No. 02, Behind Gurudwara, Mumbai - Agra Road,
Dist. Dhule, Maharashtra, 424001 Phone No.: (02562) 297801, 297601

Web: - svkm-iot.ac.in Mail: - iotdhule@svkm.ac.in

Approved By AICTE, DTE & Affiliated to DBATU, Lonere

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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

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Principal
SVKM's Institute of Technology, Dhule



Certificate of Registration

This is to certify that

NUTAN URJA SOLUTIONS

**A 703, BALAJI WHITEFIELD, NEAR SUNNY'S WORLD,
SUS ROAD, PUNE – 411021, INDIA**

has been independently assessed by QRO
and is compliant with the requirement of:

ISO 9001:2015

Quality Management System

For the following scope of activities:

**ENERGY AUDIT, GREEN AUDIT, ENVIRONMENTAL
AUDIT AND SAFETY AUDIT**

Date of Certification: 7th September 2022

2nd Surveillance Audit Due: 6th September 2024

1st Surveillance Audit Due: 6th September 2023

Certificate Expiry: 6th September 2025

Certificate Number: 305022090746Q



Head of Certification

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Certificate Number: 305022090747E




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SUS ROAD, PUNE – 411021, INDIA**

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and is compliant with the requirement of:

ISO 50001:2018

Energy Management Systems

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AUDIT AND SAFETY AUDIT**

Date of Certification: 7th September 2022

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1st Surveillance Audit Due: 6th September 2023

Certificate Expiry: 6th September 2025

Certificate Number: 305022090748EN



Head of Certification

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Certificate of Compliance

This is to certify that the

NUTAN URJA SOLUTIONS

A 703, BALAJI WHITEFIELD, NEAR SUNNY'S WORLD, SUS ROAD,
PUNE - 411021, INDIA

Has been assessed and found to operate in Compliance meets the requirements of following standard:

ISO/IEC 17020:2012

"Conformity Assessment: Requirements For The Operation Of Various Types Of Bodies Performing Inspection"

For the following scope:

**ENERGY AUDIT, GREEN AUDIT, ENVIRONMENTAL
AUDIT AND SAFETY AUDIT**

Certificate Number: QVA-NLHV-22-0514882

To verify this certificate please visit at www.gaafs.us

Date of Certification	05 TH September 2022
Issuance Date	05 TH September 2022
1 st Surveillance Due	04 TH September 2023
2 nd Surveillance Due	04 TH September 2024
Re-Certificate Due	04 TH September 2025

Registered


Authorized Signatory



QVA Certification

CAB Address : Maryland Avenue, SW Washington, D.C. 20202

Validity of this certificate is subject to annual surveillance audits to be done successfully

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QVA Certification is an independent Systems Products and Personal

assessment Body, QVA Certification is a accredited by GAAFS.US



Maharashtra Energy Development Agency

(A Government of Maharashtra undertaking)

Aundh Road, Opposite Spicer College,

Near Commissionerate of Animal Husbandry, Aundh, Pune - 411 067

Ph No: 020-26614393/266144403

Email: eee@mahaurja.com, Web: www.mahaurja.com

ECN/2023-24/CR-11/99

28th August, 2023

CERTIFICATE OF REGISTRATION FOR CLASS 'A'

We hereby certify that, the firm having following particulars is registered with **MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA)** under given category as "Energy Planner & Energy Auditor" in Maharashtra for Energy Conservation Programme of MEDA.

Name and Address of the firm : M/s. Nutan Urja Solutions
A 703, Balaji Whitefield, Sus Road,
Near Sunni's World, Pune - 411 021.

Registration Category : *Empanelled Consultant for Energy Conservation Programme for Class 'A'*

Registration Number : *MEDA/ECN/2023-24/ClassA/EA-09*

- Energy Conservation Programme intends to identify areas where wasteful use of energy occurs and to evaluate the scope for Energy Conservation and take concrete steps to achieve the evaluated energy savings.
- MEDA reserves the right to visit at any time without giving prior information to verify quarterly activities performed by the firm and canceling the registration, if the information is found incorrect.
- This empanelment is valid till **27th August, 2025** from the date of registration, to carry out energy audits under the Energy Conservation Programme
- The Director General, MEDA reserves the right to cancel the registration at any time without assigning any reasons thereof.

General Manager (I-C)

Regn. No. EA-22428



Certificate No. 8725

National Productivity Council

(National Certifying Agency)

PROVISIONAL CERTIFICATE

This is to certify that Mr. / Mrs. / Ms. *Koustubh Ganesh Bhatwadekar*
son / daughter of Mr. *Ganesh K Bhatwadekar*
has passed the National Certification Examination for Energy Auditors held in September - 2015 conducted on
behalf of the Bureau of Energy Efficiency, Ministry of Power, Government of India.

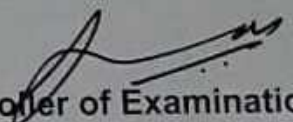
He / She is qualified as Certified Energy Manager as well as Certified Energy Auditor.

He / She shall be entitled to practice as Energy Auditor under the Energy Conservation Act 2001, subject to the
fulfillment of qualifications for the Accredited Energy Auditor and issue of certificate of Accreditation by the Bureau
of Energy Efficiency under the said Act.

This certificate is valid till the issuance of an official certificate by the Bureau of Energy Efficiency.

Place : Chennai, India

Date : 10th February, 2016


Controller of Examination

Nutan Urja Solutions

(ISO 9001:2015, ISO 50001:2018, ISO 14001:2015) 

A 703, Balaji Witefield, Near Sunni's World,

Sus Road, Sus, Pune 411 021

Phone: 83568 18381. Email: nutanurja.solutions@gmail.com

Date: 27/08/2023

CERTIFICATE

This is to certify that we have conducted Energy Audit at Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule as per the guidelines of Maharashtra Energy Development Agency (www.mahaurja.com) in the year 2022-23.

