



INSTITUTE FOR
Sustainable
Communities

CleanTech Connect

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Directory of Clean
Technology Suppliers
for SMEs



Introduction

India needs to adopt cleantech solutions, especially in the manufacturing sector. The cleantech directory is a resource that helps businesses find and implement cleantech solutions. The directory provides information on startups offering cleantech solutions, as well as insights into their unique approaches and potential benefits. By using the directory, MSMEs can make informed decisions about cleantech and embrace sustainable practices.

By using the directory, businesses can make informed decisions about cleantech and embrace sustainable practices. The cleantech directory is a comprehensive knowledge resource that empowers individuals and businesses to identify, connect with, and implement the most suitable cleantech solutions. The directory aims to enable businesses to make informed decisions, establish collaborations, and drive innovation in air pollution mitigation, energy efficiency enhancement, greenhouse gas emissions reduction, and water treatment within the manufacturing sector.

The directory is the first of its kind in India, and it is a valuable resource for businesses of all sizes. The directory is constantly being updated with new listings, and the next edition is scheduled to be published in early 2024. **If you want your company to be listed here, email us at ilatey@sustain.org.**

How to Use This Directory

This directory has five sections:

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Disclaimer

The information contained in this directory has been provided by the respective clean technology providers in India. While every effort has been made to ensure the accuracy of the information, we have not conducted a thorough audit of the providers and cannot guarantee the accuracy of the information or the quality of the products and services listed. We disclaim all liability for any errors or omissions in the directory.



Industry Sectors
They Cater To

NAME OF THE TECHNOLOGY

The Tech on Offer

CHALLENGE ADDRESSED

The Problem They Help Solve

PRICE (MIN MAX - BASED ON INSTALLED CAPACITY)

Cost of Product / Service

Name of the Company

Contact Details
of the Company

Industry Sectors Icons



AGRICULTURE



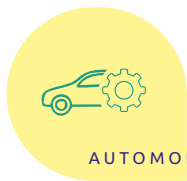
CHEMICAL



ENVIRONMENT



OIL & GAS



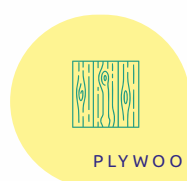
AUTOMOBILE



DRINKING WATER
TREATMENT



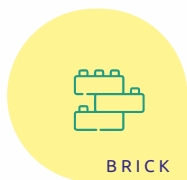
FOUNDRY
& FORGING



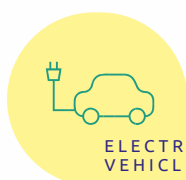
PLYWOOD



OTHERS



BRICK



ELECTRICAL
VEHICLES



GLASS AND CERAMIC



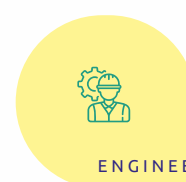
RESIDENTIAL



ALL SECTORS



BULK DRUG
MANUFACTURING



ENGINEERING



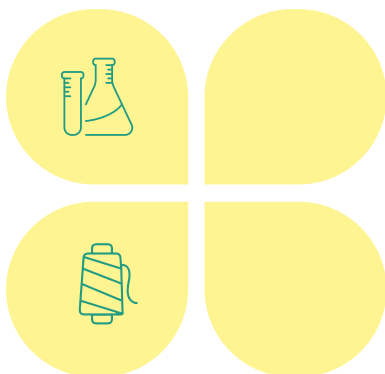
PHARMACEUTICALS



TEXTILE

Cleantech Solutions for Air Pollution





NAME OF THE TECHNOLOGY

SmartSense pH Measurement System: Indigenously developed Automated Re- circulation technology

CHALLENGE ADDRESSED

Real time adjustments and Automated Recirculation Technology using SmartSense data increasing process optimization, reducing energy consumption, waste reduction and lowering GHG emissions.

PRICE (MIN MAX)

2.25 Lakhs INR

Dynamo Engineering

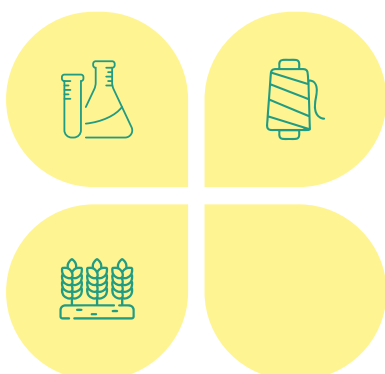
Contact: **Parth Gupta**

Company URL: www.dynamoengineering.com

Contact Email: info@dynamoengineering.com

Contact No.: **+91 740572884**

Location: **Ahmedabad, GJ**



NAME OF THE TECHNOLOGY

Process hot Water/ Flash Vapor Heat Recovery System

CHALLENGE ADDRESSED

Higher Operating Cost for process optimizing solutions

En2W Projects and Services

Contact: **Yogesh S Padiya**

Contact Email: padiyay@gmail.com

Contact No.: **+91 9324606458**

Location: **Navi Mumbai, MH**



NAME OF THE TECHNOLOGY

TubeCC

CHALLENGE ADDRESSED

Industrial Carbon Capture

PRICE (MIN MAX)

1 - 100 Lakhs INR

Greenovate Solutions

Contact: **Ronak Yogesh Mistry**

Company URL: **www.greenovate.in**

Contact Email: **ronak.mistry@greenovate.in**

Contact No.: **+91 7722091775**

Location: **Pune, MH**

NAME OF THE TECHNOLOGY

Micro Hydro and Micro Wind Turbines

CHALLENGE ADDRESSED

Small Hydropower: Predictable renewable power on-grid and decentralized off-grid solution for local energy needs.

PRICE (MIN MAX)

10 - 50 Lakhs INR

Maini Renewables Private Limited

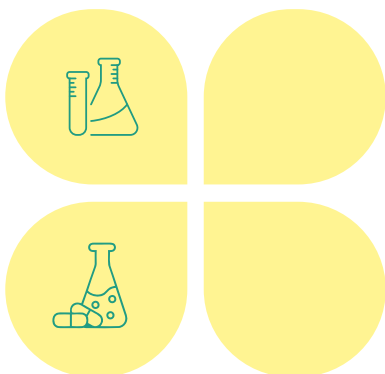
Contact: **Swati Maini**

Company URL: **www.mainirenewables.com**

Contact Email: **swati@mainirenewables.com**

Contact No.: **+91 7710814798**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Cryo Condensor

CHALLENGE ADDRESSED

Nimotherm's cryo condenser & waste heat recovery system tackle air pollution by removing harmful compounds & maximizing energy efficiency.

PRICE (MIN MAX)

10 Lakhs - 1 Crore INR

Nimotherm Engineering Pvt. Ltd.

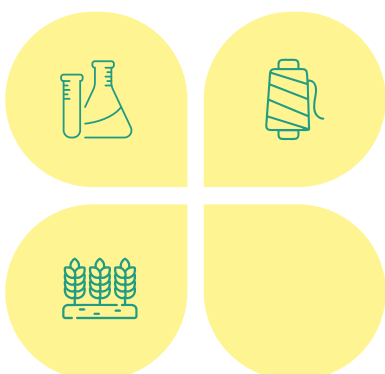
Contact: **Nilesh Kunkollikar**

Company URL: www.nimotherm.com

Contact Email: nileshk@nimotherm.com

Contact No.: **+91 9011089122**

Location: **Pune, MH**



NAME OF THE TECHNOLOGY

Energy Efficient Cooling as a Service

CHALLENGE ADDRESSED

High cost of high efficiency cooling systems

PRICE (MIN MAX)

25 Lakhs - 20 Crores INR

Oorja Energy Engineering

Contact: **Madhusudhan Rapole**

Company URL: www.oorja.in

Contact Email: madhu@oorja.in

Contact No.: **+91 9000332828**

Location: **Hyderabad, TL**



NAME OF THE TECHNOLOGY

Solar Marketplace

CHALLENGE ADDRESSED

Solar bidding for solar projects, a solar marketplace, and smart purchases (bidding for any Products/Components).

PRICE (MIN MAX)

5 Lakhs - 4 Crores INR

Solnce Energy Private Limited

Contact: **Soha Kapadia**

Company URL: www.solnceenergy.com

Contact Email: yash.tarwadi@solnceenergy.com

Contact No.: **+91 8141715453**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Community Boiler

CHALLENGE ADDRESSED

Reduced Carbon Emissions, Reduced SO_x and NO_x emissions

SteamHouse India Limited

Contact: **Khushi Budhia**

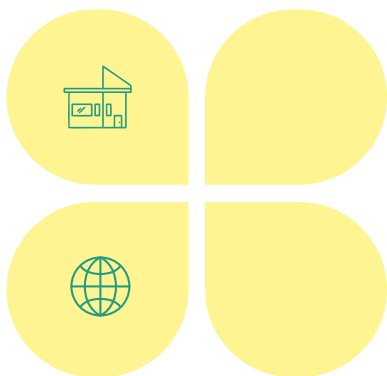
Company URL: www.steamhouse.in

Contact Email: khushi@steamhouse.in

Contact No.: **+91 9727740710**

Location: **Surat, GJ**





NAME OF THE TECHNOLOGY

Clean Air Bubble

CHALLENGE ADDRESSED

PM 2.5 & CO2 control in buildings.

PRICE (MIN MAX)

7.5 - 9.5 Lakhs INR

YOGA Clean Air

Contact: **Sachin Panwar**

Company URL: www.yogacleanair.com

Contact Email: sachin@yogacleanair.com

Contact No.: **+91 9871210123**

Location: **Gurugram, HR**

Dynamo Engineering

Dynamo Engineering addresses the need for more reliable and cost-effective technical solutions for MSME industries. It aims to help industries, including pharma, specialty chemicals, manufacturing, dyes, and pigments, face challenges regarding plant and machinery reliability, human safety, and environmental concerns. Dynamo Engineering aims to provide tailored solutions, leveraging its engineering and project management expertise to enhance reliability, safety, and efficiency for MSMEs. Dynamo Engineering, having combined years of experience in Engineering, Project Management and Implementation in the fields of Electrical, Mechanical and Instrumentation aim to provide all types of technical solutions to the MSMEs. They emphasize on the importance of Reliability of plants & machinery keeping in mind safety of humans & environment. They have a separate product development team focusing on developing reliable and economical solutions for the common issues found in the industries. They cater to Pharma, speciality chemicals , manufacturing , dyes and pigments



Dynamic SmartSense Technology

- An automated sample re-circulation technology with auto flushing feature for any type of reactor vessels. Suitable for Dyes, pigments & Dyes-Intermediate industries.
- It comprises 2 enclosures the Control Unit & Material Handling Unit which are the size of 450 x 450 x 300 mm & 600 x 600 x 500 mm respectively.

