

CII-SOHRABJI GODREJ GREEN BUSINESS CENTRE

SYNERGY

QUARTERLY E-NEWSLETTER OF CII-GBC ENERGY TEAM



1st Edition

Visits

CII @ ASIA CLEAN ENERGY FORUM 2024



CII, represented by Kiran Ananth (second from right), deputy executive director of CII- Green Business Centre, at the Asia Clean Energy Forum 2024 held in Manila, Philippines.

Mr. Kiran Ananth highlighted key takeaways for other Asian countries based on CII's extensive work on energy efficiency and renewable energy within energy-intensive MSME clusters in India.

The event, centered around the theme "Accelerating the Clean Energy Transition and Ensuring Energy Security and Affordability – Time for Urgent Action Now," discussed strategies and actions that can accelerate the financing of clean, affordable, and equitable energy solutions in the Asia Pacific region.

CII @ EMIRATES GREEN BUILDING COUNCIL



Officials from CII Green Business Centre attended the Emirates Green Building Congress 2024, held on 12th and 13th June. The visit aimed to explore business prospects in Dubai and other Emirates of the UAE, seeking collaborations and offering services. They met with sustainability heads of iconic buildings and officials from Emirates sustainability organizations.

During the visit, they also engaged with potential partners in Dubai for Energy Audit services, Net Zero studies, and other offerings. Additionally, they met with CII representatives in the UAE to discuss effective collaboration strategies.

Audits

FOSTERING ENERGY EFFICIENCY IN INDIA AND BEYOND



CII-Godrej GBC has a team of experienced, expert Energy Engineers who conduct Detailed Energy Audits for all types of industries. Between April and June, CII-GBC conducted detailed energy audits across 12 industrial units, covering sectors such as cement, steel, power, automobile, and semiconductor. The energy audit in these units resulted in identification of 266 energy-saving projects with a potential energy savings of Rs 837 million. The average payback period for these investment projects is 12 months. Notably, Rs 98 million of the potential savings come from projects that require minimal or no investment. The energy-saving opportunities span all areas of the plants, including processes, utilities, electrical distribution, and power plants. Additionally, energy audits were conducted for industries in Malaysia, Japan, and Singapore.

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CII-Net Zero Program

CAPACITY BUILDING AND WEBINARS



The CII-Net Zero Program has played a crucial role in building capacity within companies and their supply chains. To date, we have conducted a series of sector-specific webinars on net-zero strategies, engaging over 650 participants from 127 companies. These sessions have covered diverse sectors including general industry, textiles, iron & steel, pharmaceuticals, automobiles & engineering, and pulp & paper. Through these webinars, participants have gained valuable insights and practical knowledge on how to implement sustainable practices and advance their net-zero goals.

RE

ROOFTOP SOLAR VENDOR RATING PROGRAM (VRP)



The Rooftop Solar Vendor Rating Program (VRP) aims to enhance the quality, performance, and safety of rooftop solar installations across the country by establishing a network of top-performing vendors, including installers, EPC agencies, system integrators, and project developers.

CII conducts a comprehensive 360-degree assessment of vendors, evaluating their technical competence, financial stability, and onsite performance. Certification is granted only after rigorous evaluation of critical factors such as adherence to technical standards, system design, onsite installation inspection, module and structure quality, proper installation of safety components, array layout, and workmanship.

This initiative benefits end users, including industries, MSMEs, commercial entities, and residential consumers, facilitating greater adoption of renewable energy to meet India's renewable energy targets, including those set by the Pradhan Mantri Surya Ghar Yojana. VRP serves as a centralized resource for stakeholders to identify high-quality rooftop solar vendors.

Recently, CII achieved a significant milestone by certifying 102 vendors from 17 states, marking a notable expansion of the program.

GHG/LCA

SUPPORTING COMPANIES IN THEIR SUSTAINABILITY EFFORTS

CII – Green Business Centre (GBC) has successfully undertaken several GHG inventorization projects to assist companies in understanding and managing their emissions. For a leading ceramic manufacturing company, we completed the inventorization of GHG emissions and provided insights into their emissions profile, which will guide their future reduction strategies. Additionally, we conducted GHG inventory studies for a publishing company based in Chennai and a leading rubber manufacturer. Furthermore, we conducted a comprehensive GHG emission verification and validation study for a steel company.