The College has already adopted **Energy Efficient** practices like:

- Usage of Energy Efficient LED Fittings
- Usage of Energy Efficient BEE STAR Rated equipment
- Installation of **251kW** Roof Top Solar PV Power Plant.

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

Nutan Urja Solutions,



K G Bhatwadekar,

Certified Energy Auditor,

EA - 22428



**Report
On
Energy Audit
At
Shri Vile Parle Kelavani Mandal's Institute of Technology,
Dhule
(Year 2022-23)**



Prepared by
Nutan Urja Solutions
A 703, Balaji Witefield, Near Sunni's World,
Sus Road, Sus, Pune 411 021
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Acknowledgement

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We are also thankful to various Head of Departments & other Staff members for helping us during the field measurements.

We hope that the recommendations stated in this report will be useful and worthy of discussions to take things forward to help implementation of energy conservation measures through energy savings. While we have made every attempt to adhere to high quality standards, in both data collection and analysis through the report, we would welcome your suggestions so as to improve upon this report further.



Executive Summary

After the Field measurements & analysis, we present herewith important observations made and various measures to reduce the Energy Consumption & mitigate the CO₂ emissions. College consumes Energy in the form of Electrical Energy used for various gadgets, Office & other facilities.

1. Present Energy Consumption

In the following Table, we present the details of Energy Consumption.

Table no 2.1: Details of energy consumption

S. No	Parameter	Energy consumed (Units)	CO ₂ Emission (MT)
1	Maximum	31,126	24.9
2	Minimum	3,412	2.7
3	Average	12,706	10.2
4	Total	152,472	122.0

2. Energy Conservation Projects already installed

1. Usage of Energy Efficient BEE STAR Rated ACs.
2. Usage of Natural Day light.
3. Usage of LED lights for indoor locations
4. Usage of LED Lights for outdoor lighting.
5. Installation of **251 kW** of Solar PV Power Plant.

3. Key Observations

1. Usage of LED lights.
2. Usage of star rated equipment.
3. Maintained a good power factor.



4. Percentage of Usage of Alternate Energy

The College has installed a Roof Top Solar PV Plant. The percentage of usage of Alternate Energy to Annual Energy Requirement is 65 %.

5. Percentage of Usage of LED Lighting

The College has various types of Light fittings. The percentage of Annual LED Lighting Usage to Annual Lighting requirement works out to be 100 %.

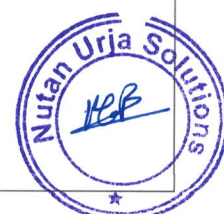
6. Recommendations

Table no 1: Recommendations for energy savings

No	Recommendation	Annual Saving potential, kWh/Annum	Annual Monetary Gain (Rs.)	Investment Required (Rs.)	Payback period, Months
1	Installation of additional 50kW grid connected PV panel	75,000	825,000	2,500,000	36
	Total	75,000	825,000	2,500,000	36

7 Notes & Assumptions

1. Daily working hours – 08 hours
2. Annual working Days - 300 days
3. Average Rate of Electrical Energy: **Rs 11/- per kWh**



Abbreviations

LED	:	Light Emitting Diode
V	:	Voltage
I	:	Current
kW	:	Kilo- Watt
kWh	:	kilo-Watt Hour
kVA	:	Active Power



1. Introduction

SVKM's Dhule Campus Dhule is largely emerging as one of the biggest future hubs of technology and Education. It has gained a strategic advantage for being on the junction of three National Highways viz. NH-3, NH-6, and NH-211. Dhule is aiming to develop into an industrial town which may provide next generation technologies across infrastructure sectors. Our president has a dream to make Dhule city known for its quality education institutes. SVKM has taken an initiative to develop state of the art engineering and pharmacy institute that will impart quality education in Dhule Spread over 33 acres of land on the outskirts of Dhule, it will house colleges as SVKM's Institute of Technology.

1.1 Objectives

1. To study present level of Energy Consumption
2. To Study Electrical Consumption
3. To assess the various equipment/facilities from Energy efficiency aspect
4. To study various measures to reduce the Energy Consumption

1.2 Audit Methodology:

1. Study of connected load
2. Study of various Electrical parameters
3. To prepare the Report with various Encon measures with payback analysis

1.3 General Details of College

Table No-1.1: Details of college

No	Head	Particulars
1	Name of Institution	Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule
2	Address	Survey No. 499, Plot No. 2, Mumbai Agra Highway, behind Gurudwara, Dhule, Maharashtra 424 001.
3	Affiliation	Babasaheb Ambedkar Technological University, Lonere



2. Study of connected load

In this chapter, we present details of various connected electrical equipment and electrical load.

Shri Vile Parle Mandal Campus has installed centralized chiller of capacity 400 TR to cater cooling load of all institutes in campus. Apart from above load, the college has pumps, street lights and 11 ACs of 2TR capacity. Data can be represented in terms of PIE chart as under

