ENERGY EFFICIENCY SERVICES LIMITED
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INNOVATING ENERGY

Sustainable development:

The catalyst for climate change mitigation

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Inside Stories

CONTENT

EDITORIAL TEAM

FOR EDITORIAL DETAILS AND ADVERTISEMENT ENQUIRIES

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Editor's Note

Bhawanjeet Singh
Executive Director (IC)
EESL

Dear Readers,

We are increasingly witnessing the effects of climate change. The rising mercury levels and extreme weather events are being seen across the world. In such a scenario, there is an urgent need for interventions that can arrest this downward spiral. Nearly a decade ago, the Paris agreement obligated nations to pursue a goal of limiting global warming to 1.5 degrees Celsius in comparison to preindustrial levels. It laid down a long-term roadmap for decrease in the carbon footprint through a significant reduction in greenhouse emissions facilitated by sustainable use of energy, globally. Recently, the Honorable Prime Minister of India, Shri Narendra Modi proposed a five-fold strategy 'Panchamrita' for India at the 26th Conference of Parties (CoP26) in Glasgow to meet its climate action goals. Commitments under 'Panchamrita' focuses on renewable energy, carbon emission reduction and Net Zero.

However, we still have a long way to go in realising this imperative. Sustainable development is at the center of our fight against climate change. Powering the economic engine with clean energy and finding newer pathways for reduction of emissions is now the need for the hour. In this edition of our newsletter, themed "***Sustainable development: The catalyst for climate change mitigation***", we take a deep dive into the nuances of sustainable development and trace its role in leading us towards a green, clean and equitable future for our planet.

In the article, "***Green Buildings – The Pathway for Sustainability***", we discuss how green buildings can pave the pathway to sustainability. "***Transitioning to a fossil free energy economy: Solar power for mitigating carbon emissions***" charts out the roadmap towards the shift to renewable energy and the role solar power can play in that transition. We then delve into the Bangladesh's energy efficiency journey and decarbonisation efforts in "***Tracing Bangladesh's energy efficiency journey: Learnings & way forward***". Finally, we deconstruct the merits of sustainable cold chain in "***Sustainable cold chains can provide the twin benefits of food and energy security***."

All of these diverse, yet interconnected aspects of sustainable development will be at the heart of our efforts towards achieving the desired temperature reduction and the goal of net zero. The time is nigh for all the sectors and industries to take concerted steps towards combating the rising global temperatures. Only then can we create a peaceful, ecologically sustainable and energy secure world. This edition of the newsletter seeks to be a mirror for the various aspects of the climate action roadmap, and we hope it makes for an insightful read.

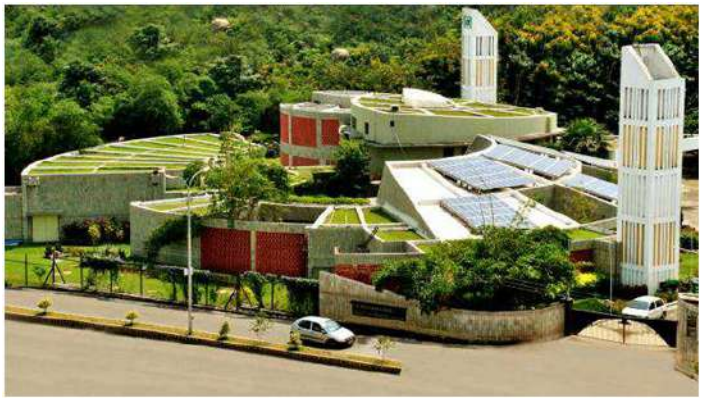
Green Buildings - The Pathway for Sustainability

Shivraj Dhaka
Senior Counsellor
Indian Green Buidling Council

Sustainable development is the only way forward to meet the twin goals of economic growth and combating climate change. Interventions aimed at our urban areas will be particularly effective, as the building sector is one of the engines of growth. Green buildings can pave the pathway for sustainability, and it can enable the sector in becoming less carbon intensive.

A green building is one which uses less water, optimises energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for people as compared to a conventional building. Key areas addressed in green buildings are Site selection, Planning, Building material, Water conservation, Energy efficiency, Resources and Indoor Environmental Quality (IEQ).

