

(ISO:9001-2015)



5th Global Sustainability Conclave Make In India – Make for World 25th – 27th July 2024

Jointly Organising with SEPC (Service Export Promotion Council under Ministry of Commerce and Industry Govt. of India, Delhi)

&

India Exposition Mart Ltd. (Greater Noida)



STEERING COMMITTEE



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Padmashri Dr.G. D. Yadav Chemical Man of India



Padmashri Dr.Kartikeya Sarabhai Environment Man of India



Chetan Singh Solanki

The Solar Man of India



Dr Rakesh Kumar Sharma Handicraft Man of India



K D Bhardwaj

Director and Group Head Environment and Energy , International Services , National Productivity Council



Dr. Arup Kumar Misra Chairman Pollution Control Board Association



Dr. Santanu Kumar Dutta

Member Secretary Pollution Control Board Association



Dr Abhay Sinha

Director General Services Export Promotion Council



Erik Solheim

Chairman -The sixth and former UN Environment Executive Director and under secretary-General of the United Nations



Dr. Arun Kumar Sarma

Director General at North East Centre for Technology Application and Reach



K L Jain Chairman KLJ Group

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President ICMEI & Chancellor AAFT



Dr.Anup K Ghosh

Prof IIT Delhi, Global Advisory Board Member MSMECCII



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Director Solid Waste Management TERI



Jeevaraj Pillai

Joint President Packaging, Uflex Ltd.



Ekta Narain

Co-Founder and Chief Business Officer - Recykal



Sunil Kumar Sathyanarayanan

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Additional Director, IIP Delhi, Additional Charge IIP Lucknow



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Green Energy, Hydrogen, Biofuel, Biogas, ESG, CSR & Carbon Negative



Dr. A. R. Shukla

President - Indian Biogas Association



Colonel Rohit Dev

Operational Art & Strategic Thinking



Gaurav Kedia

Chairman - Indian Biogas Association



Dr. J P Gupta

Chair,Environment & Green Hydrogen Committee, PHDCCI Summit Chair, ICS 2023



Dr Rakesh Chandra Agarwal

The Environmental & Consumer Protection Foundation, Exe. Chairman



Mallikharjuna Babu Kayala

Vice Chancellor, Galgotias University, India



Dr Vibha Dhawan

Director General (TERI)



Peter Bertrand

Diplomatic Relations | Green Strategic Partnership | Donor Coordination | Programme Support

Pvt. Ltd.

instead of Eashwa Automotive,

Electrical Mobility, Battery Refurbishment Recycling & OEM's



Head Emerging Mobility BU-Hero MotorCorp Ltd DGM Govt Sale EVBU-Tata Motor Passenger Vehicles Limited Vice President - Corporate Affairs @ Ashok Leyland



E - Waste Recycling, Technology, EPR & Circular Economy



ALN Rao CEO Exigo Recycling



Raj Kumar CEO Deshwal, Waste Management Pvt Ltd



Prabhjot Sodhi

Former Country Program Manager, Global Environment Facility- Small Grant Programme-UNDP, CEE for 14 years

Sustainability



Prof. Dr. P K Rajput

Global Leadership Coach | Pharma Business Leader | Keynote speaker



Asim Saha

Resident Director MSME Chamber of Commerce and Industry of India



Mahesh Kasture

Chief Manager (R&D). Bharat Petroleum Corporation Ltd.



Bineesha P

Board Member Technology Development Board (Under Department of Science and Technology Govt of India)



Ulhas Parlikar

Global Consultant (Waste Management, Circular Economy, Policy Advocacy & Co processing)



Hanumant Saraf

Vice President Reliance Industries



T. Jaya Surya Deputy general Manager Hindustan Petroleum Corporation Ltd.



Yogesh Kumar

General Manager MSME Chamber of Commerce and Industry of India



Start-Up Conclave, Funding from PSU's, Banks, SIDBI & IPO



Handicrafts, Jute Leather, Textiles, Garments, Sport Goods & Home Furnishing Items



Social Media





MSME CHAMBER OF COMMERCE AND INDUSTRY OF INDIA



GREEN ENERGY, HYDROGEN, BIOFUEL, BIOGAS, ESG, CSR & CARBON NEGATIVE

CONFERENCE & EXHIBITION

ENERGY SUPPORTING PARTNER

White-

SPDA

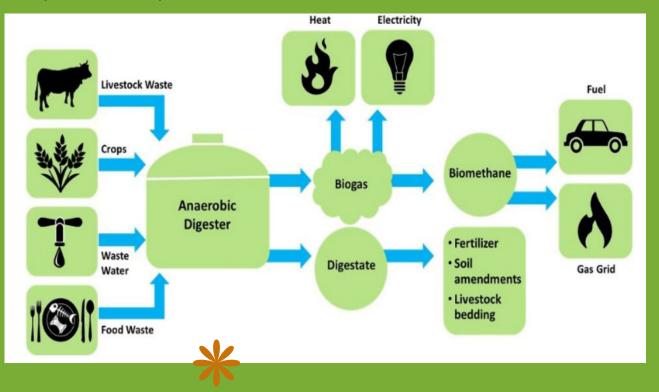
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BIOGAS INTRODUCTION

Biogas is produced after organic materials (plant and animal products) are broken down by bacteria in an oxygen-free environment, a process called anaerobic digestion. Biogas systems use anaerobic digestion to recycle these organic materials, turning them into biogas, which contains both energy (gas), and valuable soil products (liquids and solids).



"

In 2014-15, about 20,700 lakh cubic meters of Biogas is produced in the country which is equivalent to 5% of the total LPG consumption in the country. Biogas contains **50 - 70 %** roughly methane, **30 - 40 %** carbon dioxide, and trace amounts of other gases. The liquid and solid digested material, called digestate, is frequently used as a soil amendment.

After biogas is captured, it can produce heat and electricity for use in **engines**, **microturbines**, and **fuel cells**.





BIOGAS FEEDSTOCK



BIOGAS COMPOSITION

Methane (CH4, 50-70%)

Carbon dioxide (CO2, 25-50%)

Other gases: nitrogen (N2, less than 5%), hydrogen (H2, less than 1%), and oxygen (O2)

Traces of hydrogen sulfide (H2S, less than 3%), water vapor (H2O, less than 10%), and ammonia (NH3, less than 1%)

FOOD WASTE

Unfortunately, food waste makes up 21 percent of India's landfills, with only 5 percent of food waste being recycled into soil improver or fertilizer. Most of this waste is sent to landfills, where it produces methane as it breaks down. While landfills may capture the resultant biogas, landfilling organic wastes provides no opportunity to recycle the nutrients from the source organic material.