We are currently working with a cement company to develop a detailed decarbonization roadmap and establish emission reduction targets aligned with the Science-Based Targets initiative (SBTi). Our ongoing projects also involve GHG emission inventorization for a renowned Camphor manufacturer, assisting in mapping their emissions to formulate reduction plans, and for a manufacturer of electrical goods, aiding in the identification and quantification of their carbon footprint to support their sustainability efforts.

In addition to GHG studies, we also conduct Life Cycle Assessment (LCA) studies to estimate product environmental impacts. Our ongoing LCA projects include an Indian multinational pharmaceutical company and a leading manufacturer of polyester films. Additionally, we have successfully completed an LCA study for a solar panel manufacturer.

GEC

GREEN ENTREPRENEURSHIP COUNCIL

The Green Entrepreneurship Council (GEC), working with clean technology startups, has seen a progressive quarter (April – June 2024) starting with the reconstitution of advisory council. The advisory board of the Green Entrepreneurship Council was reconstituted having representations experts across various domains and experience. The list of council members under the leadership of Mr. Pradeep Dhobale, Chairman, Green Entrepreneurship Council is as follows:

1. Ms. Anju Mary, Director - Industry Affairs Communications & Sustainability, Danfoss
2. Mr. BC Mahesh, Executive Vice President and BU Head – Industrial Product Business, Thermax Ltd.
3. Mr. Jaideep Gokhale, Independent Consultant, (Former Vice President – Asia Pacific for sustainability, TetraPak)
4. Prof. Kaushik Ranjan Bandyopadhyay, Chairperson, Centre of Business Sustainability & Board Member, Incubation Centre, IIM Lucknow
5. Ms. Tejashree Joshi, General Manager & Head (Environment & Sustainability), M/s. Godrej & Boyce Mfg. Co. Ltd.
6. Ms. Padmaja Ruparel, Co-Founder, IAN Fund
7. Ms. Sruthi Kannan, Head, Cisco for Startups
8. Mr. Sujit Jagirdar, CIO, T-HUB Foundation

MoU renewal with T-Hub

The Memorandum of Understanding (MoU) for promotion of Cleantech Entrepreneurship with T-Hub, a premier innovation hub and ecosystem enabler based out of Hyderabad, had been renewed at CII – Sohrabji Godrej Green Business Centre, Hyderabad. The MoU will act as an enabler where T-Hub & GEC will provide early stage and growth-stage startups using clean technologies in India with a robust innovation ecosystem, mentoring, business opportunities, and market understanding.



ACCELERATING CLEANTECH ENTERPRISES (ACE) PROGRAM

ACE COHORT 2024

During the application period for the ACE Cohort Program 2024, which was open from January 1, 2024, to March 31, 2024, we received over 70 expressions of interest. From these applications, 5 cleantech startups have been selected for the ACE 2024 Cohort. These 5 startups have innovative solutions in HVAC, Bio-CNG, AI for Quality control, ETP to Bio-CNG and solar solutions helping industries accelerate sustainability initiatives.

EVENTS & STAKEHOLDER ENGAGEMENTS

During the quarter, the startups under ACE program engaged with various stakeholders, visiting corporate and commercial facilities in Mumbai and participating in several CII events. They attended meetings and events relevant to their sector interests, including major events such as the Green Property Show, ChemPharma Summit, GreenCo Forums, training programs, and GreenCo Summit. Additionally, the ACE program facilitated over 60 B2B meetings for the startups with industry stakeholders.



PILOT OF 'SUNSPARK INCUBATION PROGRAM'

CII is supporting the International Solar Alliance (ISA) to develop an enterprise incubation framework and support solar energy uptake in ISA member countries and piloting this in Ethiopia and Bangladesh.

As part of the pilot of 'SunSpark Incubation Program: Igniting Innovation for Solar Solutions', three-days training program was successfully conducted, from 24th to 26th June, with the selected solar startups at ISA-Solar Technology Application Resource Centre (STAR C), Addis Ababa University, Ethiopia.



NEW INITIATIVE

In order to deepen & widen the scope of GEC, in May 2024, "Karnataka Cleantech Startup Accelerator" was launched, a new short-term program designed to nurture innovative Cleantech startups from across the country. This six-month business accelerator program focuses on helping these startups scale up their operations and achieve significant growth within Karnataka, fostering a thriving ecosystem for sustainable technological advancements. The call for applications are still open and the accelerator will be launched in July 2024.