Dynamic SmartDip Technology

- An automated Electro-pneumatic technology with Retractable sensor & Self Flushing feature for Small & Medium Reactor Vessels. Suitable for Pharmaceuticals, APIs etc.
- It can be designed according the reactor size and can be fitted on the reactor itself. It has a control unit which has size of 400 x 500 x 200 mm.

Key Features:

- Continuous Measurement for Batch Process.
- Fully automated Self cleaned technology.
- Customizable to Process & Plant Requirements.
- Integration for Data Recording and Remote Analysis
- Additional Features and Advantages
- Product Quality & Yield improvement by maintaining the pH values minutely & accurately.
- Optimization in Raw Material Consumption
- Less by-product such as inorganic salts
- Less effluent generation
- Energy consumption would be reduced.

Sustainability and Cost Economics

Initial Investment
INR 25 Lakh

Estimated Payback Period
1-3 Years

Contact: Mr. Parth Gupta
www.dynamoengineering.com
info@dynamoengineering.com
+91 74057 28841

Prkruti

India has 35 out of the world's top 50 most polluted cities. Still, current air quality monitoring systems are unaffordable and not scalable, at approximately 1.2 Crore per unit. Prkruti, developed by Jal Technologies Pvt Ltd, is a groundbreaking solution to combating the challenges posed by pollution and climate change. This innovative device is a comprehensive tracking, monitoring, and measurement tool that accurately assesses pollution and climatic levels across diverse locations. By providing invaluable insights into the impact of pollution on people's lives, Prkruti plays a pivotal role in addressing this critical environmental issue. With its versatile applications, Prkruti empowers industries, governments, and NGOs to actively contribute towards mitigating pollution. The device finds practical utility in agriculture, air quality monitoring, data science, and smart city solutions, making it versatile for diverse needs. Prkruti operates independently, harnessing solar power as a sustainable and eco-friendly energy source.



PRKRUTI-AQM has developed a 95% cost-effective solution, costing only 3 to 5 lac, to provide a viable and affordable end-to-end air quality monitoring solution in India.

Product Description: PRKRUTI PRO

- Real-time monitoring of environmental parameters with accurate sensor-based technology.
- 95% more cost-effective compared to existing air quality monitoring technology, making it highly affordable and scalable for large-scale deployment.
- Easy-to-implement and compact design allows for deployment within 30 minutes.
- Solar-powered and low-power technology make it highly energy-efficient and sustainable.
- Provides real-time data and accurate analytics that can inform policy decisions towards pollution control and management

Sustainability and Cost Economics

Annual Monetary Savings
300,000 - 500,000 INR

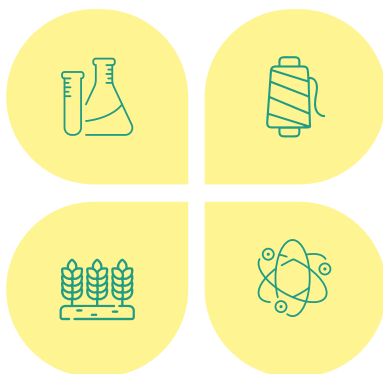
Initial Investment
1.1 CR/ Analyser

Annual Electricity Saving
250,000 INR / Year

Contact: Vignesh Kaneria, CEO
www.prkruti.com
vignesh@prkruti.com
+91 99099 09314

Cleantech Solutions for Energy Efficiency & Management





NAME OF THE TECHNOLOGY

BIPV Solar Roof

CHALLENGE ADDRESSED

Solving the installation space question, With BIPV Solar Roof, the Solar Panels themselves become the Roof.

Aelius Turbina

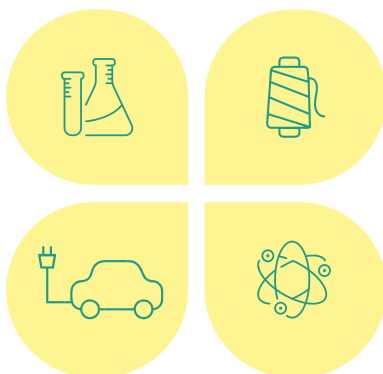
Contact: **Viral Shah**

Company URL: www.aeliusturbina.com

Contact Email: renewables@aeliusturbina.com

Contact No.: **+91 8169058820**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Establishment of Resource recovery station, "PlastBit" - unique bitumen binder as per indian Road congress specification, Engineered Solid Fuel from RDF, Thermo chemical conversion of RDF, Torrefied RDF pellets, complete solution package for zero waste no landfill.

CHALLENGE ADDRESSED

The solution eliminates landfills, prevents legacy waste, replaces fossil energy materials, promotes circular economy, and transforms communities into energy resources, addressing waste, scarcity, and fostering sustainable development.

PRICE (MIN MAX)

5 - 65 Thousand INR Per Ton

Debrisolve Private Limited

Contact: **Dharmendra Parekh**

Contact Email: dbiodiesel@gmail.com

Contact No.: **+91 9998357599**

Location: **Chennai, TN**



NAME OF THE TECHNOLOGY

SUPRAUNO : Waterless Dyeing of ALL Textiles with Conventional Dyes

CHALLENGE ADDRESSED

Deven Supercriticals' patented SupraUno technology enables water-less dyeing, reducing chemicals, water, and energy use, offering a sustainable solution for textile industries worldwide.

PRICE (MIN MAX)

14 - 32 Crores INR

Deven Supercriticals Private Limited

Contact: **Swapneshu Baser**

Company URL: **www.suprauno.com**

Contact Email: **baser@scfe.in**

Contact No.: **+91 9821183231**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Process hot Water/ Flash Vapor Heat Recovery System

CHALLENGE ADDRESSED

Higher Operating Cost for process optimizing solutions

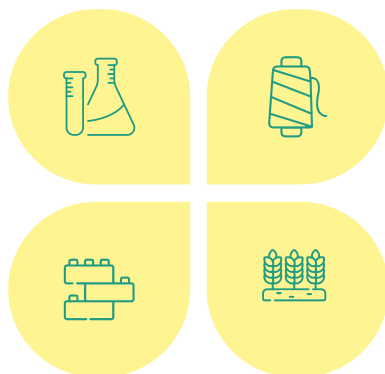
En2W Projects and Services

Contact: **Yogesh S Padiya**

Contact Email: **padiyay@gmail.com**

Contact No.: **+91 9324606458**

Location: **Navi Mumbai, MH**



NAME OF THE TECHNOLOGY

PRKRUTI - Smart Air Quality Monitor, and Automatic Weather Station

CHALLENGE ADDRESSED

The PRKRUTI solution solves the problem of expensive and complicated traditional air quality monitoring systems by providing a cost-effective and customizable alternative that generates accurate data for long-term analysis.

PRICE (MIN MAX)

1 - 5 Lakhs INR

Jal Technologies Private Limited

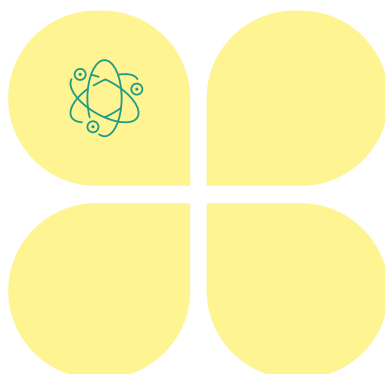
Contact: **Vignesh Kaneria**

Company URL: **www.prkruti.com**

Contact Email: **vignesh@prkruti.com**

Contact No.: **+91 9687771364**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Micro Hydro and Micro Wind Turbines

CHALLENGE ADDRESSED

Small Hydropower: Predictable renewable power on-grid and decentralized off-grid solution for local energy needs.

PRICE (MIN MAX)

10 - 50 Lakhs INR

Maini Renewables Private Limited

Contact: **Swati Maini**

Company URL: **www.mainirennewables.com**

Contact Email: **swati@mainirennewables.com**

Contact No.: **+91 7710814798**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Cryo Condensor

CHALLENGE ADDRESSED

Addressing air pollution by effectively removing harmful organic compounds from exhaust air by condensing VOCs using liquid nitrogen, reducing their concentration to ppm/ppb levels.

PRICE (MIN MAX)

10 lakhs - 1 Crore INR

Nimotherm Engineering Pvt. Ltd.

Contact: **Nilesh Kunkollikar**

Company URL: www.nimotherm.com

Contact Email: nileshk@nimotherm.com

Contact No.: **+91 9011089122**

Location: **Pune, MH**

NAME OF THE TECHNOLOGY

Energy Efficient Cooling as a Service

CHALLENGE ADDRESSED

High cost of high efficiency cooling systems

PRICE (MIN MAX)

25 Lakhs - 20 Crores INR

Oorja Energy Engineering

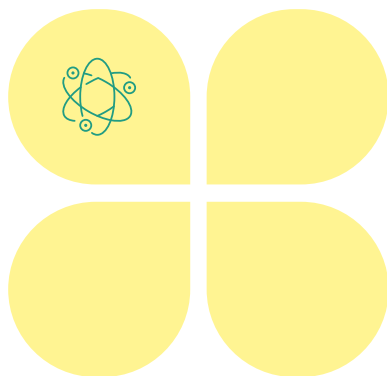
Contact: **Madhusudhan Rapole**

Company URL: www.oorja.in

Contact Email: madhu@oorja.in

Contact No.: **+91 9000332828**

Location: **Hyderabad, TL**



NAME OF THE TECHNOLOGY

Solar Marketplace

CHALLENGE ADDRESSED

Solar bidding for solar projects, a solar marketplace, and smart purchases (bidding for any Products/Components).