LANDFILL GAS

Landfills are the third largest source of human-related methane emissions in the India. Landfills contain the same anaerobic bacteria present in a digester that break down organic materials to produce biogas, in this case landfill gas (LFG).

WASTEWATER TREATMENT

Many wastewater treatment plants (WWTP) already have on-site anaerobic digesters to treat sewage sludge, the solids separated during the treatment process. However, many WWTP do not have the equipment to use the biogas they produce, and flare it instead.

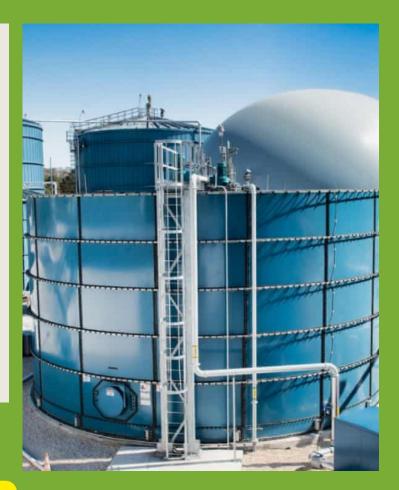




END USES OF BIOGAS

RAW BIOGAS AND DIGESTATE

With little to no processing, biogas can be burned on-site to heat buildings and power boilers or even the digester itself. Biogas can be used for combined heat and power (CHP) operations, or biogas can simply be turned into electricity using a combustion engine, fuel cell, or gas turbine, with the resulting electricity being used on-site or sold onto the electric grid.



RENEWABLE NATURAL GAS

Renewable natural gas (RNG), or biomethane, is biogas that has been refined to remove carbon dioxide, water vapor, and other trace gases so that it meets natural gas industry standards. RNG can be injected into the existing natural gas grid (including pipelines) and used interchangeably with conventional natural gas.

COMPRESSED NATURAL GAS AND LIQUEFIED NATURAL GAS

LNG is not as widely used as CNG because it is expensive to both produce and store, though its higher density makes LNG a better fuel for heavyduty vehicles that travel long distances.





KEY HIGHLIGHT OF THE EXHIBITION

- 350 + eminent speakers from across the world will participate in the conference with 800 + industries from PAN India overseas.
- Apart from Middle Industries and corporates, 400+ startups, unicorn and MSME's will be participating in the event along with 6000+ participants.
- 100 + interviews will be published by various TV channels, Magazines and Newspapers.
- It will deliberate & showcase the opportunities, growth, ecosystem, emerging trends.
- Ministries, MOS, Secretaries, Joint Secretaries and other Government top officials will be the part of the mega event.

WHO SHOULD ATTEND ?

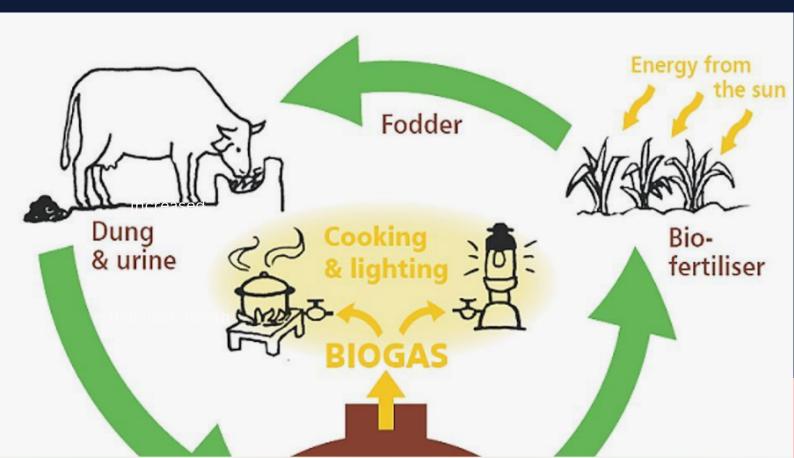
01	INDUSTRY EXPERTS	05	BIOGAS ASSOCIATIONS
02	CENTRAL GOVERNMENT MINISTRIES	06	ACADEMIC INSTITUTION
03	OFFICIALS FROM OGMCS	07	TRANSPORTATION SECTOR
04	DEVELOPMENT PARTNERS	08	CONSULTANTS





WHY TO EXHIBIT ?

- To discover the latest technologies and innovations
- Develop new business opportunities and form valuable partnerships with an international and targeted Biogas audience.
- Drive new business opportunities by meeting and engaging with new buyers, generate valuable leads and unlock millions of rupees worth of new business
- To find out about the latest industry news, markets and trends
- To get a better understanding of the industry
- To discover the latest technologies and innovations
- Help shape the future of the Biogas industry by promoting your company's latest innovations and technologies to global stakeholders
- Exchange knowledge and ideas with industry peers
- Strengthen your brand by gaining prominence amongst your peers
- Enhance your reputation by association with market insight and thought leadership





Environmental, Social and Governance Conference & Exhibition

VENUE: VIGYAN SABHA, NEW DELHI DATE: 25TH JUNE - 27TH JULY 2024

TIME: 9am - 6pm





INTRODUCTION

ESG stands for environmental, social and governance. These are called pillars in ESG frameworks and represent the 3 main topic areas that companies are expected to report in. The goal of ESG is to capture all the non-financial risks and opportunities inherent to a company's day to day activities.

Our world faces a number of global challenges: climate change, transitioning from a linear economy to a circular one, increasing inequality, balancing economic needs with societal needs. Investors, regulators, as well as consumers and employees are now increasingly demanding that companies should not only be good stewards of capital but also of natural and social capital and have the necessary governance framework in place to support this. More and more investors are incorporating ESG elements into their investment decision making process, making ESG increasingly important from the perspective of securing capital, both debt and equity.

3 ELEMENTS OF ESG

Environmental:

Pertains to corporate climate policies, greenhouse gas emissions, pollution, deforestation, biodiversity loss, energy efficiency, water management, treatment of animals and compliance with environmental regulations, etc.

Social:

Pertains to corporate's relationship with internal and external stakeholders, viz. employee safety and health, working conditions, diversity, equity and inclusion, conflicts and humanitarian crises and in risk and return assessments in enhancing or otherwise customer satisfaction and employee engagement.