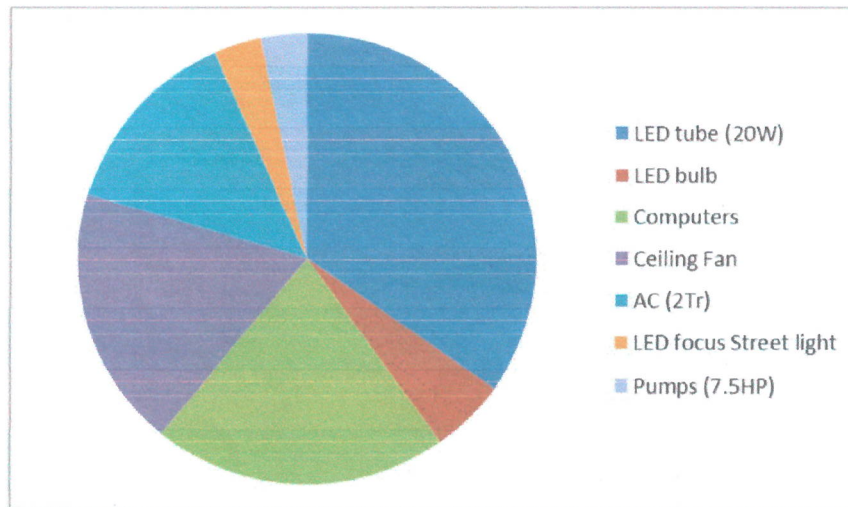


Figure 2.1: Distribution of connected load.

3. Study of Electrical Energy Consumption

In this chapter, electricity bills are studied for the analysis of electrical energy consumption.

Table no 3.1: Summary of electricity bills

S. No	Month	Energy (kWh)	Bill Amount (Rs.)
1	Jul-23	26,922	445,140
2	Jun-23	31,126	529,024
3	May-23	16,057	311,071
4	Apr-23	11,201	246,790
5	Mar-23	3,553	139,615
6	Feb-23	3,412	145,613
7	Jan-23	3,796	155,196
8	Dec-22	8,866	207,020
9	Nov-22	8,480	193,589
10	Oct-22	10,689	218,873
11	Sep-22	15,682	293,250
12	Aug-22	12,689	261,216
	Total	152,473	3,146,396



Variation in energy consumption is as follows,

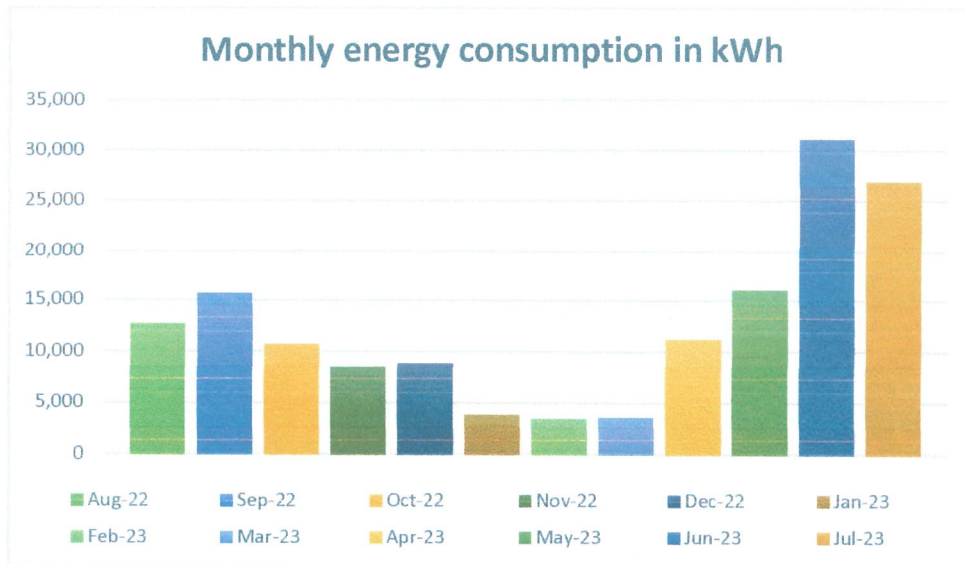


Figure 3.1: Month wise energy consumption

Monthly variation in electricity bill is as follows,

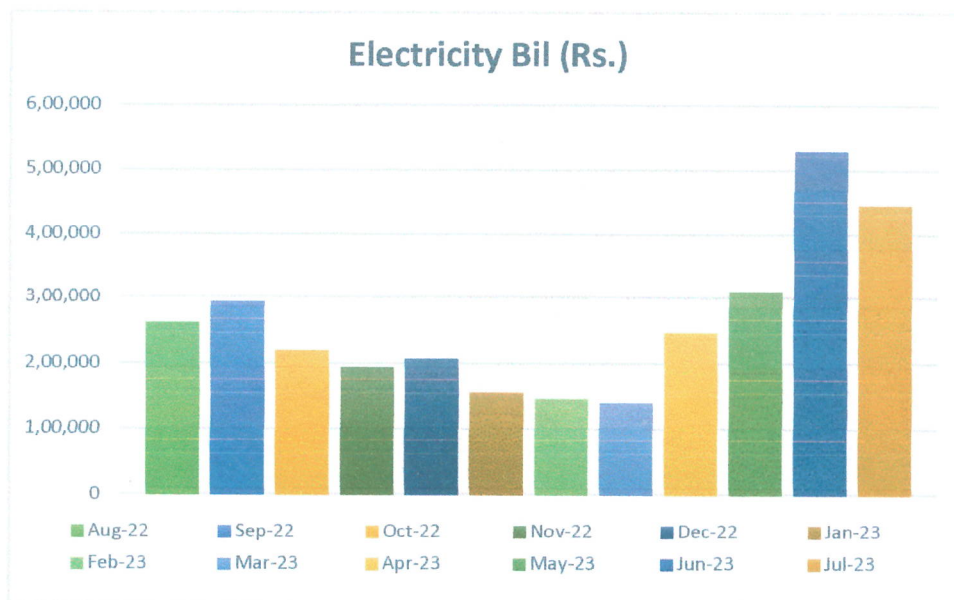


Figure 3.2: Month wise electricity bill



Key observations of electricity bill are as follows,

Table no 3.2: Key observations

S. no	Parameter	Energy consumed, (Units)	CO2 Emission (MT)
1	Maximum	31,126	24.9
2	Minimum	3,412	2.7
3	Average	12,706	10.2
4	Total	152,473	122.0



4. Carbon Foot printing

1. A Carbon Foot print is defined as the Total Greenhouse Gas emissions (CO₂ emissions), emitted due to various activities. In this we compute the emissions of Carbon-Di-Oxide, by usage of the various form of Electrical Energy used by the College for performing its day to day activities.

