

GREEN AUDIT REPORT

ATHAWALE COLLEGE OF SOCIAL WORK,
Bhandara- 441 905 (M.S.)



Year: 2024-25

Prepared by:

ENGRESS SERVICES

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

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

भारत सरकार
Government of India
सूक्ष्म, लघु 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

TYPE OF ENTERPRISE *

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

MAJOR ACTIVITY: SERVICES

SOCIAL CATEGORY OF ENTREPRENEUR: GENERAL

NAME OF UNIT(S)

S.No.	Name of Unit(s)
1	Engress Services

OFFICIAL ADDRESS OF ENTERPRISE

Flat/Door/Block No.	26	Name of Premises/ Building	Yashashree
Village/Town	Pune	Block	1
Road/Street/Lane	Lokmanya Nagar, Nirmal Bag Soc	City	Pune
State	MAHARASHTRA	District	PUNE, Pin 411009
Mobile	8767447244	Email:	engress123@gmail.com

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

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

NATIONAL INDUSTRY CLASSIFICATION CODE(S)

S.No.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	70 - Activities of head offices; management consultancy activities	7020 - Management consultancy activities	70200 - Management consultancy activities	Services

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 Husbandry,
Aundh, Pune, Maharashtra-411067
Ph No: 020-35000450
Email: eee@mahaurja.com, Web: www.mahaurja.com

ECN/2024-25/CR-02/389 8th October, 2024

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.

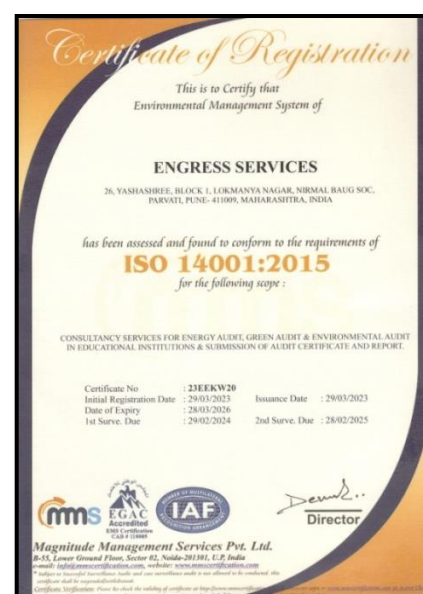
Name and Address of the firm : M/s Engress Services
Yashashree, 26, Nirmal Bag Society,
Near Muktangan English School,
Parvati, Pune - 411 009.

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

Registration Number : MEDA/ECN/2024-25/Class A/EA-22

- 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 **7th October, 2026** 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)



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ACKNOWLEDGEMENT

We at Engress Services, Pune, express our sincere gratitude to the management of Green Audit Report: Athawale College of Social Work, Bhandara for awarding us the assignment of Green Audit of their Campus for the Academic Year: 2024-25.

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

EXECUTIVE SUMMARY

1. A Green Audit was conducted at Athawale College of Social Work, Bhandara.

2. Present Energy Consumption & CO₂ Emission:

No	Particulars	Value	Unit
1	Total Energy Purchased	13205	kWh
2	Annual CO ₂ Emissions	10.56	MT

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

No	Particulars	Value	Unit
1	Installed Capacity of Roof Top Solar PV Plant	5	kWp
2	Total Energy Generated by kWp Plant in 24-25	6378.87	kWh
3	Annual Reduction in CO ₂ Emissions in 24-25	6.37	MT

4. Study of Green Cover:

No	Particulars	Value	Unit
1	Total Plot Area	2520.11	m ²
2	Total Green Cover Area	1652.20	m ²
3	% of Green Cover to Total Plot Area	65.56	%

5. Study of Waste Management:

No	Head	Particulars
1	Solid Waste	Segregation of Waste at source
2	Sanitary Waste	Provision of Sanitary Waste Incinerator
3	Liquid Waste	Installation of Septic Tank
4	E Waste	Disposal of through Authorized Agency

5. Study of Water Management:

The Institute has installed Pipes from the terrace and the Rain water falling on the terrace is stored in an underground Water tank and is used for gardening purpose.