Governance:

Pertains to ensuring that a company uses accurate and transparent accounting methods, pursuing integrity and diversity in selecting its leadership and is accountable to shareholders and dealing with prevention of bribery and corruption, cybersecurity and privacy practices and the manner in which the leadership responds to and interacts with the stakeholders viz. shareholders, auditors, internal controls, employees, regulators, and media.

KEY HIGHLIGHTS



To address contemporary issues and challenges in the adaptation of ESG in the Indian context



 To create momentum in the country to adopt responsible business conduct
 3+

 To identify and disseminate ESG best practices to strengthen the sustainability eco-system
 5

 To infuse the traits of Impact Leadership among the ESG Professionals
 To empower participants with the expertise needed for proficient BRSR compliance

 XNOWLEDGE
 3+



KNOWLEDGE REPORTS WILL BE SHARED	3+ MIISTRIES & GOVT BODIES	30+ EXPERT SPEAKERS	72 STALLS



WHO SHOULD ATTEND?



WHY TO EXHIBIT ?

Exhibitors will share ideas with the attendees about innovative and successful sustainability initiatives, sharing knowledge that can inspire others to adopt similar practices.

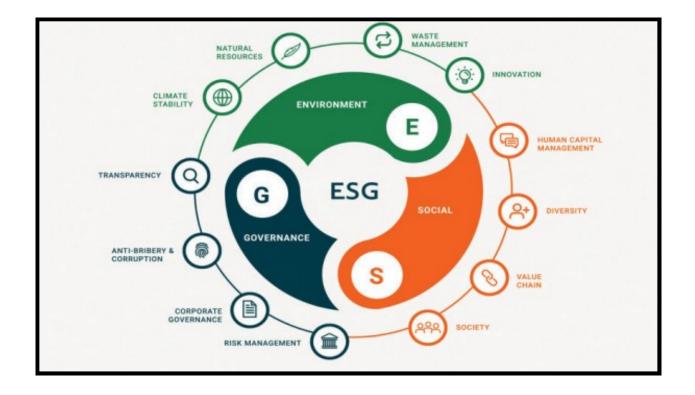


By presenting unique case studies, exhibitors can establish themselves as thought leaders in the sustainability space, gaining recognition and credibility within the industry.

Exhibitors can connect with like-minded individuals and organizations interested in sustainability, potentially leading to partnerships, collaborations, or future business opportunities.

 Sharing successful sustainability case studies can enhance the exhibitor's brand recognition as a leader in sustainable practices and solutions.

Expert Speakers: Renowned experts, thought leaders, and practitioners in sustainable business practices, environment, governance, CSR, inclusion, etc. will deliver insightful talks and presentations.



Post COVID-19 pandemic, global ESG investing picked up momentum as investors perceived COVID-19 as the century's first "sustainability" crisis, and thus have started adopting specific data around ESG for evaluating the material risk that an organization is exposed to.

STATUS OF ESG IMPLEMENTATION IN INDIA

66

Forward-looking organizations started reporting their ESG performances complying with globally accredited frameworks such as GRI, TCFD, and IR. Even unlisted companies voluntarily disclose their ESG measures based on the BRSR-lite format. Many large global investors have adopted well-defined ESG policies in their due diligence and investment monitoring processes. However, the Indian corporate ecosystem is still at a nascent stage of optimizing its transition strategy, financing requirements, and ESG profiles.

In the Insurance sector, since the insurance business has an intrinsic relationship with several environmental, social, and governance (ESG) factors, considering ESG factors in risk analysis and loss mitigation would prove beneficial to insurers trying to create their ground in the accountability towards a sustainable future and IRDA is cognizant about that fact.



Corporate Social Responsibility Conference & Exhibition

Venue: Vigyan Bhawan, New Delhi Date: 25th - 27th July 2024

INTRODUCTION

"

CARING FOR THE FUTURE

The Companies Act, 2013 provides for CSR under section 135. Thus, it is mandatory for the companies covered under section 135 to comply with the CSR provisions in India. Companies are required to spend a minimum of 2% of their net profit over the preceding three years as CSR.

Corporate social responsibility is a responsibility of for-profit and not-for-profit organizations for their impact on stakeholders, natural environment, and wider focuses society; it on accountability and transparency of corporate actions that include social, ethical, environmental, and economic efforts, which are often voluntary and placed within and outside of market and commercial transactions.

An organization's responsibility for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that:

- Contributes to sustainable development, including health and the welfare of society;
- Is in compliance with applicable law and consistent with international norms of behaviour;
- Is integrated throughout the organization and implemented in its relations".



WHY CSR?

CSR is an immense term that is used to explain the efforts of a company in order to improve society in a significant manner.

Communities provide the license to operate:

The CSR behavior of corporate is not just driven by their values but are also influenced by the stakeholders like government, investors, customers and community. A strong CSR programme provides the companies with the license to operate and to maintain the trust of the local community.

Attracting and retaining employees:

CSR interventions that help the employees to participate give them a sense of belongingness to the company. Good CSR initiatives can attract employees to the company and give them the incentive to remain motivated and committed to the company.

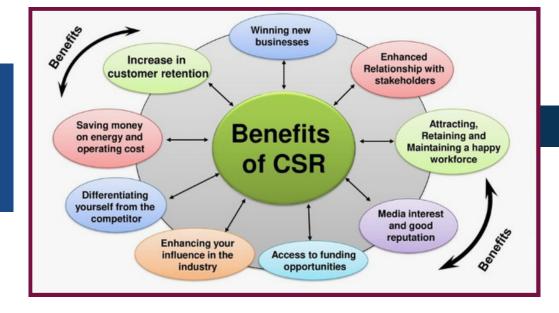
Communities as suppliers:

There are instances wherein as a part of CSR activities, the communities have been incorporated into the supply chain to enhance their livelihood.

DRIVERS OF CSR

the top ten motivators driving corporations to engage in CSR for competitive reasons, the following have emerged:

- Economic considerations
- Ethical considerations
- Innovation and learning
- Employee motivation
- Access to capital or increased shareholder value
- Reputation or brand
- Market position or share
- Strengthened supplier relationships
- Cost saving



KEY HIGHLIGHTS OF THE EXHIBITION

Knowledge about current demand for electric vehicles, stringent local and state government regulations and guidelines that drive the market growth.

Growing demand for renewable energy storage and rising adoption of lithium-ion batteries due to declining prices are the factors expected to provide lucrative market opportunities for market players.

350 + eminent speakers from across the world will participate in the conference with 800 + industries from PAN India overseas.

