

Growdiesel Incubating Nu age Cleanfuel Unicorns



Be a part of farm2fuel2fertilizer2farm A trillion \$ ESG project

Driven by Ultra modern Patented Technology of



Growdiesel's Mission

To develop India specific Biofuel technologies upto TRL10

We received a patent for an ultra-modern Bioreactor-based multi-feedstock biofuel technology in 2020. This Biomass2Biofuel technology which has attained TRL10 milestone is NOW ready for licensing

TRL means Technology Readiness Level. TRL10 means the project is commercialized

Growdiesel's USP

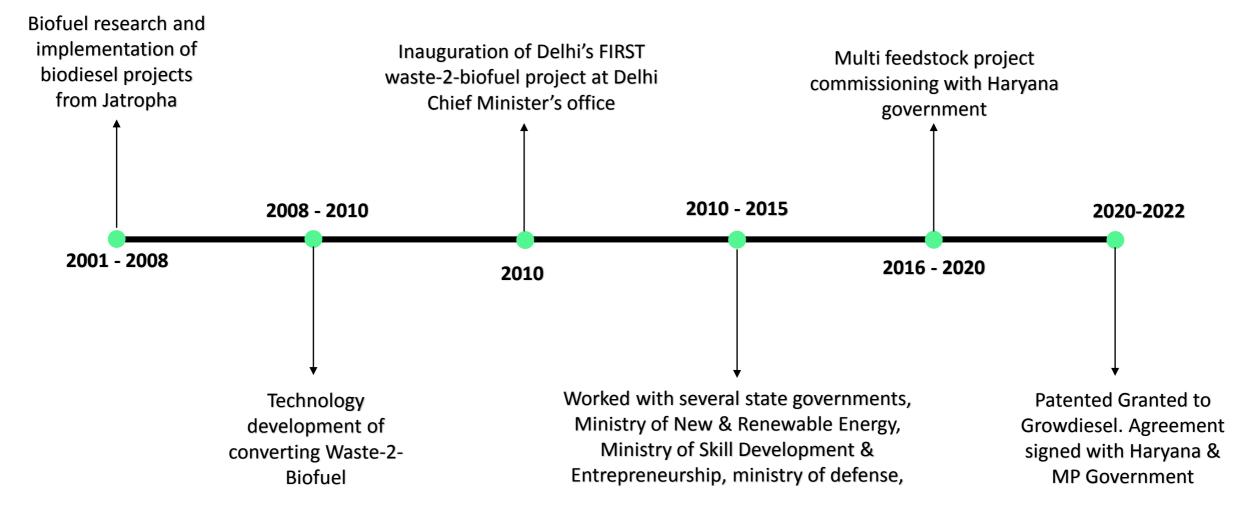
To help its licensee to generate biofuel from biowaste by deploying its highly efficient multi-feedstock technology

Biofuel such as Bio-CNG, BioH2, Biodiesel, Bio-Coal. Biowaste such as Paddy Stubble, Press Mud, Cow Dung, Organic Waste, etc.



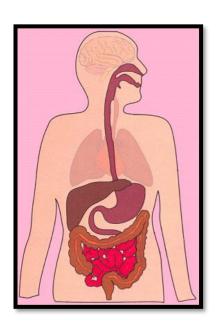
Growdiesel Biomass2Biofuel technology development journey





About Growdiesel's patented technology

Growdiesel's WTG1XG
patented technology is
based on the
principles of Human
Body's energy
extraction principle

