


INNOVATING ENERGY

Celebrating India's Journey towards a NetZero future



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EDITOR'S NOTE

Mr. Nitin Bhatt
(Deputy General Manager, Sales & PR, EESL)



Dear Reader,

In an era defined by technological advancements and environmental consciousness, the pursuit of clean energy solutions has become imperative in the battle against air pollution. As urbanisation accelerates and industries expand, the need for sustainable energy sources has never been more pressing.

In this month's newsletter, we embark on a crucial journey towards a cleaner and healthier future. The theme for this edition is **'Celebrating India's Journey towards a NetZero future'** a subject that touches each of our lives in profound ways.

In the insightful article, "Mitigating indoor air pollution with e-cooking," we explore the transformative potential of electric cooking. This simple shift not only reduces indoor pollution but also plays a vital role in India's journey towards decarbonising its energy use and lessening its carbon footprint. Indeed, charity begins at home, and this article underscores that sentiment.

In "Leveraging energy-efficient practices to reduce industrial emissions," we explore the pivotal role that energy efficiency plays in the industrial sector. By embracing energy-efficient equipment, appliances, and practices, industrial establishments can significantly curtail emissions while reaping substantial energy savings. This piece is a testament to the power of small changes yielding monumental results.

"Greening the commute: Public transport's role in reducing urban air pollution" paints a compelling picture of the transformation underway in India's public transportation system. Through the adoption of electric buses, we're taking a monumental stride towards a greener, more sustainable future. This piece is a rallying call for collective action and underscores the importance of public initiatives in shaping our urban landscapes.

The article "Energizing India's Future: The Imperative of Building Energy Efficiency" highlights the significance of energy efficiency within the residential and commercial building sector. Integrating smart technologies and innovative approaches in the planning, construction, and functioning of buildings is essential to establishing a foundation for a resilient, energy-protected, and environmentally sustainable future.

Lastly, "The UJALA scheme has illuminated the way for India's LED revolution" shines a light on an initiative that has been instrumental in revolutionising India's energy efficiency sector. By employing a bulk procurement model, the UJALA scheme has not only brought about economies of scale but has also paved the way for a market transformation in LED lighting. It serves as a beacon of inspiration for similar endeavours around the globe.

The pursuit of clean energy solutions is at the heart of our fight against air pollution. Whether through the adoption of e-cooking, the implementation of energy-efficient practices in industries, the transition to electric public transportation, or the widespread adoption of LED lighting, every step forward is a stride towards a cleaner and healthier environment. By embracing these solutions, we not only combat air pollution but also forge a path towards a more sustainable and resilient future for generations to come.

Greening the commute: Public transport's role in reducing urban air pollution

Mr Vishal Kapoor
CEO, EESL & CESL



In the pursuit of a sustainable future, addressing the impact of the transportation sector on urban air pollution has become paramount. The statistics are stark: the transport sector in India contributes 14% of the nation's energy-related carbon emissions, with road transport accounting for a staggering 90% of this share. To combat this concerning trend, a paradigm shift from fossil fuels to cleaner alternatives is imperative. Through its National E-Mobility Programme, EESL has stimulated e-mobility adoption in the country, germinating the demand for EVs when none existed. It has also contributed towards making EVs an attractive value proposition by creating a wider and more robust charging infrastructure across the nation.

Electrifying mass transit

While transitioning towards electric mobility is crucial, the emphasis should not be solely on personal transport. A key aspect is ensuring viable options for mass transit. Focusing on moving people, rather than vehicles, is essential to alleviate congestion and provide equitable transportation access to the majority who rely on public transport. Thus, a well-conceived, sustainable public transportation network can be the cornerstone of this transition. This transformation has to be two pronged: electrification of public road transport and electrification of India's extensive railway footprint.

The Indian Railways is committed to achieving 100% electrification. This endeavour would make it the world's largest green railway system. Currently, 100% electrification has been achieved in 14 states and UTs, with plans to electrify 28,810 km of broad-gauge routes by December 2023. This shift would eliminate 7.5 million tonnes of CO₂ emissions annually, equivalent to two coal power plants. It would also reduce pollution, benefiting public health.