Apart from Middle Industries and corporates, 400+ startups, unicorn and MSME's will be participating in the event.



6000+ Participants are expected in 3 days

100 + interviews will be published by various TV channels, Magazines and N ewspapers.





WHY TO EXHIBIT ?

01. Better Interaction

You will get to interact with Senior CSR leaders and get better insight about CSR.

02. Networking

Construct your organization with India's top administrative and CSR and Sustainability specialists.

03. Knowledge of Latest Trend

Get to know most recent arising methodologies that will help your CSR interaction arrive at a higher level.

04. Brand Building

It will allow to host meetings and secure business deals on your exhibition stand along with generating new leads for your company in a highly targeted environment.







MSME Chamber of Commerce and Industry of India

SEPC (Service Export Promotion Council & Indian Biogas Association Jointly Organizing Biofuel Expo 2024



www.msmeccii.com

INTERNATIONAL EXHIBITION ON BIOFUEL MANUFACTURING PROCESS & TECHNOLOGY, PLANT MACHINERY & EQUIPMENT'S AND ALLIED INDUSTRIES

25th - 27th July 2024



FOCUS INDUSTRIES

- Biofuel (Biodiesel, Ethanol, Biogas, Biomass, Green Hydrogen) Manufacturers
- Biofuel Plant's Equipment's & Machine Manufacturers
- Biomas Briquettes, Pallets and Machinery Manufacturers
- Biofuel Manufacturing Technologies
- Bio Refinery (Ethanol/Biofuel) Units
- Boiler, Steam Turbine & Air Compressor Manufacturers
- Presser Vessels, Heat Exchanges & Parts Manufacturers
- Heavy Material Handling & Movement Equipments Manufacturers
- Fabricators & Consultants
- Research & Development Organization
- Government Institutions
- EPC Solution Company for Bio Ethanol Industries.
- EPC Machinery for Bio Ethanol Plant Manufacturers
- Beer, Malt, Wine, Carbonated Drink, Starch, Alcohol Grain and Molasses, Malt Sprits Whiskey process, Distillery and Liquor Plant Machinery.
- EPC solution for Grain Unloading and Milling Section & Grain Processing Machinery
- Pre Cleaner, Vibro Classifier, Destoners, Material Handling, Aspiration System, Hammer Mill.





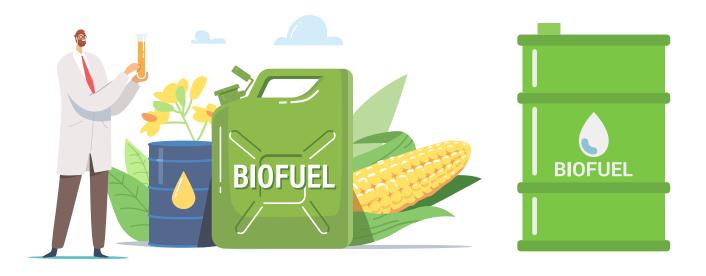




ABOUT EXPO

Biofuel Expo 2024 - International Exhibition and Conference focus on Bio Fuel (Bio diesel, Ethanol, Bio Gas, Hydrogen) Manufacturers, Bio Fuel Plant's Equipment's & Machine Manufacturers, Bio fuel Refineries. & Allied Industries is a platform for the major stakeholders of the Bio Fuel producers industry and their buyers to find out the new business opportunities. The expo will provide the latest key trends in national and international Biofuel industry.

Biofuel Expo 2024 will be organized with the main aim to promoting the growth and development of the Industry in India the event will offer so many opportunities for networking and business for the participants from the Biofuel industry. The exhibition and conference will get participation from across the Country and also international Exhibitors are expected to participation in the exhibition.



INDUSTRY OVERVIEW

Biofuel is a green, clean fuel produced via the transesterification of edible and non-edible oils. It is renewable, cost-effective, carbon-neutral, and nontoxic compared to conventional sources of fuels. the various types of biofuels are like Wood, Biogas, Biodiesel, Ethanol, Methanol, Butanol. It is apparent that biofuels are an essential component of our future energy supply and in the reduction of greenhouse gas emissions. More innovation is key to unlocking the true potential of biofuels, particularly for transport, to scale-up and improve cost-effectiveness.



The production volume of biodiesel fuel in India was forecast to stand at 185 million litres in 2022. Biodiesel can be produced from vegetable oil, animal fats, and waste oils.

Maize, sugarcane, and sugar beets are the main traditional substrates used for biofuel production. In Indian prospective, it is imperative to search for non-food feedstocks for long-term sustainability and economic viability of Indian bioethanol market. The government has decided to step up domestic manufacture of biofuels by 10 per cent every year and has advanced the target of blending 20 per cent ethanol in petrol to 2025, from 2030.

EVENT HIGHLIGHTS

- Excepted 70 Exhibitors from India &
- Abroad 4000 + Business Visitors
- Hosted Buyer Seller Meet
- Seminar for 3 Days



EXHIBITORS PROFILE

- Biofuel (Biodiesel, Ethanol, Biogas, Hydrogen) Manufacturers
- Biofuel Plant's Equipment's & Machine Manufacturers
- Biofuel Manufacturing Technologies
- Bio Refinery (Ethanol/Biofuel) Units
- Steam Turbine, Air Compressor
 Manufacturers
- Fabricators & Consultants
- Research & Development
 Organization
- Government Institutions
- EPC Solution Company for Bio Ethanol Industries.
- EPC Machinery for Bio Ethanol Plant Manufacturers
- Beer, Malt, Wine, Carbonated Drink, Starch, Fruit Juice, Alcohol Grain and Molasses, Malt Sprits Whiskey process & Machinery Suppliers.
- EPC solution for Grain Unloading and Milling Section.
- Grain Processing Machinery
- Pre Cleaner, Vibro Classifier,
 Destoners, Material Handling,
 Aspiration System, Hammer Mill.



