ENERGY EFFICIENCY SERVICES LIMITED
A JV of PSUs under Ministry of Power, Government of India

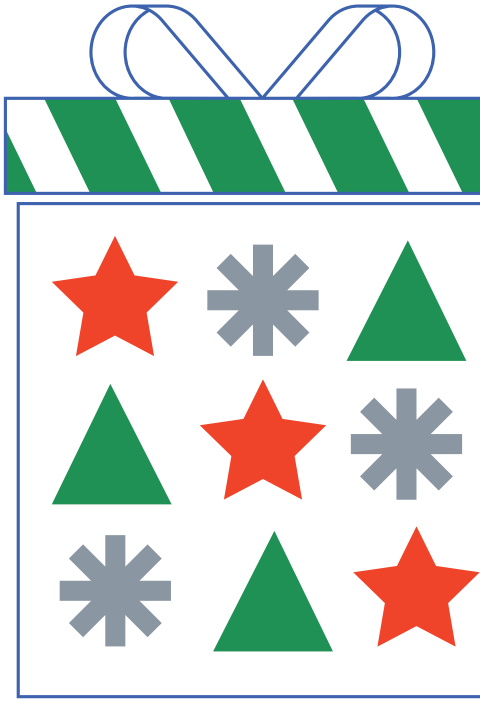
INNOVATING ENERGY

NATIONAL ENERGY CONSERVATION DAY 2024:

Securing a sustainable energy future for India

DECEMBER 2024

Contents



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Dear Reader,

Energy conservation is not just a practice; it is a responsibility that lies at the heart of building a sustainable and resilient future. Energy efficiency, in particular, plays a pivotal role in ensuring that we use our resources wisely while reducing emissions and fostering economic growth.

As we commemorate National Energy Conservation Day, this year's theme “Powering Sustainability: Every Watt Counts” serves as a vital reminder of our collective responsibility towards energy conservation. It emphasizes simple actions that can lead to significant impacts on sustainability while reinforcing India’s commitment to energy security and climate action through initiatives like the UrjaVEER Initiative in Andhra Pradesh.

The article “Making Renewable Energy Projects Efficient with Rail Transportation" highlights how India's extensive railway network can enhance logistics for renewable projects amidst growing capacity demands. By leveraging rail transportation's safety, cost-effectiveness, and integration capabilities with ports, India can ensure timely execution of its ambitious renewable energy targets while minimizing carbon emissions.

Another article sheds light on the observance of National Energy Conservation Day, showcasing India's proactive approach to fostering energy security and driving climate action. It delves into transformative initiatives like the UrjaVEER Initiative in Andhra Pradesh, which exemplify the nation’s efforts to create a sustainable and energy-efficient future.

In the next article, “Sustainability milestones and key achievements in India’s energy efficiency sector,” We take a broader view, showcasing how the sector has made strides in advancing sustainability and achieving significant benchmarks.

“EESL in 2024: A year of transformative progress in energy efficiency” reflects on the remarkable milestones achieved this year. From pioneering initiatives to scaling impactful programmes, 2024 has truly been a defining chapter for EESL.

The spotlight also falls on Andhra Pradesh in “Andhra Pradesh takes bold steps in its energy efficiency revolution.” Here, we explore the state government’s ambitious initiatives, in collaboration with EESL, that are not only fostering energy efficiency but also contributing to economic empowerment and environmental sustainability.

Additionally, the recent EESL Officer's Association Election 2024 has reignited democratic engagement within the organization. With an impressive voter turnout of 97.4%, this election showcased employees' commitment to transparent governance.

Together, these articles reflect the spirit of National Energy Conservation Day—a call to action to secure our energy future. The time is ripe for all of us to recommit ourselves to the cause of energy efficiency. It can lead us toward a greener future, building resilience and harmony with the environment. Let us draw inspiration from these achievements and continue to champion the cause of energy efficiency in our homes, workplaces, and communities.

Thank you for being an integral part of this journey.

Making Renewable Energy Projects Efficient with Rail Transportation

There is an increased momentum towards decarbonization, with the global renewable energy capacity growing by 50% in 2023, and reaching almost 510 GW worldwide. India, too, has set an ambitious sustainability target of achieving 500GW non-fossil fuel-based energy capacity by 2030, which will necessitate the installation of 50GW every yearii. However, the renewable energy sector faces numerous challenges, including raw material shortages, and unanticipated supply chain disruptions. In such a situation, the railways network in India can play a crucial role in the movement of project components, ensuring the timely execution and completion of renewable energy projects across the country.

Mr. Adhendru Jain,
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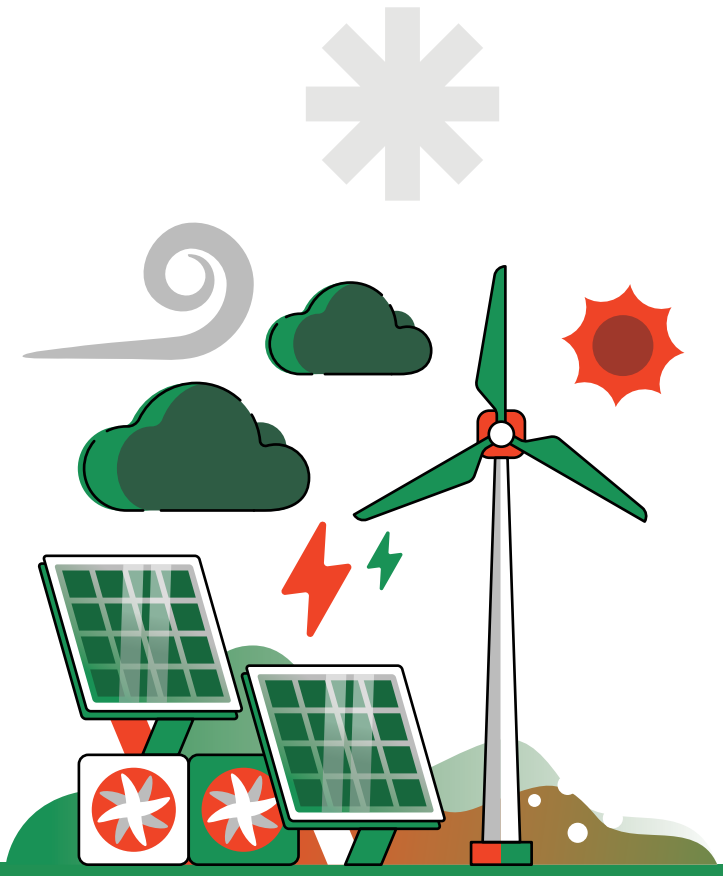
The Logistical Requirements of Renewable Energy Projects

Power generation using renewable technologies in the future will come from thousands of onshore and offshore wind turbines, and millions of solar panels installed in dedicated solar parks and on rooftops of buildings. McKinsey estimates that by 2030, the global electricity generation from solar and wind projects will more than triple from 125GW to 459 GW Renewable energy companies thus need to consider logistics as a key aspect in their project planning, critical to maintaining project timelines, optimizing costs and ensuring quality control.