Our first major milestone came in 2003 when the CII-Godrej GBC building in Hyderabad became India's first platinum-rated green building. It was the greenest building at that point of time and this distinction really marked the start of the green building movement in India.



India is now amongest the top three countries in the world in terms of largest registered green building footprints and IGBC represents about 92% of the market share in India.

It has been demonstrated that constructing a green building is economically viable. Incremental costs can be 2-3% higher or same as a conventional building, but it all depends on the design parameters. If there is any additional cost, it can be paid back within 2 to 3 years, with a substantial reduction in operational costs, about 30% or more.

In the past, IGBC has launched over 29 rating systems to address different building typologies and national priorities, including energy efficiency, water conservation, handling of household waste, reduced use of fossil fuels, reduced dependence on use of virgin materials and health & wellbeing of building occupants. Therefore, Green Buildings have facilitated a market transformation. Most of the products and technologies are today readily available within our country, with an estimated market size of USD 300 billion by 2025.

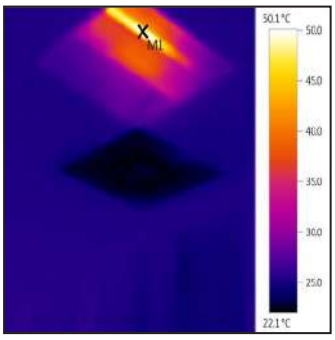
Key Benefits of Green Buildings

Green buildings make use of several technologies and solutions enabling better resource efficiency. Some of the advancements are as following:

1. Optimising energy efficiency

- A green building has the most energy efficient building envelope (glass, wall and roof), lighting and HVAC system. However, optimisation of performance can be ensured only through regular monitoring with the help of BMS/EMS/SCADA system. An optimised BMS can save 15-20% energy savings as compared to building without BMS. Lighting control and integration of day-lighting and artificial lighting fixtures can also happen through BMS.





- Night purging to cool the building can be explored to reduce operating cost of HVAC system
- Chiller management (Chiller Plant Manager), it automates chiller sequencing
- AHU fan type and speed control based on heat load, speed control of chilled water pumps etc save huge energy savings in any green building EPI (Energy Performance Index, kWh/m2-yr) and per capital water consumption (KL/lit-yr) have been found significant less in green buildings. EPI can be in the range of 75-90kW/m2-yr.

2. Enhancing Indoor air quality

Green buildings are well designed for following ASHRAE 62.1 guidelines to meet/exceed the requirement of fresh air. Provision of fresh air ventilation helps in increasing productivity of building occupants. It has been validated through research that productivity of 8-12% can be enhanced in green buildings which in turn offers significant operation cost savings to the company/organization

3. Urban Heat Island (UHI)

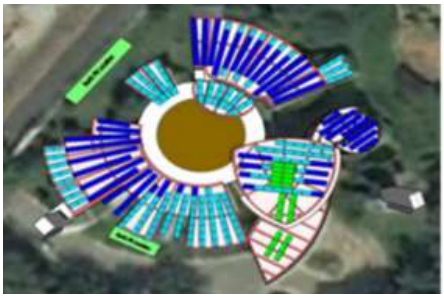
Green buildings are eco-friendly and by design help to mitigate UHI. The roof and non-roof areas have either of the following:

- For non-roof areas key applications are to have green vegetation or plantation of trees for shading
- Solar PV system can be installed over roof or high SRI (solar reflective index) coating over roof can be applied.

These measures lower the surrounding temperature in the vicinity of the project as compared to the temperature in urban areas.

4. Renewable Energy:

On-site renewable energy generation off-sets grid energy use and offers tangible benefits to the project. Green buildings may have renewable energy generation to the tune of 5 to 50% based on the building type and its connected load. Deployment of green measures also enables market transformation in RE sector.



