



Clean Green Sustainable Renewable Energy For a Better World

The Biomass Biofuel Company with Total Solution for

BIO-ENERGY



ABOUT PRESPL

1. Punjab Renewable Energy Systems Private Limited (PRESPL) is the 'Leading Indigenous' Indian Entrepreneur-cum Contributor in Biomass Supply Chain Management, since 2011.
2. PRESPL has served the Farmers and the Industry with amicable Bio Energy and Biomass Supply Chain solutions through acceptable business models, while enabling the VLE to gain entrepreneurial acumen.
3. PRESPL has spearhead the Biomass Sphere by contributing to Policy Making, Technology Enhancements and has also taken up intricate and detailed Biomass Assessment Studies, across the spectrum of India and some abroad.
4. Our forte is creation of Biomass Supply Chain by enabling:
 - Village Level Entrepreneur (VLE) and Channel Partners for supply of Loose Biomass.
 - Briquettes and Pellets.
 - Operations & Maintenance (O&M)
 - Build Own Operate and Transfer (BOOT)
 - Steam/Energy supply contracts for Co-Generation - Biogas, Bio-CNG, Bio-Ethanol Plants.



A Happy Partner



HSSE / ESG Protocol



Biomass Stock



O&M of Boilers

VISION

PRESPL will be the largest Entrepreneurial Biomass Supply Chain Company in India.

MISSION

PRESPL will develop optimised scales for Biomass-based Bio-Energy Projects in India and abroad; covering the entire existing and evolving Bio-Energy Spectrum including Bio-CNG, Biogas, Bioethanol, Power, Co-Gen & Supply to Briquettes & Pellets Manufacturing Units; duly in sync with Policies & Opportunities & through strict HSSE / ESG / PCB Norms and Compliances.

FOUNDERS



Late Mr. Vini Ahuja

Late Mr. Vini Ahuja, a Science Graduate, started Bermaco Group of Companies in 1963. It commenced operations in the form of a Manufacturing/ Fabrication of Power Plant related equipment's. The Group then moved to EPC (Engineering, Procurement and Construction) of Power Projects and handled 165 MW Power Project at Kochi, Southwestern Coast of India. Mr. Vini Ahuja was a passionate person to have adopted a Vision of converting Biomass into Bioenergy. He represented Thomassen International, GE Business Associates from the Netherlands for Gas Turbines



Lt Col Monish Ahuja (Retd)

Currently, the Chairman and Managing Director of Punjab Renewable Energy Systems Private Limited (PRESPL). He is alumnus of the prestigious National Defence Academy, Khadakwasla, Pune. Postgraduate (M Tech) in Nuclear Technology from Bhabha Atomic Research Centre in 2006. Bachelor of Technology (B Tech) in Mechanical Engineering from JNU in 2002, Bachelor of Science (Bsc) from JNU in 1994. Bestowed with the coveted Biomass Energy Man of the Year Award, he is driving force of the Biomass Movement in India with his ongoing efforts of harnessing the agro residue potential in India.

WHAT WE DO (BUSINESS DOMAIN)



SCM of loose
Biomass / Briquettes /
Pellets



Steam supply
contracts O&M / BOOT
Projects



Biomass Assessment
and
Technical Consulting



O&M of
Compressed
Bio-gas Plants.



Agriresidue
to Bio- CNG
Plants.



R & D Projects - Cookstove
Tandoor &
Green Cremation.

OUR JOURNEY

2011

Incorporation of PRESPL Biomass Supply Commenced.

2013

Series A Funded by responsibility.

2015

Entered Biomass Briquette Manufacturing Sector.

2016

Entered Steam Supply Contract Business.

2017

Boiler O & M.

2018

BOOT Contracts.

2019

Series B Funded by Neev Fund & Shell.

2020

Bio-CNG/ CBG Projects.

2021

Series C Funded by Mitsui & Co.Ltd.

2022

Long term guarantee from DFC.

BOARD OF DIRECTOR



Mr. Jai Shah
(Board of Director)

15 years of experience in Fund Management, Corporate Advisory, Equity Research, Investment, Divestment and Asset Management activities for investors . Post graduate in Business Management (MBA) and Bachelors Degree in Commerce



Mr. Bartholomeus Suijkerbuijk.
(Board of Director)

15 years of experience in business development and technology, including roles such as Chief of Staff to Shell's CTO, Global Head of Partnerships and Technology etc. PhD in Chemistry and Catalysis from Utrecht University and a BSc in Business Administration from Erasmus University, Rotterdam.