The Government of India has also set its sights on a transformative plan to deploy 50,000 electric buses across various cities in the country. This ambitious initiative is geared towards combatting extreme vehicular pollution in some of the world's most polluted zones. It aligns with India's goal of achieving zero emissions by 2070, underscoring the commitment to a cleaner and sustainable public transportation system.

The Grand Challenge

The impetus behind the drive to introduce 50,000 electric buses gained momentum with the successful conclusion of the Grand Challenge earlier this year. This landmark initiative by Convergence Energy Services Ltd (CESL), through one of the largest e-bus tender processes in the world, witnessed the procurement of 5450 e-buses in the five cities of Delhi, Bengaluru, Surat, Hyderabad and Kolkata. The Grand Challenge initiative stands as a testament to India's deep commitment to embracing electric mobility. Central to the success of the Grand Challenge scheme is the meticulous design and execution by Convergence Energy Services Ltd, the

government-designated agency overseeing the procurement and deployment of electric vehicles (EVs), including e-buses. The emphasis on uniformity of vehicle standards and operational compatibility across states ensures a seamless transition towards electric mass transit, bolstering the effectiveness of this groundbreaking initiative.

A bright future for electric buses

The trajectory of electric buses appears promising, with a burgeoning market and continuous technological advancements. These vehicles have the potential to drastically curtail tailpipe emissions, significantly enhancing air quality. To realise a sustainable transportation system, we must sustain our support for the development and deployment of electric buses.

The transformation of India's public transportation system through the deployment of electric buses marks a pivotal step towards a greener, more sustainable future. With an unwavering commitment to reducing urban air pollution, this ambitious initiative aligns with India's broader environmental goals. By prioritising mass transit and advocating for the continued advancement of electric mobility, we pave the way for a cleaner and healthier tomorrow for all.



Energizing India's Future: The Imperative of Building Energy Efficiency

Mr. Jaspal Singh Aujla

Chief General Manager (Technical), EESL



India, with its increasing population and rapid urbanization, today stands at a critical juncture in its journey towards sustainable development. The country has set a goal of reducing the emissions intensity of its GDP by 33–35 per cent by 2030, compared to 2005 levels. This can be achieved by embracing energy efficiency.

The building sector currently accounts for about 35 percent of the country's energy consumption. Therefore, the sector will play a crucial role towards energy efficiency and energy conservation. The government's policy agency, Niti Aayog estimates that energy demand from India's buildings will increase by more than 800 percent in 2047 compared to 2012. As the nation grapples with the challenges of meeting the rising energy demand, the importance of building energy efficiency becomes paramount.

This article explores the specific context of building energy efficiency in India, and sheds light on the unique challenges as well as opportunities the country faces in its pursuit of a greener and more sustainable future.

Economic imperatives

Building energy efficiency in India is not just a matter of environmental stewardship but also a key driver of economic growth. Investing in energy-efficient technologies and practices can significantly reduce energy consumption and yield cost savings for businesses and households alike. Moreover, since the adoption of energy-efficient measures fosters a market for green technologies and services, it also leads to job creation and other economic benefits.

Challenges Unique to India

India's diverse climate conditions, ranging from the scorching heat of the plains to the chilly temperatures in the northern regions, poses unique challenges for building energy efficiency. Traditional construction practices and a significant proportion of outdated infrastructure contribute to the energy inefficiency of buildings across the country. Additionally, rapid urbanization and the increasing demand for modern amenities are resulting in a surge in energy consumption, making it imperative to address inefficiencies in the existing building stock and set stringent standards for new constructions.

Government Initiatives

Recognizing the urgency to address energy inefficiency, the Indian government has implemented various initiatives to promote building energy efficiency. The Bureau of Energy Efficiency (BEE) plays a pivotal role in setting standards and codes for energy performance in buildings. Programs such as the Energy Conservation Building Code (ECBC) aim to enhance the energy efficiency of commercial buildings, while the Perform, Achieve, and Trade (PAT) scheme works towards enhancing energy efficiency in energy-intensive industries.