BENEFITS OF PARTICIPATION

- Meet high quality prospects and decision Makers
- Brand Building opportunity among the industry
- Direct interaction with industry suppliers, buyers, and distributors
- Find out the latest technologies, products, and services
- New import & export opportunity
- Network with Industry professionals
- A platform to launch new products
- Explore Joint venture & partnerships



VISITORS PROFILE

- Industrialist
- Biodiesel Plant Manufacturers
- Biofuel Manufacturers & Retail
- outlet Traders & Suppliers
- Transporters
- FPOs (Farmer Producer
- Organization Agriculture
- organization
- NGO
- Consultants
- Fabricators
- Trade Associations

Media & Publications



EXPO PARTICIPATION

CONTRACT FORM

25th - 27th July 2024

at Vigyan Bhavan, New Delhi, India



Company Name		•••••••••••••••••••••••••••••••••••••••	
Contact Person Name			
Designation	••••••	••••••	•••••
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		Pincode	
_	_	Email.Id	
		GST.No	

Participation Details

Stall	Size	(In
Sq.mtr)	••••••		Stall

Participation Option Charges/ M2 SQMT Amount

Stall Size - 4, 6, 9, 12 SQM

INR 14,000 / SQM		
+GST @ 18%		
Total Amount Payable		

Authorised Signature			
Name	Date	Stamp	
•	Organizer's	Executive	
Signature	••••••	•••••	
Name	Date	Stamp	



Ethanol, Biogas , Biomass, Green Hydrogen, Biodiesel

TOPICS TO BE COVERED

- * Market Analysis
- * Applications
- * Types of feedstock required and production

technology. * By-products

- * Government Subsidies and loans available
- * Marketing strategies



AGENDA

The purpose of this seminar is to provide an overview and explore opportunities in the biofuel industry. Our expert panel of speakers will cover a wide range of topics related to biofuels, including the market analysis, types of feedstock required, By products, Government subsidies and marketing strategies.

Whether you are considering entering this rapidly growing sector or already involved in biofuel production, this seminar will provide you with the information you need to make informed decisions and stay ahead of the curve. We look forward to welcoming you and your colleagues to this exciting event.

DELEGATE REGISTRATION FORM

BIOFUEL EXPO SUMMIT

INDIA BIOFUEL MEET

25th - 27th July 2024 | at Vigyan Bhavan, New Delhi

We are nominating the following from our company / Organization to attend the conference

S.N.	Name	Designation

Number of Delegates	Fees (Rs.) (Inclusive of GST)	Total (Rs.) (Inclusive of GST)	
	USD 145/- Per Delegate		
	INR 10,000/- Per Delegate		
Company Name	•••••		
GST No			
Address			
TelMob No			
Email	ailSignature		

MSME Chamber of Commerce and Industry of India.

Union Bank of India Chittaranjan Park Account No.:626701010050347 | IFSC Code : UBIN0562670

SPONSORSHIP OPPORTUNITIES

WE HAVE NUMEROUS SPONSORSHIP OPPORTUNITIES AT BIOFUEL EXPO 2024

TITLE SPONSOR 15.00 L DIAMOND SPONSOR **KIT BAG SPONSOR** 10.00 L 1.00 L **KIT BAG SPONSOR** PLATINUM SPONSOR **SPONSORSHIP** 2.00 L 7.50 L DETAIL **GOLD SPONSOR BRONZE SPONSOR** 5.00 L 2.00 L **SILVER SPONSOR** 3.00 L



GREEN ENERGY EXPO 2024







at Vigyan Bhavan, New Delhi

Advantages of Solar Energy:

- Renewable & Sustainable
- Energy Independence
- Long-Term Savings

Visit our Website www.msmeccii.com

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THE LARGEST & PREMIUM GREEN ENERGY EXPO INTERNATIONAL EVENT OF THE YEAR We are glad to appear

We are glad to announce the **GREEN ENERGY EXPO** will be held on **25th 27th** July 2024 at Vigyan Bhavan, New Delhi Organised by Green **25th** A Expo Team, a division of WT, the scope of exhibition is to stimulate the growth of renewable in the region through collaboration of technology and product sharing. This event will be bringing together businesses, sustainable energy industry organizations to showcase the status and potential of the cross-section of renewable energy industry.

The expo is proclaimed at the right time when there is a paradigm shift in the global trend towards massive deployment of solar power and other renewable along with investments worth billions of dollars in technology and green energy.

KEY FOCUS AREA



GROWTH DRIVERS

With the increased support of government and improved economics, India looks to meet its energy demand on its own, which is expected to reach 15,820 TWh by 2040, renewable energy is set to play an important role.

The Ministry of New and Renewable Energy (MNRE) has set an ambitious target to set

up

renewable energy capacities to the tune of 175 GW by 2022 of which about 100 GW is planned for solar, 60 for wind and other for hydro, bio among other. India will need investments of around US\$ 125 billion to reach this target.

It is expected that by the year 2040, around 49% of the total electricity will be generated by the renewable energy, as more efficient batteries will be used to store electricity which will further cut the solar energy cost by 66% as compared to the current cost.

Biogas offers an excellent alternative energy source for rural India. It has the potentials

to

Cater to the needs for cooking and basic fuel. Rural areas are in a better position to local resources like organic and cattle waste for the generation of biogas. The prospect



WHY TO EXHIBIT ?

- Discover new markets, business leads & prospective partnerships.
- Showcase innovative products, solutions and contemporary technologies.
- Boost brand image & extent visibility to new heights.
- Explore new business avenues.
- A bridge between domestic & international markets.
- Finalise business deals.
- Join us in creating awareness and building future with sustainable energy solutions.
- A perfect meeting place for the prospective exhibitors and end-users.
- Ideal forum for exhibitors to interact with end-users, decision-makers, consultants & industry experts from across the globe...

The exhibition provides a unique podium to establish new partnership between:

- Project Developers / Planners
- Utilities / Power generation / Energy Cos.
- Equipment Manufacturers/ Technology Providers
- Energy Consulting
- Independent Power Producers
- Key decision makers & Government agencies

RECON - AN INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY

RECON is the India's leading conference for business development in Renewable Energy industry scheduled. From engaging newcomers in the Renewable Energy industry, to providing in-depth information to the companies' world-over, RECON is a destination that provides the latest and trending happenings in the Renewable Energy market under one roof. The sessions at the conference are planned in view of its impact on the industry and the need of the hour. The paper presentations at the conference imperatively will focus and delve deep into the technicality and practice.

WHO SHOULD ATTEND?