6. Sustainable Living Practices:

No	Head	Particulars
1	Initiatives on National Mission on Green India	Afforestation/ Tree Plantation Initiatives
2	Initiatives on National Sustainability Scheme	Ban on Single Use Plastic like- Straws, Cutlery, Plates
		Environment Education & Awareness Programs
3	Initiatives on Swatch Bharat Abhiyan	Conductance of Cleanliness Drive
4	Initiatives for CO ₂ Emission Reduction	Usage of Roof Top Solar PV Plant
		Usage of Energy Efficient Equipment: LED Tubes
5	Facilities for Divyangajan	Provision of Ramp

7. Assumptions:

1. Emission Fator of Electricity: **0.93 Kg of CO₂/kWh**
2. Emission Fator of LPG: **2.94 Kg of CO₂/Kg**
3. Emission Fator of Diesel: **2.66 Kg of CO₂/Liter**
4. AverageSolar PV Energy Generation: **3.5 kWh/Day**
5. Annual Solar Energy Generation Days: **300 Nos**
6. CO₂ Emissions are computed For Scope-1 & 2
7. Electrical Energy consumption is computed based on Load Utilization Factor

8. Reference:

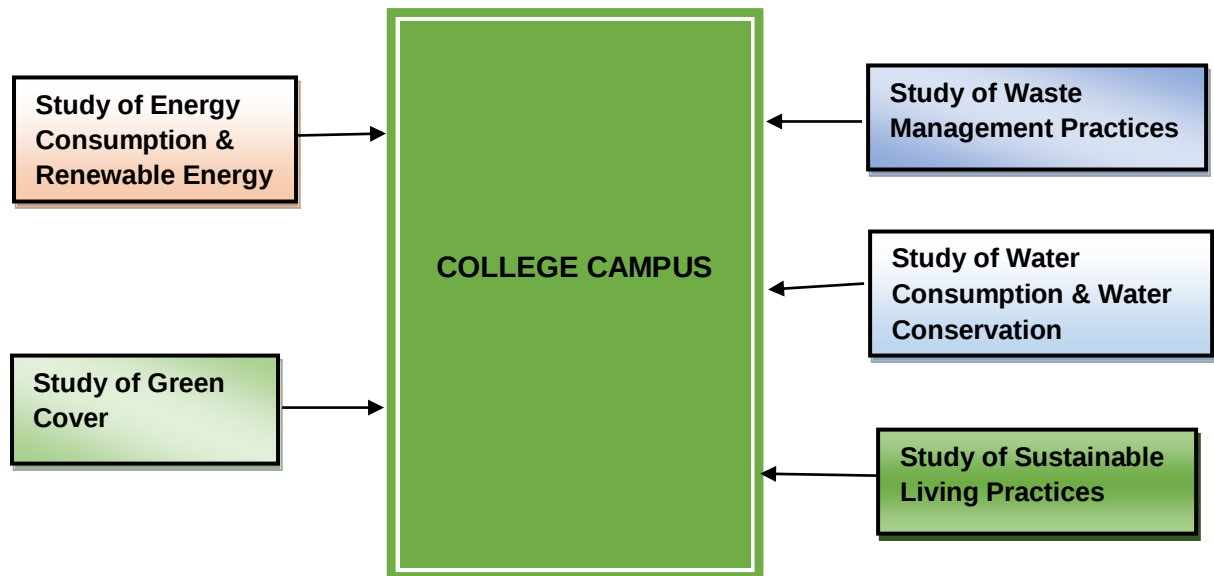
- For CO₂ Emissions: www.ccd.gujarat.gov.in
- For Solar PV Energy Generation: www.rooftopsolar.gov.in