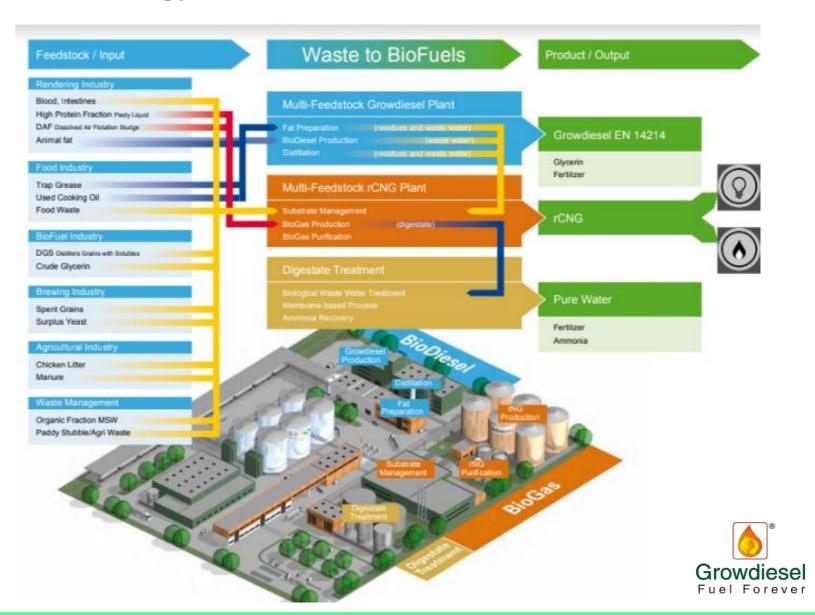


Hydrolysis

Acidogenesis

Acetogenesis

Methanogenesis



Technology Implementation Success Stories





Organic Waste to Bio-PNG project at Delhi Chief Minister's Office
The project was inaugurated by the late Hon'ble CM of Delhi.
This plant makes Bio-PNG that gets supplied to the canteen where
3000+ people eat food every day.



Multi-feed stock (including paddy stubble, press mud, Municipal wet waste, etc) to Bio-CNG & clean electricity project at Karnal (Hon'ble Chief Minister of Haryana's constituency)

This project can generate 3000 kgs+ of Bio-CNG. Karnal won number 1 Swachh Bharat state-ranking award every year since 2018 because of this project.



Full-scale bio-refinery in Maharashtra running on multi-feedstock. The feedstock is collected from nearby restaurants, hotels, and farmers. Bio-CNG is generated and supplied to nearby restaurants.

In the extreme right picture, the former hon'ble CM of Maharashtra doing a roadshow on biofuels with our association.



Technology at TRL-9-Commercial project Case Study

India's FIRST integrated solid waste, Paddy stubble, Sewage, cow-dung, slaughterhouse waste to cleanfuel project

Location

Karnal, Haryana

Feedstock Input Capacity (Dry organic matter)	15 tons per day
Gas Output	>4500 scm per day
Bio-Fertilizer Output	14000 Liters per day
Bio-refinery Investment	Rs. 15 Crore+
Revenue potential without considering revenue from Biofertilizer	Renewable Natural Gas@ 60/scm 9.86 cr. PA Green Power:22500 kwh/day @7/kwh 5.74 cr./PA

Waste2Wealth Technology Development Journey



- 1. Till date, We have converted over 250,000 metric tonnes of Biowaste into Biofuel
- 2. We have the LATEST patent on waste-2-biofuel reactor-based waste-2-biofuel technology
- 3. Our bio-refinery has tall-boy design reactors that requires very less space.
- 4. 100% designed, engineered and made in India Growdiesel Bioreactors are driven by Honeywell quality components powered ACE-An Artificial Intelligent System with ZERO human intervention. No Chinese components are used.
- 5. We are the only Indian organization in this sector whose director received the prestigious Diana Award by the British Royal Family in 2022.
- 6. We work at policy level with the government and are aware of the nitty-gritty of all the biofuel policies and compliances.
- 7. We work with the local communities to create 'Green Jobs' & empower them with recognition.
- 8. Our Biorefinery doesn't has any bad smell. One of our projects is running inside Delhi's Chief minister since 2010. That validates our H2S-free/smell-less technology claim.
- 9. We can highlight your organisation in national and international forums for recognition.
- 10. We felicitate 'ECOMARK' recognition in association with the government.

Contract Farming on wasteland

Waste land requirement

For farming fuel crops like moringa, bamboo, napier, algae, Jatropha 1100 acres

Scientific farming ensures biomass availability 365 days as our refinery operates 24x7x365

Investment on biofuel farming

Particulars	Capacity	Amount
Growdiesel Scope: high yielding seeds, Detailed	For farming, refinery,	1 cr,
Design, engineering of farm and entire project	filling station, township	
Client Scope: farm preparation, sowing, power, water,	1100 acres	22 cr.
land development and complete civil work		

Income of farmers from waste land

medific of farmers from waste land	
Annual Biomass yield (varies from crop to crop)	150,000 to 200,000 kgs/acre/year
Biomass buyback price offered by Growdiesel	INR 1200/ton
Gross Revenue from one acre waste land	1,70,000 to 2,40,000/year
Farming and logistics cost	40,000/year
Client's net annual tax free income	2000 lacs/year

