



PRESPL

## GREEN & SUSTAINABLE BIOMASS SOLUTIONS

13 March 2024

# OUR JOURNEY

## Agri-Residue Biomass

2013  
Series A

2019  
Series B

2021  
Series C

2023\*

2011 2014 2015 2017 2018 2022 2023

Biomass Supply

Biomass Assessment

Biomass Densification

Steam Boiler Operations

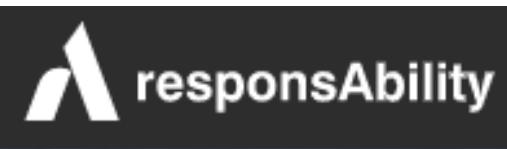
Build Own Operate Transfer

International Projects

Biogas Projects

## Investors

Series A



Series B



SBICAP  
VENTURES LTD.  
NEEV FUND



Series C



\* Mitsui & Co. raised the stake by acquiring the stake of responsAbility

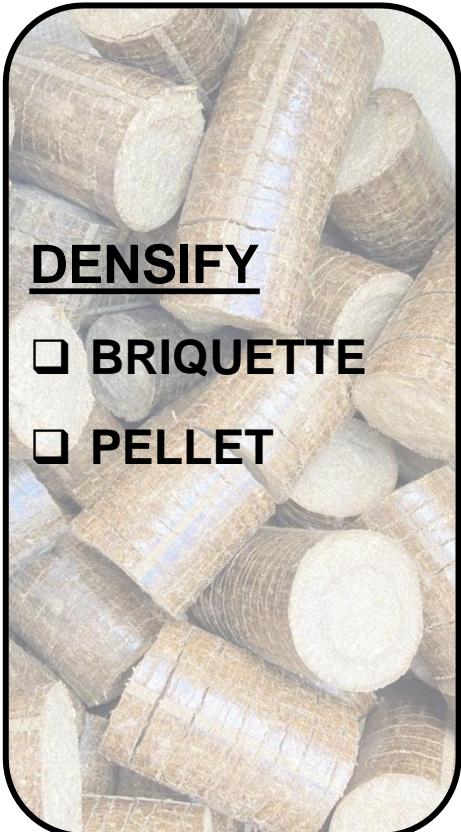
# PRESPL - BUSINESS VERTICALS

## Biomass Supply



### CONSULTING

- BAS
- TEV
- PMC
- EPCM



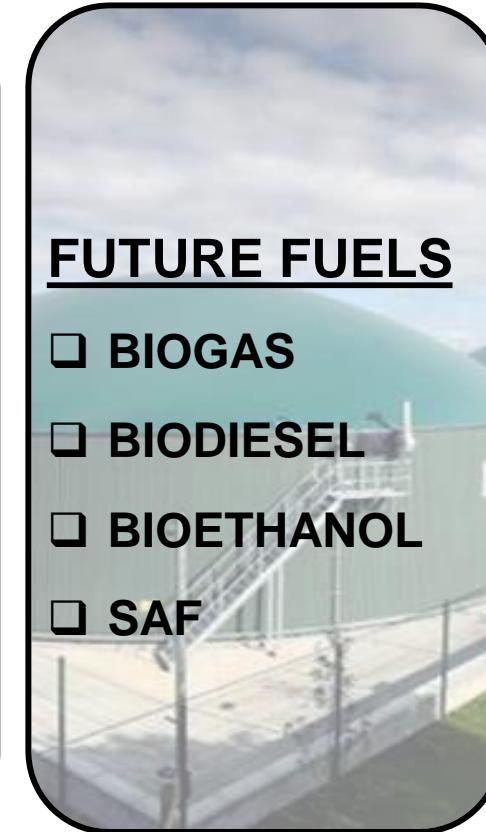
### DENSIFY

- BRIQUETTE
- PELLET



### BOIL & O&M

- STEAM
- HAG
- TF HEATER



### FUTURE FUELS

- BIOGAS
- BIODIESEL
- BIOETHANOL
- SAF



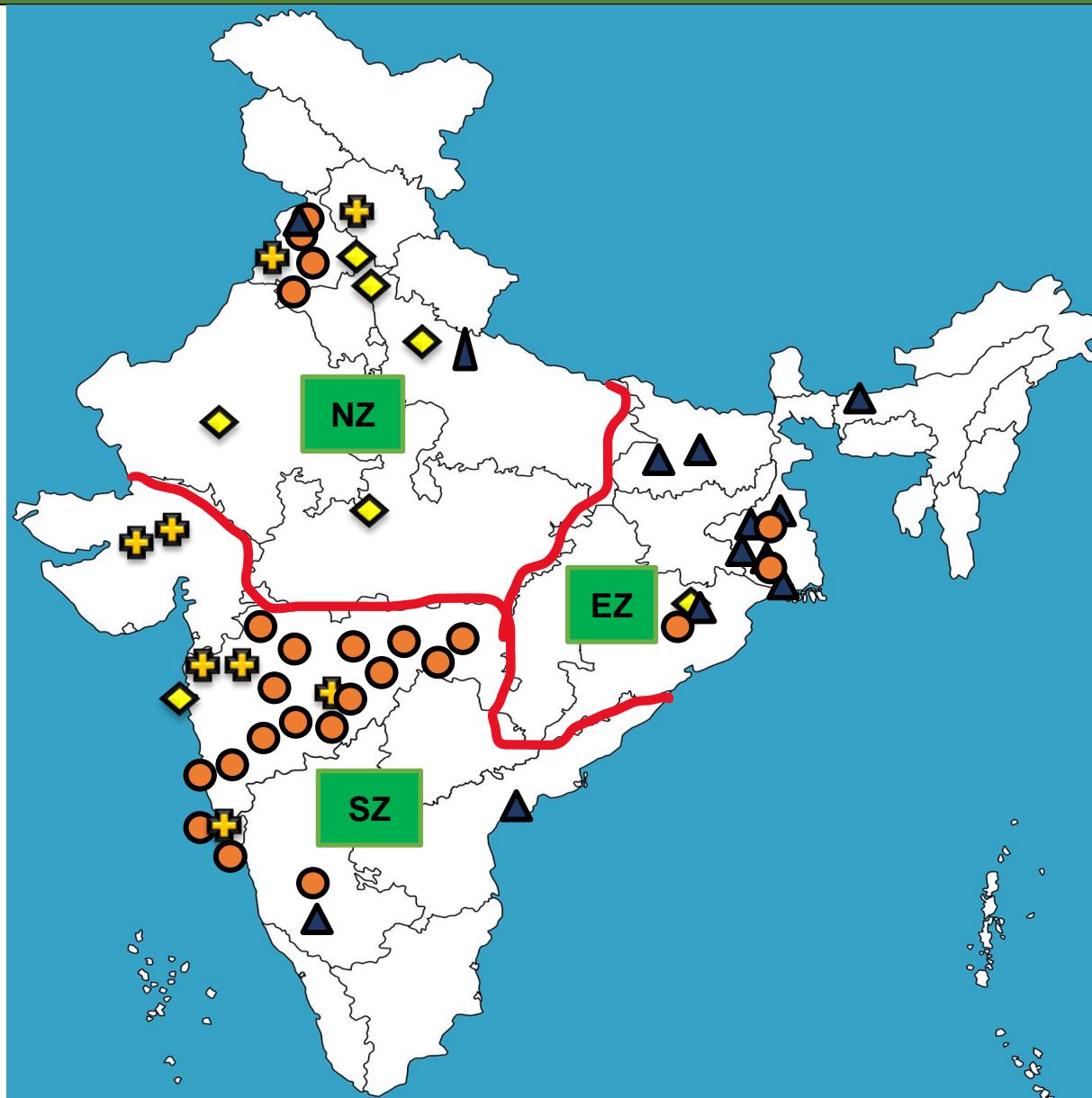
### R&D PROJECTS

- TANDOOR  
& COOKSTOVE
- WOOD  
REPLACEMENT

PRESPL  
Prestige Renewable Energy Solutions Private Limited  
**PRES ECO-CHULAH**