- Manufacturers & Suppliers
- Distributors & Service Providers
- Local and Global Players in
 Photovoltaic
- Solar Thermal
- Solar Architecture
- PV Equipment & Materials Manufacturers
- Products Materials and Systems Cell Modules
- Inverter and other components
- Solar community lighting systems
- Portable solar lanterns
- Project Developers / EPC Contractors
- Solar fixed home lighting systems
- Solar Water Pumps
- Solar water heaters and systems

- System Integrators
- Research Institutes
- Solar test centres
- Solar end use manufacturers and large users
- Waste to energy project
- Hydro power
- Wind power
- Geothermal heat pump
- Tidal power
- Biomass & Bio Gas
- Wave power
- Total PV solution providers
- Service providers, Finance and banking
- Community and investors





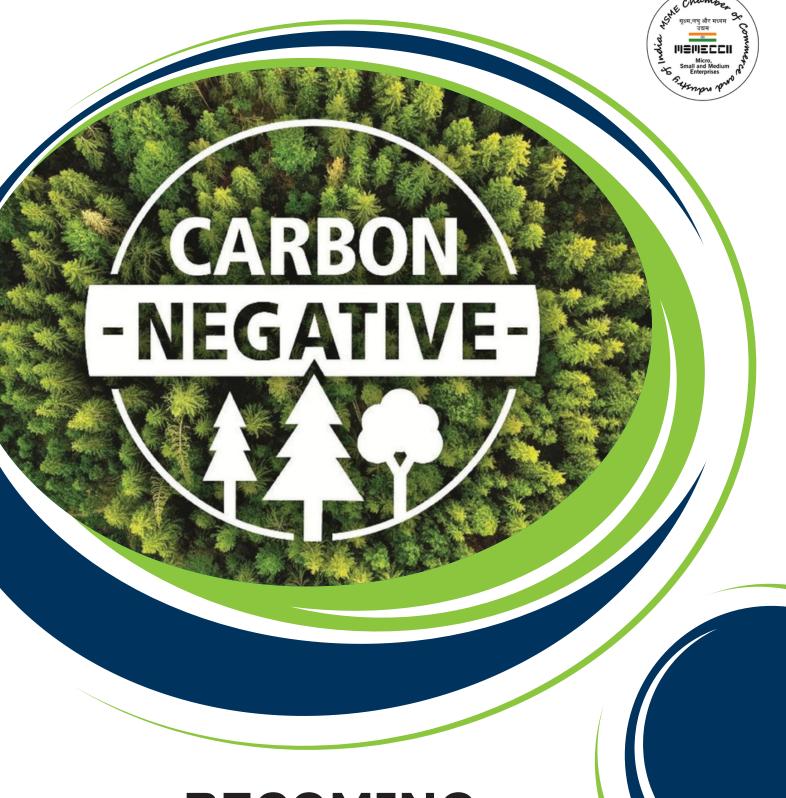








For More Info: www.msmeccii.in



BECOMING CARBON NEUTRAL

A journey worth taking

25th - 27th July 2024

at Vigyan Bahavan, New Delhi

A journey worth taking

What is the one thing that Google, Sky, Avis and Circular Computing™ all have in common?

The answer may surprise you`

The answer may surprise you

All of them have either achieved, or are working towards, being carbon neutral organisations. What's even more surprising is that some of them have been carbon neutral for more than ten years.

In this white paper, we will explore why so many companies are investing time, money and significant effort to achieve this particular environmental status symbol - particularly as it becomes more prominent with governmental policies and regulations.

Like a snowball rolling down a hill, more and more organisations are joining the movement for various reasons, including

Whatever the reason that piques a business interest and prompts action towards becoming carbon neutral, the benefits can be far more widespread, adding value in more than one area. Throughout this paper we will be shining a light on both tangible and intangible rewards that can come from taking steps in this direction.

What is carbon neutrality?

Carbon neutrality means reducing your organisation's net carbon footprint to zero by reducing greenhouse gas production as much as possible and then offsetting the remainder. In other words, we are seeking to create an ecological balance between processes that generate greenhouse gases and those which remove them from the atmosphere

Global thought leaders such as 'The Elders' believe that global carbon neutrality can be achieved by 2050.

Today, terms like Global Warming, Greenhouse Gases, and The Hole in the Ozone Layer are at the forefront of public consciousness. Frustratingly, government representatives across the world have been discussing them for more than two decades without coming to a clear consensus on how to tackle it.

Rather than waiting for definitive legislation, enlightened business leaders across the globe are taking matters into their own hands and committing their company's efforts to address this potentially catastrophic problem.

For example, emissions from the burning of fossil fuels are a significant contributor to our global climate problem. Carbon neutrality proponents have recognised the need to phase out the use of these harmful energy sources as much as possible, replacing them with more sustainable, renewable power generation technologies such as solar, wind, tide and biomass

The shift towards such renewable energy sources is accelerating at a rapidly increasing rate as the generating costs plummet.

In May 2019, the whole of the United Kingdom operated for just over a week without using any electricity generated from burning coal.

"We believe that, by 20: fully operate Great Britain's electricity system with zero carbon.

- Fintan Slye, the director of National Grid



Benefits of gaining carbon neutral certification

Before we consider the steps that an organisation needs to take to become carbon neutral, let's take a moment to look at the benefits of such a commitment in greater detail.

The most apparent benefits of committing to the carbon neutrality path are, of course, the environmental ones but in the competitive business world, taking the moral high ground and committing to saving the planet can be a hard sell when profit margins are being squeezed, and global competition is getting tougher. Companies like Google and the others mentioned in the introduction to this paper understand that going carbon neutral makes sound business sense too

The economic argument

Rising energy costs

Many businesses are currently reliant on non-renewable, fossil fuel energy sources which have been steadily increasing due to the twin factors of growing demand and dwindling supply. In contrast, renewable energy sources are becoming increasingly more cost-effective, thanks to reduced costs and ever shortening payback periods

In addition to utilising renewable energy sources, the rapid evolution of affordable, energyefficient, electric vehicles and the increasing availability of EV charging stations is making it easier to move away from increasingly expensive, polluting, fossil fuels.

Raw materials

Supply and demand issues are pushing up the costs of raw materials while millions of tonnes of valuable raw materials are still being disposed of in landfill sites across the world. Reclamation, recycling, reuse, and remanufacturing offers a practical, cost-effective solution by prolonging the lifespan of products and components

Customer demand

Recent market research shows that business and domestic consumers are giving more weight to the green credentials of their suppliers when making a buying decision. It clearly indicates, more than ever, that they prefer to buy from suppliers with a demonstrable environmental conscience.

As a result, the inclusion of environmental considerations in tender processes is becoming the norm rather than the exception.

Employee expectations

Human capital is high on the agenda of most successful businesses. Attracting and retaining high performing people, at all levels of the organisation, is critical to maintaining your competitive advantage. As unemployment rates fall, it becomes harder to hold on to excellent staff, but research suggests that there's more to it than a desire for higher wages. The best staff care about the environment and want to work for, and take pride in, environmentally responsible companies. Becoming carbon neutral is an excellent way to tap into these motivating factors while reducing the cost of replacing valuable staff.