Mr. Shashi Shekhar

Independent Director (IAS Water, Power & Renewable Sector)

An IAS officer with more than 10 years of experience in Power and Renewable Sector. Currently, he is promoting various renewable energy projects. A graduate in Geology from Patna University.



Mr. Sudhakara R. Rao

Independent Director (Oil & Gas Industry)

A well-known personality for the past 35 years in the oil and gas sector. An expert in retail marketing, dealer selection, brand management, and maximising forecourt revenues are just a few of his specialties. A qualified Chartered Accountant.

OUR INVESTORS



ROBUST BUSINESS MODEL

VILLAGE LEVEL ENTREPRENEURS



01

Village Level Entrepreneurs



02

Biomass Fuel Collection from farms



03

Collection Centre



04

Briquetting Plant



05

Processing & Transportation



06

Clients

HUB & SPOKE MODEL



OUR USP

Biomass Supply Chain Management

PRESPL is a leading company in the Bio-Energy Supply Chain Management (SCM) sector, with a strong presence and organization. It successfully caters to the biomass requirements of Independent Power Plants (IPPs), Captive & Co-Generation Power Plants, and processing plants. The company covers various stages of the supply chain, including aggregation, processing, storage, and transportation. PRESPL engages with farmers and Village Level Entrepreneurs (VLEs) to ensure a seamless flow of biomass to industries. Its operations generate sufficient earnings and profits for all stakeholders involved. PRESPL's focus on sustainability and profitability contributes to the growth of the renewable energy sector.



TYPICAL SUPPLY CHAIN MANAGEMENT (FROM COLLECTION TO FEEDING)



01

Paddy Field



02

Harvesting and Baling



03

Transportation to Collection Centre



04

Storage in Fuel Depot



05

Shredding



06

Biomass for briquettes



07

Transport to plant



08

Fuel-feed to Boiler

BIOMASS BRIQUETTES & PELLETTES

Agricultural and industrial trash is converted into compact biofuel blocks known as briquettes and pellets using a sustainable technique. Binder less technology is used to make these cylindrical blocks, which have a high mechanical pressure applied to them, effectively doing away with the need for any chemicals. To optimize the utilization of biomass, PRESPL's Plants convert it into briquettes and pellets, enabling convenient transportation over long distances. These briquettes and pellets serve as biofuel for process boilers and furnaces, ensuring efficient end-use.