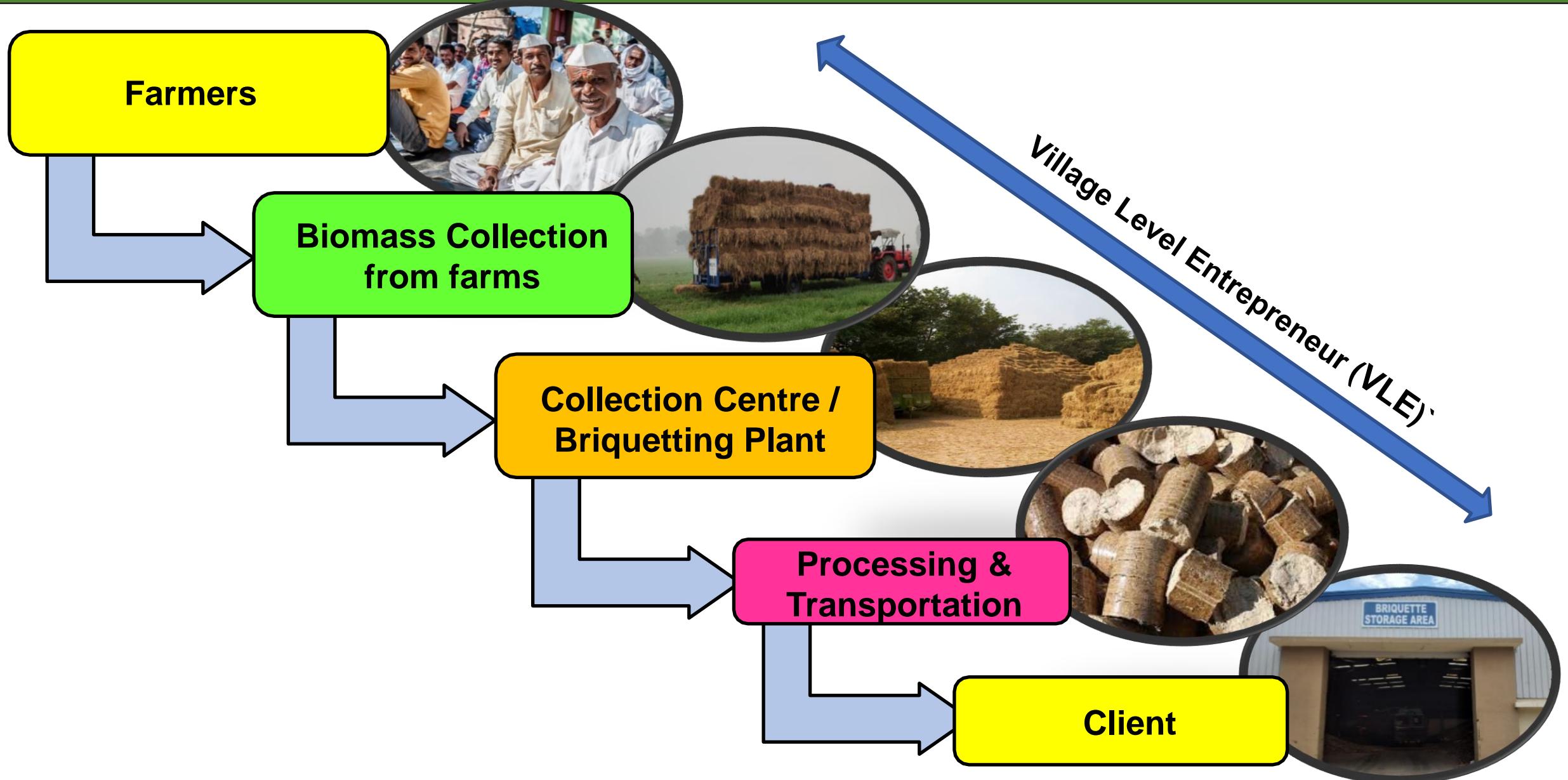
# FOOTPRINT

PRESPL  
International



- Loose Biomass Supply Contracts
- Briquettes Supply Contracts
- O&M / BOOT Contracts
- Consultancy Contracts

# ROBUST BUSINESS MODEL



# MAJOR CLIENTS

Long Term Steam Supply on BOOT & O&M



L'ORÉAL  
INDIA

e  
glenmark  
LIFE SCIENCES

deccan  
Fine Chemicals (India) Pvt. Ltd.

OC Specialities

Biomass / Briquette Supply – Yearly Contract



ipca  
A dose of life

JKCement

PEPSICO

ITC  
ITC Limited

BRITANNIA

BIRLA<sup>®</sup>91



Carlsberg

UB  
UNITED BREWERY LIMITED

Coca-Cola  
Hindustan Coca-Cola Beverages Pvt. Ltd.

CDB  
GROUP

Hindustan Unilever Limited

Consultancy



LanzaTech

MITSUI & CO.