Renewable energy supply chains have become increasingly complex, primarily due to issues related to the raw materials used in project components. For instance, it is estimated that by 2030 there will be a 50-60% shortage of rare earth metals such as neodymium and praseodymium, which are required to make high-power magnets for wind turbine generators and electric vehicles. Solar installations, meanwhile, require components that are sourced from multiple countries. This can create practical issues with shipping, customs clearances, and compliance with cross-border movements, as well as compliance with safety, environmental and labour laws. Delays in shipments can lead to difficulties in managing inventories, project cost escalations, and longer lead times. A multimodal transport system that includes rail freight movement can provide a reliable, sustainable and cost-effective solution to such challenges.

How rail transportation can optimize the renewable supply chain

Ensuring safety via containerization of standard cargo

Containerization can streamline the supply chain by reducing the number of cargo handling instances, thereby minimizing the risk of breakages. With end-to-end tracking and visibility, supply chain planning can be significantly more effective. Given that solar farms are often situated in remote areas, accessibility by train can greatly enhance efficiency. Additionally, insurance companies frequently encourage the use of rail transport to reduce the risk of damage to fragile components, such as solar panels, during long-distance transportation.

Capacity and Cost Effectiveness

The use of double-stack container trains allows for more containers to be moved by a single train, optimizing rail infrastructure and reducing the per-unit cost of transport. Many solar farms are situated in western India, where the hub-and-spoke model can be utilized to handle a significant portion of transportation using double-stack trains, thereby reducing costs. Additionally, Dedicated Freight Corridors have enabled trains to reach speeds of 50-60 km/h, with the potential to reach up to 100 km/h, compared to the average speed of 20-25 km/h for goods trains on regular railway tracks. This improvement adds speed and reliability to the carrying capacity of rail, ultimately delivering cost efficiencies.

Reliable and sustainable delivery over long haul

Block train services, with their priority rail out options and fixed train schedules, can allow renewable energy project managers to plan their cargo movements in advance, as well as reduce the time from ports to project site. Project managers can, in turn, plan their inventories and schedules in advance, as well as ensure that project delays are minimized due to the quick turnaround time on material delivery.

Additionally, a big concern with renewable energy projects is the reduction of emissions and decarbonization of the renewable supply chain.

In fact, a WTW survey of 100 supply chain leaders found more than half (56%) considered climate change and environment to be a key risk to supply chain resilience, with many concerned with minimizing their supply chain emissions. Railways provide a clean and sustainable solution, with cargo transported via rail generating up to 80% less CO2 and consuming 75-90% less energy than road transport.

Integration with ports and ICDs for faster customs clearances

Finally, the trains can integrate with the digital systems at ports and inland container depots (ICDs), many of which utilize Port Community Systems (PCS). This provides visibility into container movement and real-time updates on customs clearances, allowing for the tracking of cargo movement across the train journey from ports to ICDs. This ensures secure transportation of renewable project components and provides project managers with relevant and timely updates to prepare for any unforeseen delays.

Even as India strives to transition to greener energy sources, the timely and efficient commissioning of renewable energy projects is crucial to its success. Additionally, the renewable energy sector itself can become more efficient and reduce its own carbon footprint by switching from road to rail. Railways are one of the least carbon intensive modes of transportation, accounting for only 1% of the global transportation CO2 emissionsv. The Indian railways has become more energy efficient with double stack cargo train services, as part of its plan to achieve net zero emissions by 2030. In fact, the block train service between Mundra port in Gujarat and the Panipat ICD in Haryana is expected to reduce carbon emissions by 67% compared to trucks plying along the same routevii. The extensive capacity and capabilities of the Indian railways can ensure seamless connectivity, and timely and reliable delivery on service level agreements of renewable energy projects, in the process unlocking the green energy potential of India as it advances towards becoming a global leader in renewable energy generation.

Inspiring action on Conservation Day

Mr. Animesh Mishra,
Chief General Manager and Head (Sales & PR), EESL

As we commemorate National Energy Conservation Day, it is important for us to reflect on the profound importance of this observance in driving sustainable change. The theme for this year, 'Powering Sustainability: Every Watt Counts," serves as a clarion call, reminding us of the collective power of individual and organisational actions to secure a sustainable future. This day holds immense relevance in fostering a culture of energy consciousness and ecological conservation.

The day is significant for three reasons: Firstly, raising awareness. National Energy Conservation Day educates citizens about energy-saving techniques and the environmental consequences of excessive consumption. Secondly, promoting sustainable practices. It inspires individuals and organisations to adopt eco-friendly habits, aligning their actions with broader sustainability goals. And most importantly, it is about supporting national objectives. The day reinforces India's commitment to energy security and climate action, contributing to the global endeavour of reducing greenhouse gas emissions.

Simple actions with profound impact

Energy conservation starts with simple behavioural adjustments, such as turning off lights and electronics when they are not in use and opting for natural light and ventilation whenever possible. Embracing energy-efficient solutions can also make a significant impact. For instance, upgrading to LED bulbs, BLDC fans, or even electric cookstoves, which consume much less energy than traditional appliances, is a great step towards reducing energy consumption. Scaling up the use of energy-efficient appliances lowers the amount of electricity required to be generated, which ultimately reduces the burning of fossil fuels, thus mitigating the emission of greenhouse gases and other noxious pollutants.

The role of energy-efficient marketplaces

A crucial avenue to catalyse widespread adoption of energy-efficient practices lies in e-marketplaces. These platforms bridge the gap between consumers and providers, offering a centralised space for diverse energy-efficient solutions - be it appliances, lighting, or smart home devices. By simplifying access and comparison, such marketplaces empower consumers to make sustainable choices tailored to their needs. By integrating energy-efficient options into mainstream commerce, we can align economic incentives with environmental goals, driving emissions reduction and enhancing energy security.

Transforming citizens into UrjaVEER

The launch of the UrjaVEER Initiative in Andhra Pradesh marked a significant step toward grassroots energy efficiency advocacy and economic empowerment. In a grand event held in Vijayawada, the programme was introduced by EESL in collaboration with the Government of Andhra Pradesh.