Comparison of Briquette and Other Fuels

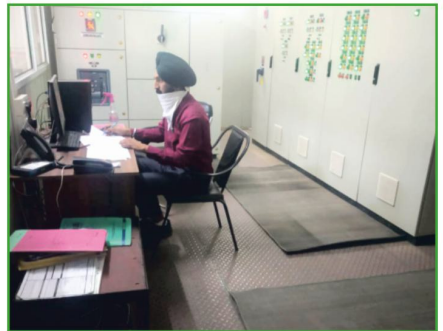
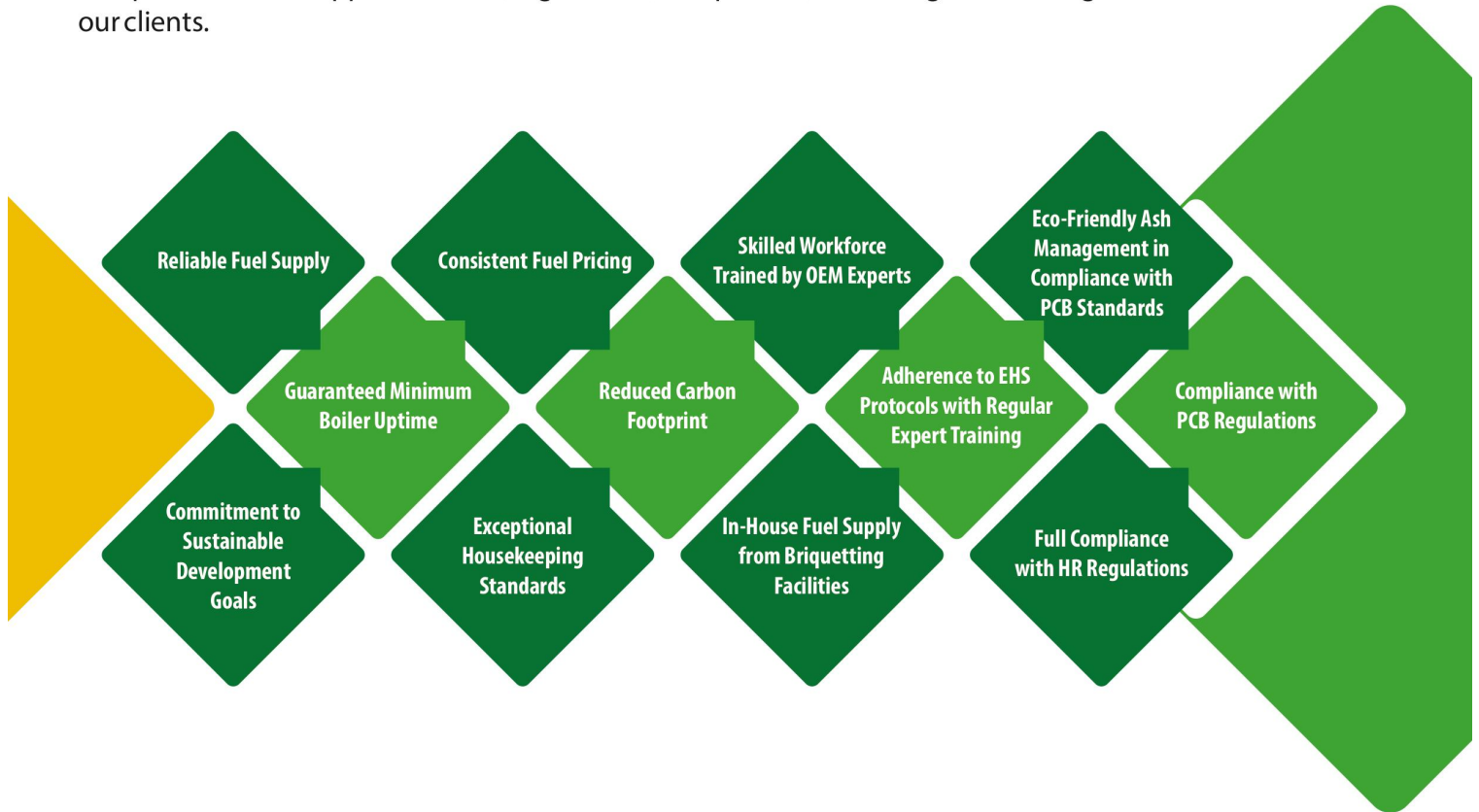
Items	Diesel	Furnace Oil	Natural Gas (PNG)	Electricity	Wood Pellets	Biomass Briquette	Coal
Heat Value Units	Kcal / Kg	Kcal / Kg	Kcal / M3	Kcal / Kw	Kcal / Kg	Kcal / Kg	Kcal / Kg
	10200	9600	8500	860	4100	3500	6000
Unit price of Fuel (INR)*	60.42	46.00	72.00	8.20	12.00	8.00	10.00
INR per Kcal	0.00592	0.00479	0.00847	0.00953	0.00293	0.00229	0.00167
Equivalent Briquette Kilogram	0.34	0.36	0.41	2.0	9.4	1.0	13.71
Net saving using Briquetters inlieu of Fuel	37.1	24.1	52.6	6.2	2.6	8.0	-3.71
The saving Energy Rate (Briquette compared to other fuel)	61%	52%	73%	76%	22%	NA	-37.14%
Specific Co2 emission in Kg(of CO2) / kg of Fuel	3.15	3.11	2.75	NA	1.83	0.00	2.38

*subject to change based on the current price



OPERATIONS & MAINTENANCE CONTRACTS

The Operation & Maintenance (O&M) Project focuses on industrial applications, including boiler plants and the generation of bio-CNG and bio-CBG. Our skilled team offers a full spectrum of services, from supplying biomass fuel to providing trained manpower for plant operations. We also manage ash handling and ensure compliance with all applicable laws, regulations, and permits, delivering outstanding value-added services to our clients.