CHAPTER-I INTRODUCTION

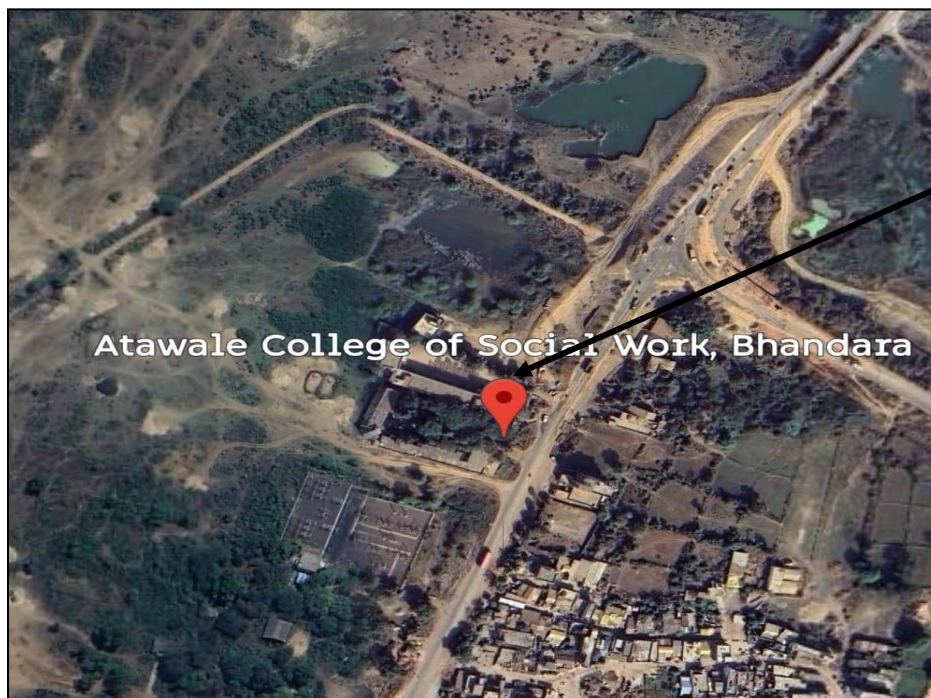
1.1 Introduction:

A Green Audit is conducted at Athawale College of Social Work, Bhandara.

1.2 Key Study Points:



1.3 Institute Location Image:



CHAPTER-II

STUDY OF ENERGY CONSUMPTION & RENEWABLE ENERGY

2.1 Study of Present Energy Consumption:

In this Chapter, we present the Energy Consumption, CO₂ Emission and Usage of Renewable Energy & Reduction in CO₂ Emission.

A **Carbon Foot print** is defined as the Total Greenhouse Gas emissions, emitted due to various activities. The CO₂ Emission is computed for **Scope-1 & Scope-2**

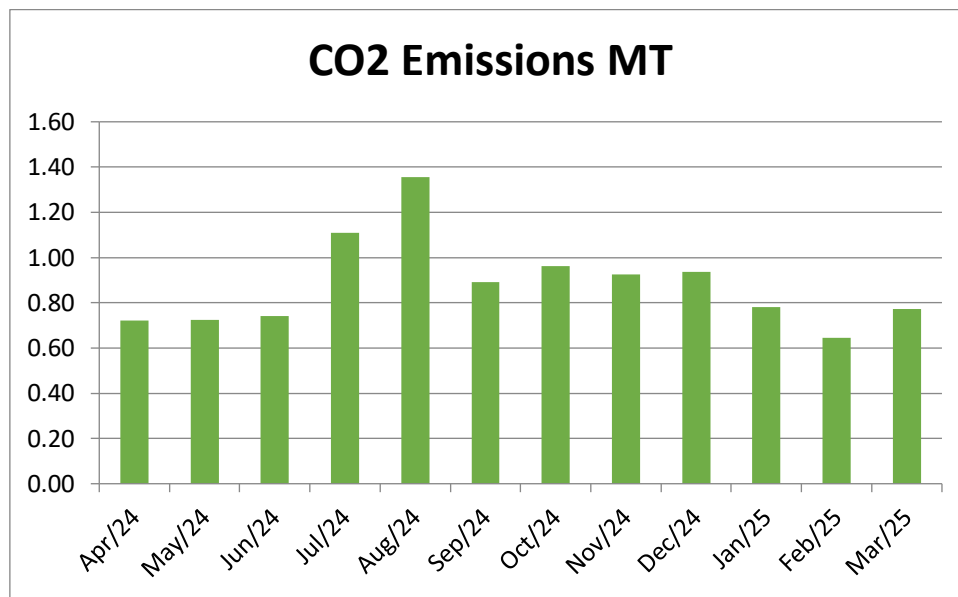
Emission Factors:

- Emission Fator of Electricity: **0.93 Kg of CO₂/kWh**
- Emission Fator of LPG: **2.94 Kg of CO₂/Kg**
- Emission Fator of Diesel: **2.66 Kg of CO₂/Liter**

Table No 1: Month wise CO₂ Emissions: For Scope-1 & Scope-2:

