

VASANTDADA SUGAR INSTITUTE
MANJARI BK, TALUKA HAVELI, DISTRICT PUNE-412 307

<https://www.vsisugar.com>



Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

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

Reports on Energy, Environmental and Green audits submitted by the auditing agency

GREEN AUDIT REPORT

VASANDADA SUGAR INSTITUTE,

Manjari Budruk, Taluka: Haveli, District: Pune 412 307



Year: 2023-24

Prepared by:

ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society
Near Mukhtangan English School, Parvati, Pune 411009
Phone: 09890444795 Email: engress123@gmail.com



Rms. sunil
Principal
Vasantdada Sugar Institute
Manjari (Bk.), Tal. Haveli,
Dist. Pune - 412 307



Registration Certificates: UDYAM, MEDA, ASSOCHAM GEM-CP, ISO: 9001 & 14001:

भारत सरकार
Government of India
सूक्ष्म, नन्प एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises

UDYAM REGISTRATION CERTIFICATE

UDYAM REGISTRATION NUMBER: UDYAM-MH-26-0135636

NAME OF ENTERPRISE: ENGRESS SERVICES

S.No.	Classification Year	Enterprise Type	Classification Date
1	2023-24	Micro	03/02/2024
2	2022-23	Micro	26/06/2022
3	2021-22	Micro	27/07/2021

TYPE OF ENTERPRISE: SERVICES

MAJOR ACTIVITY: GENERAL

SOCIAL CATEGORY OF ENTREPRENEUR: GENERAL

NAME OF UNIT(S): Engress Services

Flat/Door/Block No.	Name of Premises/Building	Yashashree
26	Yashashree	

Village/Town: Pune, Block: 1

Road/Street/Lane: Lokmanya Nagar, Nirmal Baug Soc, City: Pune

State: MAHARASHTRA, District: PUNE, Pin: 411009

Mobile: 8767447244, Email: engress12@gmail.com

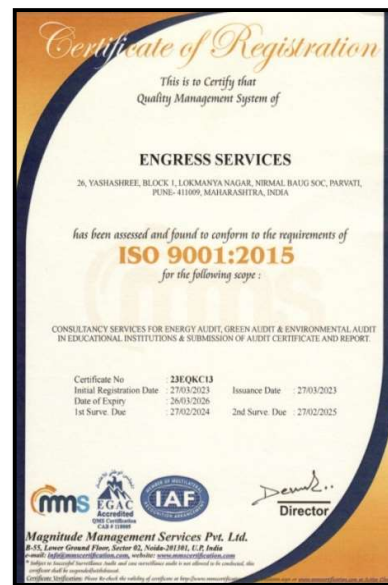
DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE: 13/04/2021

DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS: 13/04/2021

S.No.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	79 - Activities of head offices; management consultancy activities	7920 - Management consultancy activities	79200 - Management consultancy activities	Services

NATIONAL INDUSTRY CLASSIFICATION CODE(S):

DATE OF UDYAM REGISTRATION: 27/07/2021



MAHARASHTRA ENERGY DEVELOPMENT AGENCY
Maharashtra Energy Development Agency
(Government of Maharashtra Institution)
Aundh Road, Opposite Spicer College Road, Near Commissionerate of Animal Husbandary, Aundh, Pune, Maharashtra 411007
Ph No: 020-35000450
Email: eee@maharaja.com, Web: www.maharaja.com

ECN/2022-23/CR-43/1709, 10th May, 2022

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.

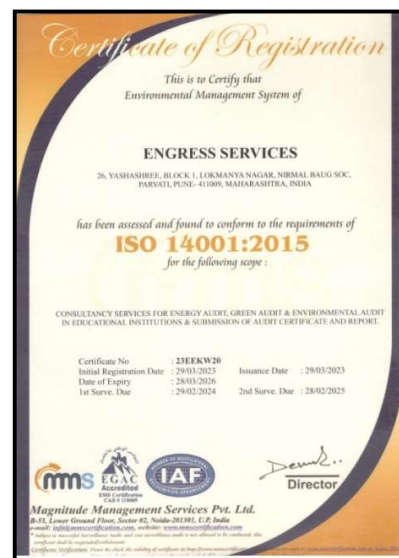
Name and Address of the firm: M/s Engress Services, Yashashree, 26, Nirmal Baug Society, Near Muktagan English School, Parvati, Pune - 411 009.