BOOT (BUILD, OWN, OPERATE & TRANSFER) FOR BOILERS & CO-GENERATION PLANTS

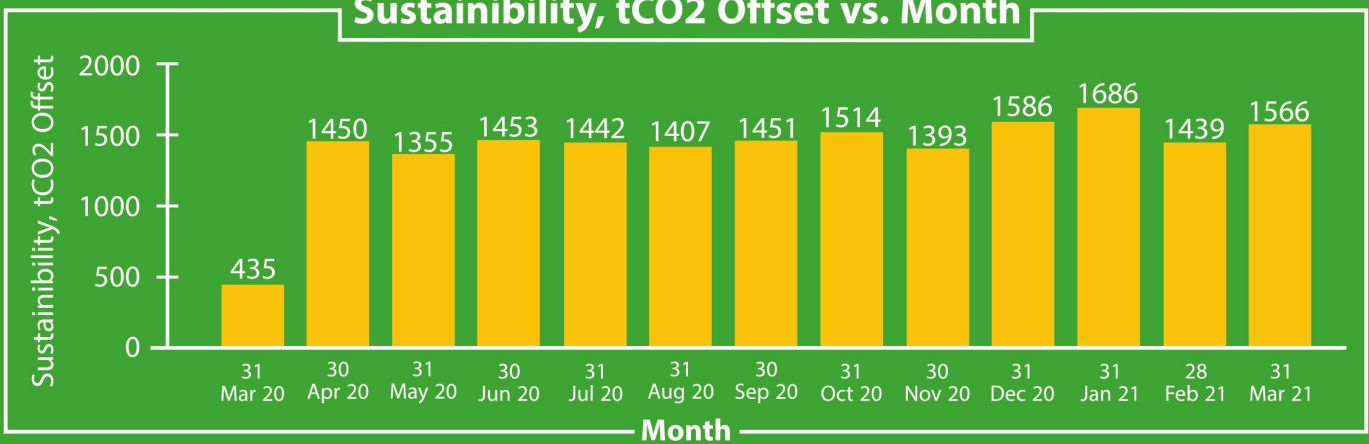
OUR FIRST BOOT BOILER PROJECTS



KEY HIGHLIGHTS

- 01** Designed & manufactured in India under the "Make in India" self-reliance programme by the Forbes Marshall Group, support partners to PRESPL, for BOOT projects.
- 02** Project delivered 70 days ahead of schedule within financial budgetary a location owing to efficient integrated-planning and dynamic scheduling, meeting a I project milestone within stipulated timelines. Operationalized on 20 Mar 2020 against the scheduled project deadline of 31 May 2020.
- 03** 1 million Man-Days engaged, >3000 Tons of Earth & Material moved. ZERO incidents, injuries & accidents recorded balancing both speed of execution and safety of men & material.
- 04** The boiler has been in continuous operation since 20th March 2020 and has clocked 98% uptime to date.

Sustainability, tCO2 Offset vs. Month



BIOMASS ASSESSMENT & TECHNICAL CONSULTATION

Conducted on a commercial basis for major industries including MNCs; both in India and abroad; these studies deal with regional and national green spaces and give insights into the Biomass Sphere with ample leads into the future scenarios; all tailor-made to suit the Client. PRESPL can build Supply Chain Management models and offer pricing for it over long tenors.

BIO-PLANTATION

PRESPL exhibits a drive focused on commitment, which supports the objectives of both the government and the industry