Designed to mobilise 1 lakh individuals as “UrjaVEERs,” the initiative aims to create a network of energy champions who will promote energy-efficient appliances like BEE 5-star LED bulbs, BLDC fans, and induction cooktops through affiliate-based marketing. Participants are equipped with unique QR codes and promotional tools, enabling them to advocate for sustainability while earning supplemental income.

Highlighting the response, the Hon’ble Chief Minister Shri N. Chandrababu Naidu emphasized the transformative potential of the programme, which not only fosters environmental stewardship but also strengthens household economies.

Conservation and efficiency: A symbiotic relationship

Energy conservation and efficiency are two sides of the same coin. While conservation reduces consumption, efficiency ensures optimal use of energy resources. Prioritising efficiency amplifies conservation efforts, delivering compounding benefits. Case studies consistently highlight how investments in efficiency yield significant economic and environmental returns.

EESL: Pioneering change

At EESL, we are at the forefront of mainstreaming energy efficiency through the world’s largest portfolio of initiatives. Our mission of Enabling More translates into market access for transformative solutions, benefiting stakeholders across the spectrum. Through innovative business models and large-scale programmes, EESL has demonstrated the potential of energy efficiency to generate savings, reduce emissions, and uplift communities. These initiatives underscore the tangible benefits of aligning conservation with efficiency, creating ripple effects of positive change.

Overcoming challenges and embracing innovation

Economic, behavioral, and technological barriers continue to hinder the adoption of energy-efficient practices. Yet, with robust policies, educational campaigns, and incentivisation schemes, these challenges can be surmounted. Emerging technologies, such as smart grids, IoT advancements, and renewable energy integration, further expand the horizons of what is possible.

A collective commitment to sustainability

As we celebrate National Energy Conservation Day, let us recommit ourselves to the cause of energy efficiency. It is a cornerstone of our journey toward a sustainable future, fostering resilience and environmental harmony. Together, through individual actions and collective will, we can illuminate a path to a greener and energy efficient tomorrow.

Sustainability milestones and key achievements in India's energy efficiency sector

(By EESL's Editorial Team)

India has made significant efforts and progress in improving energy efficiency across various sectors, including buildings, industry, and transportation over the past decade. The International Energy Efficiency Scorecard by the American Council for an Energy-Efficient Economy (ACEEE), which ranks 25 of the world's largest energy users on several energy efficiency metrics, put India at 11th place in 2022.

To meet the country's growing energy requirements while minimizing greenhouse emissions, the Government of India is pushing for increasing renewable energy generation on the supply side and for adopting energy efficiency measures on the demand side. Over the years, the Ministry of Power has launched several energy efficiency initiatives for household lighting, commercial buildings, standards and labels for appliances, and demand side management in agriculture, municipalities, SMEs and large industries.

Energy efficiency is one of the cornerstones of the ongoing energy transitions, a critical enabler of decarbonization. It is the 'first fuel' and often the 'cheapest fuel' that a country can leverage to provide sustainable, affordable energy services to all while minimizing the impact of inflationary energy prices and supply chain constraints.

India has made significant strides in energy efficiency over the past two decades, driven by government-led programs, some of which deserve special mention here.

The Standards & Labeling Program: Initiated by the Bureau of Energy Efficiency (BEE) in 2006, this program provides consumers with information about the energy performance and cost-saving potential of appliances. It has accelerated the adoption of energy-efficient appliances in the country.4 During the 12th five-year plan, the program targeted more new equipment and appliances and upgraded the energy performance standards for equipment and appliances covered during the 11th plan.

Energy Conservation Building Code (ECBC): Introduced in 2007, the ECBC sets minimum energy performance standards for new commercial buildings that have a connected load of 100 kW or a contract demand of 120 KVA and above. It has been instrumental in promoting energy-efficient building designs.

National Mission for Enhanced Energy Efficiency (NMEEE) and an increase in industrial energy efficiency: The NMEEE is a part of the National Action Plan on Climate Change and aims to strengthen the market for energy efficiency through relevant policies and programs. It has four components:

- **Perform Achieve and Trade (PAT) scheme:** Launched in 2012, it is a market-based mechanism for cost-effective improvement of energy efficiency in energy-intensive industries through the tradable certificates for energy savings.
- **Market Transformation for Energy Efficiency:** This has accelerated the adoption of energy-efficient appliances in designated sectors by making the products more affordable.
- **Energy Efficiency Financing Platform** for developing mechanisms that will help in financing demand-side management programs in all sectors.
- **Framework for Energy Efficient Economic Development** for creating financial instruments to promote energy efficiency.

Between 2014 and 2018, significant efficiency gains were achieved in the industrial sector on the back of the aforesaid interventions.

Electric mobility initiatives: India is encouraging electric vehicle (EV) adoption and has launched policies and incentives to promote EV manufacture and charging infrastructure. India is a part of the EV30@30 initiative, which aims for 30% share of EVs in total vehicle sales by 2030.

Energy efficiency in buildings: The adoption of energy-efficient building codes and standards has increased, with several states implementing the ECBC and other 'green building' initiatives.8

EESL: A leader in implementing nationwide energy-efficiency programs

Energy Efficiency Services Limited (EESL) has emerged as one of the leaders in implementing energy efficiency programs, including the PAT scheme, across the country.

Under the **UJALA scheme** launched in 2015, more than 368 million LED bulbs have been distributed across the country so far, leading to savings of 47,883 million kWh of energy and reducing carbon dioxide emissions by 38.7 million tonnes every year.

Under the **Street Light National Program program**, more than 13.4 million conventional street lights have been replaced with LED lights across India. This has saved more than 9001 MUs of energy and reduced greenhouse gas emissions by 6.2 million tCO2 every year.

EESL has been involved in promoting energy-efficient building designs and retrofitting existing buildings with energy-efficient technologies through programs such as **RAISE (Retrofit of Airconditioning to improve Indoor air quality for Safety and Efficiency)** and **BEEP (Buildings Energy Efficiency Programme)**.

On the Agricultural Demand Side Management (AgDSM) front, EESL is working to replace inefficient agricultural pump sets with energy-efficient ones.

The Government of India has engaged EESL to implement the **National Electric Bus Program (NEBP)** for deploying 50,000 e-buses across the country. This initiative aligns with India's goal of achieving zero emissions by 2070 and will alleviate vehicular pollution in some of the country's most polluted cities. It seeks to consolidate demand from public bus transport agencies, streamline the e-bus tendering process, and collaborate with state-owned discoms to establish charging infrastructure for these buses.