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

Registration Number: MEDA/ECN/2022-23/Class A/EA-32.

- 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 09th May, 2024 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 (EC)



R. S. Sumanth
Principal
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Manjari (Bk.), Tal. Haveli,
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ACKNOWLEDGEMENT

We Engress Services, Pune, express our sincere gratitude to the management of Vasantdada Sugar Institute, Manjari Budruk, Taluka: Haveli, District: Pune 412 307, for awarding us the assignment of Green Audit of their Campus for the Year: 2023-24.

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



Rohit Kumar
Principal
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EXECUTIVE SUMMARY

1. **Vasantdada Sugar Institute Manjari Budruk, Taluka: Haveli, District: Pune**, consumes Energy in the form of **Electrical Energy**; used for various Electrical Equipment.

2. Present Energy Consumption & CO₂ Emission:

No	Particulars	Value	Unit
1	Annual Energy Purchased	279131	kWh
2	Annual CO ₂ Emissions	259.59	MT

3. Usage of Renewable Energy & Reduction in CO₂ Emissions:

No	Particulars	Value	Unit
1	Installed Solar PV Plant Capacity	800	kWp
2	Energy Generated by Solar PV Plant in 23-24	1089421	kWh
3	Reduction in Annual CO ₂ Emissions	1013.16	MT

4. Waste Management:

No	Head	Particulars
1	Solid Waste	Segregation of Waste at source
2	Organic Waste	Bio Composting Unit installed
3	Liquid Waste	Septic Tank installed & cleaned periodically
4	Sanitary Waste	Recommended to install Sanitary Waste Incinerator

5. Rain Water Management:

The Institute has installed Pipes from the terrace and the Rain water falling on the terrace is stored in an underground Tank and is further used for domestic purpose after treatment.

6. Green & Sustainable Practices:

- Maintenance of good Internal Road
- Tree Plantation in the campus.
- Provision of Ramp for Divyangajan
- Creation of Awareness on Water Conservation by Display of Poster

7. Assumptions:

1. **1 kWh** of Electrical Energy releases **0.93 Kg of CO₂** into atmosphere
2. CO₂ Emission is computed based on Electrical Purchased

8. Reference:

- For CO₂ Emissions: www.ccd.gujarat.gov.in



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ABBREVIATIONS

BEE	Bureau of Energy Efficiency
kWh	Kilo Watt Hour
LPD	Liters Per Day
Kg	Kilo Gram
MT	Metric Ton
CO ₂	Carbon Di Oxide
Qty	Quantity



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CHAPTER-I INTRODUCTION

1.1 Introduction:

A Green Audit is conducted at Vasantdada Sugar Institute, Manjari Budruk, Taluka: Haveli, District: Pune.

1.2 Key Study Points:

No	Particulars
1	Study of Present Energy Consumption & CO ₂ Emission
2	Study of Usage of Renewable Energy
3	Study of Waste Management Practices
4	Study of Rain Water Management
5	Study of Green & Sustainable Initiatives