No	Month	Energy Generated (kWh)	Energy Imported (kWh)	Energy Exported (kWh)	Net Energy Consumption (kWh)	CO2 Emissions MT
1	Apr-24	503	683	285	901	0.72
2	May-24	565	599	258	906	0.72
3	Jun-24	590	556	219	927	0.74
4	Jul-24	650	956	219	1387	1.11
5	Aug-24	709	1186	201	1694	1.36
6	Sep-24	482	798	165	1115	0.89
7	Oct-24	565	815	178	1202	0.96
8	Nov-24	478	811	133	1156	0.92
9	Dec-24	615	808	253	1170	0.94
10	Jan-25	575	654	254	975	0.78
11	Feb-25	594	549	337	806	0.64
12	Mar-25	533	683	250	966	0.77
13	Total	6859	9098	2752	13205	10.56
14	Maximum	709	1186	337	1694	1.36
15	Minimum	478	549	133	806	0.64
16	Average	571.58	758.17	229.33	1100.42	0.88

Chart No 1: Month wise CO₂ Emissions:



2.2 Study of Usage of Renewable Energy & Reduction in CO₂ Emission:

The Institute has installed Roof Top Solar PV Plant of Capacity **05 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	05	kWp
2	Energy Generated in the Year: 24-25	6859	kWh
3	1 kWh of Electrical Energy saves	0.93	Kg/kWh
4	Qty of CO ₂ Saved by Solar PV Plant =(2)*(3) /1000	6.37	MT of CO ₂

Photograph of Roof Top Solar PV Plant:



CHAPTER III

STUDY OF GREEN COVER

In this Chapter, we present the **Green Cover** of the Total Campus.

Green Cover of an Institution is the Ratio of Area covered by Trees to Total Plot Area. To compute the Green Cover, we use the Goole Earth Image of the Campus.

Google Earth Image of the Campus:



Table No: Computation of Green Cover:

No	Particulars	Value	Unit
1	Total Plot Area	2520.11	m ²
2	Total Green Cover Area	1652.20	m ²
3	% of Green Cover to Total Plot area	65.56	%

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	Waste Collection Bin 
2	Sanitary Waste	Provision of Sanitary Waste Incinerator to dispose of the Sanitary Waste	Sanitary Waste Incinerator: 
3	Liquid Waste	Installation of Septic Tank Where in the liquid waste water collected and disposed properly.	
4	E Waste	The E Waste is disposed of through Authorized Agency.	

CHAPTER-V

STUDY OF WATER MANAGEMENT

5.1 Study of Water Consumption:

Now we compute the Per Capita Water Consumption.

Table No 4: Computation of Per Capita Water Consumption:

No	Particulars	Head	Unit
1	Sources of Water	1. Municipal Water 2. well	
2	No of Overhead Water Tanks	02	Nos
3	Total Water Storage Capacity of Overhead Water Tanks	3000	Liters
4	Frequency of Overhead Water Tank filling	01	Once/Day
5	Approximate Water Consumption	2500	Liters/Day
6	Total No of Users	150	Nos
7	Per Capita Water Consumption	16.66	Liters/person/ Day

5.2 Study of Rain Water Management:

The Institute has implemented the Rain Water Management Project. The Institute has installed Pipes from the terrace and the Rain water falling on the terrace is stored in an underground Water tank and is used for gardening purpose.

Photograph of Rain water Collecting Pipe:



**Rain Water
Collection Pipe**

CHAPTER-VI

STUDY OF SUSTAINABLE LIVING PRACTICES

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

Green & Sustainable Practices:

No	Head	Action Taken	Photograph
1	Initiatives on National Mission on Green India	Afforestation/ Tree Plantation Initiatives	Tree Plantation: 
2	Initiatives on National Sustainability Scheme	2.1 Ban on Single Use Plastic like- Straws, Cutlery, Plates	Poster on Ban on Single Use Plastic: 
3		2.2 Environment Education & awareness Programs	Program on Environment Awareness: 
4	Actions taken for CO ₂ Emission Reduction	4.1 Usage of Roof Top Solar PV Plant	Roof Top Solar PV Plant: 

5	Facilities for Divyangajan	8.1 Provision of Ramp	Ramp: 

ANNEXURE-1:
LIST OF TREES & PLANTS IN THE CAMPUS:

Sr. No.	Plant Name	Quantity
1	Palm	29
2	Croton Plant Golden Bloom	4
3	Kuter Plant	4
4	Cradle Plant	1
5	Pinton Pathychata Plant (Purple)	2
6	Dracaena Reflexa Plant	6
7	Plant	19
8	Vine	12
9	Kadul (Koda)	20
10	Babul (Acacia)	7
11	Mogras (Jasmine)	7
12	Mango	1
13	Neem	15
14	Ashoka	7
15	Amla (Indian Gooseberry)	1
16	Kadamb	1
17	Guava	15
18	Parijaat	1
19	Avla	1
20	Peepal	1
21	Banyan	1
22	Nagvel	3
23	Naag	2
24	Bamboo (Palm)	3
25	Kunda	3
26	Badam (Almond)	2
27	Sitaphal (Custard Apple)	1
28	Sagar Gota	2
29	Sarsaf	2
30	Tulsi (Holy Basil)	1
31	Amruta	1
32	Survivan Palm	2

ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society, Near Muktangan English School,
Parvati, Pune 411 009 Tel: 09890444795 Email: engress123@gmail.com
UDYAM, MEDA Registered, ISO-9001 & 14001 Certified



GREEN AUDIT CERTIFICATE

Certificate No: ES/ACSW/24-25/02

Date: 3/4/2025

This is to certify that we have conducted Energy Audit at **Athawale College of Social Work, Bhandara**, in the Academic Year 2024-25.

The College has adopted following Green & Sustainable Practices:

- Usage of Energy Efficient LED Fittings
- Installation of 5 kWp Roof Top Solar PV Plant.
- Segregation of Waste at Source
- Provision of Bio Composting Pit, for conversion of Organic Waste
- Implementation of Rain Water Management Project
- Good internal Roads within the campus
- Tree Plantation in the campus
- Provision of Ramp for Divyangjan
- Creation of awareness on Energy Conservation by Display of Posters

We appreciate the support of Management, involvement of faculty members and students in the process of making the Campus Energy Efficient.

For Engress Services,

A Y Mehendale,
B E-Mechanical, M Tech- Energy
BEE Certified Energy Auditor, EA-8192



ATHAVALLE COLLEGE OF SOCIAL WORK

Station Road BHANDARA- 441904 (M.S.) Phone:(07184)254511

(Recognized by Govt. of Maharashtra & Affiliated to R.T.M. Nagpur University,
Approved by U.G.C. Section 2F, New Delhi, NAAC Accredited Grade 'A')

Ref.No.: ACSW/B/

Datet. : 3 April 2025

स्व.डॉ.चंदनसिंह रोटेले शैक्षणिक परिसराला ग्रीन ऑडिट सर्टिफिकेट प्राप्त

आठवले समाजकार्य महाविद्यालय भंडारा येथे IQAC सेल अंतर्गत नवीन उपक्रमा अंतर्गत महाविद्यालयाचा ग्रीन ऑडिट सादर करण्यात आला व त्याचे प्रमाणपत्र सुद्धा प्राप्त झाले सदर ग्रीन ऑडिट सर्टिफिकेट देते वेळेस संस्थेचे कोषाध्यक्ष डॉ. प्रतिकसिंह बडगे, कार्यकारी प्राचार्य डॉ. नरेश कोलते, मराठी विभाग प्रमुख डॉ. हेमंत देशमुख, प्रा. अमोलसिंह रोटेले, कार्यालयीन अधीक्षक श्री दिलीप पटले उपस्थित होते.

या उपक्रमामध्ये IQAC सेल प्रमुख डॉ.देवेंद्र सोनटक्के तसेच इंग्रजी भाषा विभाग प्रमुख डॉ. मधुकर निकम, प्रा.अमोलसिंह रोटेले यांनी महत्त्वाचे योगदान दिले.

सदर उपक्रमाविषयी संस्था अध्यक्ष डॉ. केदार सिंह रोटेले यांनी सर्वांचे अभिनंदन केले.



Officiating principal Dr. Naresh S.Kolte with MANAGEMENT MEMBER (TRESURE) Dr.Pratik Badge
Dr Hemnt Deshmukh Prof Amolsigh Rotele Mr Dilip Patle Research scholar Mr .Praful N.Aapte

Dr. Naresh S.Kolte

Officiating principal