EESL offers highly energy-efficient models of air conditioners, Brushless DC (BLDC) fans, bulbs, tube lights, cookstoves, and other domestic appliances, that have huge energy-and-cost-saving potential. EESL has partnered with multiple state governments and government-led programs to promote these products and expand the market for energy efficiency across the country.

EESL has launched its e-commerce portal, EESL Mart, that offers its wide and expanding portfolio of energy-efficient products and educates customers on the benefits of embracing energy efficiency.

In addition to EESL, some of India's leading companies in the public and private sector have been working – sometimes on their own, and sometimes in partnership with the central or state governments – to promote and enhance energy efficiency in the country.

Energy-efficiency initiatives by PSUs

Coal India Limited (CIL) has implemented comprehensive energy efficiency programs in collaboration with EESL. These initiatives include replacing conventional lights with energy-efficient LED lights, adopting energy-efficient appliances, and deploying electric vehicles. From FY 2021-22 to December 2023, CIL's efforts resulted in energy savings of 14.34 crore kWh and financial savings of ₹107.6 crore, along with a reduction of 1.17 lakh tonnes of CO_2 emissions.10

Power Grid Corporation of India Limited (PGCIL) has implemented several energy efficiency measures, including the installation of energy-efficient transformers and the adoption of advanced technologies for grid management. The company has also been involved in the development of smart grids and the integration of renewable energy sources into the national grid.

Indian Oil Corporation Limited (IOCL) has undertaken various initiatives to enhance energy efficiency in its refineries and operations. This includes the adoption of energy-efficient technologies and practices, such as the use of advanced process control systems and waste heat recovery.

Bharat Heavy Electricals Limited (BHEL) has been actively involved in the development and deployment of energy-efficient technologies in the power sector. This includes the manufacturing of supercritical and ultra-supercritical boilers, which are more efficient and environmentally friendly. BHEL has also been working on renewable energy projects, including solar and wind power.

Contributions of private sector companies

On the private sector front, **Tata Power** has been promoting energy efficiency through various initiatives, including the installation of smart meters, energy-efficient appliances, and the implementation of demand-side management programs. The company has also invested in renewable energy projects, such as solar and wind power, to reduce its carbon footprint. Tata Power-DDL has undertaken a number of energy efficiency initiatives, for which it has been accredited with ESCO Level 1 certification from ICRA.11

Reliance Industries Limited (RIL) has implemented several energy efficiency measures in its operations, including the use of advanced process technologies, waste heat recovery systems, and energy-efficient lighting. The company has also invested in renewable energy projects and aims to achieve net-zero carbon emissions by 2035.

Honeywell, meanwhile, is among those who are developing energy-efficient solutions and technologies for the development of smart cities.

The aforesaid examples are but a few of the many initiatives, involving the participation of several other companies from the public and private sectors, that are underway across the country. Collectively, they are improving India's overall energy efficiency quotient, reducing the energy intensity of the economy, and supporting the country's sustainable development goals.

EESL in 2024: A year of transformative progress in energy efficiency (By EESL's Editorial Team)

EESL continues to lead India's energy transformation journey, making remarkable strides in lighting, cooling, cooking, and renewable energy adoption. 2024 has been a defining year for EESL as it celebrated significant milestones and rolled out impactful initiatives across the nation.

Celebrating 9 years of lighting transformation

The year began with a grand celebration of nine years of the Unnat Jyoti by Affordable LEDs for All (UJALA) and Street Lighting National Programme (SLNP). Launched by the Hon'ble Prime Minister in 2015, these initiatives have illuminated over 9 crore households and modernised 12,710 government buildings. With over 1 crore smart streetlights installed across 1,559 Urban Local Bodies, EESL's lighting programmes have achieved an annual energy reduction of 57 billion units and avoided a peak demand of 11,200 MW. This has also translated into a remarkable annual reduction of 45.5 million tonnes of CO2 emissions, reinforcing India's commitment to its Nationally Determined Contributions (NDCs).

Key partnerships and milestones

Throughout the year, EESL forged meaningful collaborations, signing MoUs worth INR 500 crores with state bodies and industry partners at India Energy Week 2024. These partnerships align seamlessly with India's G20 and COP28 commitments, amplifying efforts to integrate energy efficiency and renewable energy solutions. CESL, a 100% owned subsidiary of EESL, is also continuously working in empowering women through cargo electric cycles. Which will empower women in rural areas and smaller cities.

At India Energy Week, EESL showcased a wide array of cutting-edge, energy-efficient appliances, including induction cookstoves, rechargeable inverter bulbs, e-bicycles, fans, and EV chargers. Participating in the Ministry of Power (MoP) booth alongside other key PSUs under the MoP, EESL highlighted its commitment to innovation and sustainability.

Among the notable partnerships, EESL signed MoUs with the Ladakh Autonomous Hill Development Council, Leh (LAHDC), and Vidhya Pratishthan to advance energy efficiency across lighting, clean cooking, space heating, renewables, e-mobility, cooling, and consultancy.

Driving market transformation and empowering women

EESL launched Phase-II procurement for 1 lakh induction cookstoves under the National Efficient Cooking Programme (NECP), extending the benefits of clean, energy-efficient cooking to underserved regions. The year also saw the launch of Urja Dakshta Dukan, an initiative to boost accessibility to super-efficient appliances nationwide.

During the festive season, EESL introduced 6-watt, 5-star rated LED bulbs, ensuring sustainable options remain affordable for households. To support market transformation, EESL showcased super-efficient appliances at the South Asia Clean Energy Forum (SACEF) 2024, driving adoption through industry collaboration.

Recognising the importance of inclusivity, EESL launched initiatives empowering women through driver training programs under its mobility project. The collaboration with women entrepreneurs in Telangana further accelerated the adoption of energy-efficient technologies in local communities. Through its e-cycle programme, EESL empowered women-led self-help groups (SHGs), transforming transportation across India.

Recognitions and global contributions

EESL's efforts were acknowledged when it received the prestigious Impact Player of the Year award in September. We were also awarded at the 10th Governance Now PSU Awards for our commitment to making the country an energy-efficient hub in March. Moreover, at the 14th Clean Energy Ministerial, EESL shared its pioneering initiatives, emphasizing India's leadership in energy transitions during the G20 Presidency.

The PM E-DRIVE scheme was a standout initiative in 2024, promoting electric two-wheelers, three-wheelers, and e-buses while building the necessary charging infrastructure. This scheme is set to accelerate India's journey toward cleaner air and greener mobility.