OUTREACH & ENGAGEMENT

The GEC team actively engaged with over 20 startup ecosystem stakeholders through various platforms, including startup exhibitions, virtual interactions, and physical meetings. These efforts aimed to enhance and promote the visibility and operations of GEC activities, fostering stronger connections and collaborations within the startup community.

Publication

GREENING LOGISTICS: ELECTRIFICATION IN CEMENT AND RAW MATERIAL TRANSPORT



Freight vehicles, particularly medium and heavy-duty vehicles, are significant contributors to global greenhouse gas emissions. In India, although they represent merely 2% of all road vehicles, they are responsible for over 45% of road transport emissions¹. This substantial impact positions them as a primary target for emission reduction initiatives. With India aiming for net-zero status by 2070, the decarbonization of transport is pivotal.

India stands as the world's second-largest cement producer with an installed capacity of ~6702 Million tons per annum (MTPA). The significant reliance on internal combustion engine (ICE) trucks for the transportation of cement, clinker and other raw materials in India, where road transport accounts for 74-76% of all movement across an average distance of 300 km, contributes to a substantial environmental impact. Given the data on the extensive use of ICE trucks in the cement sector, the estimated carbon dioxide (CO₂) emissions through road transport amount to approximately 2.3 Million tons per annum (for cement and clinker transport). This figure underscores the critical need for adoption of electric trucks (E-trucks), which could drastically reduce these emissions, align with global environmental goals, and help India move closer to its net-zero ambitions.



Operational & fixed cost components	Monthly 6,000 km		Monthly 8,000 km		Monthly 10,000 km	
	5 years finance loan		5 years finance loan		8 years finance loan	
	EV	ICE	EV	ICE	EV	ICE
Total travel (km)	6,000	6,000	8,000	8,000	10,000	10,000
Vehicle mileage (km/kWh or kmpl)	0.6	2.5	0.6	2.5	0.6	2.5
Fixed cost (INR/km)	50.8	20.6	38.1	15.4	22.7	9.3
Total cost (INR/km)	70.1	66.2	57.4	61.0	42.0	55.0
% Reduction	-6%		6%		24%	
Tailpipe emissions (T CO ₂)	0.0	77.2	0.0	102.9	0.0	128.6

The transition to E-trucks presents an opportunity to slash logistic costs in the cement sector by 25-40%. E-trucks powered by renewable energy could cut CO₂ emissions by up to 100% when compared to ICE trucks, which emit approximately 6 kg of CO₂ per ton of cement transported over a 100 km range.

Recent years have seen numerous initiatives within the Indian cement industry to reduce emissions, with an increasing number of companies piloting E-trucks for various applications to further reduce transportation-related emissions. While the adoption of E-trucks offers significant benefits in terms of environmental impact and operational costs over time, several challenges still hinder their widespread adoption, particularly in sectors like cement such as higher cost of ownership, longer payback period, fixed & short routes of operation, charging infrastructure set up.

This publication is an in-depth evaluation of the benefits and challenges of deploying E-trucks and E-tippers for material handling and product dispatch operations in the cement sector.

Link to the publication: <https://energy.greenbusinesscentre.com/mv/greencementech/pub24/1.%20E-truck%20in%20cement%20sector.pdf>

Projects

STATE ENERGY EFFICIENCY ACTION PLAN (SEEAP)

The State Energy Efficiency Action Plan outlines key interventions that state governments can undertake to reduce energy consumption and carbon emissions by 2031. Assisting the Bureau of Energy Efficiency (BEE), the Confederation of Indian Industry-Green Business Centre (CII-GBC), has been working with 12 state governments and Union Territories to assist them in achieving national net-zero goals. This collaboration aims to provide technical assistance in identifying focus sectors for the "State Energy Efficiency Action Plan". It ensures that resources are allocated according to the specific requirements of each state/UT and estimates the potential for energy conservation in sectors prevalent within each region.