5. Government Incentive for Promotion of Green Buildings

Ministry of Environment, Forest and Climate Change (MoEFCC) offers fast track environmental clearance for green building projects which are rated by IGBC. State Government agencies in Rajasthan, Punjab, West Bengal, Uttar Pradesh, Andhra Pradesh, Himachal Pradesh, Jharkhand, Maharashtra, Tamil Nadu, Gujarat, and Haryana have already been incentivised as IGBC-rated green buildings. Most of these states have witnessed multi-fold increase in their green building footprint which has resulted in reduced power and water demand, less stress on municipal infrastructure, greater preservation of trees and landscape, cooler micro-climate, etc.

Green buildings offer tangible benefits in the range of 30-35% as compared to a conventional building. Intangible benefits of the green budlings are increase in productivity by 8-12%, recognition of efforts at National/International level and reduction in carbon footprint year-on-year.

Transitioning to a fossil free energy economy: Solar power for mitigating carbon emissions

Akash Sharma
Assistant Policy Analyst
CUTS International

Bhadla solar park in Rajasthan, the biggest solar park in India, curbs around 80,000 tonnes of carbon each year. Another 50 similar solar parks in India are under development or capacity expansion stage. These parks along with standalone utility scale solar projects make up for 58 GW of solar power and account for 14 percent of total installed capacity. This is significant considering solar energy which has picked up pace only in the last decade or less, mainly due to policy level interventions and decline in solar module cost which is presently at below par to the thermal power cost.

Transition to a fossil free electricity generation ecosystem is essential and critical to address climate change issues which have escalated exponentially in the 21st century. Emphasis is on electricity sector because, though it only accounts 18 percent of India's energy basket, but it is the biggest carbon emitter with 46 percent of all carbon emissions. Approx. one kilo gram of CO_2 is released into atmosphere in the process of generating a single unit of electricity, further making solar energy with no residual as an optimal alternative to coal based thermal power. Additionally, global uncertainties (most recent example being the Russian invasion of Europe) have uncovered the fragility of trade mechanism and subsequently; economies of the world are adopting a more conservative approach to ensure energy security. Coal reliant thermal power is no different and any shift in trade balance impacts the sector adversely with rise in price of coal in international market leading to high cost of electricity in Indian markets – India imports a large volume of coal (215 million tonnes in FY 2021 and 250 million tonnes in FY 2020).

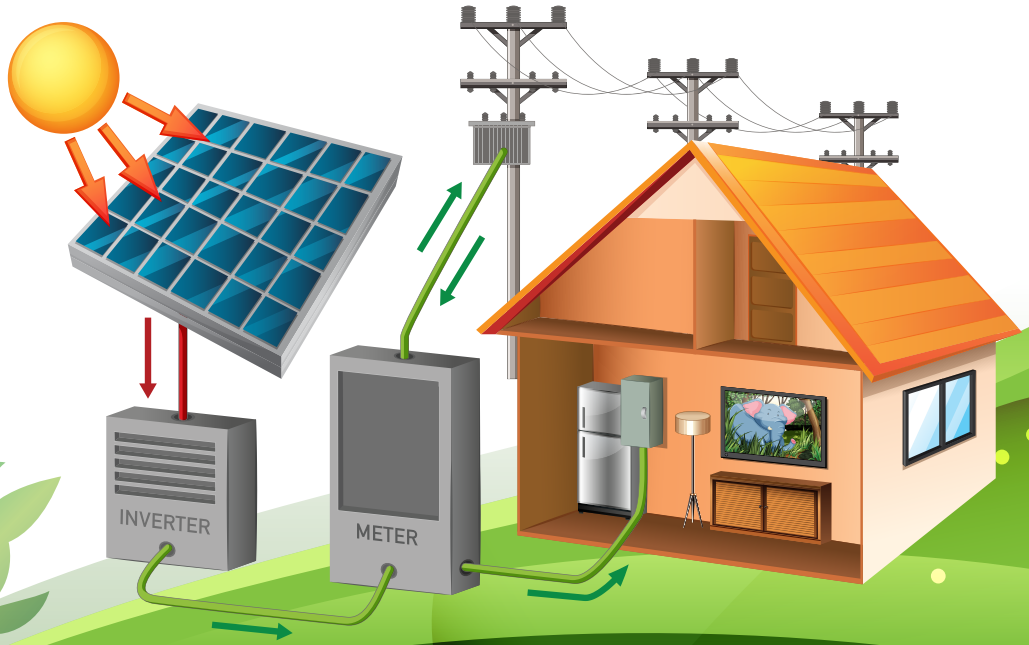
The panchamrit targets for 2030 announced at Conference of Parties in Glasgow last year are an evidence of India's confidence on solar for ensuring energy security and mitigating carbon emissions by installing 500 GW of renewable energy and meeting 50 percent of country's energy demand from this source of power.