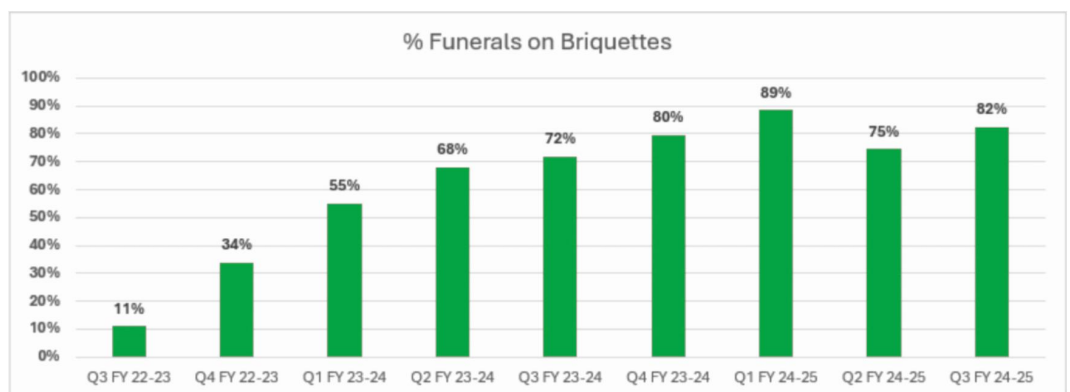
GREEN CREMATION

Each Hindu cremation need 300-400 kgs of wood derived by cutting 2 trees aged 10-15 years of growth which has at least 50 years of residual life left and huge potential to absorb tons of atmospheric CO2 and other harmful poisonous gases.

PRESPL supports to address the conventional standard Hindu cremation rituals by adapting to Agri residue based briquettes instead of wood / electric and gas based final rites and address the issues of inflation in wood price, non-availability of wood during monsoon, alternative to electric and gas-based cremations and thus resolving the Geo-political issue of deforestation and climate change challenges.

Through the support of the Government of India, Ministries, and obtaining necessary trials, approvals from CPCB, SPCBs, and Municipal Corporation raced by citizens, respecting religious sentiments and beliefs while promoting rural income for farmers and sustainable development.

Following table and graphs explains the increased Social acceptance of Briquettes for Cremation purpose.



PRES ECO-CHULHA

A MODERN RE-INTERPRETATION
OF THE HUMBLE WOOD
FIRED COOKSTOVE



SALIENT FEATURES

Continuous & automatic calibrated biomass feed

PLC based fine combustion & temperature control

Silent & economical operations

~40% savings over commercial LPG & Diesel/Ipsum

Optimised combustion with independent Primary & Secondary Air Controls

Quick & hassle-free ignition

Easy ash removal

NO adverse observation on Cooking/Production Time & Quality of Food

DATA

Eco-Chulha vs LPG

Parameter	Mode of Operation		
	High	Medium	Low
Screw Feed ON, s	2	1	1
Screw Feed OFF, s	6	6	12
Feed Pulses Per Minute	7.5	8.6	4.6
Consumption, g/s	15	15	15
Consumption, g/min	225	128.6	69.2
Consumption, kg/hr	13.5	7.7	4.2
Fuel Price, INR/kg	20	20	20
Fuel Expenses, INR/hr	270	154	83
Fuel GCV, kCal/kg	4000	4000	4000
LPG GCV, kCal/kg	11500	11500	11500
BM:LPG Ratio	2.88	2.88	2.88
LPG Consumption Per Hour, kg/hr	4.70	2.68	1.44
LPG Price, INR/kg	92	92	92
LPG Price, INR/hr	432	247	133
Equivalent BM Cost, INR/kg	270	154	83
Savings, %	37.50%	37.50%	37.50%

Eco-Chulha vs Diesel

Parameter	Mode of Operation		
	High	Medium	Low
Screw Feed ON, s	2	1	1
Screw Feed OFF, s	6	6	12
Feed Pulses Per Minute	7.5	8.6	4.6
Consumption, g/s	15	15	15
Consumption, g/min	225	128.6	69.2
Consumption, kg/hr	13.5	7.7	4.2
Fuel Price, INR/kg	20	20	20
Fuel Expenses, INR/hr	270	154	83
Fuel GCV, kCal/kg	4000	4000	4000
Diesel GCV, kCal/kg	11000	11000	11000
BM:Diesel Ratio	2.75	2.75	2.75
Diesel Consumption Per Hour, kg/hr	2.81	2.81	1.51
Diesel Price, INR/kg	100	100	100
Diesel Price, INR/hr	281	281	151
Equivalent BM Cost, INR/kg	154	154	83
Savings, %	45.00%	45.00%	45.00%

SECTORS WE CATER TO



Pharma



Chemical industries



Food and beverages



Power Generation



Paper Pulp Industries



Distilleries & Breweries



Glass industries



Cement industries

And Many More

ESG (Environment, Social, Governance)

PRESPL Supports following.