Tripura has become the first state to launch the **National Efficient Cooking Programme** (NECP), where EESL induction cooktops were distributed to 2,000 Anganwadi Centres in Agartala in the august presence of Hon'ble Minister of Power, Agriculture & Farmer's Welfare and Election Department, Govt. of Tripura, Shri Ratan Lal Nath.

The year concluded with the unveiling of new programmes by Union Minister Shri Manohar Lal and Andhra Pradesh CM Shri Chandrababu Naidu. These included the distribution of energy-efficient appliances under **the UrjaVEER initiative** and the expansion of NECP with 2,000 induction cooktops distributed in Tripura, showcasing a continued focus on clean cooking.

As EESL moves forward, **sustainability and innovation** remain central to its vision of a greener, energy-efficient India. Each initiative, partnership, and milestone reflect our commitment to a brighter, sustainable future for all.

Andhra Pradesh takes bold step in its energy efficiency revolution (By EESL's Editorial Team)

The State Government of Andhra Pradesh, in collaboration with Energy Efficiency Services Limited (EESL), has taken a bold step toward sustainability with the launch of three transformative initiatives aimed at promoting energy efficiency, fostering economic empowerment, and ensuring environmental sustainability. These programmes, introduced during a high-profile event in Vijayawada on December 7, exemplify the state's commitment to building a sustainable future for its citizens.

A vision for empowerment: the UrjaVEER initiative

At the heart of these efforts is the UrjaVEER programme, an innovative approach developed by EESL to empower individuals as champions of energy efficiency. This initiative targets the training of 1 lakh residents in Andhra Pradesh as "UrjaVEERs" — energy ambassadors who will advocate for sustainable living by promoting energy-efficient appliances.

These ambassadors, armed with skill training and personalised QR codes, will use affiliate-based marketing to encourage the adoption of energy-saving products such as BEE 5-star LED bulbs, BLDC fans, and induction cooktops. Beyond its environmental benefits, UrjaVEER creates an economic opportunity for participants, enabling them to earn supplemental income while contributing to a greener future. With 12,000 registrations already in place within 15 days of the launch, the programme is a promising model for scalable and impactful energy advocacy.

Energy efficiency at home: aiding PMAY beneficiaries

Complementing the UrjaVEER initiative is a second programme focused on distributing energy-efficient appliances to economically vulnerable households under the Pradhan Mantri Awas Yojana (PMAY).

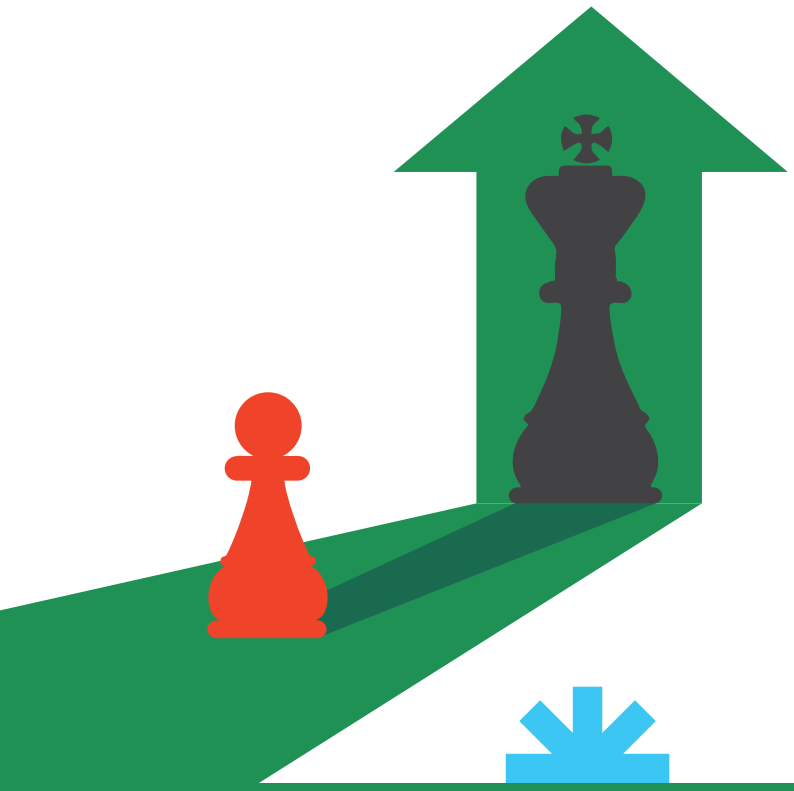
Pradhan Mantri Awas Yojana (PMAY) is a credit-linked subsidy scheme by the Government of India to facilitate access to affordable housing. In partnership with the Andhra Pradesh State Housing Company Limited (APSHCL), EESL is providing free appliances to 1.5 lakh PMAY households.
Each household will receive a package comprising LED bulbs, LED battens, and BLDC fans, significantly reducing energy consumption and lowering electricity bills. This programme represents a critical step in making energy efficiency accessible and affordable, enabling communities to experience long-term financial and environmental benefits.

Transforming kitchens with the National Efficient Cooking Programme

A third milestone in this sustainable journey is the National Efficient Cooking Programme (NECP), aimed at modernising cooking practices across the state. Under this initiative, Anganwadi Centres in Andhra Pradesh are being equipped with 1200W induction cooktops and essential utensils. This effort not only ensures cleaner and safer cooking environments for over 55,000 centers but also highlights the government's commitment to promoting health, safety, and energy efficiency among Anganwadi workers. The ceremonial distribution of induction cooktops by the Hon'ble Chief Minister marks the beginning of this widespread transformation, which is expected to reach all 26 districts of the state.

Leadership and collaboration

The success of these initiatives lies in the collaborative vision and leadership of key stakeholders. Addressing the event, Shri N. Chandrababu Naidu, Hon'ble Chief Minister of Andhra Pradesh, underscored the significance of these programmes, expressing confidence in their ability to reshape the state's energy landscape.



He said, "I see strong interest from the people in the UrjaVEER initiative as they register for this programme. Under the National Efficient Cooking Programme, we will enhance the health of Anganwadi workers by promoting green cooking practices. I'm also pleased to announce that 150,000 PMAY beneficiaries will receive EESL's energy-efficient appliances free of cost from the state government, ensuring long-term energy savings and financial benefits for households."

Echoing this sentiment, Shri Manohar Lal, Hon'ble Union Minister of Power, spoke on the importance of energy efficiency in meeting India's growing energy demands and highlighted Andhra Pradesh's pioneering role in this domain.