Rural Electrification and Affordable Housing

Building energy efficiency is not limited to urban centres but is integral to rural electrification and affordable housing initiatives. Implementing energy-efficient solutions in rural areas can help alleviate energy poverty and boost the overall development of these regions. Affordable housing projects, a cornerstone of India's social and economic development, should be designed and implemented with energy efficiency in mind. This will ensure long-term sustainability and affordability for residents.

Technological Innovation

In the realm of technological innovation, India has the potential to lead the way in developing and implementing cutting-edge solutions for building energy efficiency. From smart building technologies to innovative materials, a strong focus on research and development can revolutionize the way buildings are designed, constructed, and operated in the country. Inside these buildings, light levels in specific areas should be maintained as per the requirement, for instance, it can be around 300 Lux at work desks. Unnecessary lighting should be avoided. Similarly, air conditioners work best and consume optimum energy when set at 25 degrees Celsius.

Where there are inductive loads such as pumps, motors, and chillers, it is advisable to install capacitor banks so as to maintain near-unity power factor. Office buildings often witness large amount of harmonics distortion due to loads such as PCs, printers, scanners, photocopiers, and other devices. Installing harmonic filters can help in limiting harmonic distortion within ± 10 percent range.

Building energy efficiency in India is no longer merely a “good-to-have” option; it is a necessity for sustainable development. Achieving a balance between diverse climatic conditions, economic imperatives, and inclusive growth calls for a comprehensive, collaborative approach by all concerned stakeholders. As India progresses on its journey toward becoming a global economic powerhouse, prioritising and investing in building energy efficiency will not only mitigate environmental impact but also pave the way for a resilient, energy-secure, and sustainable future for the generations to come.



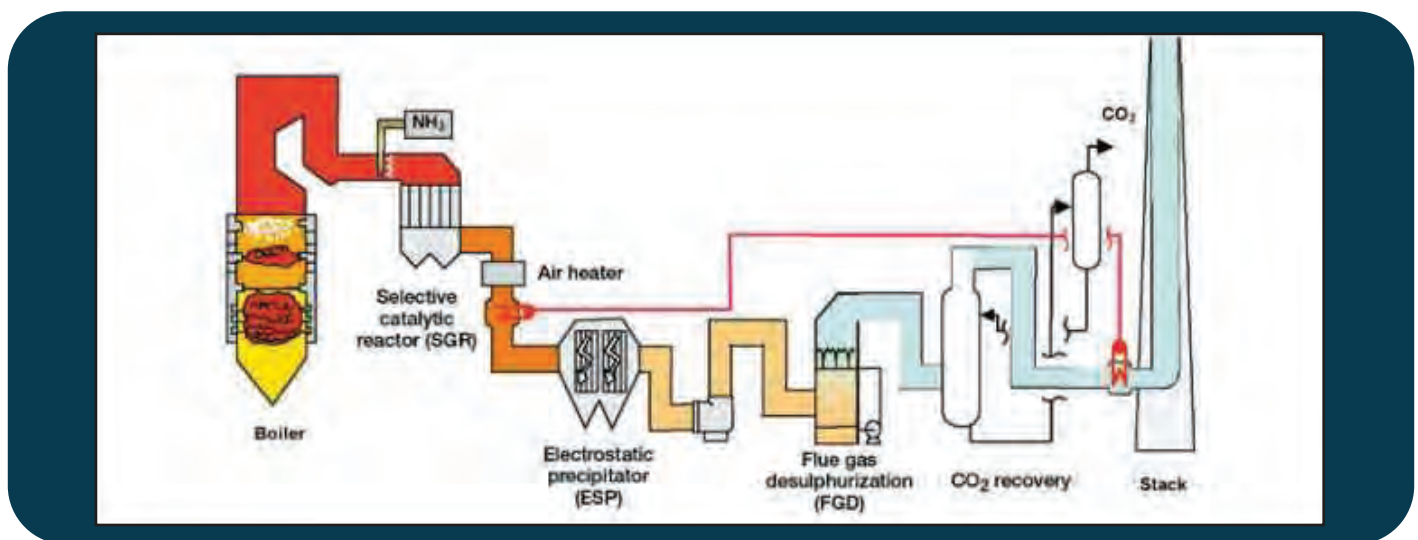
Leveraging energy-efficient technologies and practices can reduce industrial emissions