National and local neutrality commitment

Transitioning to net-zero greenhouse gas and climate-resilient future, and delivering on the Sustainable Development Goals, is one of the biggest, but also one of the most exciting challenges the world has ever faced.

In September 2018, the leaders of 19 countries including Canada, Denmark, France, Germany, Netherlands, New Zealand, Spain, Sweden, and the UK, adopted a plan of action designed to build global momentum for the development of long-term climate strategies.

Their commitment is to develop and share their action plans before 2020, and to share experience, data and tools to assist each other as well as becoming advocates for higher global ambitions to tackle this critical ecological threat.

"Our planet's future depends on how quickly we can become carbon neutral. To do this, and to meet our Paris commitments, countries need ambitious, long-term plans to reduce carbon emissions."

Mark Field, Minister of State, Foreign and Commonwealth Office of the United Kingdom continues:

"Through our Climate Change Act, the UK was the first country to introduce legally binding emission reduction targets, and it has helped us reduce our emissions by over 40% in just three decades, while simultaneously our economy has grown by 67%.

WHO SHOULD ATTEND?

- Research and Academia
- Component Manufacturers & Industrialists
- End-users
- Service Providers
- Government Officials & Regulators
- Intergovernmental Institutions
- Utilities, Power, Water
- Storage and Distribution
- Gas & LNG Infrastructure
- Renewable Energy Producers (Wind, Solar, Hydro and others)
- International and National Oil Companies
- Mobility Sector
- Infrastructure & Construction



WHY TO EXHIBIT?

Gain Industry knowledge

This exhibition will offer a chance to showcase your latest innovative products for an opportunity to discuss, collaborate, and do business with investors looking to drive the Carbon Negative Industry forward.

Networking Events with Industry Leaders

Whether attending as an exhibitor, visitor, of conference delegate, you are sure to meet industry leaders during our entertaining networking events. Extend your network and accelerate your low-carbon strategy.

Meet in Person

Attending the exhibition will also enable face to face interaction with invited key audience which will lead to better communication and understanding.

Business Dealings

It will allow to host meetings and secure business deals on your exhibition stand along with generating new leads for your company in a highly targeted environ- ment.

KEY HIGHLIGHTS

•Two days of in depth presentations revealing the latest market spanning nine sectors giving a competitive edge.

•Unique opportunity to integrate with a multitude of end users & seek ew market opportunities by demonstrating insight into this evolving sector.

•Exclusive networking opportunity with industry thought leaders and decision makers

•Perfect platform to enhance your brand visibility and corporate presence in front of your target audience



National Green Hydrogen Mission

Atleast 5MMT GH2 Annual Production

6 Lakh new green jobs

50 MMT of carbon abatement cumulatively 60-100 GW Electrolyzer installations 125 GW renewable energy for Green Hydrogen production

Over 8 Lakh investments

"Govt working on definition of Green Hydrogen, global standard needed"

INTRODUCTION

Hydrogen, as an energy carrier, is becoming crucial for achieving hard-to-abate decarbonization of sectors. Many sectors such as iron ore and steel, fertilizers, refining, methanol, and maritime shipping emit major amounts of CO2, and carbon-free hydrogen will play a critical role in enabling deep decarbonization. For other high-emitting sectors, such as heavy- duty trucking and aviation, hydrogen is among the main options being explored with an outlook to be the preferred solution for several applications.

Various plenary talks, expert panel discussions and technical deliberations held at the conference will provide domestic and international participants from the industry and research communities an opportunity to dive deep into these national and global priorities, in line with the objectives embedded in India's of National Green Hydrogen Mission, a mission launched by the Government of India to help achieve India's target of Net Zero by the year 2070.



This has resulted in growing global momentum towards hydrogen in general, and green hydrogen—hydrogen produced through electrolysis of water using electricity from renewable sources—in particular. Declining prices of hydrogen, coupled with growing urgency for decarbonization means the global demand for hydrogen could grow by almost 400 percent by 2050, led by industry and transportation.

The Prime Minister's Independence Day speech on August 15th, 2021, signaling the launch of the National Hydrogen Mission, attests to India's intent to be a global hub for green hydrogen. As PM Modi's speech outlines, **"Not only will Green Hydrogen be the basis of green growth through green jobs, but it will also set an example for the world towards clean energy transition."**

India's distinct advantage in low-cost renewable energy generation makes green hydrogen the most competitive form of hydrogen in the long run. This enables India to potentially be one of the most competitive producers of green hydrogen in the world. Green hydrogen can achieve cost parity with natural gasbased hydrogen (grey hydrogen) by 2030, if not before. Beyond cost, since hydrogen is only as clean as its source of generation, green hydrogen will be necessary to achieve a truly lowcarbon economy.

KEY HIGHLIGHTS OF OUR EVENT



> 350 + eminent speakers from across the world will participate in the conference with 800 + industries from PAN India overseas.

Apart from Middle Industries and corporates, 400+ startups, unicorn and MSME's will be participating in the event along with 6000+ participants.

100 + interviews will be published by various TV channels, Magazines and Newspapers.

It will deliberate & showcase the opportunities, growth, ecosystem, emerging trends.

Ministries, MOS, Secretaries, Joint Secretaries and other Government top officials will be the part of the mega event.

Announcement video will be released for our upcoming two mega event in Biswa Bangla.

WHY TO EXHIBIT



Increase In Brand Awareness

Green Hydrogen Exhibition gives us broad awareness and understanding of growing hydrogen community world-wide.



Connect with Potential Clients

One can meet representatives and prospective clients of all companies.



Gain Industry knowledge

offers a chance to showcase your latest innovative products for an opportunity to discuss, collaborate, and do business with investors looking to drive the hydrogen industry forward.

Business Dealings

It will allow to host meetings and secure business deals on your exhibition stand along with generating new leads for your company in a highly targeted environment.

WHO SHOULD ATTEND?

Research and Academia	Storage and Distribution
Component Manufacturers & Industrial End-users	Gas & LNG Infrastructure
Service Providers	Renewable Energy Producers (Wind, Solar, Hydro and others)
Government Officials & Regulators	International and National Oil
Intergovernmental Institutions	Companies
Utilities, Power, Water	Mobility Sector
	Infrastructure & Construction

TOWARDS A NATIONAL ACTION PLAN ON GREEN HYDROGEN

Given the prospects that green hydrogen presents for India, real action is required for the country to truly benefit from the opportunities. This report provides ten actionable steps that can guide a National Action Plan on Green Hydrogen.