CII- Green Business Centre (CII-GBC) conducts workshops to gather final inputs from stakeholders across various sectors and government departments on the action plans and policies outlined in the state energy efficiency action plan. During the last quarter (April-June), CII- Green Business Centre (CII-GBC) successfully conducted the Final Validation Workshop on the State Energy Efficiency Action Plan for five states: Gujarat, Maharashtra, Andaman & Nicobar Islands, Lakshadweep, and Goa.

SEEAP- GUJARAT

4th April 2024, at Grand Mercure Hotel, Gandhi Nagar.

Esteemed dignitaries present at the workshop included Mr. Bipin Talati, IAS, Addl. Secretary, Climate Change Dept., Govt. of Gujarat, Ms. Bhakti Shamal, Jt. Secretary, Energy & Petrochemicals Dept., Govt. of Gujarat, Mr. Ajay Prakash, IAS, Director, Gujarat Energy Development Agency (GEDA), Amita Pandya, Sr Project Executive, GEDA, Jayesh Hariyani, CII-IGBC Chairman Ahmedabad.



SEEAP- MAHARASHTRA

13th June 2024 at The Taj Mahal Palace, Mumbai.

Esteemed dignitaries present at the workshop included Mr. Vishal Kamat, Chairman, CII Maharashtra State Council 2024-25 and Chief Executive Officer, Kamat Hotels (India) Ltd; Dr. Kadambari Balkawade, IAS, Director General, MEDA; Mr. Milind Deore, Secretary, Bureau of Energy Efficiency (attending online); and Mr. Pankaj Tagalpallewar, Additional Director General, MEDA.

SEEAP- ANDAMAN & NICOBAR ISLANDS

21st June 2024 at Lemon Tree Hotel, Port Blair.

The workshop was conducted under the chairmanship of Ms Ranjana Deswal, Secretary (Power) A&N Administration in presence of Ms Madhuri Shukla, Superintending Engineer, Electricity Department and Mr Abhishek Sharma, Director, Bureau of Energy Efficiency.



SEEAP-LAKSHADWEEP



25th June 2024- Kavaratti, Lakshadweep.

Esteemed dignitaries present at the workshop included Mr. Dharwesh Khan, Executive Engineer, Lakshadweep Electricity Department, Mr. Anver Sadath, Asst. Executive Engineer, Lakshadweep Electricity Department, Mr. Jabbar B, Fisheries Officer, Lakshadweep Department of Fisheries, Mr. Abdul Raheem, Range Forest Officer, Department of Environment and Forest, Mr. Abhishek Sharma, Director, Bureau of Energy Efficiency and Mr. Vikash Jha, Project Engineer, Bureau of Energy Efficiency (attending online).

SEEAP- GOA

June 27, 2024-Fortune Miramar, Panaji, Goa.

Distinguished dignitaries present included Mr. Stephen Fernandes, Chief Electrical Engineer, Electricity Department Goa; Mr. Mayur Hede, Superintending Engineer and Nodal Officer, SDA, Electricity Department Goa; Mr. Milind Deore, Secretary of the Bureau of Energy Efficiency (attended online); and Mr. Blaise Costabir, Past Chairman of the Confederation of Indian Industry (CII) Goa and Managing Director of GMI Zarhak Moulders Pvt Ltd.



Training

TRAINING PROGRAM ON SUSTAINABLE ENERGY MANAGEMENT AND NET ZERO TRANSITION



2-day Training Program, on 25 & 26 April 2024, at The Park Hotel, Visakhapatnam.

The objective of this program was to provide participants with the knowledge and skills they need to effectively manage energy consumption and reduce costs, while also contributing to a more sustainable future. The program was well-received within the industry, with approximately 50 professionals attending the training program, either individually or sponsored by their companies.

Events

20TH EDITION OF CII GREEN CEMENTECH



The 20th edition of CII Green Cementech, a pioneering platform driving sustainability in the cement sector, was held at HICC, Hyderabad. The Confederation of Indian Industry (CII), in partnership with the Cement Manufacturers Association (CMA), has organized this annual cement conference on 23rd & 24th May.

Mr. Madhavkrishna Singhania, Chairman of Green Cementech 2024 and Deputy Managing Director & CEO at JK Cement, Mr. Neeraj Akhouri, President, Cement Manufacturers' Association, Mr. Raju Goyal, Co-Chairman of Green Cementech 2024 and Chief Technical Officer at UltraTech Cement Limited, Mr. Shekhar Reddy, the Vice-chairman of IGBC were the esteemed guests present at the event.