By **Girja Shankar**
General Manager, Tech, EESL



Growing, thriving industries are essential for economic growth of a country. However, until renewable energy becomes truly mainstream in the grid, industrial operations will remain dependable on fossil fuels, resulting in continued emissions of greenhouse gases. The scientific and socio-economic understanding and knowledge on climate change have advanced over the last few years. This underlines the importance of energy efficient and clean energy technologies and strategies that can reduce industrial emissions, especially on air-pollution in cities and nearby areas. One of the economic tools for combating air pollution is the implementation of Clean Energy Solution. Improving the energy efficiency of industrial establishments and processes through the adoption of energy-efficient technologies and optimization techniques & practices, can reduce industrial emissions greatly and yield significant energy savings.

Large industries generally use emission reducing technologies such as dry or wet electrostatic precipitator (ESP), Flue Gas Desulphurization (FGD) scrubber, selective catalytic reactor however it would be difficult to reduce pollution by the MSME. These small-scale industries have limited scope for reducing industrial emissions either by adopting clean fuel technologies or integrating energy efficiency. Industries in India account for about 40 percent of the nation's total electricity consumption, with electric motor-systems alone accounting for 28 percent. The motors used in India have traditionally had low energy efficiencies. To address this issue, EESL is implementing a National Motor Replacement Program (NMRP) to create an ecosystem for, and accelerate the adoption of, high-efficiency IE3 motors. Through a demand aggregation and bulk procurement model, EESL can provide high-quality products at competitive prices, with the added benefit of an extended warranty.



Few industries are harder to decarbonize owing to the nature of the processes they entail. The Perform, Achieve and Trade (PAT) scheme, launched under the National Mission for Enhanced Energy Efficiency, covers 13 energy-intensive sectors with the objective of reducing their specific energy consumption (SEC) through energy efficiency. It is estimated that 185 Mt of CO2 annual emission reduction can be achieved by 2030 through energy efficiency measures alone. In June 2023, Bureau of Energy Efficiency (BEE) has notified Carbon Credit Trading Scheme, 2023, wherein the institutional and regulatory mechanism has

been placed for compliance of greenhouse gas emission norms by the obligated entities under PAT. Additionally, Ministry of Environment, Forest, and Climate Change (MoEFCC) has notified Green Credit Program to incentivize voluntary environmental actions across diverse sectors and Ecomark Scheme to encourage environmentally friendly practices rooted in tradition and conservation for promotion of the ideas of LiFE "Lifestyle for Environment" concept.

However, for this endeavor to yield the best results, there is a need for a robust mechanism to measure and monitor the energy usage of industrial operations at both macro and micro levels. Data analytics and IoT-based solutions can help in optimization with accurate, real-time energy management. As the ESCO market in the country develops, energy efficiency must be recognized as a service. Both the government and the private sector should invest in R&D to incubate low-cost, indigenous energy-efficient technologies. EESL is working on BEE funded Demonstration of Energy Efficient Project (DEEP), wherein demo and upscaling of about 100 energy efficiency projects on 9 technologies in the industrial units of various sectors notified under the PAT scheme. EESL has identified 20 beneficiaries under the DEEP on seven technologies covering utility-based technologies of energy efficient compressed air solution, motor drive system with IE4 motor, low-grade and high-grade waste heat recovery, cooling solutions from waste heat recovery, energy savings measures through industrial automation, efficiency improvement through inlet air cooling. EESL and BEE will work together to create an ecosystem that not only helps these sectors meet their respective SEC reduction targets but also supports the market transformation for innovative energy efficiency technologies.