RRECL

UPL

ETG

# DECARBONIZING CEMENT SECTOR



400,000 MT/YEAR



400,000 MT/YEAR



300,000 MT/YEAR

# ROBUST SCM NETWORK

# VLE DEVELOPMENT



# EQUIPMENT FOR AGGREGATION



Raker



Chipper



Trolley for Loose Biomass



Baler



Trolley for Paddy Husk

# AGGREGATION AT COLLECTION CENTRES



# STORAGE AT COLLECTION CENTRES



# FUEL STORAGE



**Intermediate Briquette Storage  
(30 – 45 Days)**



**Site Storage at Client  
(07 – 15 Days)**

# FUEL SUPPLY STRENGTH

<u>Project</u>	<u>Fuel (MT/Year)</u>	<u>Remark</u>
HPCL - Bio Refinery (Punjab)	200,000	<b>L1 Bidder</b> <b>(Only Company to Qualify Internationally)</b> <b>Tender cancelled</b>
BPCL - Bio Refinery (Orissa)	150,000	
HPCL – Badaun (Uttar Pradesh)	80,000	<b>Tender allotted</b>
HPCL – Bathinda (Punjab)	50,000	<b>Under process</b>
<b>Total</b>	<b>4,80,000 MT/Year</b>	

# BRIQUETTING PLANTS



# FUEL STOCKING & PLANNING



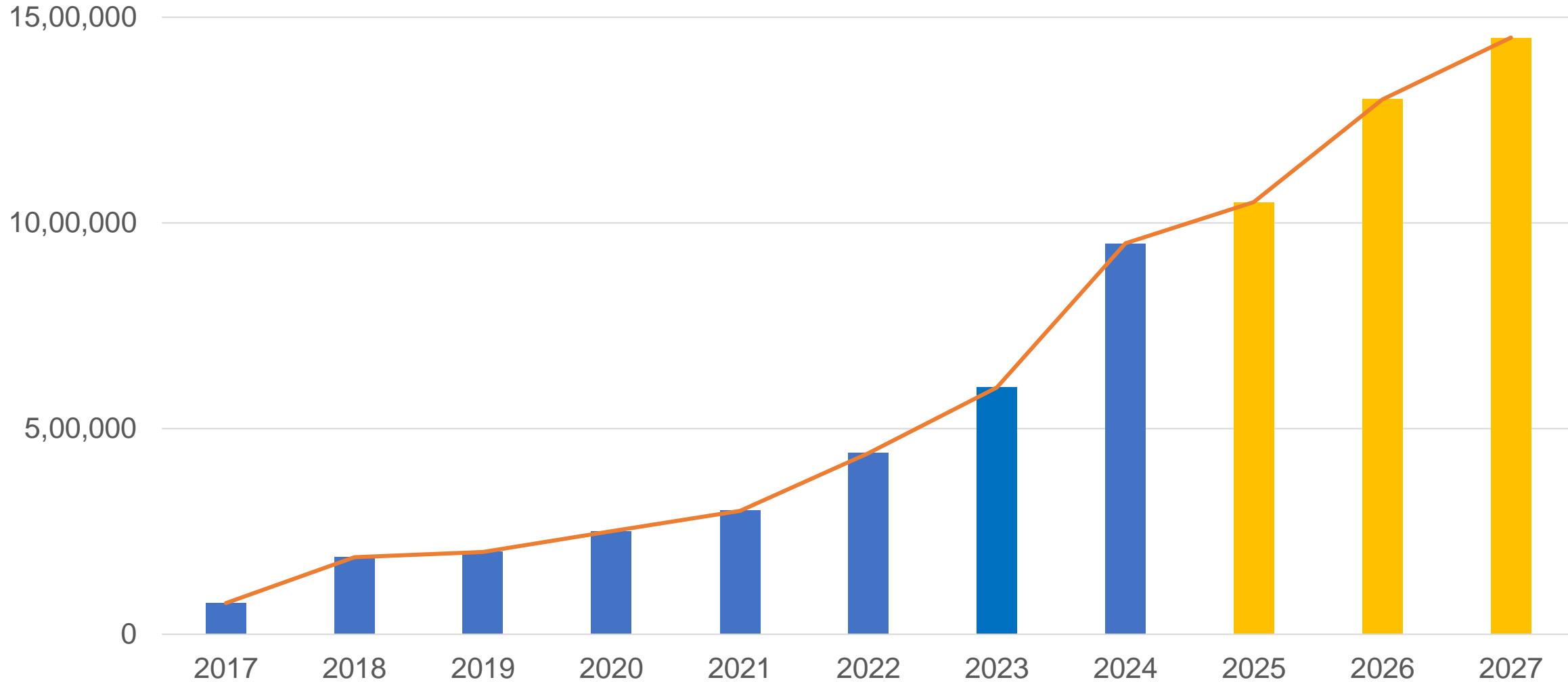
# STEAM SUPPLY CONTRACTS

<u>Client</u>	<u>Type</u>	<u>Capacity</u>	<u>Steam (TPM)</u>	<u>Remark</u>
SPIL, Toansa	BOOT	13 TPH	7,000	Operational
L'Oreal, Pune	BOOT	2 TPH	450	Operational
Deccan, Goa	O&M	30 TPH	9,000	Operational
OCS, Solapur	O&M	16 TPH	6,600	Operational
GLS, Dahej	BOOT	10 TPH	4,500	Operational
GLS, Ankleshwar	BOOT	21 TPH	8,000	Under Execution

TOTAL STEAM GENERATION – 4,26,000 MT / YEAR

# STEAM SUPPLY JOURNEY

STEAM OFFTAKE / MONTH



**STEAM SUPPLY ON BOOT BASIS**

# BOOT - SCOPE



**CAPEX**



**EPC of Boiler & BOP**



**Uninterrupted Biomass Supply**



**Comprehensive O&M Service**

# EHS & SAFETY AUDITS



# WORLD-CLASS HOUSEKEEPING



# BOOT PROJECTS IMPLEMENTED

# BOOT PROJECTS



13 TPH AT SPIL, TOANSA



02 TPH AT LOREAL, PUNE



10 TPH AT GLS, DAHEJ



21 TPH AT GLS, ANKLESHWAR

# PROJECT HIGHLIGHTS – SPIL Toansa

- Biomass to Steam Project at Toansa, Punjab.
- 100 % Biomass Based Steam Plant.
- Loose Biomass / Briquettes Options for Fuel.