A model for progress

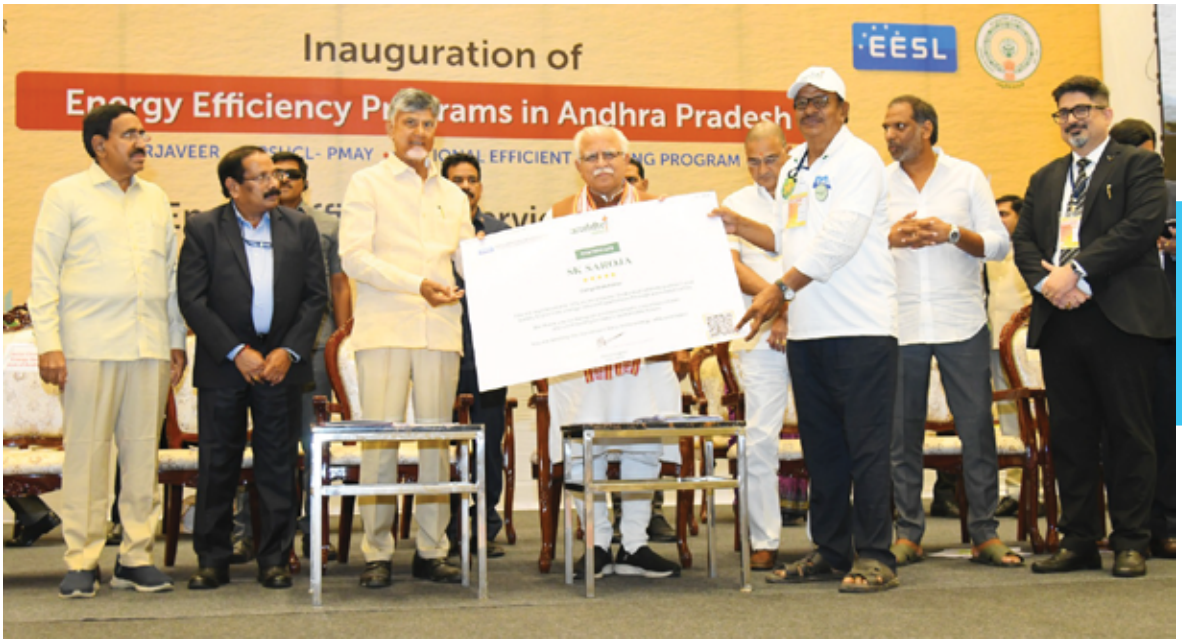
These initiatives illustrate how targeted programmes can drive significant change. The integration of economic empowerment with sustainable practices underscores the potential for inclusive growth in the energy sector, paving the way for a brighter, greener future. By addressing energy efficiency at individual, household, and community levels, Andhra Pradesh is setting a benchmark for other states to emulate.

Through its partnership with EESL, Andhra Pradesh is not only championing energy efficiency but also demonstrating that collaborative action and innovative programmes can lead to transformative outcomes for society.

A closer look at the initiatives

Building on the transformative vision laid out during the launch event in Vijayawada, the following initiatives—UrjaVEER, National Efficient Cooking Programme (NECP), and the PM Housing Initiative—represent pivotal efforts in Andhra Pradesh's journey toward energy efficiency, economic empowerment, and environmental sustainability. Each programme is a testament to the power of collaborative action in driving meaningful change across communities.

UrjaVEER: energising grassroots advocacy



Building on the comprehensive energy efficiency vision laid out during the Vijayawada event, UrjaVEER represents a groundbreaking model of grassroots empowerment. It mobilises individuals as ambassadors of energy efficiency. By promoting energy-saving appliances such as BEE 5-star LED bulbs, BLDC fans, and induction cooktops, participants—aptly named UrjaVEERs—directly contribute to household energy savings and emissions reductions.

The programme stands apart for its inclusivity. Open to any Indian citizen over the age of 18, it provides a simplified registration and training process. Participants gain a unique QR code linked to EESLmart.in, enabling them to earn a success fee with each appliance sold. EESL manages the logistics, delivery, and monthly tracking, ensuring a smooth and rewarding experience for UrjaVEERs. UrjaVEER exemplifies a scalable solution to energy advocacy, transforming individuals into active stakeholders, and highlights how collective action can drive meaningful change.

National Efficient Cooking Programme (NECP): revolutionising kitchens

The NECP, focused on modernising cooking practices in 55,607 Anganwadi centres, aligns health, environmental, and cost benefits with state-wide energy efficiency goals. NECP aims to replace traditional LPG-based cooking with 1200W induction cooktops. This transformation is complemented by high-quality stainless-steel utensil sets, ensuring the readiness of Anganwadi workers to adopt the new cooking method.

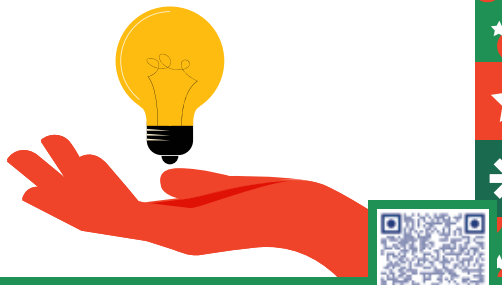
Key benefits include a 30% reduction in energy consumption, elimination of indoor pollution risks, and significant cost savings. Each centre will now benefit from safer and faster cooking environments, reducing health risks associated with open flames and enhancing the overall well-being of Anganwadi workers and children. The programme's long-term goals extend beyond energy efficiency—creating healthier, safer, and more sustainable kitchens in communities across Andhra Pradesh. cooking method.

PM Housing: Empowering households through energy efficiency

The Pradhan Mantri Awas Yojana (PMAY) initiative strengthens Andhra Pradesh's commitment to inclusive and sustainable housing. Partnering with EESL, the state launched a programme to equip 1.5 lakh PMAY households with energy-efficient appliances.

This initiative is grounded in a simple but impactful premise: Providing each household with energy-efficient appliances, including 4 LED bulbs, 2 LED battens, and 2 BLDC fans, at no cost. This package significantly reduces electricity consumption and monthly expenses while improving access to modern amenities for economically vulnerable families.

By integrating energy-efficient technologies into PMAY homes, this initiative delivers measurable environmental and economic outcomes. Benefits include energy savings, lower electricity bills, and reduced greenhouse gas emissions. It also fosters a culture of sustainability, aligning household practices with broader national goals of energy efficiency and climate action.



EESL Officer's Association Election 2024:

A New Chapter in Leadership and Responsibility

Mr. Chandrasekhar Kumar, Executive Advisor to CEO EESL

The EESL Officer's Association Election 2024, held on December 8th and 9th, marks a pivotal moment in the organisation's democratic process. After a five-year gap, the election rekindled a spirit of engagement, showcasing the workforce's desire for transparent governance and a voice in decision-making.