Solar for long was perceived as a secondary source due to intermittent nature of power generation. Its application initially was limited to providing energy access to un-electrified regions and household electric equipment and later on extended to utility scale projects with grid integration. But with battery storage, solar can act as a base load for energy demand in the country. In line with this approach, the tenders issued by government organisations such as Solar Energy Corporation of India, National Thermal Power Corporations and several other public sector undertakings have transitioned from development of plain vanilla solar based projects to hybrid projects like solar with battery storage and solar-wind. The need is to have as much as solar energy installation with at least 25 percent of battery storage capacity along with other renewables like wind and hydro & waste to energy, biomass etc. in the energy spectrum to have an energy mix that is carbon emission free and completely eliminates the 46 percent stakeholder in climate change.

Still, the aspirations for becoming a net-zero economy by 2070 must extend beyond power sector and incorporate other major carbon emitting sectors of industry and transportation. Earlier this year, hydrogen policy was announced with the aim of meeting production targets of five million tonnes of green hydrogen per year by 2030. It was timely as green hydrogen across the globe was gaining momentum in becoming a cleaner source of energy especially for hard to abate industries like iron, steel, cement, fertilisers etc. Hydrogen can be utilised in multiple forms (liquid, compressed gas, ammonia) and finds application across multiple energy intensive sectors including transport. The conventional methods for manufacturing hydrogen are carbon friendly. If clean power from renewables is utilized for hydrogen manufacturing through electrolysis, the end product would be carbon emission free. The idea lead to coining of the term 'green hydrogen' and promotes renewable energy further more. A recent report suggests that India would require 115 GW of renewable energy to meet targets envisaged under the hydrogen policy. Hydrogen is also considered as an alternate fuel for aviation, shipping and road transport. All these factors indicate a wide scope for green hydrogen and thus renewable energy.

Similar is the case for automotive industry. To offset carbon emissions from internal combustion vehicles, electric vehicles (EV) are promoted through subsidy and incentive schemes like FAME I & II and policies at central and state level. EVs with no tail pipe emissions are cleaner mode of transportation and further, if electricity for charging batteries of these vehicles is clean, we have an end-to-end emission free framework.

The nodalities of power, industry and transportation sector are such that solar/ renewable energy is the case of not just a single but multiple cogs in the wheel. The climate mitigation strategies whether formulated at a local or macro level must recognise the span of renewable energy across sectors and opportunities associated with technological innovations. We are perhaps in the last decade in which the combined efforts can still restrict climate change atrocities and solar will be a major enabler in exercising those efforts.



Tracing Bangladesh's energy efficiency journey: Learnings & way forward

Mohammed Zahidul Haque
SVP & Unit Head
Industrial & Energy Efficiency Finance (IEEF),
Infrastructure Development Company Limited (IDCOL)

The journey began with the **'Energy Efficiency & Conservation (EE&C)** Master Plan up to 2030', launched by the **Ministry of Power, Energy & Mineral Resources (MPEMR)** of Bangladesh Government, declaring unyielding commitment of its implementation. A rapidly growing country, such as Bangladesh, needs huge amount of energy to feed its large growth appetite. In the past decade, primary energy consumption increased by over 100% and this trend is very likely to continue, thus leaving no room for wasting energy in this situation.

Bangladesh is vulnerable to rise in sea level, high tidal waves and river flood by cyclone, potentially caused by climate change through **Global Greenhouse Gas (GHG)** emission that results from fossil fuel consumption. The EE&C master plan implementation is not only for economic benefit but also closely links to protecting the country from such disasters.