A detailed roadmap focused on all aspects of 'Green Hydrogen'

The recent announcement of the National Hydrogen Mission needs to be complemented with further policy direction in the form of a national roadmap/strategy.8 A long-term roadmap focused on green hydrogen will improve investors' confidence and will converge the entire value chain and the various government agencies towards a singular vision.

Facilitate investment through demand aggregation and dollar-based bidding for green hydrogen

The government can provide financial certainty to early adopters through investment facilitation measures like demand aggregation, ensuring availability of long-tenor and low interest finance and initiation of a functioning carbon market. Encourage capacity building and skill development

Initiate appropriate and rapid skills development across the ecosystem including government, industry, and academia addressing technologies, business models, policies, and geopolitics.

Encourage state-level action and policy making related to Green Hydrogen

States should be encouraged to launch their own green hydrogen-based policies in order to complement efforts at the national-level. This way the champion green hydrogen states could also be identified.

Establish mandates and provide incentives to achieve a green hydrogen production capacity of 160 GW

The government can propose clear mandates around hydrogen blending in existing (refinery and ammonia) and potentially future consumption sectors (steel and heavy-duty vehicles). This will provide demand certainty for early green hydrogen projects and encourage market development. For new applications, where the viability of using green hydrogen is still nascent, the government can provide incentives such as a production linked incentive (PLI) scheme for green steel targeting export markets.

The refinery sector accounts for almost 3 million tonnes of hydrogen demand, representing 46% of the total hydrogen demand in the country.

Promotion of exports of green hydrogen and green hydrogen-embedded products through a global hydrogen alliance

The government is exploring integrating hydrogen into existing energy and industrial partnerships globally. This should include developing collective frameworks and creating labelling and standards around green hydrogen and hydrogen-embedded products like green steel and green ammonia.

Initiate green hydrogen standards and a labelling programme

Immediate action should be undertaken to further develop standards and a green hydrogen labelling programme.

HYDROGEN FUNDAMENTALS

Hydrogen is an energy carrier and can be used for a wide array of energy and industrial applications. It can also be stored for long time. The opportunities and challenges of hydrogen emerge from its energy characteristics. Central to the green hydrogen production process is the electrolyser technology. Alkaline and polymer electrolyte membrane (PEM) electrolysers are two commercially available technologies for green hydrogen production today. Advanced electrolyser technologies like solid oxide and anion exchange membrane nearing commercial deployment as well.

Other less prevalent sources of production include bio-hydrogen which can either be produced by an SMR process around methane produced by anaerobic digestion of organic waste or through a fermentation process by bacteria.

PRODUCTION OF HYDROGEN

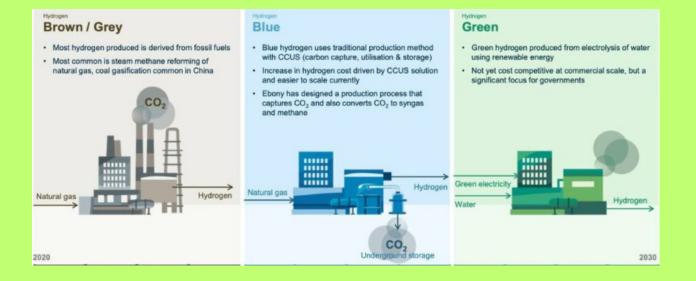
Although hydrogen is the lightest and most abundant element in the universe, it is rarely found in nature in its elemental form and always must be extracted from other hydrogen-containing compounds. It also means that how well hydrogen contributes decarbonization depends on how clean and green the method of production is. Based on the sources and processes, hydrogen can be classified into various colours:

Black / Brown / Grey Hydrogen is produced via coal or lignite gasification (black or brown), or via a process called steam methane reformation (SMR) of natural gas or methane (grey). These tend to be mostly carbon intensive processes.

Blue Hydrogen is produced via natural gas or coal gasification combined with carbon capture storage (CCS) or carbon capture use (CCU) technologies to reduce carbon emissions. **Green Hydrogen** is produced using electrolysis of water with electricity generated by renewable energy. The carbon intensity ultimately depends on the carbon neutrality of the source of electricity (i.e., the more renewable energy there is in the electricity fuel mix, the "greener" the hydrogen produced).

66

Green Hydrogen is a clean energy source that only emits water vapor and leaves no residue in the air, unlike coal and oil.



ORGANIZER

MSME Chamber of Commerce and Industry of India





CO-ORGANIZER



<u>Services Export Promotion Council (Under Ministry of Commerce</u> <u>and Industry)</u> <u>India Exposition Mart Ltd</u>

GOVERNMENT MINISTRY SUPPORT



Ministry of Electronics & Information Technology Ministry of Road Transport & Highways Ministry of Food Processing Industries Ministry of Science and Technology Ministry of Chemicals and Fertilizers National Small Industries Corporation (NSIC)





STRATEGIC PARTNERS



INDUSTRY ASSOCIATION, CHAMBER PARTNERS



SUPPORTING INDUSTRY PARTNERS













Nestlé Ltd.

Godrej Industries Ltd.

SUSTAINABILITY PARTNERS













ELECTRICAL MOBILITY & BATTERY REFURBISHMENT, BATTERY RECYCLING, OEMS



GREEN ENERGY, HYDROGEN, BIOGAS AND BIOFUEL, ESG, CSR, CARBON NEGATIVE



START-UPS CONCLAVE, FUNDING FROM SIDBI, BANKS & IPO

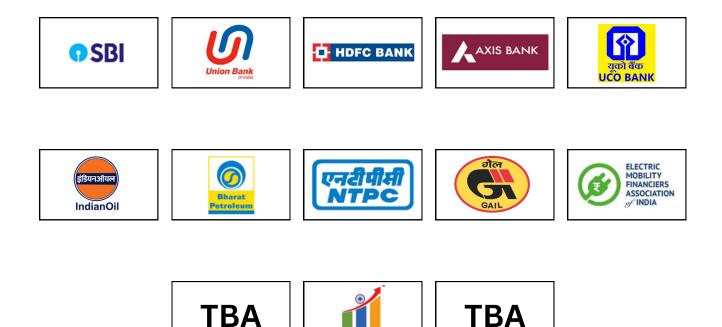


RECYCLING SUPPORTING PARTNER



Funding Partners

Banks, PSU's, SIDBI, IPO & Financial Association



INDIA IPO