2. Basis for computation of CO₂ Emissions:

The basis of Calculation for CO₂ emissions due to Electrical Energy is as under

- 1 Unit (kWh) of Electrical Energy releases **0.8 Kg of CO₂** into atmosphere.

Based on the above Data we compute the CO₂ emissions which are being released in to the atmosphere by the College due to its Day to Day operations.

We herewith furnish the details of various forms of Energy consumption as under

Table 3.1: Month wise Consumption of Electrical Energy & CO₂ Emissions

S. No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Jul-23	26,922	21.5
2	Jun-23	31,126	24.9
3	May-23	16,057	12.8
4	Apr-23	11,201	9.0
5	Mar-23	3,553	2.8
6	Feb-23	3,412	2.7
7	Jan-23	3,796	3.0
8	Dec-22	8,866	7.1
9	Nov-22	8,480	6.8
10	Oct-22	10,689	8.6
11	Sep-22	15,682	12.5
12	Aug-22	12,689	10.2
	Total	152,473	122.0



In the following Chart we present the CO₂ emissions due to usage of Electrical Energy,

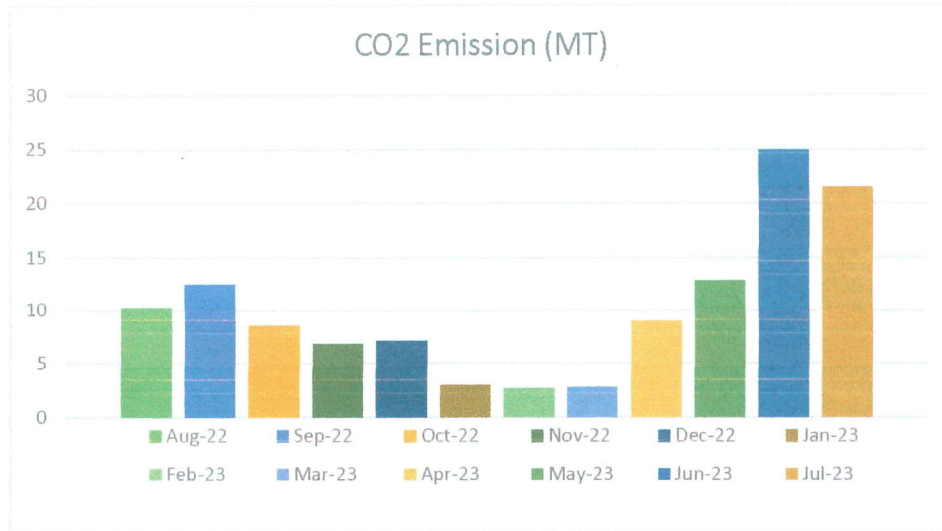


Figure 4.1: Month wise CO₂ Emission



5. Study of utilities

5.1 APFC Panel

The Office has already installed the APFC Panel of 175 kVAR capacity. During the measurements, it was found that the panel is working properly.

5.2 Study of Lighting

In the facility, the lighting system can be divided mainly into two parts, indoor lighting and outdoor lighting. There are 3006 nos. of LED tubes and 705 nos. of LED bulbs. There are 35 No of LED street lights.

5.3 Air-conditioners

In the facility, there are about 11 Nos. of 2 Tr old Air-conditioners.

5.4 Ceiling Fans

At building facility, there are about 500 Nos star rated Ceiling Fans.

5.5 Water Pumps

There are in 1 Water pumps with 7.5HP capacities respectively.



6. Study of usage of alternate energy

In this Chapter, we compute the percentage of Usage of Alternate/Renewable Energy to Annual Energy Requirement of the College. The institute has installed Roof Top Solar PV System. The Installed Capacity of Solar PV Plant is 251 kWp.

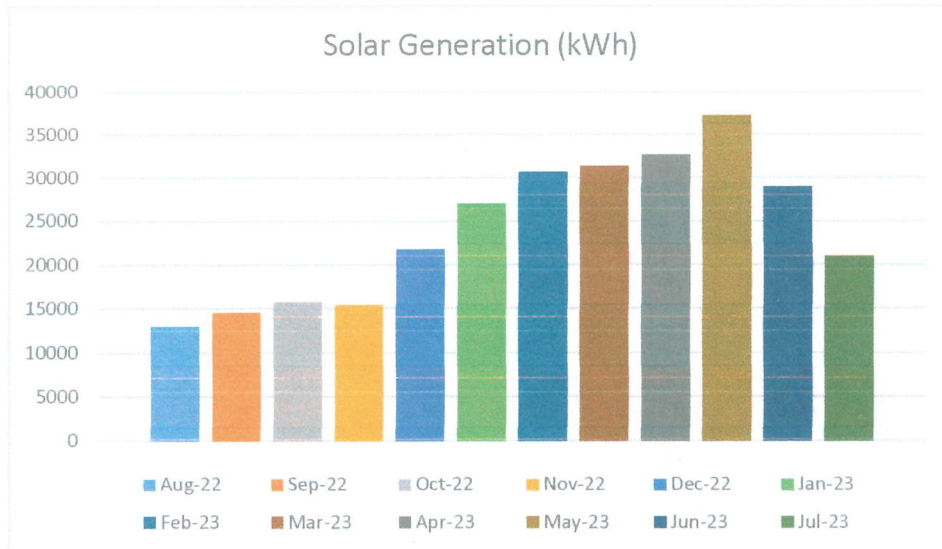


Figure 6.1: Solar PV power Generation

Table 6.1: Computation of % Usage of Alternate Energy to Annual Energy Requirement

No	Particulars	Value	Unit
1	Annual Energy Purchased from MSEDCL	152,473	kWh/Annum
2	Energy Generated by Roof Top Solar PV System	2,88,980	kWh/Annum
3	Total Energy Requirement of College	441,453	kWh/Annum
4	% of Usage of Alternate Energy to Annual Energy Requirement	65	%



Photograph of Solar PV plant



7. Study of usage of LED lighting

In this chapter we study the lighting system of college and compute the percentage of total load catered by LED lighting.