PRICE (MIN MAX)

5 Lakhs - 4 Crores INR

Solnce Energy Private Limited

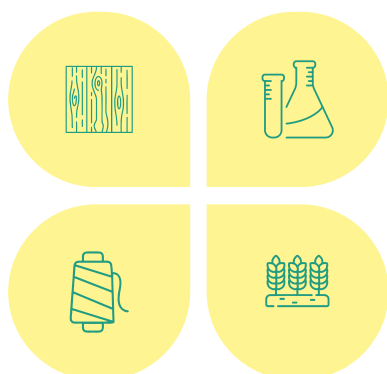
Contact: **Soha Kapadia**

Company URL: www.solnceenergy.com

Contact Email: yash.tarwadi@solnceenergy.com

Contact No.: **+91 8141715453**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Community Boiler

CHALLENGE ADDRESSED

Reduced Carbon Emissions, Reduced SO_x and NO_x emissions

SteamHouse India Limited

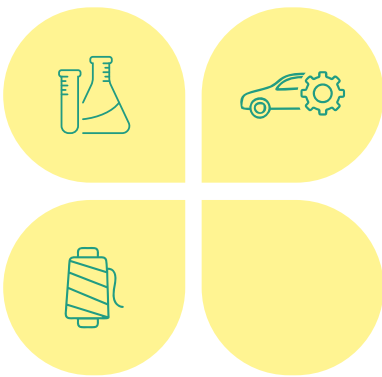
Contact: **Khushi Budhia**

Company URL: www.steamhouse.in

Contact Email: khushi@steamhouse.in

Contact No.: **+91 9727740710**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Closed Loop Foundation Digital Twin

CHALLENGE ADDRESSED

Manufacturing process optimization by simulating the real world counterpart to potimize the conditions of real-world manufacturig counterpart

PRICE (MIN MAX)

2.5 Lakhs INR

Tamilnadu Center for Excellence (TANSAM)

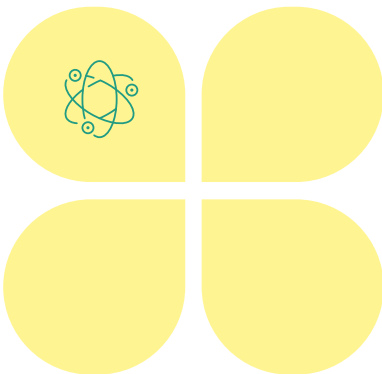
Contact: **Mr. Sukhpreet Singh**

Company URL: www.tansam.org

Contact Email: sukhpreets_scoe@nitkkr.ac.in

Contact No.: **+91 9853308838**

Location: **Chennai, TN**



NAME OF THE TECHNOLOGY

Small wind solar hybrid solution

CHALLENGE ADDRESSED

Providing reliable renewable energy supply to coastal, hilly, windy regions

PRICE (MIN MAX)

46 Thousand - 2.5 Lakhs INR

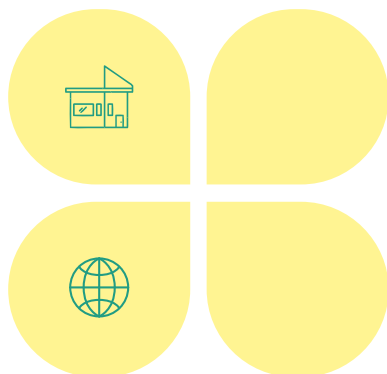
WiSH Energy Solutions Pvt. Ltd.

Contact: **Amol Balwant Shende**

Company URL: www.wishenergy.com

Contact Email: sales@wishenergy.com

Location: **Ahmedabad, GJ**



NAME OF THE TECHNOLOGY

Clean Air Bubble

CHALLENGE ADDRESSED

PM 2.5 & CO2 control in buildings.

PRICE (MIN MAX)

7.5 - 9.5 Lakhs INR

YOGA Clean Air

Contact: **Sachin Panwar**

Company URL: www.yogacleanair.com

Contact Email: sachin@yogacleanair.com

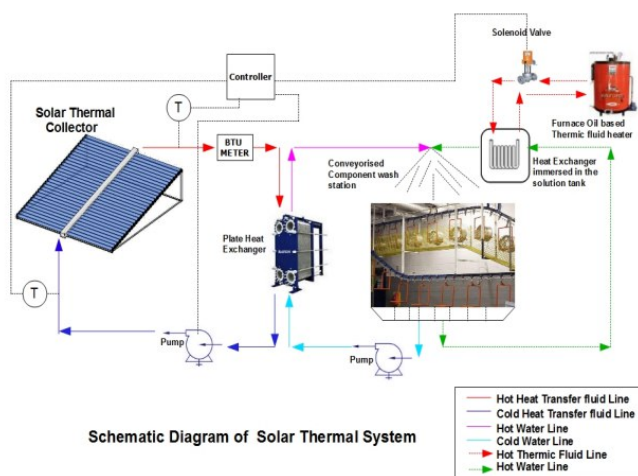
Contact No.: **+91 9871210123**

Location: **Gurugram, HR**

Solar Hitech Solutions

Solar Hitech is a leading manufacturer and supplier of high-quality solar water heaters, thermal solutions, and solar PV systems. With a strong focus on customer satisfaction, they have built a reputation for providing reliable and efficient products, excellent after-sales service, and comprehensive warranty support. Established in 1999, Solar Hitech introduced India's first Evacuated Tube Collector (ETC) solar thermal system, marking the beginning of its innovation journey. They have continued to pioneer advancements in solar thermal technology and now offer various solutions, including non-pressurized and pressurized Evacuated Tube Collector (ETC) and Flat Plate Collector (FPC) systems, catering to different client requirements. Their products are certified by the Ministry of New & Renewable Energy (MNRE) and the Bureau of Indian Standards (BIS-ISI). The UNDP has also recognized them as the "Best Solar Water Heater brand" under the ESCO category, solidifying their position as one of India's most trusted brands in the solar thermal space.

Solar Hitech operates from a state-of-the-art, ISO 9001:2008-approved facility spanning 12,500 square feet. This facility is equipped to design, manufacture, and deliver high-quality solar thermal solutions for residential, commercial, and industrial clients. In addition to solar water heaters, Solar Hitech offers a comprehensive portfolio of solar photovoltaic (PV) solutions, including solar lanterns, solar home lighting, solar street lighting, solar pumps, and on-grid/off-grid rooftop solar systems



Solar Thermal



Thermal Collectors

Evacuated Tube Collector systems consist of tubes with borosilicate glass conforming to the ISO 3585 specification. The tube and system specifications are as follows:

- Outer Tube Diameter : 58 mm +/- 0.7 mm
- Inner Tube Diameter : 47 mm +/- 0.7 mm
- Tube length : 1800 mm and 2100mm
- Absorber coating : Outer side of inner tube coated with three target Cu/SS/AlN selective coating by magnetron sputtering vacuum slashing process
- Absorptance > 93%, Emittance < 6 % (@ 85° C)
- Thickness can be customized to customer requirements
- TIG welded/Seam welded/CO2 welded
- Special grade directly molded PUF 50mm insulation and MS powder coated support structures
- Optional 2kW/3kW/5kW backup heater if needed

Flat Plate Connector

FPC systems consist of collectors with efficient absorbers that ensure maximum heat transfer. The tank and collector specifications are as follows:

- Absorber made of electro grade copper or aluminium with selective black chrome coating
- Raiser: Copper tube Diameter: 12.5 mm +/- 0.5 mm, 0.56 mm thick
- Header: Copper tube Diameter: 25 mm +/- 0.5 mm, 0.71 mm thick
- High quality brazing for raiser/header bonding & ultrasonic welding for fin / raiser tubes
- 4 mm thick toughened glass glazing
- Absorptance > 96%, Emittance < 2 %
- 63 mm diameter brass flanges for absorber connections
- Special grade directly molded PUF 50mm insulation and MS powder coated support structures
- EDSN Hose pipes, pressure hoses and fittings for collector to tank connections
- Optional backup heater if needed

Sustainability and Cost Economics

Power Produced

600 KW

Annual Monetary Saving

INR 48 Lac

Furnace Oil Saving

383 liters

Investment Required

INR 1.44 Cr

Payback period

3 years

Contact: Mr. Varun Rajaram

www.solarhightechsolutions.in

varun@solarhightechsolutions.in

+91 9545712120

Energybae Private Limited

Energy Bae, formerly known as Develop Train Maintain, is a dynamic renewable energy start-up that emerged in 2017. Committed to sustainable development, the company focuses on developing innovative products in renewable energy, primarily emphasizing Hydrogen Energy and Piezoelectricity. By creating products that minimize pollution while meeting energy demands, Energy Bae aims to revolutionize the utilization of cleaner and more affordable fuels in various machines. In addition to product development, the company also plays a vital role in training and educating individuals about Hydrogen and Piezoelectricity. Through sensitization seminars and hands-on workshops, they empower young and innovative minds, shaping their ideas and fostering their overall development. The revenue generated from their expertise is reinvested in further research and development. Furthermore, Energy Bae offers services in the renewable energy sector, leveraging their extensive research experience. In the future, they plan to expand their services to encompass future vehicles and related applications, ensuring their continued contribution to advancing renewable energy technologies.



WAYUMITRA is a hybrid rooftop wind turbine. It is a synergy between Wind and Solar Energy providing you with clean and dependable power 24x7. Wayumitra has a modular design, this enables us to easily access and install at difficult places such as rooftops. It is designed in such a way that it can take the wind from any direction and generate energy, also it doesn't require any poles or Structure for installation. This can be directly installed on the rooftop. Apart from the technology our secret sauce is calculating the optimum ratio between wind and solar, so that customer generates constant energy throughout the year.

Our technological innovation consists of a DUX technology; it uses guide vanes to channel wind in desired direction and reduce the negative drag hence improving the efficiency. The angle of DUX also creates venturi effect which increases the speed of input air by 30%. This enables us to operate in low wind speed regions.

Additional Features and Advantages:

- Reduced tax liability as solar energy for commercial sector provides 40% accelerated tax benefit.
- No concern for an increase in tariff from Discom.
- Positive impact on your brand image.
- Does not require battery backup.
- Reduced their diesel consumption.
- Saves space.