**FIRST IN INDIA – MULTI AGRO RESIDUE FUEL CAPABILITY**

**PADDY STRAW**

**MUSTARD HUSK**

**RICE HUSK**

**DANDA KUTTI**



# PROJECT HIGHLIGHTS

- Project CAPEX – ₹150 Million CAPEX
- Completed In Record 11 Months.
- Many Engineering & Situational Challenges.
- COD four days before National Lockdown.

**100 % Availability During Lockdown.**



# 13 TPH BOILER ERECTION



ENTIRE EPC DONE INHOUSE

# AUTOMATED PLANT OPERATIONS



Fuel Storage Yard



Moving Floor



Boiler Furnace and Drum



Control Room



Pollution Control Devices



Chimney

# ENERGY EFFICIENT BIOMASS PROJECT

- PRESPL compared FO vs Biomass Energy Usage in boilers using **EROI (Energy return on Investment) concept.**
- **12 – 15 % Energy Savings using Biomass over CNG / FO in boilers.**
- PRESPL obtained grading **(BEE grade 2)** as an **ESCO & BEE Graded Company.**
- Approval of **World Bank PRSF Loan through SIDBI.**

 **ICRA ANALYTICS**  
A Group ICRA Company

**ICRA ANALYTICS LIMITED**

CONFIDENTIAL  
ESCO Grading

Ref: Email from Punjab Renewable Energy Systems Private Limited dated May 25, 2022  
Date: June 22, 2022

Mr. Lt Col Monish Ahuja  
Managing Director,  
Punjab Renewable Energy Systems Private Limited,  
708-713, 7<sup>th</sup> Floor,  
V Times Square, Plot No-03, Sector-15,  
CBD Belapur, Navi Mumbai- 400614

Dear Sir,

Sub: Grading of your organization under ESCO Grading of Bureau of Energy Efficiency

Please refer to your email dated May 25, 2022, for assigning ESCO grading to your organization under the aegis of Bureau of Energy Efficiency, Ministry of Power, Government of India.

ICRA Analytics Limited has, after due consideration, assigned an **ICRA Analytics Limited - BEE Grade 2** to Punjab Renewable Energy Systems Private Limited. The grading indicates 'high' ability of the graded energy service company to carry out energy efficiency audits and implement energy-saving projects. Our grading symbols for ESCOs are annexed. The grading is valid for a period of two years from June 22, 2022, and the grade assigned will not be kept under surveillance.