Farming completion time

300 days

Biorefinery Ph-I

Biomass/Biowaste Processing Capacity	13000 tons per year
Equivalent sewage/cow dung added	13000 tons per year

Renewable Natural Gas manufacturing Capacity	one million scm/year
Carbon Neutral Coal manufacturing Capacity	2000 Tons/year

Cost benefit analysis

Cost of project	18.97 cr.	
Annual Revenue	13.66 Crore	
OPEX	7.90 Crore	
EBIDTA	5.76 Crore	
Return on investment	30%	

RNG refinery on LEASE @6.99%	
Client scope	
Farming, Civil work, filling station & Allied infrastructure	6.32 crore
MNRE subsidy	1.91 cr.
Farm subsidy by state/Nabard	2.00 cr.
Phase-I completion time	Nine months
Effective investment by JV partner/client	2.41 cr.
JV partner/promotors own investment's payback period	6 months
Project's payback period	Three years

Biorefinery Ph-II

Growdiesel manufacturing capacity	15,91,400 L/year
Bio-Fertilizer manufacturing capacity	15000 KL/year

Cost benefit analysis

Cost of project	36.29 crore	
Annual Revenue	140.11 Crore	
OPEX	117.18 Crore	
EBIDTA	22.93 Crore	

CNC & Biofert refinery on LEASE @6.99%		
Client scope		
Margin money	12.10 cr.	
Less profit from phase-I	5.76 cr.	
Phase-II completion time	Nine months	
Effective investment by JV partner	6.34 cr.	
JV partner's own investment payback period	3 months	

Biorefinery Ph-III

Biomass/Biowaste Processing Capacity	130000 tons per year
Equivalent sewage/cow dung added	130000 tons per year

Renewable Natural Gas manufacturing Capacity	one crore scm/year
Carbon Neutral Coal manufacturing Capacity	20000 Tons/year

Cost benefit analysis

Cost of project	189.70 cr.	
Annual Revenue	136.60 Crore	
OPEX	79.00 Crore	
EBIDTA	57.60 Crore	
Return on investment	30%	

RNG refinery on LEASE @6.99%		
Client scope		
Farming, Civil work, filling station & Allied infrastructure	63.20 cr.	
MNRE subsidy	10.00 cr.	
Farm subsidy by state/Nabard	20.00 cr.	
Phase-I completion time	Nine months	
Effective investment by JV partner/client	33.20 cr.	
JV partner/promotors own investment's payback period	6 months	
Project's payback period	Three years	

Biorefinery Ph-IV

Growdiesel manufacturing capacity	1,59,14,000 L/year
Bio-Fertilizer manufacturing Capacity	150000 KL/year

Cost benefit analysis

Cost of project	362.90 crore	
Annual Revenue	1401.10 Crore	
OPEX	1171.80 Crore	
EBIDTA	229.30 Crore	

CNC & Biofert refinery on LEASE @6.99%		
Client scope		
Margin money	121.00 cr.	
Less profit from phase-I	57.60 cr.	
Phase-II completion time	Nine months	
Effective investment by JV partner	63.40 cr.	
JV partner's own investment payback period	3 months	

Project Valuation & IPO by Diwali 2027

Company Valuation by FY2026-27			
Company valuation	22930 cr.		
Book Value of share by FY2026-27			
Total number of shares @1/ each	21 cr.		
Book value of each share	Book value of each share 1091/-		
IPO of company within price band of 800-900 each			
IPO proceeds shall be invested to purchase land and increase			
Biorefinery Capacity to One Billion SCM/year			

Biorefinery Ph-V at a glance

Dry Organic Matter Processing Capacity	10000 tons per day
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Bio-CNG Manufacturing Capacity	One Billion scm/year
Growdiesel Manufacturing Capacity	55350 KL/day
Carbon Neutral Coal Manufacturing Capacity	2790 MT/day

Cost benefit analysis

Annual Revenue	17825 Crore
OPEX	7788 Crore
EBIDTA	10037 Crore

RNG refinery	2790 Crore	
Infrastructure and misc. fixed assets		
Allied infrastructure	10000 crore	
Means of finance		
Debt		7970 cr.
IPO proceeds as margin money		3586 cr.
Refinery on lease guarantee		1860 cr.
Effective investment by promotors		NIL
Company Valuation post IPO		One Trillion INR