Replication Potential

Can be replicated across geographies and industries. Modular turbine design enables easy installation. Their turbine can be effortlessly transported in small vehicles and assembled on site without requiring any special training. It carries an installation manual through which even a solar installer can also install Wayumitra.

Sustainability and Cost Economics

Power Produced

64800 KW

Annual Monetary Saving

INR 1.7 Cr

Emissions Reduced

58.32 MT Co2

Investment Required

INR 37 Lac

Payback period

4.5 years

Contact: Mr. Akshay Jain

www.energybae.in

energybae.co@gmail.com

+91 7507991787

Cleantech Solutions for Reduction in GHG Emissions





NAME OF THE TECHNOLOGY

Ecofloc (M) & Hydrogel,emergency water purifier

CHALLENGE ADDRESSED

Water and wastewater treatment

PRICE (MIN MAX)

1,200 - 1,500 INR Per KG

Aquadignostics

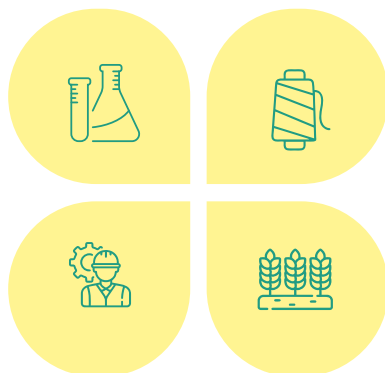
Contact: **Srikanth Raghavachari**

LinkedIn URL: [linkedin.com/in/srikanth-
raghavachari-3a118b32](https://www.linkedin.com/in/srikanth-raghavachari-3a118b32)

Contact Email: **rsrikanth60@gmail.com**

Contact No.: **+91 9111860176**

Location: **Hyderabad, TL**



NAME OF THE TECHNOLOGY

PlastBit: Resource recovery station for Indian Road Congress-compliant bitumen binder, Engineered Solid Fuel, and RDF thermochemical conversion. Zero waste, no landfill solution.

CHALLENGE ADDRESSED

Circular solution: No landfills, legacy waste, fossil materials. Energize communities, address waste, scarcity, foster sustainable development.

PRICE (MIN MAX)

5 - 65 Thousand INR Per Ton

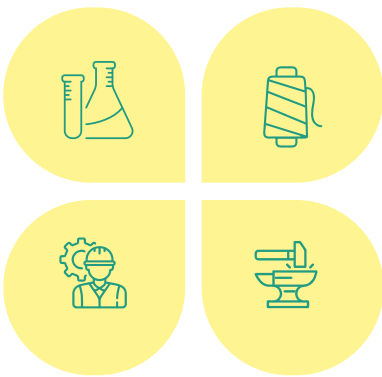
Debrisolve Private Limited

Contact: **Dharmendra Parekh**

Contact Email: **dbiodiesel@gmail.com**

Contact No.: **+91 9998357599**

Location: **Chennai, TN**



NAME OF THE TECHNOLOGY

TubeCC

CHALLENGE ADDRESSED

Industrial Carbon Capture

PRICE (MIN MAX)

1 Lakh - 1 Crore INR

Greenovate Solutions

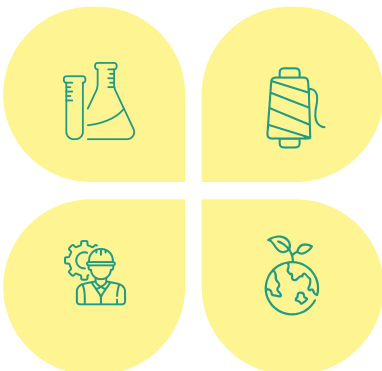
Contact: **Ronak Yogesh Mistry**

Company URL: **www.greenovate.in**

Contact Email: **ronak.mistry@greenovate.in**

Contact No.: **+91 9819599640**

Location: **Pune, MH**



NAME OF THE TECHNOLOGY

PRKRUTI - Smart Air Quality Monitor, and Automatic Weather Station

CHALLENGE ADDRESSED

The PRKRUTI solution solves the problem of expensive and complicated traditional air quality monitoring systems by providing a cost-effective and customizable alternative that generates accurate data for long-term analysis.

PRICE (MIN MAX)

1 - 5 Lakh INR

Jal Technologies Private Limited

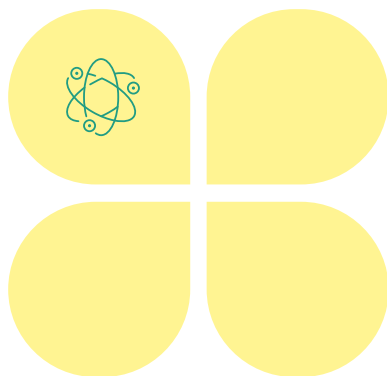
Contact: **Vignesh Kaneria**

Company URL: **www.prkruti.com**

Contact Email: **vignesh@prkruti.com**

Contact No.: **+91 9687771364**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Micro Hydro and Micro Wind Turbines

CHALLENGE ADDRESSED

Small Hydropower: Predictable renewable power on-grid and decentralized off-grid solution for local energy needs.

PRICE (MIN MAX)

10 - 50 Lakhs INR

Maini Renewables Private Limited

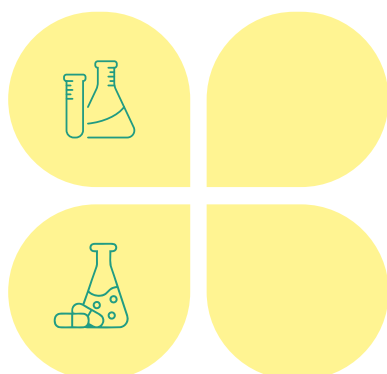
Contact: **Swati Maini**

Company URL: www.mainirenouvelables.com

Contact Email: swati@mainirenouvelables.com

Contact No.: **+91 7710814798**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Cryo Condensor

CHALLENGE ADDRESSED

Nimotherm's cryo condenser & waste heat recovery system tackle air pollution by removing harmful compounds & maximizing energy efficiency.

PRICE (MIN MAX)

10 Lakhs - 1 Crore INR

Nimotherm Engineering Pvt. Ltd.

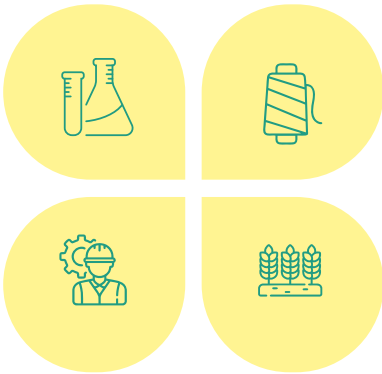
Contact: **Nilesh Kunkollikar**

Company URL: www.nimotherm.com

Contact Email: nileshk@nimotherm.com

Contact No.: **+91 9011089122**

Location: **Pune, MH**



NAME OF THE TECHNOLOGY

Energy Efficient Cooling as a Service

CHALLENGE ADDRESSED

High cost of high efficiency cooling systems

PRICE (MIN MAX)

25 Lakhs - 20 Crores INR

Oorja Energy Engineering

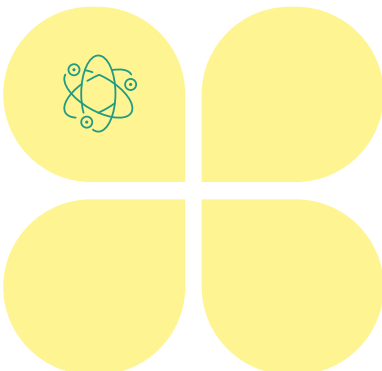
Contact: **Madhusudhan Rapole**

Company URL: **www.oorja.in**

Contact Email: **madhu@oorja.in**

Contact No.: **+91 9000332828**

Location: **Hyderabad, TL**



NAME OF THE TECHNOLOGY

Solar Marketplace

CHALLENGE ADDRESSED

Solar bidding for solar projects, a solar marketplace, and smart purchases (bidding for any Products/Components).

PRICE (MIN MAX)

5 lakhs - 4 Crores INR

Solnce Energy Private Limited

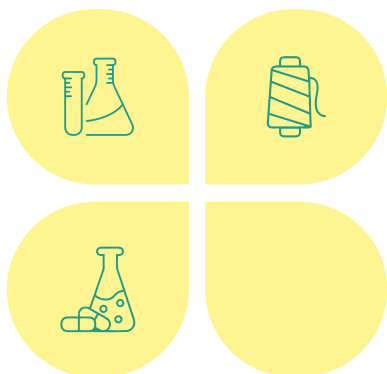
Contact: **Soha Kapadia**

Company URL: **www.solnceenergy.com**

Contact Email: **yash.tarwadi@solnceenergy.com**

Contact No.: **+91 8141715453**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Community Boiler

CHALLENGE ADDRESSED

Reduced Carbon Emissions, Reduced SO_x and NO_x emissions

SteamHouse India Limited

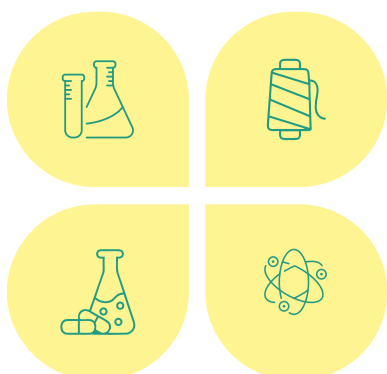
Contact: **Khushi Budhia**

Company URL: www.steamhouse.in

Contact Email: khushi@steamhouse.in

Contact No.: **+91 9727740710**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

TRL RAIN & Other waste water treatment technologies for hazardous waste water treatment

CHALLENGE ADDRESSED

Treating hazardous effluents, removal of excess salts in textile processing, capturing and treating volatile organic compounds (VOCs) and other air pollutants emitted by chemical manufacturing processes.

PRICE (MIN MAX)

1 Crore - 1000 Crores INR

TaylorMade Renewables Pvt. Ltd.

