

GREEN AUDIT REPORT
of
ASM's INSTITUTE OF PROFESSIONAL STUDIES,
Pimpri, Pune 411 018



Year: 2019-20

Prepared by

ENRICH CONSULTANTS

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MAHARASHTRA ENERGY DEVELOPMENT AGENCY



Maharashtra Energy Development Agency

(A Government of Maharashtra undertaking)

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

ECN/2018-19/CR-05/4174

19th September, 2018

**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 : **Enrich Consultants**
Yashashree, Plot No. 26, Nirmal Bag Society,
Near Muktangan English School,
Parvati, Pune - 411009.

Registration Category : Empanelled *Consultant for Energy Conservation Programme*

Registration Number : *MEDA/ECN/CR-05/2018-19/EA-03*

- 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 the firm at any time without giving any prior information and canceling the registration, if the information is found incorrect.
- This empanelment is valid till **31st March 2021** 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.


(Smita Kudarikar)
General Manager (EC)



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Ref: EC/ASMCSIT/19-20/02

Date: 29/7/2020

CERTIFICATE

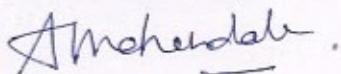
This is to certify that we have conducted Green Audit at ASM's, Institute of Professional Studies, Pimpri, Pune 411 018 in the year 2019-20.

The Institute has adopted Green Practices:

- Usage of Energy Efficient LED Fittings
- Segregation of Waste at source
- Installation of Sanitary Waste Incinerator, for disposal of Sanitary Waste
- Installation of Rain Water Management Project
- Maintenance of Good Internal Roads
- Tree Plantation in the campus
- Provision of Ramp for Divyangajan

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

For Enrich Consultants,



A Y Mehendale,
Certified Energy Auditor, EA-8192



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ACKNOWLEDGEMENT

We at Enrich Consultants, Pune, express our sincere gratitude to the management of ASM's Institute of Professional Studies, Pimpri, Pune 411 018, for awarding us the assignment of Green Audit of their Pimpri campus for the Year: 19-20

We are thankful to all staff members for helping us during the field study.



EXECUTIVE SUMMARY

1. ASM's Institute of Professional Studies, Pimpri, Pune consumes Energy in the form of Electrical Energy; used for various gadgets, Office & other facilities.

2. Energy Consumed and CO₂ Emission:

No	Parameter	Energy Consumed, kWh	CO ₂ emissions, MT
1	Total	48446	43.60
2	Maximum	4615	4.15
3	Minimum	3616	3.25
4	Average	4037	3.63

3. Various Majors Adopted for Energy Conservation:

- Usage of Energy Efficient LED fittings
- Maximum Usage of Day Lighting

4. Usage of Renewable Energy:

- The Institute has yet to install Roof Top Solar PV Plant.

5. Waste Management:

5.1 Segregation of Waste at Source:

The Waste is segregated at source and the recyclable waste like Paper waste, Plastic Waste is handed over to authorized agency.

5.2 Sanitary Waste Management:

The Institute has installed Sanitary Waste Incinerator, for disposal of Sanitary Waste.

5.3 E-Waste Management:

It is recommended to dispose of the E-Waste through Authorized Agency.

6. Rain Water Management:

The Institute has installed Rainwater Management Project. The rain water falling on the terrace is collected through pipes and is used to increase the underground water table.

7. Green & Sustainable Practices:

- Good Internal Roads
- Internal Tree Plantation
- Provision of Ramp for Divyangajan

8. Assumption:

- 1 kWh (Unit) of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere

9. Reference:

- For CO₂ calculations: www.tatapower.com



ABBREVIATIONS

ASM	:	Ayudyogik Shikshan Mandal
LED	:	Light Emitting Diode
kWh	:	kilo-Watt Hour
MT	:	Metric Ton
CO ₂	:	Carbon Di Oxide



CHAPTER-I

INTRODUCTION

1.1 Objectives:

1. To study present Energy Consumption
2. To Study the present CO₂ emissions
3. To study Usage of Renewable Energy
4. To study Waste Management practices
5. To study Green & Sustainable Practices