The availability, usage, and cost of energy has a greater impact on MSMEs than it has on larger companies. Inadequate or intermittent power can disrupt operations, and using back-up power can increase the costs. With energy bills accounting for almost half the total operating costs, energy-intensive manufacturing clusters are most vulnerable to climate impacts. Meanwhile, inefficient use of energy can increase the cost of production and erode competitiveness. Energy efficiency measures can enable huge cost savings, which, in turn, can directly improve the profit margins. However, it can be difficult for MSMEs to identify and choose the energy-efficient solutions that are most relevant to their specific needs. Nationwide standardization of energy-efficient technologies by sectors and sub-sectors can address this problem and reduce the investment risk for MSMEs. Moreover, procuring these technologies or solutions in bulk, like EESL does, can bring down costs greatly and encourage adoption among all kinds of MSMEs.

The project, titled "Promoting Market Transformation for Energy Efficiency in Micro, Small & Medium Enterprises," is a collaborative effort involving the Ministry of MSME, UNIDO, BEE, GEF, and SIDBI. Its primary objective is to assist the MSME sector in adopting energy-efficient, cost-effective, and sustainable solutions. EESL is responsible for executing this initiative, with the goal of implementing 33-35 technologies in specific MSME clusters. These technologies are chosen for their potential for widespread replication and their capacity to enhance the energy efficiency of other MSME units. EESL and SIDBI, with the support of the Ministry of MSME (MoMSME) and UNIDO, are in the process of establishing a revolving fund of 150 Crore. Their aim is to facilitate the implementation of approximately 600 energy efficiency projects, offering standardized technical and financial services for 22 identified technologies. This endeavor is expected to result in a reduction of around one lakh tons of CO₂ emissions.

A report by the Energy Efficiency Movement suggests that 4 gigatons of carbon emissions could be saved every year by 2030 if industries around the world doubled down on efficiency measures. The transformation of India's industries is underway, and energy efficiency will be a powerful driver of the shift towards sustainable, environment-friendly operations.

Mitigating indoor air pollution with e-cooking

Mr Abhishek Gupta

Head of International, Strategy, Project Evaluation and Assessment, EESL



Cooking, one of the most common household activities in the world, is a cause of air pollution in many parts of India. The use of fuels such as cow dung, firewood, and kerosene for heating and cooking accounts for 20-50 percent of ambient air pollution in the country. Worse, these fuels also pose a risk to human health. Household air pollution causes up to 0.8 million premature deaths in India every year. The average pollution level in Indian kitchens is greater than 1000 $\mu\text{g}/\text{m}^3$ against the WHO-prescribed acceptable level of less than 15 $\mu\text{g}/\text{m}^3$. All this against the backdrop of India's climate action commitments and developmental goals, which include halving poverty and reducing carbon emissions by 1 billion tonnes by 2030. Electric cooking (e-cooking) is one of the means to achieve India's social and environmental goals.

Not only can e-cooking reduce indoor air pollution significantly, but it also has potential to address several Sustainable Development Goals (SDGs) including those pertaining to good health and well-being, gender equality, sanitation, affordable and clean energy, and climate action. Cognizant of this potential, the Government of India has taken several steps over the years, such as launching the Pradhan Mantri Ujjwala Yojana (PMUY) in 2016 and promoting piped natural gas and electric cooking through the "Go-Electric" campaign in 2021. Despite these efforts, approximately 442 million people in India still lack access to clean cooking solutions. Clearly, further measures are needed to ensure the adoption of clean cooking practices and electric cooking devices on a wider scale. Electric cooking can help in fulfilling India's "Mission Life" by securing the participation of individuals across geographies and social demographics in adopting sustainable lifestyles.

There are several areas that need to be worked on, in this direction. There is a need for focused R&D to develop affordable, energy-efficient e-cooking solutions that meet the requirements of both rural and urban households. Equally important is the need to find ways to successfully commercialize these solutions and secure the necessary financing for doing so. Last, but not least, is the need to ensure continuous, reliable access to electricity – preferably sourced through clean energy sources.

As of today, around 2.7% of all rural households and 10.3% of all urban households in India have adopted some form of electric cooking. There is potential to increase this share to 8.1% and 45% respectively. Complementing the government's efforts in this direction, EESL aims to distribute 20,000 electric induction cook stoves to community centres and anganwadis across Ladakh, northeastern states and also to retail customers. EESL is working on solar-based induction cooking solutions for rural and semi-urban households. Furthermore, EESL will provide 20,000 electric pressure cookers in the next one year.