Environment:

PRESPL provides sustainable biomass-biofuel solutions to decarbonize the environment. Collaborating with ministries, stakeholders, statutory agencies, and industry groups, we raise awareness about biomass renewable energy, supporting India's G20 targets and the government's socio-economic and environmental ESG goals.

Our clean, green biomass biofuel alternatives for commercial and industrial boilers curb millions of tons of harmful emissions and contribute to mitigating climate change and global warming.

We offer green cremation services using briquettes, saving over 2000 trees by March 2023. By avoiding deforestation, we prevent the release of CO₂ and maintain a cleaner environment.

Our focus on reducing reliance on wood during the monsoon season helps build a sustainable community and ecosystem, promoting a clean environment and reducing net carbon emissions.



Social:

PRESPL focuses on initiatives that promote social well-being, enhance the rural sector, and improve health outcomes within communities.

Enhancing the Rural Sector: PRESPL organizes awareness programs through the VLE - Hub and Spoke Model to uplift rural communities. This includes skill development training and educational drives for individuals of all backgrounds. PRESPL actively promotes employment opportunities for farmers, youths, and rural populations, with a special emphasis on empowering women.

Health and Hygiene Initiatives: PRESPL conducts health and hygiene camps, specifically for the farming community, and offers financial and banking assistance to support farmers and local vendors.

Academic and Industry Partnerships: PRESPL collaborates with academic institutions to promote awareness of the benefits of biomass renewable energy. This includes organizing visits, providing on-the-job training and facilitating internship projects.

Sustainable Manufacturing in India: PRESPL participates in the "Make in India" initiative, partnering with manufacturers to boost the local economy and encourage sustainable practices.

Through these efforts, PRESPL aims to uplift rural areas, create employment opportunities, improve health outcomes, and foster a healthier and self-reliant environment.



Governance:

PRESPL focuses on making rural farming communities self-sufficient by creating secondary income sources, resulting in employment and women's empowerment through the biomass supply chain management.

We bring long-term cost savings, clean energy compliance, and carbon credits to our clients. Additionally, we provide banking and financial services, including digital payments, to farmers and the rural community. Investors and companies in the biomass supply chain can expect high returns with a guaranteed Internal Rate of Return (IRR). Our efforts aim to preserve a clean and healthy environment for public health and benefit, collaborating with industry and the government through sustainable business solutions.