Table 7.1: Total lighting load

No	Particulars	Qty.	Load (W/Unit)	Load (kW)
	LED lighting load			
1	LED bulbs	705	15	10.5
2	LED tubes	3006	20	60.1
3	LED street lights	35	22	0.77
	Total LED lighting load			71.37
	Total Lighting load			71.37

It can be seen that out of total lighting load 100% load is LED lighting load.



8. Energy conservation proposals

8.1 Installation of additional 50kW Solar PV panel

It is recommended to install additional 50 kWp of solar PV panel.

In the following Table, we present the savings, investment required & payback analysis.

No	Particulars	Value	Unit
1	Installation of additional PV units	50	kW
2	Energy saving	75000	kWh/Annum
3	Rate of electrical energy	11	Rs.
4	Annual monetary savings	825000	Rs./ Annum
5	Investment required	2500000	Rs. lump sum
6	Simple payback period	36	Months

8.2 Summary of Savings

No	Recommendation	Annual Saving potential, kWh/Annum	Annual Monetary Gain (Rs.)	Investment Required (Rs.)	Payback period, Months
1.	Installation of additional 50W grid connected PV panel	75,000	825,000	2,500,000	36
	Total	75,000	825,000	2,500,000	36



Nutan Urja Solutions

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Phone: 83568 18381. Email: nutanurja.solutions@gmail.com

Date: 13/11/2022

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- Usage of Energy Efficient BEE STAR Rated equipment
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We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

Nutan Urja Solutions,



K G Bhatwadekar,

Certified Energy Auditor,

EA - 22428



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On
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Dhule
(Year 2021-22)**

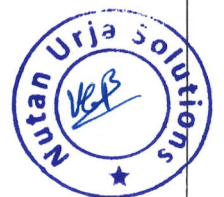


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Sr no	Parameter	Energy consumed, (Units)	CO2 Emission (MT)
1	Maximum	16,029	12.8
2	Minimum	2,164	1.7
3	Average	7,878	6.3
4	Total	94,540	75.6

2. Energy Conservation Projects already installed

1. Usage of Energy Efficient BEE STAR Rated ACs.
2. Usage of Natural Day light.
3. Usage of LED lights for indoor lighting.
4. Usage of LED Lights for outdoor lighting.
5. Installation of 251 kW of Solar PV Power Plant.

3. Key Observations

1. Usage of LED lights.
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4. Percentage of Usage of Alternate Energy

The College has installed a Roof Top Solar PV Plant. The percentage of usage of Alternate Energy to Annual Energy Requirement is 59 %.



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The College has various types of Light fittings. The percentage of Annual LED Lighting Usage to Annual Lighting requirement works out to be 100 %.

6. Recommendations

1. Installation of additional 50kW Solar PV panel

Table no 1: Recommendations for energy savings

No	Recommendation	Annual Saving potential, kWh/Annum	Annual Monetary Gain (Rs.)	Investment Required (Rs.)	Payback period, Months
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2. Replace all metal halide street lights with LED lamps

7 Notes & Assumptions

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4. To study various measures to reduce the Energy Consumption

1.2 Audit Methodology:

1. Study of connected load
2. Study of various Electrical parameters
3. To prepare the Report with various Encon measures with payback analysis

1.3 General Details of College

Table No-1.1: Details of college

No	Head	Particulars
1	Name of Institution	Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule
2	Address	Survey No. 499, Plot No. 2, Mumbai Agra Highway, behind Gurudwara, Dhule, Maharashtra 424 001.
3	Affiliation	Babasaheb Ambedkar Technological University, Lonere



2. Study of connected load

In this chapter, we present details of various connected electrical equipment and electrical load.

Shri Vile Parle Mandal Campus has installed centralized chiller of capacity 400 TR to cater cooling load of all institutes in campus. Apart from above load, the college has pumps, street lights and 11 ACs of 2TR capacity. Data can be represented in terms of PIE chart as under

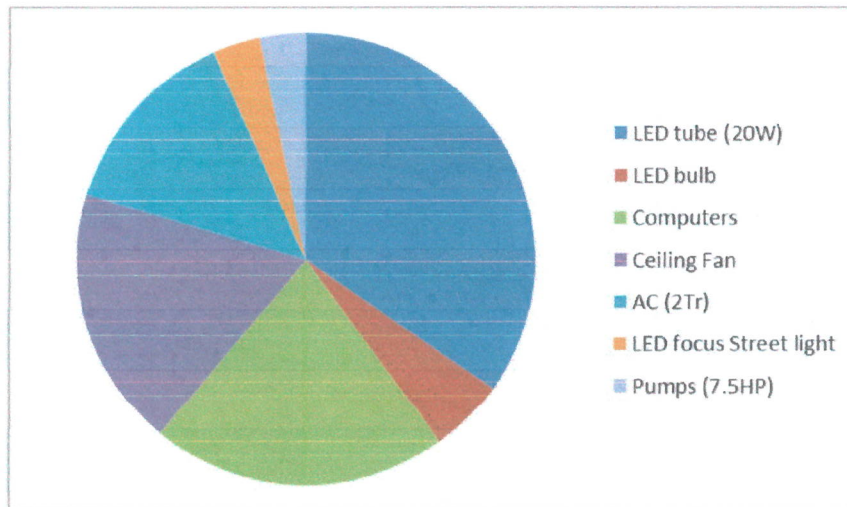


Figure 2.1: Distribution of connected load.