1.3 Institute Location Image:



Institute
Campus



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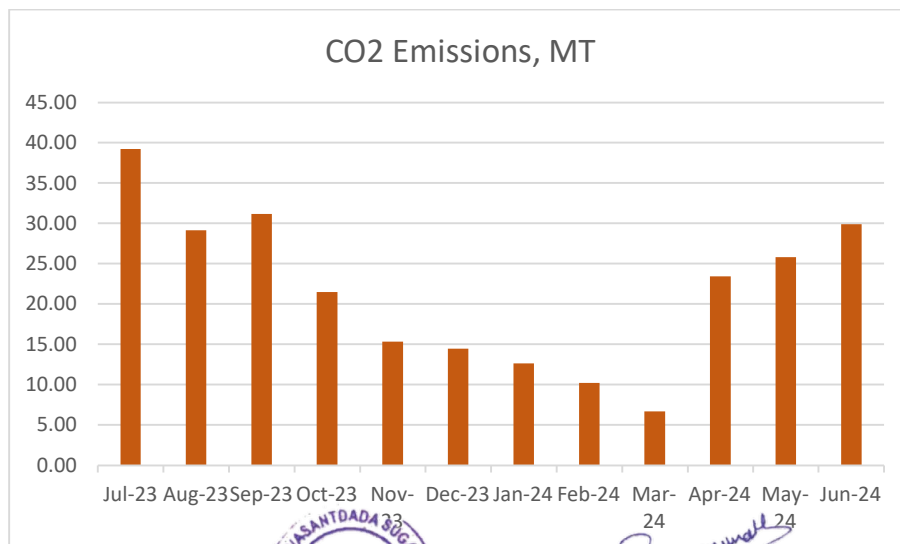
CHAPTER-II STUDY OF ENERGY CONSUMPTION & CO₂ EMISSION

A Carbon Foot print is defined as the Total Greenhouse Gas emissions, emitted due to various activities. **Basis for computation of CO₂ Emissions: 1 kWh of Electrical Energy releases 0.93 Kg of CO₂ into atmosphere.**

Table No 1: Month wise Energy Consumption & CO₂ Emissions:

No	Month	Energy Purchased, kWh=(1)	Energy Generated, kWh=(2)	Energy Exported, kWh=(3)	Net Energy Consumed, kWh= =1+2-3	CO ₂ Emissions, MT
1	Jul-23	68316	42188	15434	95070	39.23
2	Aug-23	83564	31344	23001	91907	29.15
3	Sep-23	81713	33518	23840	91391	31.17
4	Oct-23	95471	23129	29671	88929	21.51
5	Nov-23	82940	16521	31138	68323	15.36
6	Dec-23	86291	15539	33166	68664	14.45
7	Jan-24	93118	13562	40423	66257	12.61
8	Feb-24	93483	10997	32705	71775	10.23
9	Mar-24	111747	7187	42006	76928	6.68
10	Apr-24	103681	25230	28703	100208	23.46
11	May-24	103373	27784	26921	104236	25.84
12	Jun-24	85724	32132	23843	94013	29.88
13	Total	1089421	279131	350851	1017701	259.59
14	Maximum	111747	42188	42006	104236	39.23
15	Minimum	68316	7187	15434	66257	6.68
16	Average	90785.08	23260.92	29237.58	84808.4	21.63

Chart No 1: Month wise CO₂ Emissions:



CHAPTER III

STUDY OF USAGE OF RENEWABLE ENERGY

The Institute has installed Roof Top Solar PV Plant of Capacity **800 kWp**
In the following Table, we present the reduction in CO₂ emissions due to Solar Energy:

Table No 2: Computation of Reduction in CO₂ Emissions:

No	Particulars	Value	Unit
1	Installed Capacity of Roof Top Solar PV Plant Capacity	800	kWp
2	Energy Generated in the Year: 2023-24	1089421	4 kWh
3	1 kWh of Electrical Energy saves	0.93	Kg/kWh
4	Qty of CO₂ Saved by Solar PV Plant = (2)*(3) /1000	1013.16	MT of CO₂

Photograph of Roof Top Solar PV Plant:







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CHAPTER IV STUDY OF WASTE MANAGEMENT

In this Chapter, we present the Waste Management Practices, followed by the Institute.