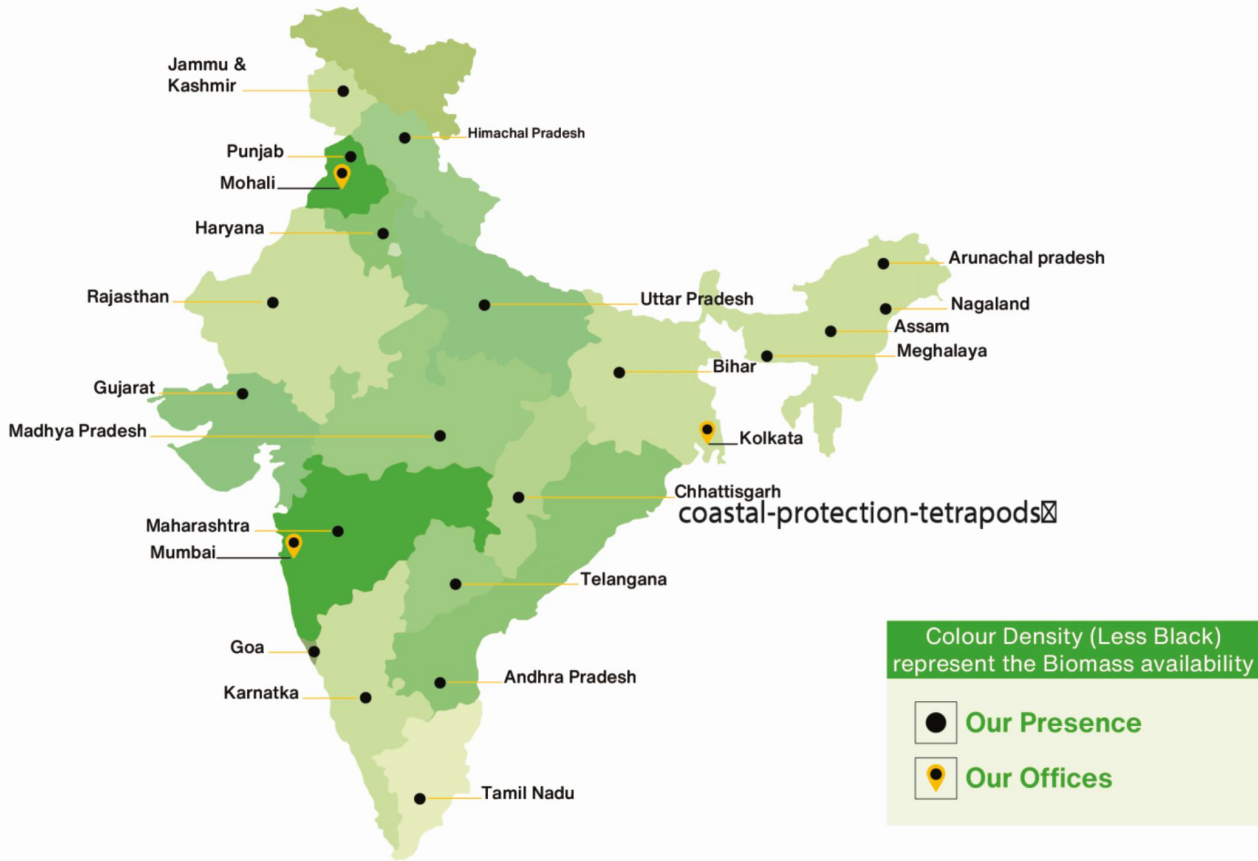


AWARDS & RECOGNITION

<p>2013 Biomass Energy Man of the Year Award by Renewable World, part of Fortune Media.</p> <p>2014 Udyog Ratan Award by Institute of Economic Studies, New Delhi.</p> <p>2014 Best Poster Award in Brussels Sustainability Development Summit, Belgium.</p> <p>2015 Most Innovative Company in Renewable Sector.</p> <p>2016 Renewable Energy India Awards 2016 selection by Ernst & Young.</p> <p>2017 50 Most Impactful Green Leaders (Global Listing) by World Sustainability Congress</p> <p>2018 Excellence in Bio Energy - Renewable Energy India Awards 2018</p>	<p>2019 The National Mission Innovation Champions - India announced in Vancouver, Canada.</p> <p>2019 Excellence in Bio-Energy at 5th Annual Renewable Energy India (REI) Awards 2019.</p> <p>2020 Sustainable Development Goals Action Award for Environment Sustainability (Industry).</p> <p>2021 The Nationwide Awards Under 50 Business & Corporate Leaders 2021.</p> <p>2021 TSS Sustainability Global Award - TSS Social Enterprise Awards by TIE Global,</p> <p>2021 The Economic Times awarded Biomass Supply Chain Award - Make in India & Swachh Bharat</p> <p>2022 Business Leader Award in Bio-Energy Sector by Businessmint</p>	<p>2022 Environment Friendly Company of the Year in Renewable Energy by Asia-Africa Chamber of Commerce & Industry</p> <p>2022 ET Now National Feather Award 2022 for "Bio-Energy Company of the Year"</p> <p>2022 JSW The Times of India "10th Earth care Awards 2022"</p> <p>2022 Nationwide C-Suite Award 2022 by Businessmint for Most Promising COO of the Year 2022.</p> <p>2022 Energy Leadership Award 2022 by ET EnergyWorld from the Economic Times.</p> <p>2022 FICCI Indian Circular Economy Awards & Circular Economy Symposium 2022.</p> <p>2025 "Veterans Achievers Award" presented by Army Cdr Lt Gen Dhiraj Seth, AVSM, at the Southern Command Investiture Parade 2025.</p>
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OUR PRESENCE



FUTURE PROJECTS



Bio-Gas



Bio-CNG



Green Hydrogen



Bio-Ethanol



Bio-Furniture



Bio-Solar IPP



SAF



Skill Development



R & D

OUR CLIENTS



L'ORÉAL



and many more...

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