3. Study of Electrical Energy Consumption

In this chapter, electricity bills are studied for the analysis of electrical energy consumption.

Table no 3.1: Summary of electricity bills

No	Month	Energy Consumed, kWh	CO2 Emissions, MT
1	Jul-22	15,870	12.7
2	Jun-22	16,029	12.8
3	May-22	12,307	9.8
4	Apr-22	13,965	11.2
5	Mar-22	3,380	2.7
6	Feb-22	2,164	1.7
7	Jan-22	2,489	2.0
8	Dec-21	4,961	4.0
9	Nov-21	3,175	2.5
10	Oct-21	3,362	2.7
11	Sep-21	5,807	4.6
12	Aug-21	11,032	8.8
	Total	94,540	75.6



Variation in energy consumption is as follows,

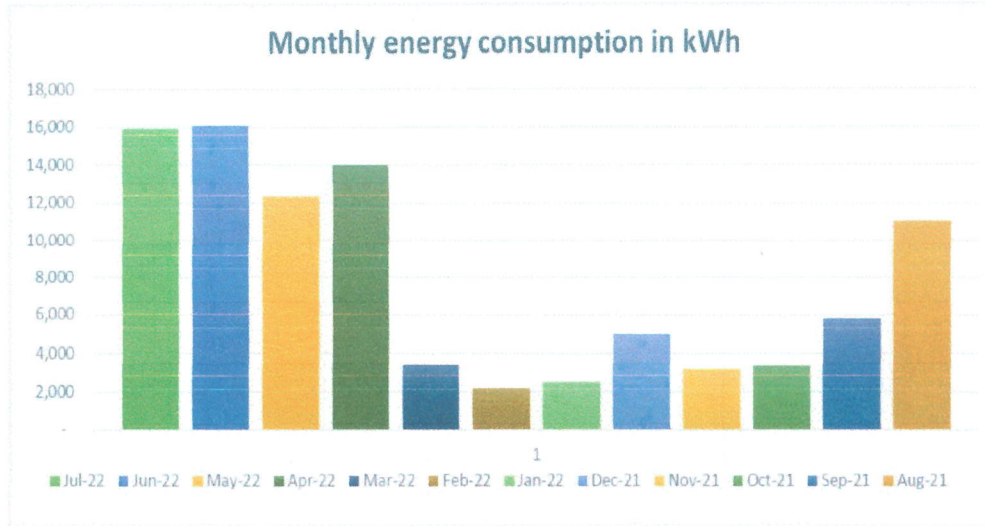


Figure 3.1: Month wise energy consumption

Monthly variation in electricity bill is as follows,

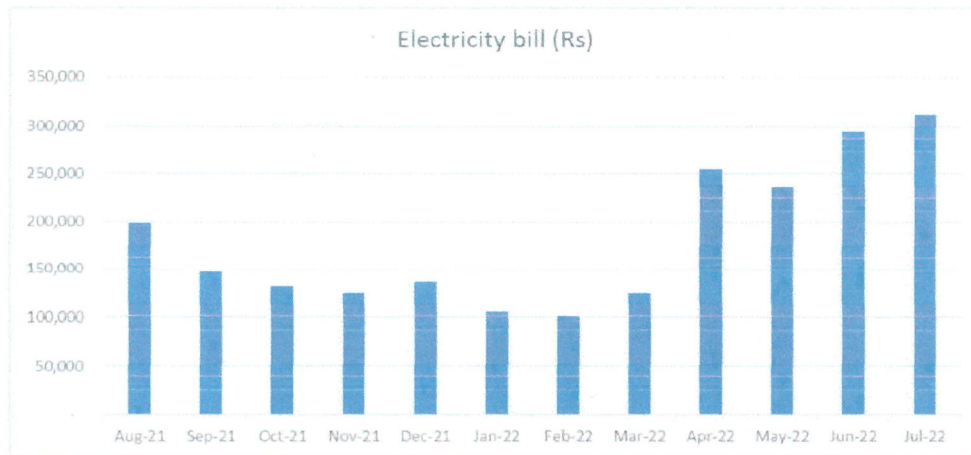


Figure 3.2: Month wise electricity bill



Key observations of electricity bill are as follows,

Table no 3.2: Key observations

Sr no	Parameter	Energy consumed, (Units)	CO₂ Emission (MT)
1	Maximum	16,029	12.8
2	Minimum	2,164	1.7
3	Average	7,878	6.3
4	Total	94,540	75.6



4. Carbon Foot printing

1. A **Carbon Foot print** is defined as the Total Greenhouse Gas emissions (CO₂ emissions), emitted due to various activities. In this we compute the emissions of Carbon-Di-Oxide, by usage of the various form of Electrical Energy used by the College for performing its day to day activities.

2. Basis for computation of CO₂ Emissions:

The basis of Calculation for CO₂ emissions due to Electrical Energy is as under

- 1 Unit (kWh) of Electrical Energy releases **0.8 Kg of CO₂** into atmosphere.

Based on the above Data we compute the CO₂ emissions which are being released in to the atmosphere by the College due to its Day to Day operations.