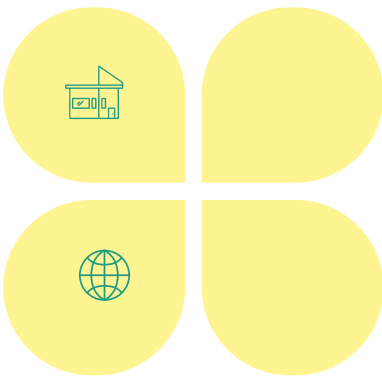
Contact: **Dharmendra Gor**

Company URL: www.trlindia.com

Contact Email: dharam@tss-india.com

Contact No.: **+91 9712933390**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Clean Air Bubble

CHALLENGE ADDRESSED

PM 2.5 & CO2 control in buildings.

PRICE (MIN MAX)

7.5 - 9.5 Lakhs INR

YOGA Clean Air

Contact: **Sachin Panwar**

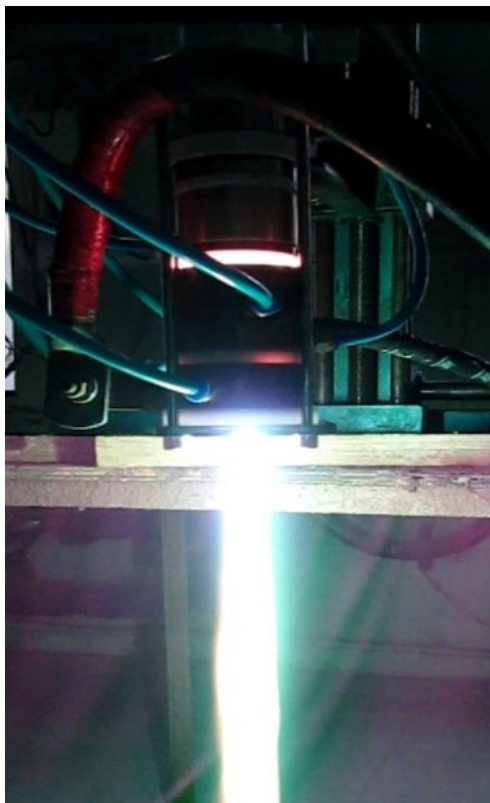
Company URL: **www.yogacleanair.com**

Contact Email: **sachin@yogacleanair.com**

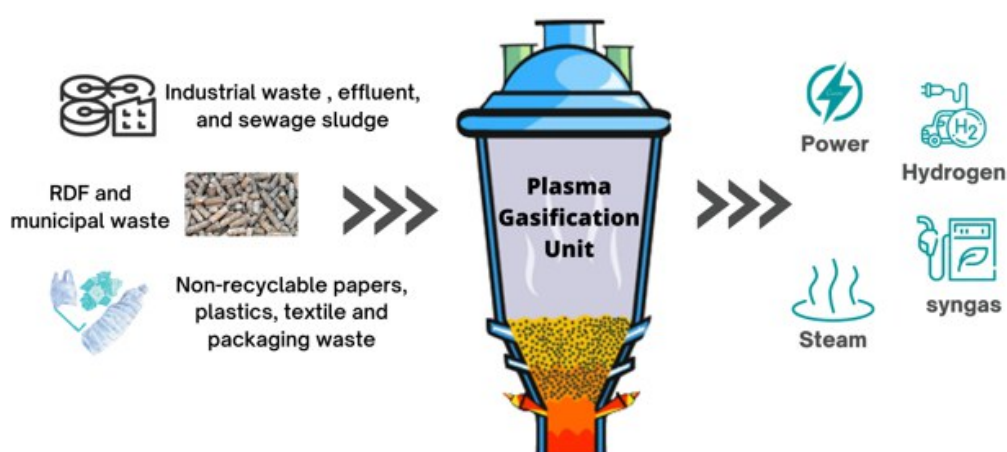
Contact No.: **+91 9871210123**

Location: **Gurugram, HR**

Climatique Technologies



Climatique Technologies is a cleantech enterprise working on sustainable resource management for Industries, Institutions and Urban bodies. We believe that nothing in the world is waste. We preserve natural and man-made resources by unlocking the value of waste using the power of technology. We provide end-to-end resource management solutions to make life circular and clean. We offer state-of-the-art plasma gasification systems, an efficient, clean, and safe method for waste treatment.



Plasma Gasification technology

They offer state-of-the-art plasma gasification systems, an efficient, clean, and safe method for waste treatment. More than 30% reduction in fuel cost compared to conventional incineration plants. It is an agnostic to waste composition, taking care of all kinds of waste, municipal, industrial, and hazardous waste, preventing the release of millions of tons of CO₂eq. Offers a diversified portfolio of products including power, heat/steam, biofuels, hydrogen, and various downstream chemical products. [Sizes available]-

- Minimum economically viable capacity for Hazardous waste management: 10 TPD.
- Minimum economically viable capacity for municipal/plastic/non-recyclable waste: 5 TPD
- Minimum economically viable capacity for Bio-medical waste management: 1 TPD

Additional Features and Advantages

- Preventing municipal and hazardous waste from being landfilled
- Process is designed to recover any polluting elements, divert more than 95% from landfills, and not cause harmful emissions.
- Treatment of waste into flammable syngas for electrical and thermal energy, unlike incineration.
- Positive cash flow from waste disposed and a significant reduction in fuel costs.
- Safely destroying both medical waste and many other hazardous wastes.
- Gasification and rapid quenching of syngas at high temperatures can avoid the production of dioxins and furans that are common in incinerators.
- Emissions to the atmosphere are significantly cleaner than landfills and incinerators.

Replication Potential

The solutions could be rapidly replicated based across industries and geography, and for multiple waste feed, depending on the requirements.

Sustainability and Cost Economics

Annual Monetary Saving

INR 2.32 Cr

Emissions Reduced

0.75 MT Co₂

Internal Rate of Return

38%

Investment Required

INR 7 Cr

Contact: Mr. Chirag Rawat

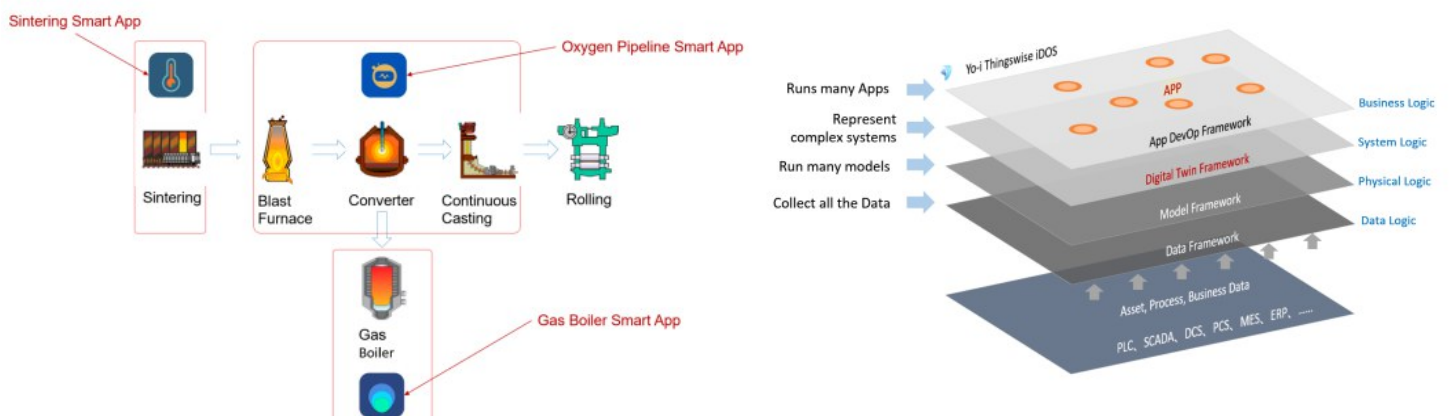
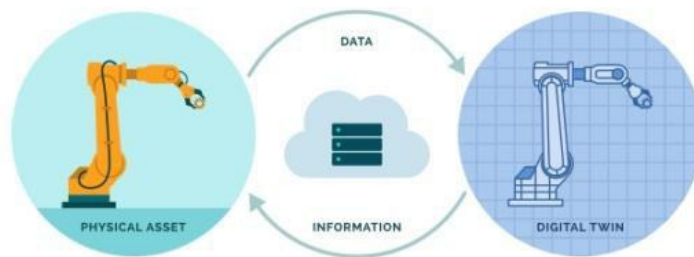
www.climatique.in

chirag.rawat@climatique.in

+91 9407186800

TamilNadu Smart and Advanced Manufacturing Centre (TANSAM)

TANSAM Centre of Excellence is utilized by industries for spurring innovation at the grass root level. This will be future-proof for the industries and career progression training needs in the emerging technologies and best practices on par with international standards. Additionally, the CoE will be an ideal R&D facility for industries, to adapt to future technologies with cost-saving advantages unique to them. The program has three key components namely Innovation Platform, which enable the industry to develop personalized smart products with validated performance, then the Infrastructure Platform which enhances industry capability to create product, process and performance twin and the Engineering Services which provide established industry with services to liquidate their day to day issues.



Centre for Asset performance Management offers Closed loop Foundation Digital Twins. It is a full lifecycle dynamic digital replica of a physical or logical object in the real world. Examples of physical objects include valves, motors, machine tools, production lines, workshops, factories, etc.; and examples of logical objects include production processes, logistics processes and organizations.

It contains data collected from and about its physical counterpart, spanning its full lifecycle. The data includes the as-designed data (product design specifications, process and engineering data), as-manufactured data (production equipment, material, method, quality data and operators), and as-maintained data (real-time and historical configuration and operation state data, and maintenance records) of the real-world counterpart.

Secondly , contains a variety of computational or analytic models pertaining to its real-world counterpart.

Lastly, a digital twin provides service interfaces for software applications to access its data and invoke its models.

With Digital Twin we can describe, simulate and predict the state and behavior of its real-world counterpart based on analytics on historical and real-time data—and we can consequently optimally respond to changing conditions of the real-world counterpart.