These initiatives are intended to benefit people across a wide range of rural, semi-urban, urban areas and other socioeconomic strata. Using solar-based cooking devices will not only add momentum to the shift away from traditional cooking methods but also give a boost to the usage of clean, renewable energy and the development of battery storage solutions. The concurrent and wide-scale adoption of solar power, battery storage, and electric cooking will not only reduce indoor pollution but also help India decarbonize its energy use and reduce its carbon footprint. It is said that charity begins at home. I believe so does sustainability.

The UJALA scheme has illuminated the way for India's LED revolution.

Mr Ashish Malviya

Deputy General Manager (Technical), EESL



The Unnat Jyoti by Affordable LEDs for All (UJALA) scheme is in its ninth year in India. Under this scheme, consumers are provided with LED bulbs, LED tube lights, and energy-efficient fans as replacement for the conventional versions of these appliances. The world's largest non-subsidy-based LED lighting programme, UJALA has enabled economies of scale through a bulk procurement model and has been instrumental in bringing about a market transformation in India's energy efficiency sector. Much of the growth witnessed in India's domestic LED market over the past eight years can be credited to UJALA.

The seeds of this revolution were sown in 2014, when the Ministry of Power, Government of India directed EESL to take steps to scale up the use of LEDs in India. At that time, the retail price of LEDs was about INR 450-500 each, which was 3-5 times higher than that of compact fluorescent lamps (CFLs: INR 100-150) and 30-50 times higher than that of Incandescent Lamps (ICLs: INR 10-15). As a result, the share of LEDs in the lighting market was less than 1% in 2013-14. Consumers were naturally more inclined to buy CFLs and ICLs rather than LEDs.

As the first step towards driving the adoption of LEDs, EESL critically analysed all the existing barriers and challenges and designed a new "Pay-As-You-Save" business model that provided LED bulbs to households at INR 10 each – the same cost as ICLs. This helped them overcome the cost barrier. The balance amount was recovered through the electricity bill of the beneficiary consumers as equated monthly instalments (EMI) over a 9-10 months period, based on the cost of LED procured. Consumers were okay with this, because the savings they got from using LEDs were far greater than the additional INR 10 they had to pay every month as EMI.

A LED bulb consumes one unit of electricity when it is used for 140 hours, as compared to two units by a CFL and nine units by an ICL. In terms of operating cost, this translates to INR 4 for a LED, INR 8 for a CFL, and INR 36 for an ICL, over the same period. The annual cost of ownership of a LED is less than one-third that of a CFL and one-tenth of an ICL.

EESL backed up the UJALA scheme with an information-and-outreach programme to spread awareness about the benefits of LEDs amongst consumers and ecosystem stakeholders. Furthermore, EESL provided a warranty on any failures of LEDs during the period of the EMI, and defective LEDs were quickly replaced. More than 400 crore LED bulbs have been sold in India since the launch of UJALA – nearly 37 crore by EESL and the rest by the private sector. This has yielded huge energy savings and greenhouse emission reduction. UJALA's biggest achievement perhaps is the fact that it has reduced the retail price of LEDs by almost a tenth since the time the scheme was introduced. As a result of this, high-tech LED lighting has become affordable even to the country's poor.

India has become the largest driver of the global demand for LEDs, and UJALA's success has earned the attention of the world. The International Energy Agency (IEA) has even published a case study on it. UJALA has already become a case study in the Indian Institute of Management (IIM), Ahmedabad, and is being considered for inclusion at Harvard Business School. The LED revolution is well and truly underway in India, and we have UJALA to thank for it.

Noteworthy Energy Developments

India Introduces Star-Rating System for Simplified Solar Panel Energy Efficiency Assessment

The Union Government of India has introduced a Standards & Labelling Programme for solar panels, utilizing star labels to indicate quality and energy efficiency. Run by the Bureau of Energy Efficiency (BEE), this scheme will be voluntary for the first two years from January 1, 2024, to December 31, 2025, with no labelling fee. Union Minister RK Singh, during the launch in Delhi, highlighted that this initiative will empower consumers to make well-informed decisions when purchasing and deploying solar panels, reducing their reliance on installing vendors. The star labelling program has already led to a reduction of nearly 58 million tonnes of CO₂ emissions per year, and it is projected to cut carbon emissions by 30 million tonnes annually by 2030.