Followed by the target set out in the master plan and findings of preparatory survey, **Japan International Cooperation Agency (JICA)** came up with the first ever project of its kind, titled '**Energy Efficiency & Conservation Promotion Financing Project (JICA-EEF)**' with the objective of promoting Energy Efficiency and Conservation measures, and to facilitate installation of Energy Efficient equipment in Bangladesh, so as to contribute to the development of sustainable society where power demand / supply balance is well under control. It is also expected to contribute to the reduction of Global Greenhouse Gas emissions.

Energy saving potential lies with industry/ commercial/ building sector through adoption of various equipments and processes. Industry & commercial sector component includes energy efficient equipments in sectors like textile and readymade garments, chemical fertilizer, paper & pulp, glass, cement & clinker grinding, iron & steel, food & beverage, telecommunication etc. Building sector components are heat reflective glass, elevator with permanent magnet motor, LED lighting, building energy management systems etc. The JICA-EEF is a project, whereby concessionary loans are extended to those investing in equipments that promote energy efficiency and conservation, which are generally more expensive than the conventional ones. Low-cost finance encourages the investors to opt for energy efficient equipments.

Seeing the success of JICA-EEF, other international development partner organisations particularly **Agence Française de Développement (AFD)**, **Kreditanstalt für Wiederaufbau (KFW)**, **Asian Development Bank (ADB)**, **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)** and World Bank are also supporting the Government of Bangladesh to tap into the Energy Efficiency Sector by promoting EE&C. **Green Climate Fund (GCF)** also extended credit line to Bangladesh for promoting energy efficiency under non-sovereign support. Notably, Bangladesh has USD 132 billion of climate-smart investment opportunity from 2018 to 2030 in Renewable Energy, Energy Efficiency and Green Building as per a report by International Finance Corporation.

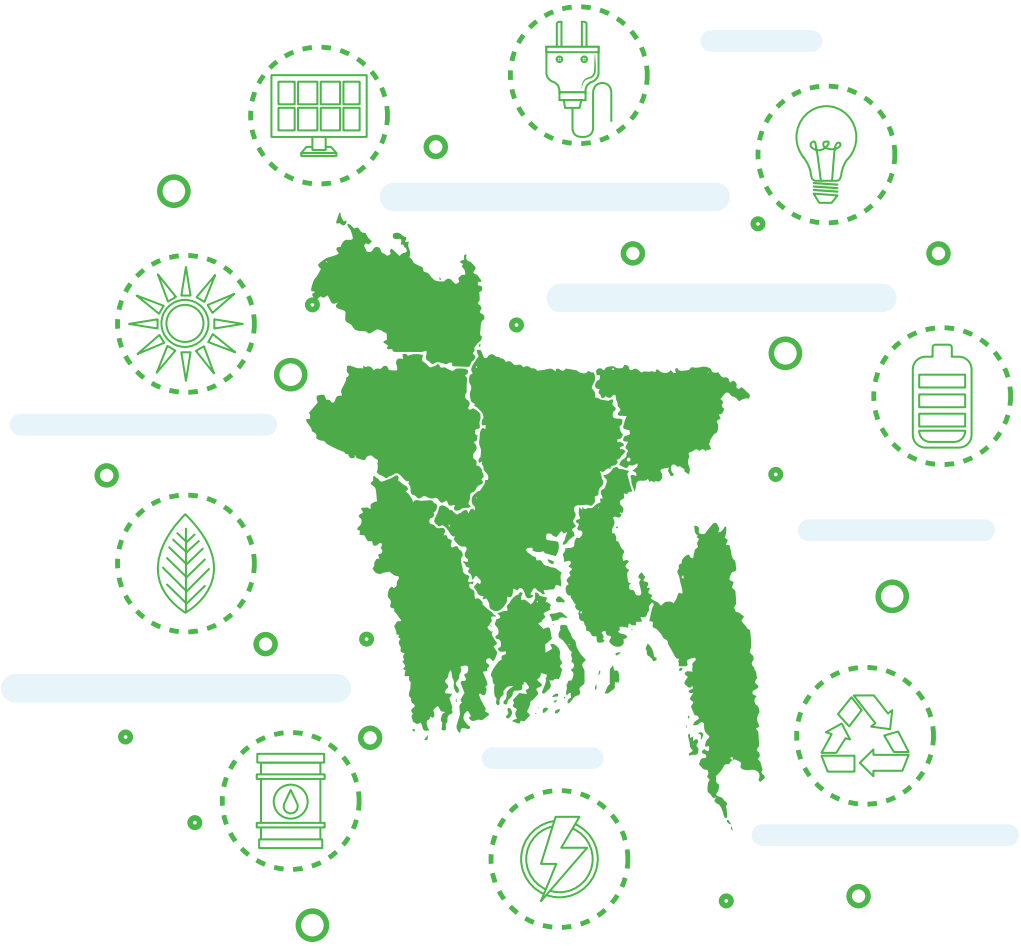
Although the journey has been pioneered by Infrastructure Development Company Limited (IDCOL), we are still at the beginning stage of adopting energy efficiency and have a long way to go to reach our targets. In Bangladesh, as with many of the other developing economies, the awareness level for EE&C measures is generally low. This is partially due to energy prices that are set at an artificially low level. Furthermore, gas tariff structure for households has always been a flat rate pricing inducing no incentive among the public to save gas. This is true not only for public in general, but also for policy makers and industries. There have been only limited attempts to implement measures to save energy in motors, lighting, air-conditioning, and cooking at homes, offices, and factories. One of the barriers lies in the lack of understanding of EE&C mechanism, i.e., purchasing highly efficient equipment at relatively high price can result in saving money by getting a return subsequently by saving energy. Such basic knowledge needs to be penetrated.