Additional Features and Advantages

- Manufacturing process optimisation
- Using predictive maintenance to maintain equipment, production lines, and facilities
- Monitor a manufacturing component, asset, system, or process in real-time
- Improve Overall Equipment Effectiveness,
- Improve batch changeover times
- Improve product quality and enable efficient design and development
- Enhance traceability
- Enables virtual troubleshooting and support, removing the physical restraints of expert engineers having to be at location

Sustainability and Cost Economics

Enhanced Energy Production

42 units/ month

Investment Required

INR 2.5 Lac

Time Saving from Manual Welding

125 min

Additional Revenue Generated

INR 2 Cr

Payback Period

1 Month

Contact: Mr. Sukhpreet Singh

www.tansam.org

sukhpreets_scoe@nitkkr.ac.in

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STEAM HOUSE - A CASE STUDY



Steam is a critical requirement for most manufacturing industries that is meant to provide heat to production activities in chemical, pharmaceuticals, pesticides, textiles, paper, food and other such manufacturing or processing industries. Industries have been installing boilers on their facilities for years to suit their steam needs. These boilers are tiny to medium in size and have poor efficiency.

The rising amount of industrial air pollution is a big threat. Due to defective air pollution control technology and non-professional management, black smoke from chimneys in industrial regions contributes to PM-5 and PM-10 levels in the atmosphere, causing ailments ranging from asthma to cancer.

Steam House provides eco-friendly steam to the industry. When they sign up with Steam House, it furnishes them with steam through common boilers and a kilometres-long overhead pipeline network. With their billing meter installed on the premises, the industries obtain steam at their doorsteps as a plug-and-play solution. The system in place examines consumption patterns and supplies in accordance with each industry's requirements, resulting in less waste and zero inconsistencies.



The use of Artificial Intelligence gives companies the precise amount of steam they need and enables them to pay the exact amount of money for the steam they consume. It is possible to manage, adjust, and moderate steam distribution with no human involvement with the help of machine learning

Benefits of Steam House

- Reduced energy costs: Steam House's boilers are more efficient than traditional boilers, which can save customers 25-30% on their energy costs.
- No operational or maintenance costs: Because there are no boilers installed, there are no operational or maintenance issues. There is no need to set aside separate labour for boiler operation, and there is no need for a fuel storage facility.
- Increased efficiency: Because of the greater quality of steam, there is an improved product quality that leads to higher output at a rate of 12%, allowing for new product development and growth with minimal downtime.
- Improved air quality: Steam House's boilers are equipped with state-of-the-art pollution control technology, which can reduce emissions by up to 70%.
- Compliance with environmental regulations: Steam House's boilers help businesses comply with environmental regulations, such as the Clean Air Act.

Steam House has risen at a compounded annual growth rate (CAGR) of 75% over the previous three years in terms of revenue.

The goal of Steam House is implementing ecofriendly and energy-saving technologies as well as reducing pollution from various businesses. Steam House commissioned 1st community boiler in Sachin GIDC and present in several industrial estates such as Ankleshwar, Vapi, Sarigam, Panoli, Dahej, Nandesari GIDC and Tarapur MIDC are its upcoming plant locations.

Steam House is a breathing community of business experts, disruptors, thought leaders, designers, academics, SMEs, major organisations, and corporate businesses that collaborate to promote company development and tackle commercial and social issues through collaborative innovation to make India 'Aatma Nirbhar' (self-sufficient).



Steamhouse India Limited
Plot No. 8108.1, Rd No. 2, GIDC Surat 394230 GJ
+91 90995 12222 info@steamhouse.in

Cleantech Solutions for Water Treatment & Conservation





NAME OF THE TECHNOLOGY

Ecofloc (M) & Hydrogel, emergency water purifier

CHALLENGE ADDRESSED

Water and wastewater treatment

PRICE (MIN MAX)

1,200 - 1,500 INR Per KG

Aquadignostics

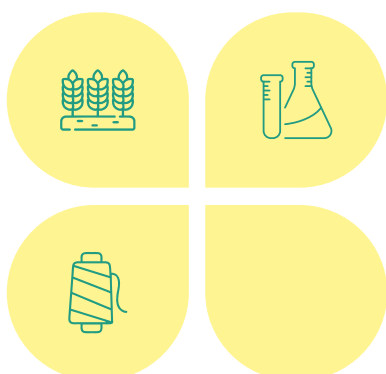
Contact: **Srikanth Raghavachari**

LinkedIn URL: [linkedin.com/in/srikanth-
raghavachari-3a118b32](https://www.linkedin.com/in/srikanth-raghavachari-3a118b32)

Contact Email: rsrikanth60@gmail.com

Contact No.: **+91 9111860176**

Location: **Hyderabad, TL**



NAME OF THE TECHNOLOGY

Wastewater Solutions

CHALLENGE ADDRESSED

Innovative, cost-effective wastewater treatment & recycling solutions, including Zero Liquid Discharge (ZLD) for water management.

A.T.E. HUBER Envirotech Pvt. Ltd.

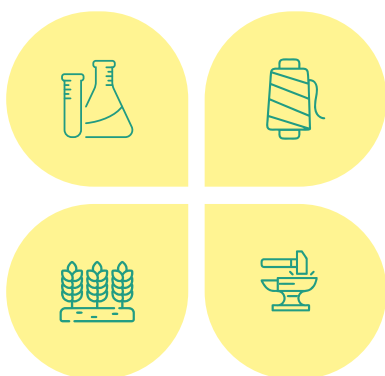
Contact: **Yogesh Khalate**

Company URL: www.atehuber.com

Contact Email: wwtp@atehuber.com

Contact No.: **1800-123-2830**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

BIPV Solar Roof

CHALLENGE ADDRESSED

BIPV Solar Roof: Panels double as the roof, saving costs and increasing energy generation per sqft.

Aelius Turbina

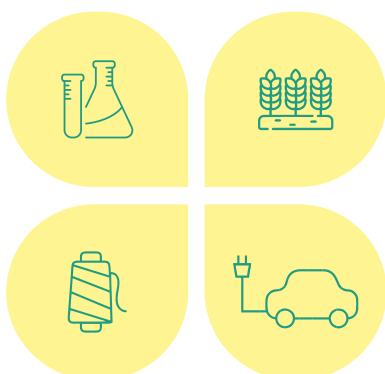
Contact: **Viral Shah**

Company URL: **www.aeliusturbina.com**

Contact Email: **renewables@aeliusturbina.com**

Contact No.: **+91 8169058820**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

PlastBit: Resource recovery station for Indian Road Congress-compliant bitumen binder, Engineered Solid Fuel, and RDF thermochemical conversion. Zero waste, no landfill solution.

CHALLENGE ADDRESSED

Circular solution: No landfills, legacy waste, fossil materials. Energize communities, address waste, scarcity, foster sustainable development.

PRICE (MIN MAX)

5 - 65 Thousand INR Per Ton

Debrisolve Private Limited

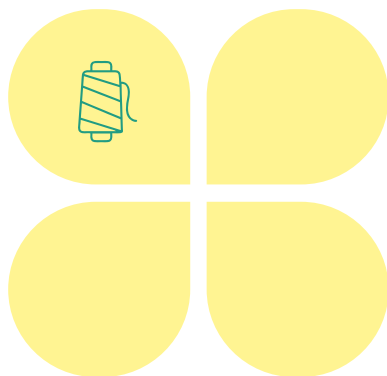
Contact: **Dharmendra Parekh**

LinkedIn URL: **[linkedin.com/in/debrisolve-india-b4a9aa275](https://www.linkedin.com/in/debrisolve-india-b4a9aa275)**

Contact Email: **vignesh@prkruti.com**

Contact No.: **+91 9687771364**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

SUPRAUNO : Waterless Dyeing of ALL Textiles with Conventional Dyes

CHALLENGE ADDRESSED

Deven Supercriticals' SupraUno: Water-less dyeing tech for sustainable textiles, reducing chemicals, water, energy.

PRICE (MIN MAX)

14 - 32 Crores INR

Deven Supercriticals Private Limited

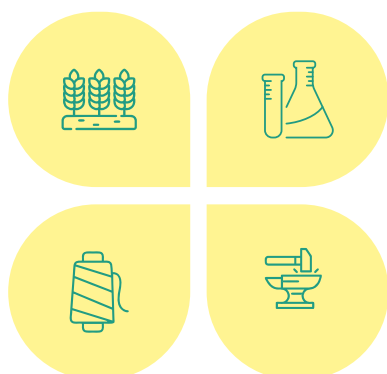
Contact: **Swapneshu Baser**

Company URL: www.scfe.in

Contact Email: baser@scfe.in

Contact No.: **+91 9821183231**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Wayumitra: Hybrid Rooftop Wind Turbine

CHALLENGE ADDRESSED

EnergyBae: Bridging gaps in renewable energy. Automated platform matches customer needs with vendors, offering quotes and KPIs.

PRICE (MIN MAX)

70 Thousand - 25 Crores INR

EnergyBae

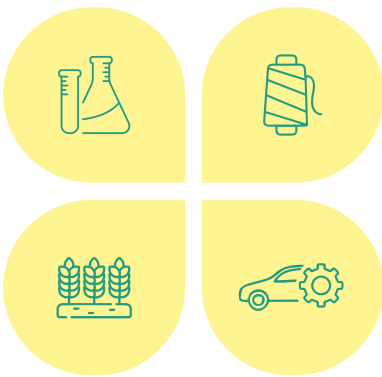
Contact: **Akshay Jain**

Company URL: www.energybae.in

Contact Email: energybae.co@gmail.com

Contact No.: **+91 7507991787**

Location: **Pune, MH**



NAME OF THE TECHNOLOGY

Electrox Decentralized Water Treatment

CHALLENGE ADDRESSED

Treating a wide variety of tough pollutants in wastewater for maximum water reuse using electricity in a compact plug and play module.