We herewith furnish the details of various forms of Energy consumption as under

Table 3.1: Month wise Consumption of Electrical Energy & CO₂ Emissions

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Jul-22	15,870	12.7
2	Jun-22	16,029	12.8
3	May-22	12,307	9.8
4	Apr-22	13,965	11.2
5	Mar-22	3,380	2.7
6	Feb-22	2,164	1.7
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10	Oct-21	3,362	2.7
11	Sep-21	5,807	4.6
12	Aug-21	11,032	8.8
	Total	94,540	75.6



In the following Chart we present the CO₂ emissions due to usage of Electrical Energy,

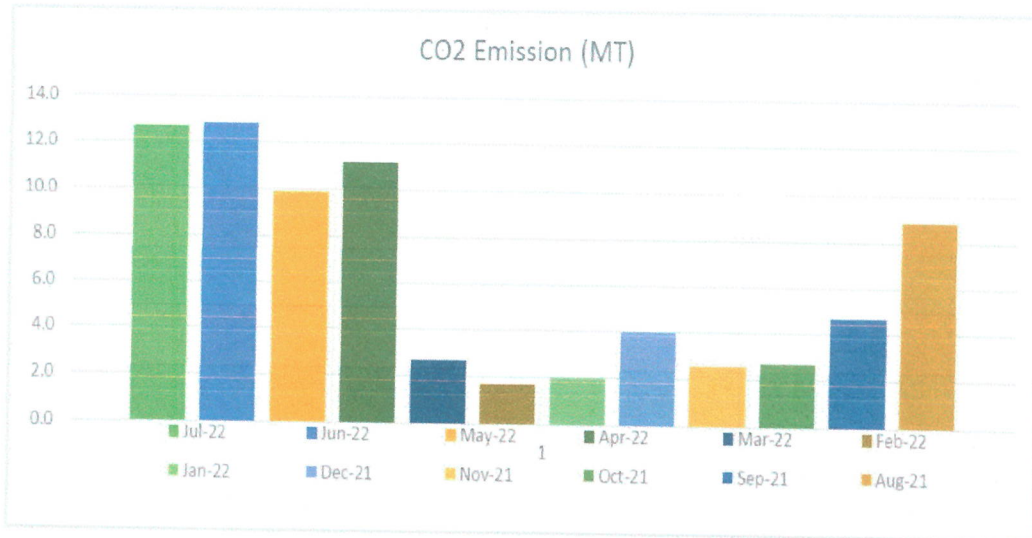


Figure 4.1: Month wise CO₂ Emission



5. Study of utilities

5.1 APFC Panel

The Office has already installed the APFC Panel of 175 kVAR capacity. During the measurements, it was found that the panel is working properly.

5.2 Study of Lighting

In the facility, the lighting system can be divided mainly in to parts, indoor lighting and outdoor lighting. There are 3006 nos. of LED tubes and 705 nos. of LED bulbs.

5.3 Air-conditioners

In the facility, there are about 11 Nos. of 2 Tr old Air-conditioners.

5.4 Ceiling Fans

At building facility, there are about 500 Nos star rated Ceiling Fans.

5.5 Water Pumps

There are in 1 Water pumps with 7.5HP capacities respectively.



6. Study of usage of alternate energy

In this Chapter, we compute the percentage of Usage of Alternate/Renewable Energy to Annual Energy Requirement of the College. The institute has installed Roof Top Solar PV System. The Installed Capacity of Solar PV Plant is 251 kW.

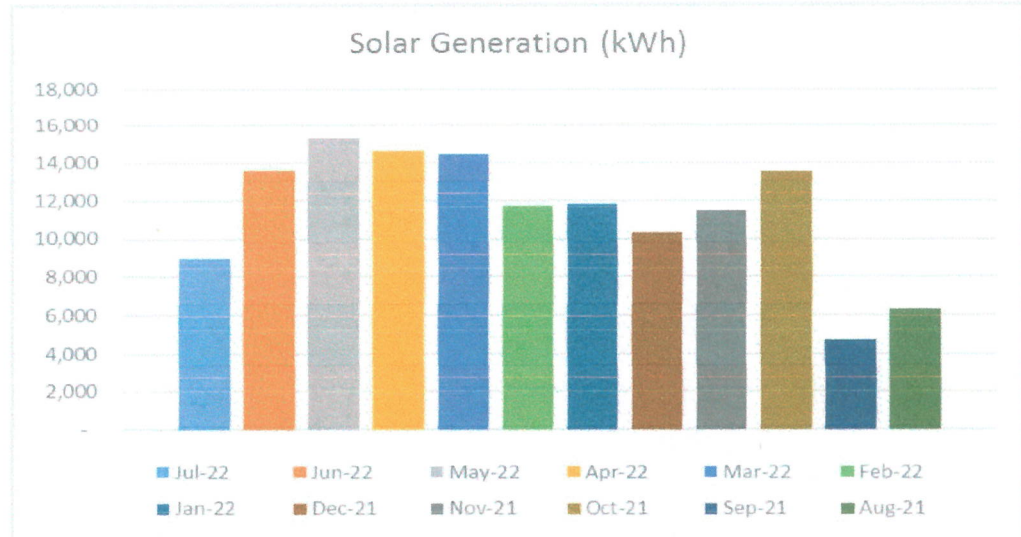


Figure 6.1: Solar PV power Generation

Table 6.1: Computation of % Usage of Alternate Energy to Annual Energy Requirement

No	Particulars	Value	Unit
1	Annual Energy Purchased from MSEDCL	94,540	kWh/Annum
2	Energy Generated by Roof Top Solar PV System	136,735	kWh/Annum
3	Total Energy Requirement of College	231,275	kWh/Annum
4	% of Usage of Alternate Energy to Annual Energy Requirement	59	%

Photograph of Solar PV plant



7. Study of usage of LED lighting

In this chapter we study the lighting system of college and compute the percentage of total load catered by LED lighting.