Strategy to build a Cleantech Unicorn under Techno-Commercial partnership with Growdiesel

- 1. Client incorporates a cleantech startup, prepare DPR and get it validated from a bank
- 2. Growdiesel gets DPR validated from ESG investors to provide Biorefinery on lease.
- 3. The client shall provide full authority to Growdiesel to build the **Nu Age Cleantech Unicorn** by hiring and training a team of young engineers.
- 4. With entire freedom to lead the project and all existing teams of client providing 100% assistance, Growdiesel shall commission all four phases of project within 36 months,
- 5. BioCNG shall be sold to end users and liquid biofertilizer to Agritech4/organic farmers.
- 6. Growdiesel shall convince ESG investors to convert lease/debt into equity by offering equivalent stake in Nu Age Cleantech Unicorn, bring an IPO and expand across India.
- 7. Growdiesel seeks 100% authority to build a digital platform, valuation strategy, raise funds and operate all Refineries as Biofuel Expert.



- 1. Growdiesel is the only Company with latest ultra-modern technology through patent granted in 2020
- 2. Growdiesel is the only Company to have a latest ultra-modern patented technology at TRL10 level
- 3. Our team collectively holds a total of 50+ patents and 150+ research papers
- 4. Ours is a Multi-feedstock technology (Not dependent on single feedstock)
- 5. Our technology has 4 bio-reactors that have controlled pH, temperature, solid catalyst & bio-catalysts as per the need of the feedstock
- 6. There is no foul smell in our Biorefinery because of a Catalyst that removes sulphur during process.
- 7. We provide automation through **A**rtificial intelligence enabled bio-refinery **C**ontroller **E**ngineer-**ACE**TM
- 8. Solid metal catalyst coated inside Biorefinery increases process efficiency by reducing HRT to 18 days.
- 9. Space required by Growdiesel Biorefinery is up to 50% less than the traditional biogas plants due to tall boy reactor design and low HRT of only 18 days.
- 10. Refinery-grade steel is used in Growdiesel Biorefinery just like oil and gas refineries.
- 11. Our project has been recognised at one of the highest international platforms.
- 12. Growdiesel Biorefinery is offered under lease to ESG companies through our global partners.
- 13. Reduce Capex, get drawings from Growdiesel and execute your project through your inhouse team.



Get rights to manufacture Biofertilizer Aharyam EmFert-Potassium Conc.

- •Organic Potassium Fertilizer (liquid soil/foliar) mainly made up of potassium and organic substance is the best suited for grain crops, cotton, fruits, vegetables, tobacco, tea, melon, potatoes, flowers, herbs on any soils.
- •Quality improvement: Enhancing the concentration of sugar, lengthening sugar cane crops.
- •Easily permeable: Can be absorbed completely by crops within 3-5 hours.
- •Highly effective and yield increasing: Average rates of production increase 10%-20% for grain crop, and more than 25% for economic plants.
- •Vigorous growing: Improves root and plants growth.
- •Early mature: 5-15 days early mature.
- •No pollution: No harmful ingredients, it's the best choice of fertilizer for agricultural crops.
- •Highly resistant power: Strengthens plants disease-resistance, drought-resistance, weather-resistance and insect-resistance.
- •Low cost input: 1 liters concentrate added in 1000 lits water is sufficient for each acre.
- •EmFert liquid biofertilizer costs much less than inorganic fertilizers & best suited for Soil less farming



Get rights to manufacture Biofertilizer Aharyam EmFert-Universal with Live Algae

It is a highly concentrated solution of live fresh water algae and live bacteria provide 100% natural phytohormones that differ from synthetic hormones. It contains soluble potash that is easily absorbed by crops within 3-5 hours.

Algae helps in nitrogen fixation naturally and provides faster and more efficient fertilizer assimilation through both foliar and soil applications.