Indra Water

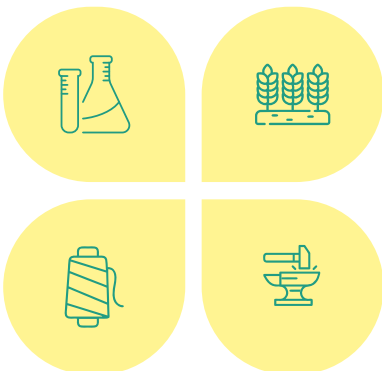
Contact: **Amrit Om Nayak**

LinkedIn URL: [linkedin.com/company/indrawater](https://www.linkedin.com/company/indrawater)

Contact Email: amrit@indrawater.com

Contact No.: **+91 9004357646**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

PRKRUTI - Smart Air Quality Monitor, and Automatic Weather Station

CHALLENGE ADDRESSED

PRKRUTI: Cost-effective, customizable air quality monitoring. Accurate data, simplified alternative to traditional systems.

PRICE (MIN MAX)

1 - 5 Lakhs INR

Jal Technologies Private Limited

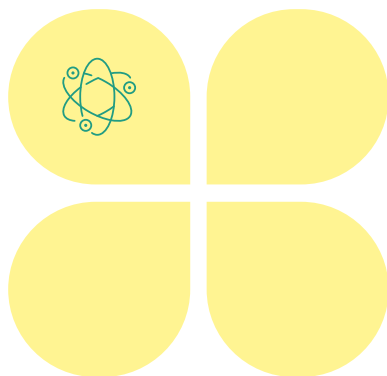
Contact: **Vignesh Kaneria**

Company URL: www.prkruti.com

Contact Email: vignesh@prkruti.com

Contact No.: **+91 9687771364**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Micro Hydro and Micro Wind Turbines

CHALLENGE ADDRESSED

Small Hydropower can provide predictable renewable power where the grid is available and cater to distributed local energy requirements where grid connectivity is a challenge.

PRICE (MIN MAX)

10 - 50 Lakhs INR

Maini Renewables Private Limited

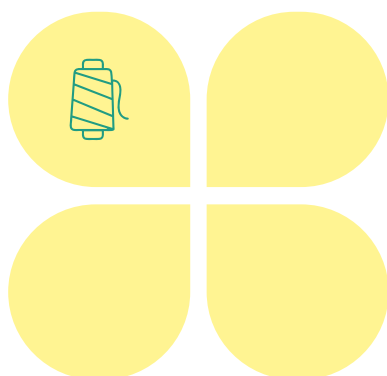
Contact: **Swati Maini**

Company URL: www.mainirenouvelables.com

Contact Email: swati@mainirenouvelables.com

Contact No.: **+91 7710814798**

Location: **Mumbai, MH**



NAME OF THE TECHNOLOGY

Textile Recycling facility

CHALLENGE ADDRESSED

TRF provides mechanical solution for post consumer textile waste

PRICE (MIN MAX)

5 Hundred - 3 Thousand INR

Material Library of India

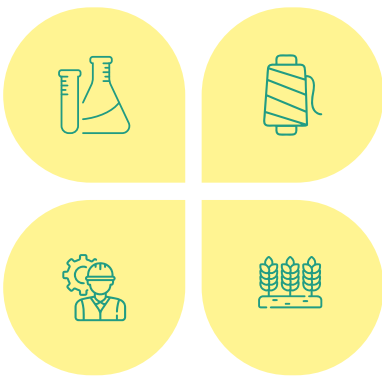
Contact: **Shubhi Sachan**

Company URL: www.materiallibraryofindia.com

Contact Email: projects@materiallibraryofindia.com

Contact No.: **+91 9833697970**

Location: **Noida, UP**



NAME OF THE TECHNOLOGY

Energy Efficient Cooling as a Service

CHALLENGE ADDRESSED

High cost of high efficiency cooling systems

PRICE (MIN MAX)

25 Lakhs - 20 Crores INR

Oorja Energy Engineering

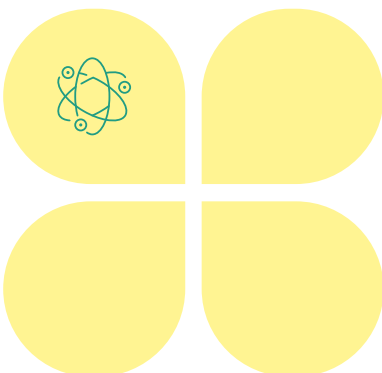
Contact: **Madhusudhan Rapole**

Company URL: **www.oorja.in**

Contact Email: **madhu@oorja.in**

Contact No.: **+91 9000332828**

Location: **Hyderabad, TL**



NAME OF THE TECHNOLOGY

Advanced Biomass Combustion system

CHALLENGE ADDRESSED

High carbon emission and very high operational cost of fossil fuels

PRICE (MIN MAX)

10 Thousand - 2 Crores INR

Rexergy India Private Limited

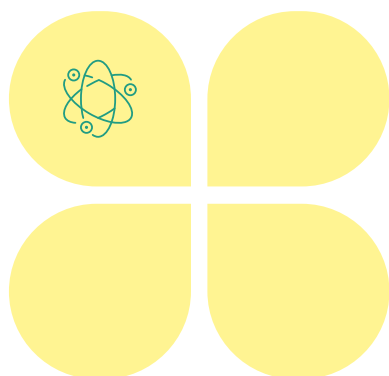
Contact: **Aman Aggarwal**

Company URL: **www.rexergyindia.com**

Contact Email: **aggarwal13.aman@gmail.com**

Contact No.: **+91 9873860453**

Location: **New Delhi, New Delhi**



NAME OF THE TECHNOLOGY

Solar Marketplace

CHALLENGE ADDRESSED

Solar bidding for solar projects, a solar marketplace, and smart purchases (bidding for any Products/Components).

PRICE (MIN MAX)

5 Lakhs - 4 Crores INR

Solnce Energy Private Limited

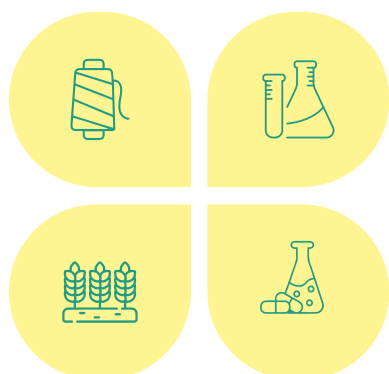
Contact: **Soha Kapadia**

Company URL: www.solnceenergy.com

Contact Email: yash.tarwadi@solnceenergy.com

Contact No.: **+91 8141715453**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Community Boiler

CHALLENGE ADDRESSED

Reduced Carbon Emissions, Reduced SO_x and NO_x emissions

SteamHouse India Limited

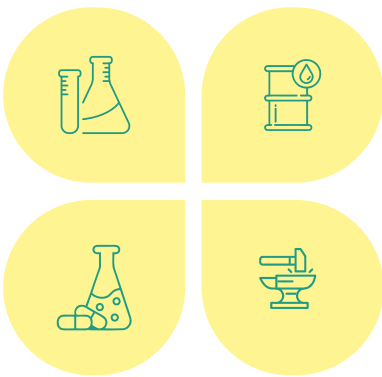
Contact: **Khushi Budhia**

Company URL: www.steamhouse.in

Contact Email: khushi@steamhouse.in

Contact No.: **+91 9727740710**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

TRL RAIN & Other waste water treatment technologies for hazardous waste water treatment

CHALLENGE ADDRESSED

TRL-RAIN: Low-temp solution for water management, compliance, fresh water, ZLD, sustainable usage, reduced impact.

PRICE (MIN MAX)

1 - 1000 Crores INR

Taylormade Renewables Private Limited

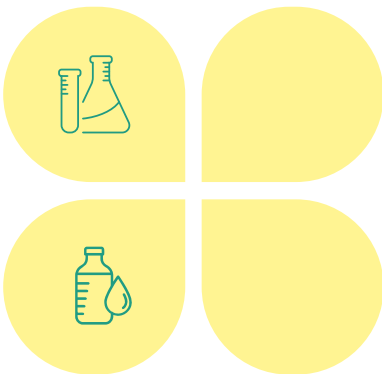
Contact: **Dharmendra Gor**

Company URL: www.trlindia.com

Contact Email: dharam@tss-india.com

Contact No.: **+91 9712933390**

Location: **Surat, GJ**



NAME OF THE TECHNOLOGY

Biocultures (MicroBact)

CHALLENGE ADDRESSED

Biological treatments reduces COD, BOD, nitrogen in wastewater. Compliant with GPCB, CPCB. Aerobic & anaerobic processes.

PRICE (MIN MAX)

350 - 2500 INR Per KG

Velesolv Envirotech Private Limited.

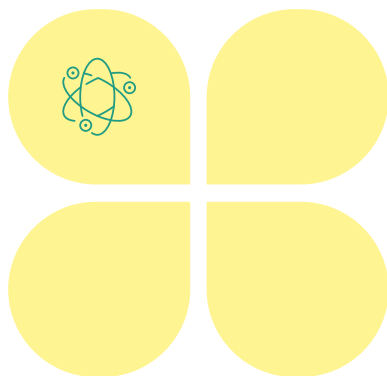
Contact: **Yagnesh Thakkar**

Company URL: www.velesolvenvirotech.com

Contact Email: info@velesolvenvirotech.com

Contact No.: **+91 9722270070**

Location: **Akaleshwar, GJ**



NAME OF THE TECHNOLOGY

WEGoT aqua

CHALLENGE ADDRESSED

Solving lack of accountability for water usage in India, Lack of awareness about the depleting resource water and lack of technology to identify and stop water leakages

PRICE (MIN MAX)

199 - 15 Thousand INR

WEGoT Utility Solutions

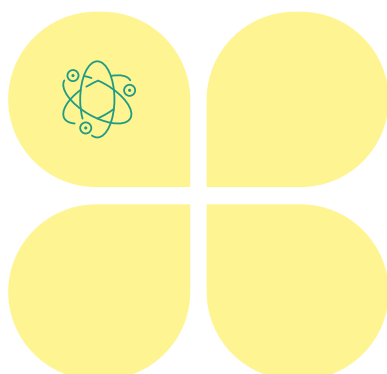
Contact: **Khushboo Vyas**

LinkedIn URL: [linkedin.com/company/wegot-utility-solutions](https://www.linkedin.com/company/wegot-utility-solutions)

Contact Email: khushboo@wegot.in

Contact No.: **+91 7200149794**

Location: **Chennai, TN**



NAME OF THE TECHNOLOGY

Small wind solar hybrid solution

CHALLENGE ADDRESSED

Providing reliable renewable energy supply to coastal, hilly, windy regions

PRICE (MIN MAX)

46 Thousand - 2.5 Lakhs INR

WiSH Energy Solutions Private Limited

Contact: **Amol Balwant Shende**

Company URL: www.wishenergy.com

Contact Email: sales@wishenergy.com

Location: **Ahmedabad, GJ**

Biopetroclean

TANSAM Centre of Excellence is utilized by industries for spurring innovation at the grass root level. This will be future-proof for the industries and career progression training needs in the emerging technologies and best practices on par with international standards. Additionally, the CoE will be an ideal R&D facility for industries, to adapt to future technologies with cost-saving advantages unique to them. The program has three key components namely Innovation Platform, which enable the industry to develop personalized smart products with validated performance, then the Infrastructure Platform which enhances industry capability to create product, process and performance twin and the Engineering Services which provide established industry with services to liquidate their day to day issues.