1.2 Table No-1: General Details of Institute:

No	Head	Particulars
1	Name	ASM's Institute of Professional Studies
2	Address	Pimpri, Pune 411 018
3	Year of Establishment	2008
3	Affiliation	Savitribai Phule Pune University

CHAPTER-II

STUDY OF PRESENT ENERGY CONSUMPTION

In this chapter, we present the analysis of last year Electricity Energy Consumption
Table No 2: Electrical Energy Purchase Analysis- 19-20:

No	Month	Energy Consumed, kWh
1	Apr-19	4071
2	May-19	3925
3	Jun-19	3906
4	Jul-19	4615
5	Aug-19	4359
6	Sep-19	4388
7	Oct-19	4152
8	Nov-19	4290
9	Dec-19	3708
10	Jan-20	3689
11	Feb-20	3726
12	Mar-20	3616
13	Total	48446
14	Maximum	4615
15	Minimum	3616
16	Average	4037

Chart No 1: To study the variation of Month wise Energy Consumed, kWh:

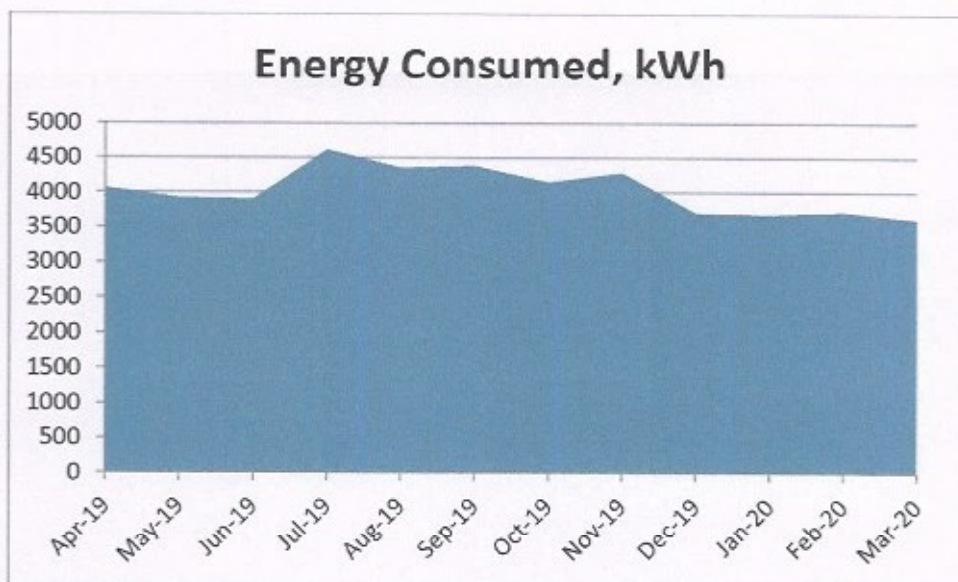


Table No 3: Important parameters:

No	Parameter	Energy Consumed, kWh
1	Total	48446
2	Maximum	4615
3	Minimum	3616
4	Average	4037



CHAPTER-III

CARBON FOOT PRINTING

A Carbon Foot print is defined as the Total Greenhouse Gas emissions, emitted due to various activities.

In this we compute the emissions of Carbon-Di-Oxide, by usage of the various forms of Energy used by the Institute for performing its day to day activities

The Institute uses Electrical Energy for various Electrical gadgets.

Basis for computation of CO₂ Emissions:

The basis of Calculation for CO₂ emissions due to Electrical Energy are: 1 Unit (kWh) of Electrical Energy releases 0.9 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 Institute due to its Day to Day operations

Table No 4: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-19	4071	3.66
2	May-19	3925	3.53
3	Jun-19	3906	3.52
4	Jul-19	4615	4.15
5	Aug-19	4359	3.92
6	Sep-19	4388	3.95
7	Oct-19	4152	3.74
8	Nov-19	4290	3.86
9	Dec-19	3708	3.34
10	Jan-20	3689	3.32
11	Feb-20	3726	3.35
12	Mar-20	3616	3.25
13	Total	48446	43.60
14	Maximum	4615	4.15
15	Minimum	3616	3.25
16	Average	4037	3.63