Not only Japan but also the AFD, ADB, World Bank, KFW among others, have been supporting Bangladesh to promote EE&C policies and providing low interest rate loans for promoting energy conservation. However, these existing energy conservation promotion facilities are not always serving their functions effectively for a number of reasons, such as offered interest rates are not attractive while overall market interest rates are lowering; Such concessionary financing facilities are not well known; The procedures are complicated; Loan appraisal procedure is commonly lengthy etc. Considering these situations, it is necessary to learn lessons from the existing energy conservation promotion facilities and incorporate practices that are more effective in a manner. Specifically, paying attention to and taking actions regarding the following points are crucial; (1) Need to structure a simple and transparent appraisal procedure; (2) Need to secure an attractive lending condition with concessionary interest; (3) Need for awareness-raising; (4) Need for data collection on energy conservation status as the effect of adopting those EE&C; (5) Need for penetration of EE&C measures; (6) introducing the regulations which enable the introduction of a good number of energy auditors; (7) enabling energy efficiency labelling schemes etc. The concessionary loan facility needs to be attractive for the sub-project proponents and the purchasers. Such attractiveness will become a key for penetration of the EE&C equipment. Loan attractiveness will depend not only on the level of interest rate but also on the simplicity of the loan application and appraisal procedure.

One of the reasons why policymakers and industries are not aware of the significance of promoting EE&C is the lack of knowledge on the practical measures relating to the same. It will be useful to conduct programmes for the government, industries, and the public, to announce practical examples of the introduction of EE&C equipment and effective usage and operation. By penetrating the practical success examples of EE&C, it is expected to result in awareness-raising for implementing EE&C in Bangladesh.

The most basic knowledge is that energy consumption can be reduced substantially by introducing eligible technologies and equipment in industries, business forms and residences. In other words, it will be meaningful to penetrate the comprehensive advantage of reduction of energy consumption, reduction of production cost and finally improvement on business profit, by introducing EE&C technologies. Such is also expected to appeal the effect on the reduction of financing cost.

With the formulation of suitable regulatory measures and incentive mechanisms in accordance with nationwide actions for energy conservation, 'primary energy consumption per GDP' can be reduced below 2013 level as the targets have been set out in the Master Plan for achieving 15% reduction by 2021 and 20% reduction by 2030, compared with 2013 value. We aim to accomplish the target for realizing the self-reliant EE&C society by 2030 with the final goal to realize a self-reliant cycle in which people will proactively and voluntarily save energy, rather than through compulsory EE&C activities.