By 2030, India's Carbon Market Expected to Cover 15% of Emissions

India's national emissions trading system is set to commence operations within the next two years and is anticipated to cover approximately 15% of the country's emissions by 2030, as per a statement by Abhay Bakre, Director General, Bureau of Energy Efficiency. The initial phase of the market is expected to cover high-emission industries such as steel, cement, paper, pulp, petrochemicals, and aluminum, subject to their readiness. Notably, India's power sector, which heavily relies on coal for 70% of electricity generation, may not be initially included in the system. Instead, decarbonization efforts in this sector will be driven by alternative mechanisms such as renewable purchase obligations for power retailers and the trading of renewable energy certificates.

MNRE unveils R&D roadmap for national green hydrogen mission

The Ministry of New and Renewable Energy (MNRE) has unveiled an R&D roadmap for the National Green Hydrogen Mission, allocating Rs 400 crore for the establishment of a research ecosystem aimed at enabling the commercialization of green hydrogen. The roadmap's key focus lies in advancing materials, technologies, and infrastructure to boost the efficiency, reliability, and affordability of green hydrogen production, storage, and transportation.

India's Clean Energy Goals Demand \$400 Billion Annual Investment by 2047: KPMG Report

India must commit to an annual investment of \$350-400 billion by 2047 to realize its clean energy aspirations, as per the latest KPMG report. The substantial financial commitment is driven by India's growing population and infrastructure projects, echoing a global trend that necessitates approximately \$4.5 trillion in annual energy investments worldwide until 2050. The report, presented by Union Minister Hardeep Singh Puri, underscores the need for a rapid, large-scale energy transition and emphasizes the importance of India's energy value chain development. The report also highlights the economic potential of this transition and the significance of optimizing manufacturing and supply chains for both domestic and global energy stability.

Cabinet Gives Nod to ₹20,773.70 Crore Funding for 13 GW Green Energy Corridor Project in Ladakh

The Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi, has approved the Green Energy Corridor Phase-II, an inter-state transmission system project aimed at supporting a 13 GW renewable energy initiative in Ladakh. The project, expected to be completed by the fiscal year 2029-30 at a cost of ₹20,773.70 crore, will receive 40% central financial assistance totaling ₹8,309.48 crore. This development follows Prime Minister Modi's announcement of a 7.5 GW Solar Park in Ladakh during his Independence Day speech. The project, managed by the Power Grid Corporation, will employ advanced technology to transmit power through Himachal Pradesh and Punjab to Kaithal in Haryana, where it will integrate with the National Grid. An interconnection from Leh to the existing Ladakh grid is also planned to ensure reliable power supply to Ladakh.

E-buses expected to account for 11-13% of new bus sales by FY25: Report

Tamil Nadu's Minister for Industries T.R.B. Rajaa said that the State plans to achieve Net Zero [emission] at least a decade ahead of 2070. "As a State that is adding value to the idea of India, we would definitely want to be a [leading] State when it comes to using renewable and sustainable materials in construction," the Minister said. "This government will listen and is open to ideas. We request the Indian Green Building Council (IGBC) and the stakeholders present here to bring ideas to enable the State to become much more sustainable. We will ensure that all the requests from the industry are heard, and rapid action is taken, and see how change can be brought about. We would also ensure that we build greener buildings. At the pace in which Tamil Nadu's economy is growing, we intend to take the greenest route possible," the Minister said at the Green Building Congress 2023 event organised by the Confederation of Indian Industry's (CII) IGBC.