Details of Waste Management Practices:

No	Head	Observation	Photograph
1	Solid Waste	Segregation of Waste at Source: Provision of Waste Collection Bins	<p>Waste Collection Bin</p>  <p>Pune, Maharashtra, India GXHR+6R2 Vasantdada Sugar Institute, Vasantdada Sugar Institute, Colony, Manjari Budruk, Pune, Maharashtra 412307, India Lat 18.5282436 / Long 73.9796307 Monday 27 November 2023 12:57:38</p> 
2	Organic Waste	The Institute has a Bio Composting Unit, for conversion of Organic Waste into Bio Compost.	<p>Bio Composting Unit:</p>  <p>Manjari Khurd, Maharashtra, India GXMP+99Q Manjari Khurd, Maharashtra 412307, India Lat 18.5354051 / Long 73.9850231 Monday 27 November 2023 12:38:38</p> 
3	Liquid Waste	The Institute has installed Septic Tanks and the tanks are cleaned periodically.	
4	Sanitary Waste	It is recommended to install Sanitary Waste Incinerator	

CHAPTER-V STUDY OF RAIN WATER MANAGEMENT

The Institute has installed Pipes from the terrace and the Rain water falling on the terrace is stored in an open well and is used for watering the farm.

Photograph of Rain water Collecting Pipe:



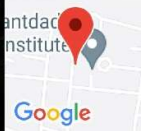
Rain Water
Collecting Pipe

Pune, Maharashtra, India

GXGF-HFH Vasantdada Sugar Institute, Vasantdada
Sugar Institute Colony, Manjari Budruk, Pune,
Maharashtra 412307, India

Lat 18.5284255 / Long 73.9740307

Monday 27 November 2023 13:07:11



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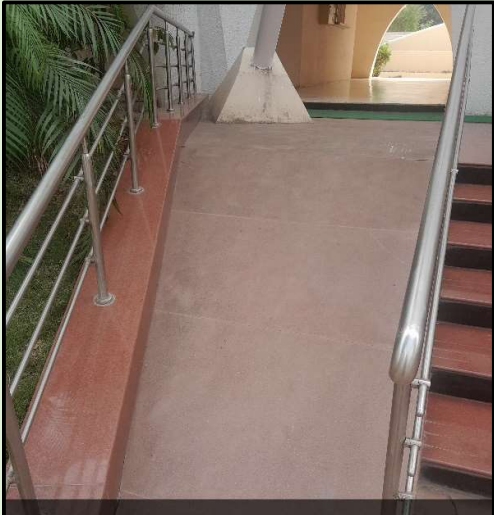



CHAPTER-VI STUDY OF GREEN & SUSTAINABLE PRACTICES

In this Chapter, we present the Green & Sustainable Practices followed by the Institute.
Green & Sustainable Practices:

No	Head	Observation	Photograph
1	Easy Movement of Stake Holders	Provision of Good Internal Road within the Campus	<p>Internal Road:</p>  <p>Manjari Khurd, Maharashtra, India GXMP+99Q, Manjari Khurd, Maharashtra 412307, India Lat 18.5354051 / Long 73.9850231 Thursday 23 November 2023 15:31:03</p> 
2	Tree Plantation	Internal Tree Plantation in the Campus	<p>Internal Tree Plantation:</p>  <p>Pune, Maharashtra, India GXGF+FRV Vasantdada Sugar Institute, Manjari Rd, Vasantdada Sugar Institute Colony, Manjari Budruk, Pune, Maharashtra 412307, India Lat 18.5262874 / Long 73.9745852 Monday 27 November 2023 13:11:13</p> 



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<p>3</p>	<p>Facilities for Divyangajan</p>	<p>Provision of Ramp & Lift for Divyangajan</p>	<p>Ramp for Divyangajan:</p>  <p>Pune, Maharashtra, India</p> <p>GXGF+FRV Vasantdada Sugar Institute, Manjari Rd, Vasantdada Sugar Institute Colony, Manjari Budruk, Pune, Maharashtra 412307, India</p> <p>Lat 18.5263287 / Long 73.974432</p> <p>Thursday 23 November 2023 15:29:51</p> 
<p>4</p>	<p>Creation of Awareness among Stake Holders</p>	<p>Display of Poster on Water Conservation</p>	<p>Poster on Water Conservation:</p>  <p>Pune, Maharashtra, India</p> <p>Vasantdada Sugar Institute, : Haveli, Manjari Rd, Vasantdada Sugar Institute Colony, Manjari Budruk, Pune, Maharashtra 412307, India</p> <p>Lat 18.5268897 / Long 73.9743432</p> 



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