We thank you for your kind cooperation extended during the grading exercise. Please let us know if you need any clarification. We look forward to further strengthening our existing relationship and assure you of our best services.<sup>1</sup>

With kind regards,

Yours sincerely,

for ICRA Analytics Limited

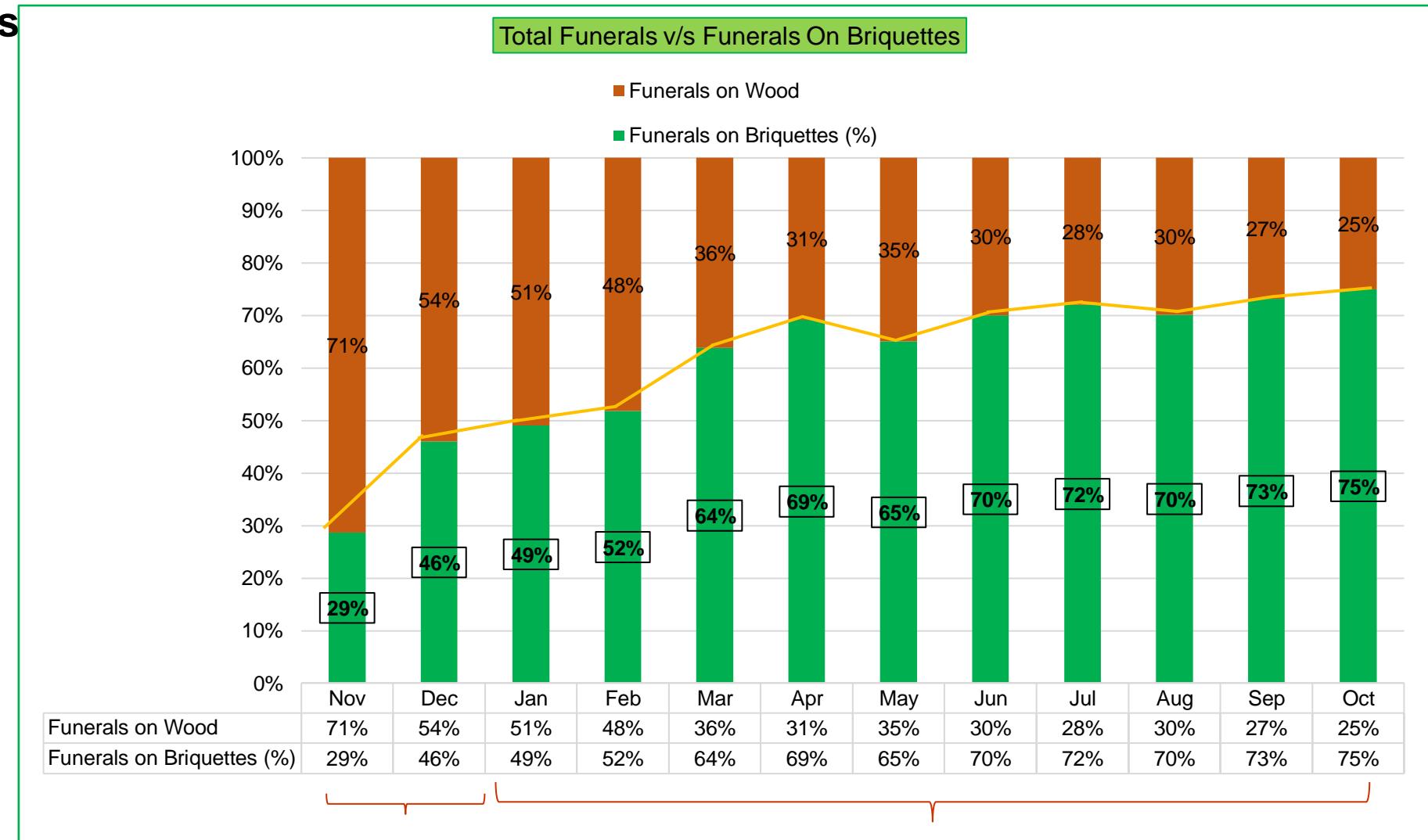


Authorised signatory

# ECO-CREMATION

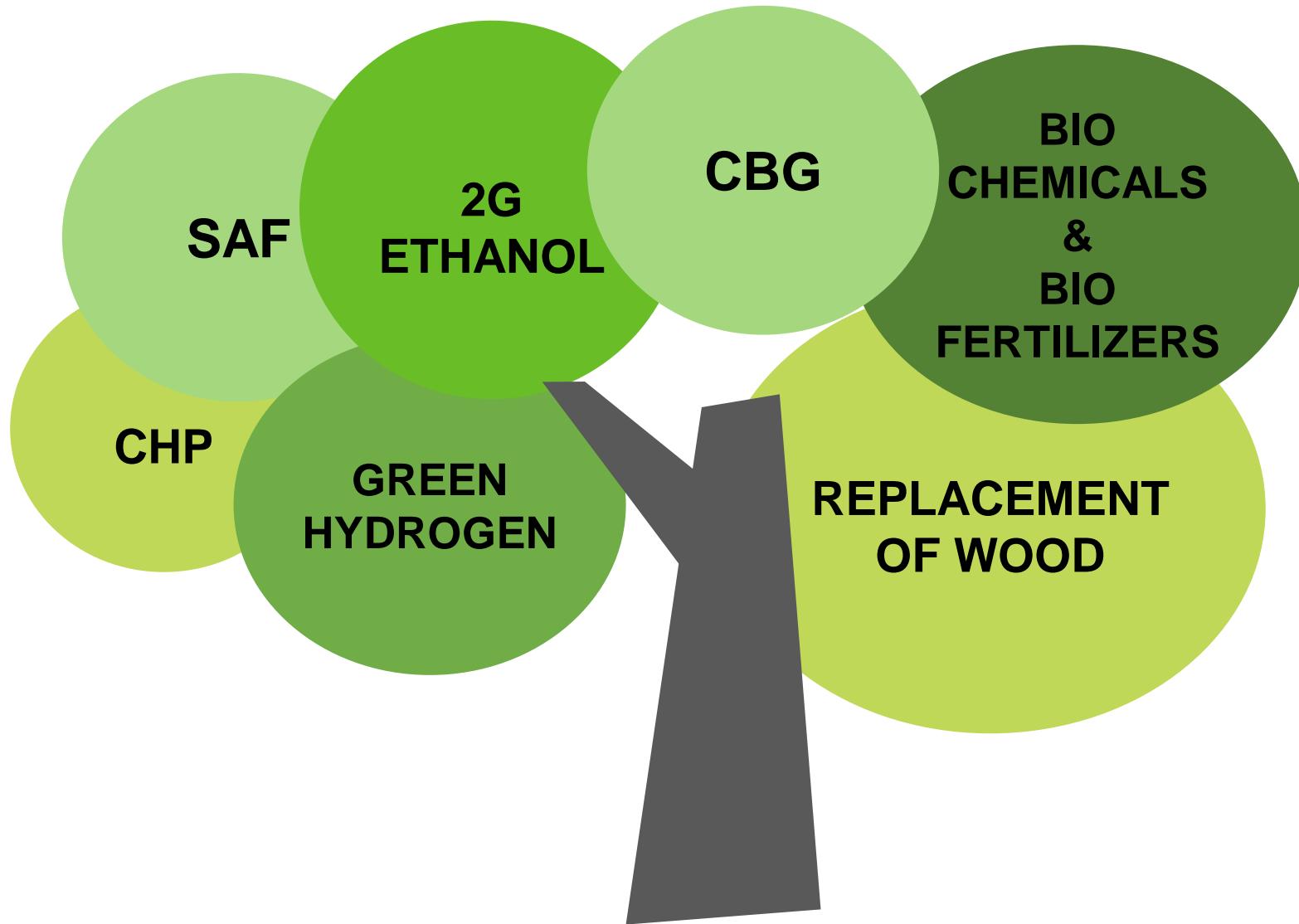
## Successful cremation trials

- Aurangabad
- Navi Mumbai
- Pune
- Pimpri Chinchwad
- Thane
- Kalyan
- Chandigarh
- Mohali
- Patiala
- Delhi
- Jabalpur(MP)
- Goa