India tightens climate goals with new carbon credit trading compliance draft

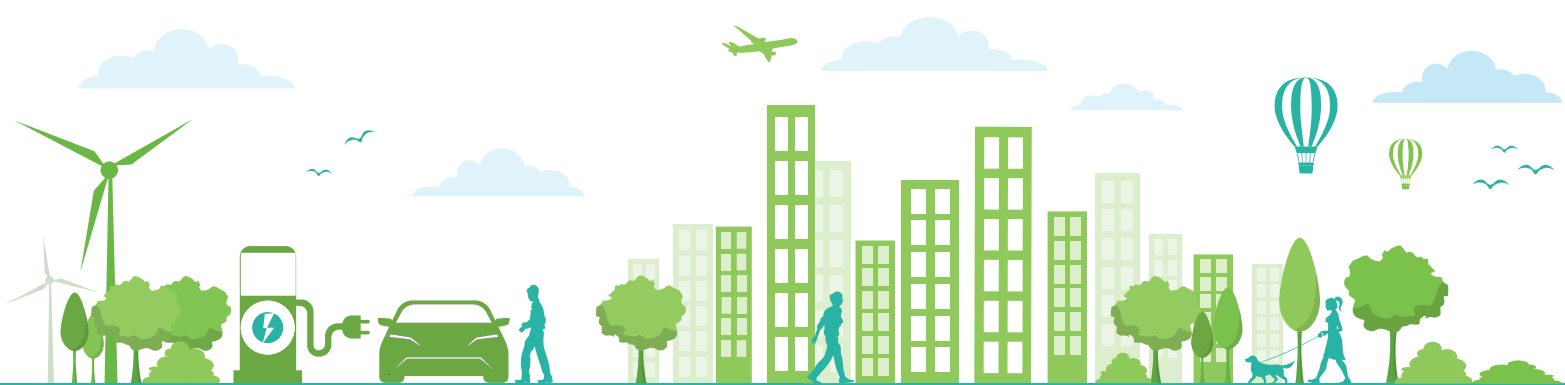
The Bureau of Energy Efficiency (BEE) has issued a draft detailing the procedures for a compliance mechanism under the Carbon Credit Trading Program in India. The Ministry of Environment, Forest, and Climate change is set to announce greenhouse gas (GHG) emission intensity targets for obligated entities, in terms of carbon dioxide equivalent (tCO₂e) per unit of product, for each defined trajectory cycle. These obligated entities, as per the draft, will be informed of an annual target spanning three years, post which, revisions will be made based on the trajectory outcomes. They are to comply with the GHG emission intensity targets within each annual compliance cycle.

Himachal: CM Sukhu launches e-Taxi scheme portal, says govt committed to making HP a green state

Himachal Pradesh Chief Minister Sukhvinder Singh Sukhu on Monday inaugurated the e-Taxi scheme with the aim of making Himachal a green state. The Himachal Government has started the initiative under the Rajiv Gandhi Employment Startup Scheme. "The unemployed will be given the opportunity of self-employment through the scheme. Congress had given 10 guarantees before coming to power, out of which a startup scheme of Rs 680 crore was also included for the unemployed. Moving forward in this direction, the government has today launched the e-taxi scheme," CM Sukhu said.

ADB grants \$6.5 million for clean cooking in rural India, eyes major carbon reduction

In a major move towards sustainable development, the Asian Development Bank (ADB) has sanctioned a senior secured loan of \$6.5 million to Greenway Grameen Infra Private Limited for the production and dissemination of 1 million improved cookstoves across the rural expanses of Madhya Pradesh and Odisha. This initiative is further strengthened by a \$3.25 million first-loss liquidity reserve provided by the Climate Innovation and Development Fund (CIDF), which is managed by ADB.



EESL's National Efficient Cooking Programme (NECP) and Energy Efficient Fan Programme (EEFP) launched by Hon'ble Power Minister Shri. R.K. Singh



Motivational Talk by Dr. Gyan Vatsal Swami Ji, renowned spiritual leader, motivational speaker, and social reformer associated with the Bochasanwasi Akshar Purushottam Swaminarayan Santha (BAPS).



EESL Partners with Global Green Growth Institute (GGGI) to Implement Asia Low Carbon Buildings Transition (ALCBT) Project in India



EESL Showcases Cutting-Edge Energy Solutions at India International Trade Fair 2023, Featuring Energy-Efficient Inverter Bulbs, Induction Cookstoves, and BLDC 5-Star Fans, Garnering Significant Attention and Igniting Interest in #EnergyEfficiency.





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