Table 7.1: Total lighting load

No	Particulars	Qty.	Load (W/Unit)	Load (kW)
	LED lighting load			
1	LED bulbs	705	15	10.5
2	LED tubes	3006	20	60.1
	Total LED lighting load			70.6
	Total Lighting load			70.6

It can be seen that out of total lighting load 100% load is LED lighting load.



8. Energy conservation proposals

8.1 Installation of additional 50kW Solar PV panel

It is recommended to install additional 50 kW of solar PV panel.

In the following Table, we present the savings, investment required & payback analysis.

No	Particulars	Value	Unit
1	Installation of additional PV units	50	kW
2	Energy saving	75000	kWh/Annum
3	Rate of electrical energy	11	Rs.
4	Annual monetary savings	825000	Rs./ Annum
5	Investment required	2500000	Rs. lump sum
6	Simple payback period	36	Months

8.2 Summary of Savings

No	Recommendation	Annual Saving potential, kWh/Annum	Annual Monetary Gain (Rs.)	Investment Required (Rs.)	Payback period, Months
1.	Installation of additional 50W grid connected PV panel	75,000	825,000	2,500,000	36
	Total	75,000	825,000	2,500,000	36

8.3 Replace all metal halide street lights with LED lamps





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Hon. Shri. Amrish R. Patel

(President)

Dr. Nilesh P. Salunke

(Principal)

Ph.D.,M.E.,LMISTE

Energy Audit AY 2022-23, Recommendation and Action Taken

Energy Audit conducted by Nutan Urja Solutions for academic year 2022-23 and issued the certificate on 27/08/2023. Following were the recommendation given after the audit:

1. Installation of additional 50kW Solar PV panels

Action taken on given recommendation are as follow

1. Installation of additional 50kW Solar PV panels

Action Taken:

Due to ongoing construction activities in the campus, there is an additional consumption of electricity. The construction work necessitates the use of various electrical tools and equipment, contributing to the temporary surge in energy usage. This heightened electricity consumption will persist until the completion of the construction, expected within the next one to two years. Once the construction is completed, the campus will transit to rely entirely on the energy generated from our grid-connected solar panels. This sustainable energy source will adequately meet our power needs, eliminating the requirement for additional power.



Bahule
Principal
SVKM's Institute of Technology, Dhule



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(President)

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(Principal)
Ph.D., M.E., LMISTE

Energy Audit AY 2021-22, Recommendations and Action Taken

Energy Audit conducted by Nutan Urja Solutions for academic year 2021-22 and issued the certificate on 13/11/2022. Following were the recommendations given after the audit:

1. Installation of additional 50kW Solar PV panel
2. Replace all metal halide street lights with LED lamps.

Action taken on given recommendation are as follow

1. Installation of additional 50kW Solar PV panel

Action Taken:

Due to ongoing construction activities in the campus, there is an additional consumption of electricity. The construction work necessitates the use of various electrical tools and equipment, contributing to the temporary surge in energy usage. This heightened electricity consumption will persist until the completion of the construction, expected within the next two to three years. Once the construction is completed, the campus will transit to rely entirely on the energy generated from our grid-connected solar panels. This sustainable energy source will adequately meet our power needs, eliminating the requirement for additional power.

2. Replace all metal halide street lights with LED lamps

Action Taken:

- a) All metal halide street lights are replaced with LED lamps. So, the entire campus street lighting load is 100% LED lighting.
- b) All LED street lamps are manufactured by our Site Project Engineer team which helps in achieving a cost saving on manufacturing up to 4 lakhs and energy saving by replacing 10 Nos. of 240 W metal halide lamps with 35 Nos. of LED lamps of 22 W rating.



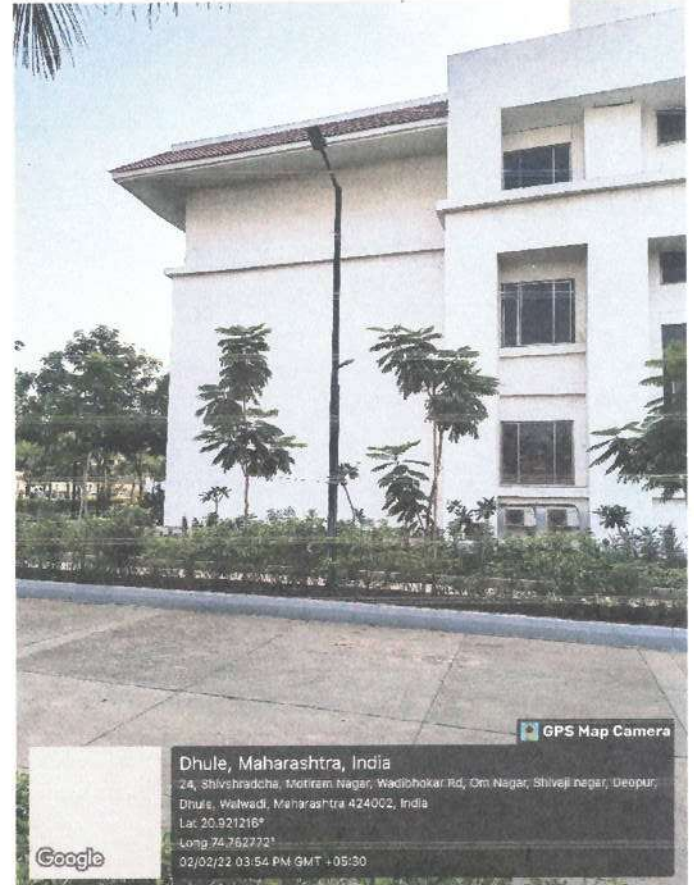


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Geo-tagged photo of street lamps



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