With an impressive 97.4% voter turnout, this election exemplified the commitment and active participation of employees in shaping the future of their leadership. The high voter turnout was a clear indication of the workforce's engagement and anticipation for the changes that lie ahead.

The election witnessed spirited campaigns and intense competition. The contest for the President's role was particularly close. Despite the varying levels of competition, the election was a true reflection of the democratic values that underpin the culture of EESL.

The results of the election have brought forward a team of leaders who are now tasked with fulfilling the aspirations of the workforce. The newly elected officers include Shri Prakash Jha as President, Shri Vivek Singhal and Shri Sameer Kumar Gupta as Vice Presidents, Shri Utkarsh Singh as Secretary, Shri Pankaj Bansal and Shri Sumit Sharma as Joint Secretaries, and Shri Rakesh Kumar Yadav as Treasurer. The outcome of this election signifies the trust and confidence employees have placed in their new leadership.

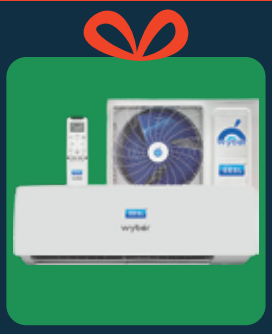
The election was conducted with meticulous planning and organisation, thanks to the leadership of Chief Election Commissioner Shri Ashish Sharma, supported by Shri Puneet Dhawan and Shri Abhishek Singh Sawai. Their commitment to ensuring transparency and fairness throughout the process contributed to a seamless and inclusive election.

This election has reignited the democratic spirit within EESL, demonstrating the power of collective participation and the importance of leadership that listens and acts. It has set the stage for meaningful change, reinforcing the values that drive the organisation forward. The newly elected leaders now have the responsibility to create a legacy of integrity and transparency, serving as role models for the entire workforce.

Kick off the New Year by saving on your electricity bills
with EESL's energy-efficient appliances from EESLMart.in

1.0 TR Super-Efficient 5 Star Split AC:
Stay cool and save big on electricity bills with EESL Super-Efficient 1 TR 5 Star Split ACs

₹ 36,501.00 *(incl tax / Unit)*



1.5 TR Super-Efficient 5 Star Split AC:
Elevate your indoor climate with EESL Super-Efficient 1.5 TR 5 Star Split Acs

₹ 48,150.00 *(incl tax / Unit)*

5 Star BLDC Ceiling Fan (with remote):
Become smart by controlling your fans with smart remote.

₹ 2,699.00 *(incl tax / Unit)*

BLDC Ceiling Fan – 5 Star (without remote):
Cool up your space with EESL's Energy Efficient 5 Star BLDC Ceiling Fans

₹ 2,699.00 *(incl tax / Unit)*

Emergency LED Bulb 10W, 1050 Lumens:
Brighten your home, even during power cuts, with EESL's Emergency LED Bulb-10 Watt.

₹ 459.00 *(incl tax / Unit)*

5 Star 6W LED Bulb:
Experience Brilliant Efficiency with EESL's 5 Star 6 Watt LED Bulb

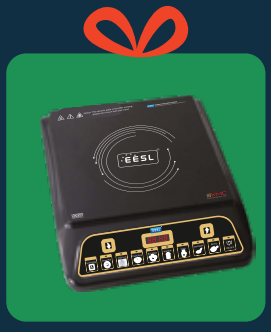
₹ 85.00 *(incl tax / Unit)*

20W Int Batten Tubelight:
Illuminate Your Space with EESL's 20 Watt Int Batten Tubelight

₹ 199.00 *(incl tax / Unit)*

9W LED Bulb:
Upgrade to EESL's 3-Star LED Bulb for a perfect blend of bright light and energy efficiency.

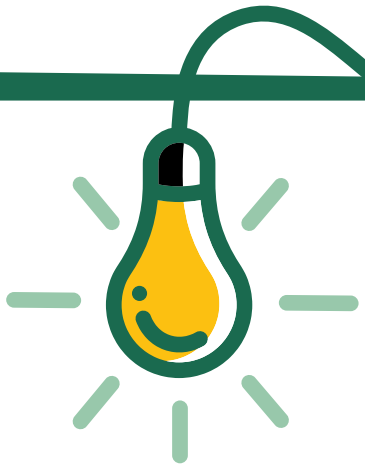
₹ 75.00 *(incl tax / Unit)*



1200W Induction Cooktop:
Cook smarter and faster with EESL 1200W Induction Cooktop

₹ 1,900.00 *(incl tax / Unit)*

Switch karo, save karo



Watts Up?

Here's a quiz to see how energy-smart you are!

In an era where smart technologies and smart devices are transforming economic activities and daily routines, we need to be smart on yet another front: energy usage. Our world has limited resources but an ever-increasing demand for energy. We need to make smart choices that show consideration for our planet and all its natural ecosystems. The simplest of these is to embrace energy efficiency.

The importance of energy efficiency cannot be emphasized enough. A report in 2023 by the International Energy Agency suggested that the world needed to double progress on efficiency between then and 2030 to improve energy security and affordability while limiting global warming to acceptable levels.

Want to see how energy-smart you are? Here's a quick quiz to find out.

Q1. What is energy efficiency?

a. The ability to generate energy faster
b. The ability to store energy
c. Using less energy for the same purpose and the same output
d. Using more energy for the same purpose and the same output

Q2. What do the 1/2/3/4/5 Star Rating by BEE signify about the appliance that bears that label?

e. The 'star' rating of the hotel that the product is best suited for
f. The energy efficiency of the product
g. The quality of after-sales service
h. The sustainability quotient of the material used in manufacturing the product

Q3. Which practical aspect of a BLDC fan offsets its relatively high price as compared to a regular fan?

i. Aesthetic design
j. Ease of installation and repair
k. Electricity savings of up to 60%
l. The pride of owning something that your neighbours don't

Q4. Which is the most environment-friendly appliance for cooking?

m. A wood-fired "chulha"
n. Induction cooktop
o. Gas stove
p. Open-air fire in the backyard

Q5. Under which program have millions of conventional streetlights been replaced with energy-efficient LED lights across India?

q. Swachh Bharat Abhiyan
r. Digital India
s. Viksit Bharat
t. Street Lighting National Program

Q6. What does the government's Agriculture Demand Side Management (AgDSM) program focus on?

u. Ensuring steady demand for agricultural produce
v. Monitoring the energy demand on agricultural land and offering subsidies accordingly
w. Replacing old pumps on farms with BEE 5-star energy-efficient agricultural pumps
x. None of the above

Q7. Which of these can reduce greenhouse emissions from the transportation sector?

y. Driving with minimum application of brakes
z. Adopting electric mobility
aa. Using the same vehicle for 10 years or longer
bb. Avoiding public transportation

Q8. Which activity consumes the largest amount of energy in a typical urban household?

cc. Lighting
dd. Heating and cooling
ee. Cooking
ff. Laundry

Q9. What is the name of EESL's e-commerce portal for energy-efficient products?

gg. eeslmart.in
hh. ujala.gov.in
ii. eeslindia.org
jj. energyefficiency.com

Q10. Who among the following has no contribution to make towards achieving better energy efficiency?

kk. The private sector
ll. The government
mm. Consumers
nn. Everyone can contribute to energy efficiency in their own way. It is a collective responsibility.