- Increased yield production at economic rates
- Balanced hormonal package for healthy growth curve
- Provides energy for the plant to focus on physiological functions
- Increased resistance to abiotic stress
- •Low cost input: 2 liters concentrate added in 2000 lits water is sufficient for each acre.
- •Liquid biofertilizer costs much less than inorganic fertilizers & best suited for Agritech 4.0 farming

Get access to Growdiesel's Core Team with over 200 years of research



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Ex Adjunct facultyMaastricht School of Management, Netherlands



TRUSTED BY



SCGJ | SKILL COUNCIL FOR GREEN JOBS













Government of National Capital Territory of Delhi



Ministry of New and Renewable Energy Government of India



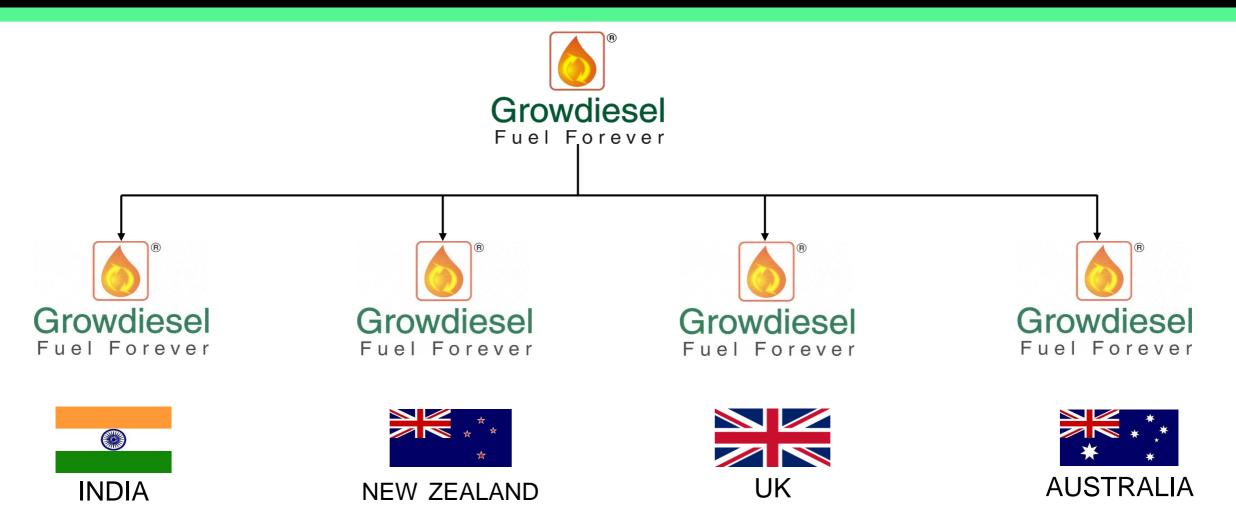












Licensing ultra-modern BioWaste2BioFuel Technology and working with global partners to make this world a better place to live



All our technologies and equipment are invented in India and are a pride of India

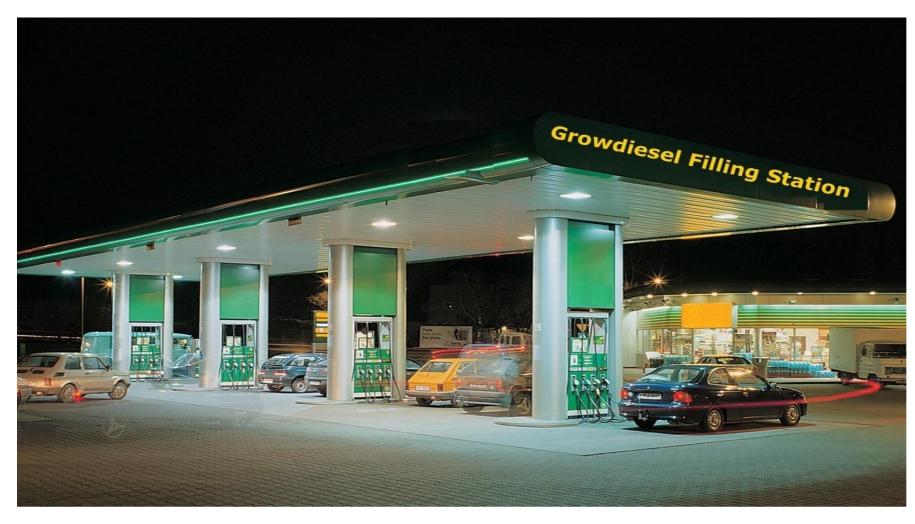


Growdiesel is
Governing Council
Member of



Growdiesel is

Creating jobs, increasing farmers income, protecting climate and Leading India toward fuel independence with innovative ESG projects





Let's work together to make this world a better place to live

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