Highlights of the event:

- The publication, Greening Logistics: Electrification in Cement and Raw Material Transport, which explores the practical implications, benefits, and challenges of integrating electric trucks (E-trucks) into cement sector's operations, was launched at the event.
- The web tool, Benchmarking & Net Zero Web tool for Cement Sector, developed to facilitate low carbon growth in the Indian cement industry, was launched at the event.
- Over 50 sector experts from the industry and technology providers from India and abroad shared insights on how the cement sector can embrace new technologies and best practices to attain sustainable growth.
- The event featured 25 sponsors, over 60 installations and more than 500 participants in attendance.
- Mr. CK Birla, Chairman of the CK Birla Group, was felicitated as a distinguished personality at the event.



Events**4TH EDITION OF CII CHEMPHARMA SUMMIT**

The ChemPharma Summit is a pivotal event for professionals and organizations shaping the future of chemical and pharmaceutical sectors. Organized by the Confederation of Indian Industry (CII), the 4th edition of ChemPharma Summit took place on 20th & 21st June at HICC, Hyderabad.

Mr. Sai D. Prasad, Executive Director of Bharat Biotech International Ltd. and Chairman, CII-Telangana for 2024-25, Mr. Mahesh Anand, President & Additional Director of Nippon Paints India Pvt. Ltd. and Chairman of the IGBC Chennai Chapter, Mr. DVS Narayan Raju, Executive Director, Deccan Fine Chemicals addressed the participants during the inaugural session of the conference.

Highlights of the event:

- Over 300 delegates from the chemical and pharmaceutical sectors attended the event.
- The publication, "GreenCo Rating Abridged Reference Guide for Pharma Sector," was released.
- Industry leaders shared their secrets of success and insights on the challenges & opportunities for the chemical and pharmaceutical sectors.





Confederation of Indian Industry

EVENTS

Calendar 2024

Green Cementech & Captive Power Plant Conference

MAY 23 & 24

 Venue: HICC
 Location: Hyderabad

ChemPharma Summit

JUNE 20 & 21

 Venue: HICC
 Location: Hyderabad

Green Steel Summit

JULY 25 & 26

 Venue: Mayfair Lake Resort
 Location: Raipur

Flex India

AUGUST 22 & 23

 Venue: IHC
 Location: New Delhi

National Award for Excellence in Energy Management (Silver Jubilee Edition)

September 10, 11, 12

 Venue: HICC
 Location: Hyderabad

Energy Efficiency Summit

September 11 & 12

 Venue: HICC
 Location: Hyderabad

PaperTech

September 10 & 11

 Venue: HICC
 Location: Hyderabad

Green Sugar Summit

September 10 & 11

 Venue: HICC
 Location: Hyderabad

Power Plant Summit

September 10 & 11

 Venue: HICC
 Location: Hyderabad

Alternative Fuels and Raw Material (AFR) Conference

OCTOBER 17 & 18

 Venue: Courtyard
 Location: Raipur

CII Performance Excellence Awards 2024 for Solar, Wind and Hybrid Plants

OCTOBER 16 - 18

 Venue: CII-Green Business Centre
 Location: Hyderabad

Green Power 2024

NOVEMBER 20 & 21

 Venue: Taj Wellington Mews
 Location: Chennai

For More details on Sponsorship and Delegates, Please Contact:

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Green Business Centre

CII-Sohrabji Godrej Green Business Centre (CII-Godrej GBC) was established in the year 2004, as CII's Developmental Institute on Green Practices & Businesses, aimed at offering world class advisory services on conservation of natural resources. The Green Business Centre in Hyderabad is housed in one of the greenest buildings in the world and through Indian Green Building Council (IGBC) is spearheading the Green Building movement in the country.

The Services of Green Business Centre include- Energy Management, Green Buildings, Green Companies, Renewable Energy, GHG Inventorization, Green Product Certification, Waste Management and Cleaner Production Process. CII-Godrej GBC works closely with the stakeholders in facilitating India emerge as one of the global leaders in Green Business by the year 2022.

Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with around 9,000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 286 national and regional sectoral industry bodies. With 65 offices, including 10 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 350 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.

ADDRESS

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