Remember, energy saved is energy gained. Energy efficiency is as important as energy generation. Let us make a conscious effort to embrace energy efficiency not just as an environmental responsibility but also as a truly smart way of life.

Correct answers to the quiz questions:

1. c
2. b
3. c
4. b
5. d
6. c
7. b
8. b
9. a
10. d

Energy Efficiency Spotlight

Energy efficiency in IT is not just about reducing consumption; it's about driving innovation and sustainability. By optimizing technology infrastructure, we can reduce our environmental footprint while increasing performance, ensuring that every byte and watt counts toward a smarter, greener future.

Mr. Ankur Bansal, Deputy Manager IT, EESL

Energy Conservation and law are cheek by jowl, as legal framework not only regulates energy use but also drives the transitions to sustainable practices, Ensuring better tomorrow

Mrs. Disha Singh, Senior Legal Officer, EESL

Energy efficiency isn't just about reducing bills; it's about creating a more resilient and sustainable society. Small changes in our energy habits can lead to big environmental benefits.

Mr. Mukund Kumar, Deputy Manager (Technical), EESL

Energy conservation is a collective responsibility, and HR can significantly contribute by fostering green leadership and involving employees in environmental initiatives. Even small steps, such as encouraging public transportation, carpooling, waste reduction, reusing and recycling materials, and cutting down energy usage, can make a meaningful impact.

Mrs. Ruchika, Manager (HR), EESL

We make sure that our medical equipment's are energy efficient and as a medical practitioner we promote sustainable choices for a secured future.

Mrs. Neena Sinha, Chief Medical Officer, EESL

Key EESL event highlights

Union Minister of Power and Urban & Housing Affairs Shri Manohar Lal and Andhra Pradesh CM Shri Chandrababu Naidu inaugurated EESL's Key Programme in Vijayawada.

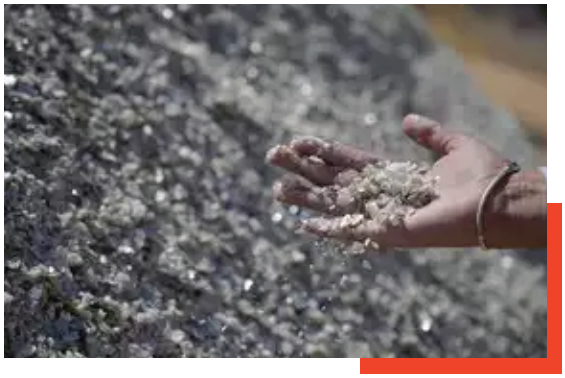
EESL team in collaboration with Azad Foundation organized Awareness Programme on Energy Efficient Technology in Jaipur

EESL employees participated in a Fire Mock Drill, gaining essential knowledge on evacuation protocols for fire emergencies.

Noteworthy Energy Developments

GST panel against tax relief to EV charging stations

The fitment committee of the GST Council has recommended to maintain “status quo” in the current taxation structure of electric vehicle (EV) charging services, even as the industry is batting for complete exemption of the service from the indirect tax’s levy, or a reduction in rate from 18% to 5%, as per official sources.Last month, industry body FICCI had called for a cut in EV charging services to make electric mobility affordable and competitive. FICCI’s electric vehicle committee chair Sulajja Motwani had highlighted variation in GST rates of EVs and related products/services, and had suggested its realignment.



India to kick off critical minerals mission to bolster energy transition, EV manufacturing

India is set to kick off a national mission for the critical and strategic minerals sector as the country looks to propel its journey towards green energy transition and boost electric vehicle manufacturing capacity. While much of 2024 was spent in doing ground work, the next is poised to be a landmark year for India's mineral and mining sector

Indian EV market to touch Rs 20 trn by 2030, to create 50 mn jobs: Gadkari

Union minister Nitin Gadkari on Thursday said the Indian electric vehicle market potential is likely to touch Rs 20 trillion and will create around 50 million jobs across the entire EV ecosystem by 2030. Addressing the '8th Catalyst Conference on Sustainability of E-Vehicle Industry - Evexpo 2024', Gadkari said estimated electric vehicles finance market size will be around Rs 4 trillion by 2030. "The Indian electric vehicles market potential is of Rs 20 trillion by 2030, creating five crore jobs across the entire EV ecosystem," he said.

India mandates use of locally made solar cells in government projects from June 2026

Indian clean energy firms will only be allowed to use locally made solar cells supplied by an approved list of companies in government projects from June 2026, the country's renewable energy ministry said, in a move aimed at curbing Chinese imports. India already requires the use of locally made photovoltaic (PV) modules in government projects from an approved list of domestic manufacturers, and authorities have now extended this rule to solar cells as well.

58% potential EV buyers discouraged by range anxiety, says report

Nearly 58 per cent of potential electric vehicle (EV) buyers in India are discouraged by range anxiety—the fear of running out of charge without access to a charging station. According to a new report from Forvis Mazars in India, as of February 2024, the country had just 12,146 public charging stations nationwide—one charging point for every 135 EVs on the road. In contrast, the United States and China boast far better ratios of one station per 20 EVs and one station per 10 EVs, respectively.

India ranks sixth globally 127 companies committed to net-zero targets, UK tops the list, reveals ICRA ESG Ratings report

India ranks sixth globally in corporate climate action, with 127 companies committed to science-based target initiative or SBTi net-zero targets, and these companies are primarily from non-hard-to-abate sectors like textiles, software, and pharmaceuticals, stated a report by ICRA ESG Ratings. Out of these 127 companies with net-zero commitment from India, around 7 per cent belong to high emissions sectors like construction materials and mining and the rest hail from sectors like textiles, software and services, typically considered to be having low to medium level of carbon footprint. The report revealed a significant shift towards renewable energy in the power sector, particularly among companies with net-zero commitments, resulting in reduced emissions.

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