Automated Chemostat Treatment™ (ACT)

ACT starts with selecting the most efficient bacteria cocktail from the process effluent on BPC's labs, once this process specific bacteria cocktail is isolated and bacteria cocktail is prepared, the bacteria is delivered to the site as a one time starter. In the bioreactor itself the cells are maintained at a very low concentration inside the bio reactor (MLSS value of around 100-400 ppm dependence on the organic load in the system).

The bacteria concentration is distributed throughout the bio reactor and they act as single cell treatment units as no aggregates are formed; this ensures that the biological oxidation process is highly effective when compared with the concentration that has to be maintained within the bio reactor. This new biological concept is based on:

1. Pre-selecting a bacterial "consortium" to match the wastewater characteristics (pH, temperature, carbon source, etc.)
2. Automated Chemo-stat: Monitoring multiple parameters using various sensors, analyzers, and methods developed by BPC.
3. Avoiding sludge recycling and maintaining a low concentration of bacteria in the bioreactors.

BPC's ACT is a one flow system as there is no need of re-circulating sludge to maintain the required bacteria population in the bioreactor, the rate of growth of the bacteria culture within the bioreactor is always maintained at a rate equal to or higher than the rate at which bacteria culture is being washed away via the outflowing effluent.

Additional Features and Advantages:

- Improves stability
- Absorbs shock loads
- Generates lower sludge
- Treats complex chemical compounds
- Provides effective degradation of contaminants
- Rapid CAPEX and OPEX savings

Sustainability and Cost Economics

Phenol and Sulphide Elements Removed

90%

Reduction in Sludge Generation

65%

Cost Reduction in OPEX

20%

Contact: Mr. Zeeshan Elahi
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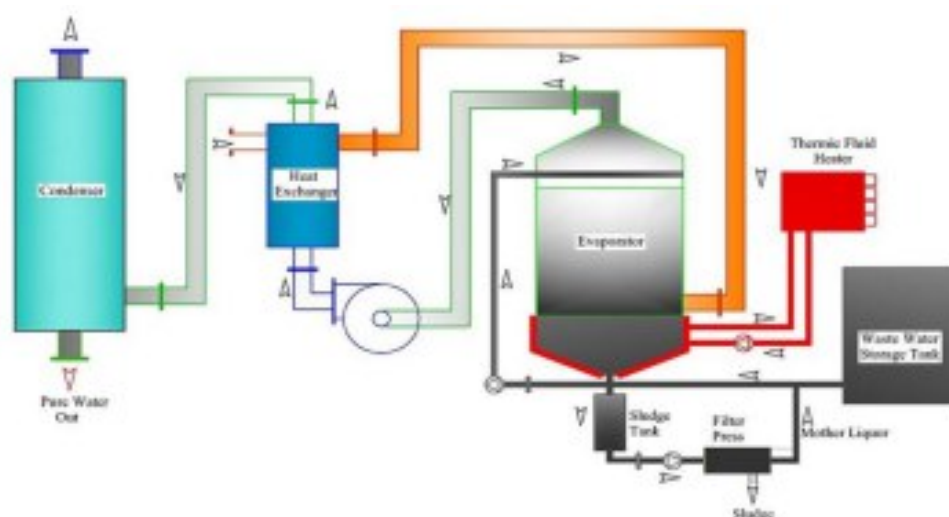
Taylormade Renewables Limited

Problem Statement: The industrial manufacturing sector faces the challenge of efficiently managing and treating complex waste streams generated during production processes. Conventional waste treatment methods are often costly and unreliable, resulting in significant financial burdens and potential environmental risks. Therefore, there is a need for an innovative solution that can effectively transform these challenging waste streams into valuable water resources, reducing treatment costs and improving production reliability in industrial manufacturing operations.

Taylormade Renewables Ltd (TRL) has developed TRL Rain Technology® to transform the most challenging industrial waste streams into valuable water resources. This distillation alternative mimics nature's rain cycle to reduce the cost of treatment while increasing production reliability.



TRL RAIN 50 m3 Plant



The TRL RAIN™ technology is a low temperature technology and does not require any vacuum pumps, high pressure, chillers, and the technology can work on waste heat available.

The Main Advantages of TRL RAIN™ are:-

- Non-Pressurized System.
- All the wetted parts are non-corrosive.
- Its self-cleaning mechanism does not clog the system.
- Its need very low power, minimum maintenance, and no need of skilled person for operating.
- Highly energy efficient and Eco-friendly design concept.
- Low maintenance and operating cost.
- Can treat any quality and quantity of input water.
- The sludge can be filtered through simple Filter Press, which is removed, and mother liquor is again sent to TRL RAIN for further process, so a complete ZLD. The sludge which is having some moisture can be sun dried. So there is no need of ATFD, Spray dryer or any kind of Evaporator saving huge cost of treatment.

The Major Features of TRL RAIN™ are:-

- No CIP, no backwash and no chemicals required for regular operation-saving time and cost.
- Low cost of Waste Water Treatment.
- Water recovery is very high compared to any other existing technologies in the market.
- Can take any effluent from any industry, no limitations. • Condensate water recovery is almost 100%.
- Post treatment of residue is drastically less.
- Low temperature and pressure application, hence, can run on any source such as Solar PV, flare gas, Waste Heat, Boilers, Thermic Fluid Heaters, etc.
- The quality of condensate water is excellent due to absence of volatile organic material. So, water can be used directly process or boiler or other utilities

Sustainability and Cost Economics

COD Reduced	TDS Reduced	TSS Reduced	Ammonical Nitrogen Reduced	Energy Saving
99.41%	99.98%	98.14%	97.45%	33%
Annual Monetary Saving (Briquette)	Annual Cost Saving (Fuel-LSHS)	Annual Electricity Saving	Payback Period	
INR 77.4 Lac	INR 66.06 Lac	2,73,715 KW	1.87 years	

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dharam@tss-india.com
+91 9712933390

WeGOT Utility Solutions Private Limited



With WEGoT aqua we are able to reduce the demand for water in multi-tenanted buildings by changing people's behaviour by attaching a cost to it and billing them for their own consumption. This was previously unavailable in India due to plumbing design. Through our platform users get access to real time insights like leakages and abnormal usages. Our platform provides the facility manager the ability to manage the water requirement of the entire campus.



Salient Features

- Tracks water at all stages of the lifecycle (source to consumption) with solutions for each specific problem point in the water cycle.
- Innovated on the business model to increase adoption by offering the product for free and charging a nominal monthly subscription.
- Features the most miniature sensors available, making installation easy. The entire solution is a simple plug-and-play model, facilitating faster scalability.
- Wireless LoRa sensors come with remote setup capability, adding flexibility.
- Built on an IoT-first platform, unlike other water meters that only utilize IoT technology for select functionalities.
- Ultrasonic water meters are flexible for mounting in all directions, are dirt resistant, and have negligible pressure loss.
- Deployed the solution across 50k+ homes, 40 million sq.ft of commercial space, having saved 5 billion+ litres of water

Sustainability and Cost Economics

- Up to 30% reduction in water consumption
- Up to 20% reduction in monthly maintenance costs
- Design smart water systems based on usage data
- Eliminate wastage caused due to burst pipes, leakages, theft
- Improve life & efficiency of plumbing equipment, pipes & pumps
- Up to 30% reduction in electricity required to operate pumps, treatment plant
- Regulate and enhance life of ground water usage
- Simplified facility management through real-time data to make informed decisions

Sustainability and Cost Economics

Emissions Reduction

7.36 MTCO2

Annual Monetary Saving

INR 15 Paise per 5B Liters

Investment Required

INR 35,400

Cost Savings Per month

INR 5400

Payback period

5 Months

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+91 9884332714

Accelerating Clean, Equitable (ACE) Manufacturing in India

The Accelerating Clean, Equitable (ACE) Manufacturing project is an initiative by the Institute for Sustainable Communities (ISC) that aims to foster a gender-equitable decarbonization pathway among Indian small and medium-sized manufacturers. The project focuses on the automotive, chemical, and textile manufacturing sectors and encourages the transition to clean energy and equipping workers with green skills. The goal is to ensure long-term economic prosperity while promoting sustainable and inclusive economic growth that benefits all members of society.



ISC is an international, non-profit organization that works to support communities by creating, implementing, and scaling equitable climate change solutions for communities at the frontline of the global climate crisis.

Our unique, bottom-up approach ensures solutions emerge from within communities, rather than being imposed from the outside. By sharing international best practices and experiences, providing technical expertise and training, and building the capacity of local organizations, we support innovative solutions and sustainable change.

Since our founding in 1991 by former Vermont Governor Madeleine M. Kunin and former ISC President George Hamilton, ISC has led transformative, community-driven projects across the globe. Over the years, we have developed an approach that supports a community's ability to meet challenges head on.

MISSION:

Our mission is to create equitable, climate change solutions around the world. We do this by forming collaborative, people-focused partnerships that support communities disproportionately impacted by the global climate crisis.

SUPPORTED BY

MacArthur
Foundation

CleanTech Connect

JUNE 2023