Aurangabad Cremation Centre – Case Study

# FUTURE OPPORTUNITIES



# SOCIO-ECONOMIC ASPECTS

**Decentralised Renewable Energy – Can Be Set Up Anywhere In Country**

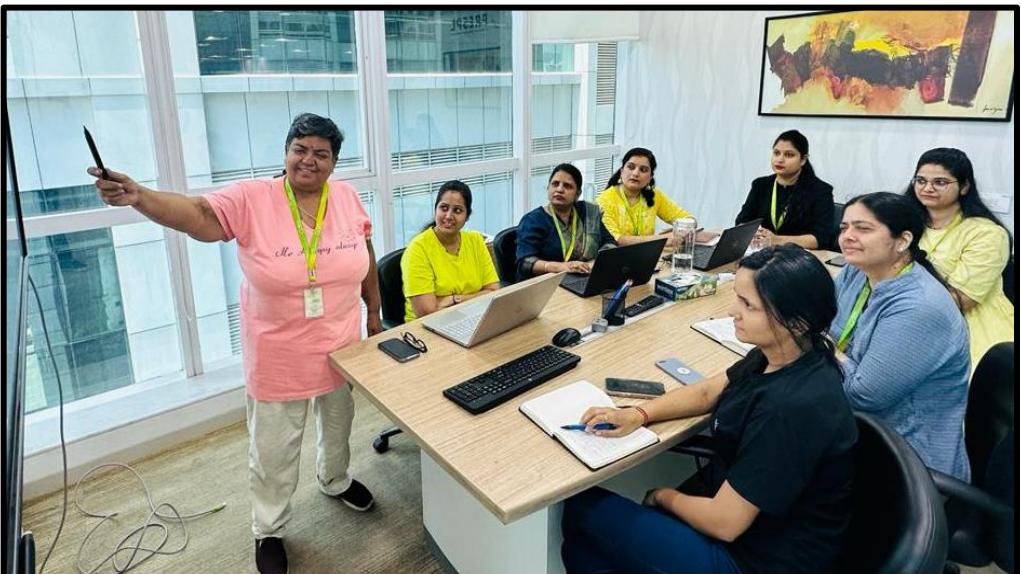
**Environmental & Health Benefits**

**Empowers Farmer For Sowing, Additional Income**

**Promotes Entrepreneurship & Financial Inclusion**



# EQUAL OPPORTUNITIES



# Support towards



SUSTAINABLE  
DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



# PRESPL IMPACT

**BIOMASS UTILIZED – 200,000 MT / YEAR.**

**GHG REDUCTION – 150,000 TONS CO<sub>2</sub>e.**

**₹ 800 MILLION INTO CIRCULAR ECONOMY**



## Projects

**PRESPL's Business Models delivering Sustainable Development Goals**

**Steam Generation Plants/  
Eco Cremation / Cook Stove  
/ Eco Chulah**



# LATEST AWARDS TO PRESPL

## JSW- TOI Earth Care Awards



WINNERS OVER THE LAST 10 EDITIONS

AWARDS FOR EXCELLENCE IN CLIMATE CHANGE MITIGATION & ADAPTATION

10th EARTH CARE AWARDS

## FICCI Indian Circular Economy Awards



6<sup>TH</sup> FICCI  
CIRCULAR ECONOMY  
SYMPOSIUM 2022

Accelerating Circular Economy for Sustainable & Inclusive Growth  
24 - 25 November, 2022 | New Delhi

## SIDBI-World Bank Awards



Renewable Energy Best Company  
3rd June 2022

Energy Leadership Award  
23rd June 2022

Felicitated as an ESCO Company  
13th Oct 2023

National Workshop on "Decarbonization Challenge Fund"  
and "Industrial Decarbonization Financing Facility"

### Green 2 Decarb

### Punjab Renewable Energy Systems Pvt. Ltd.

SIDBI is pleased to recognize your contribution to Green the Ecosystem leading to Decarbonization. In gratitude we shall, through our partner "Give Me Trees", plant 10 trees to give momentum to "Decarbonization". These Green Gifts to Nature shall be taken care of by "Give Me Trees" for years to come.

We thank you for being part of SIDBI's mission towards Greening the Enterprise Ecosystem.

Signatory  
Give Me Trees Trust



## Year 2022

- ❖ Business Leader Bioenergy – Business Mint
- ❖ Environment Friendly Company of the Year in Renewable Energy - Asia-Africa CCI.
- ❖ Bioenergy Company of the year - National Feather Award 2022
- ❖ 10th Earth care Awards 2022 - Best Enterprise in Renewable Energy Space by JSW TOI
- ❖ Energy Leadership Award 2022 by ET Energy
- ❖ Indian Circular Economy Awards & Circular Economy Symposium 2022- SME Category by FICCI

## Year 2023

- ❖ Energy Service Company (ESCO) 2023 by SIDBI-World Bank on Friday, 13th Oct 2023



**JAI HIND**