Sustainable cold chains can provide the twin benefits of food and energy security

Rajneesh Sinha
General Manager (Operations)
Jharkhand State Food and Civil Supplies Corporation Limited

The adverse effects of climate change are there for all to see. The recent heat wave in Europe is one of the many extreme weather events being borne out of climate change. In such a situation, it becomes imperative to decarbonise high emission sectors. Particularly the cooling sector, as the rising temperature makes it highly critical, and its relatively high emission footprint is one of the major contributors to global warming.

For India, timely and decisive action through the development and implementation of the India Cooling Action Plan, has given it a unique opportunity for potential long-term positive outcomes in addressing India's cooling needs. The requirement for space cooling is traverses across multiple sectors, ranging from residential and commercial buildings, cold-chain, refrigeration, transport to industries.

The cooling demand from cold-chain sector may constitute a small portion of the aggregated cooling demand, however, its significance with respect to driving energy efficiency in the country cannot be undermined. The sector has positive implications on the environment and is a growth driver for increasing farmer's income in the country. India produces one of the world's largest volumes of milk fruits and vegetables, yet only 10 percent of it is processed for consumption.

The clear solution here is to scale up investment in cold chains, which are globally the vital link between farms and markets. Due to the perishable nature of produce, the current lack of cold chains leads to massive losses for the Indian farmers. However, according to ICAP, there exists a huge gap of approximately 85-97% between the required and the current capacity for the three components of cold chain: pack-houses, reefer transport and ripening chambers. Thus, the aggregate capacity in the country to adequately manage, store and preserve the agricultural produce post harvesting is largely insufficient.

To optimise the potential of India's primarily agriculture-based economy India needs to invest significantly in cold storage facilities. The government is investing in many new large-scale integrated cold chain projects. With this anticipated boom in cold storage, the time is opportune to ensure that our upcoming facilities are energy efficient. Unlike simple appliances like LEDs, it is not feasible to retrofit India's cold chains due to their sheer scale, as well as the complexity of the logistics involved. Instead, it is important to consider the immediate benefits that India can access from efficient cold chains. Access to affordable cold chains also delivers benefits to India's food producers. The knowledge that they have a dependable cold chain at their disposal can support market-led initiatives to supplement their incomes, especially for the many millions of small farmers. Along with produce and grain, smallholder farmers can produce higher-value processed products.

The need of the hour for cold chain sector to boom is to bring various business models that can work out technology and logistics both together to achieve a considerable reduction in cooling cost of produce, while also bringing down transportation cost. India's recent forays in energy efficiency, battery energy storage, and HCFC mitigation provide the starting point for this innovation. Ramping up cold chain infrastructure will greatly boost India's food and energy security.

Top energy trends from India & across the globe

Bill likely to make use of clean energy compulsory

The central government plans to introduce amendments to the Energy Conservation Act in the Parliament's monsoon session to put in place enabling provisions to make the use of clean energy, including green hydrogen, mandatory and to institute a regulatory framework for carbon trading. Once the parliament approves the Energy Conservation (Amendment) Bill, 2022, the Union government plans to issue administrative orders to implement it.

Transition from fossil fuels to renewable energy can pose fiscal challenges for India: study

According to a study by the International Institute of Sustainable Development (IISD), global transition away from fossil fuels to renewable energy sources could trigger financial challenges for India and major developing countries such as Russia, Brazil and China because of their high dependence on revenues from fossil fuel. The study finds that by 2050, overall fossil fuel revenues in Brazil, Russia, Indonesia, India and China could be as much as $570 billion lower than a business-as-usual scenario where governments fail to phase down fossil fuels enough to avoid the worst climate impacts.

14th Five-year Plan: long-term electricity scheme for Kerala mooted

An approach paper published by the Kerala State Planning Board says the 14th Plan would support the creation of a long-term electricity plan for the State that supports future expansion of power generation, transmission, and distribution. The plan will take into account the electricity requirements of various sectors including agriculture and industry. Underlining the need to increase capabilities in internal electricity generation, the approach paper observes that the State met 78% of its electricity requirement in 2020-21 through imports from other States. In fact, in some months this dependence was as high as 90%.

NTPC inks pact with Moroccan Agency for Sustainable Energy

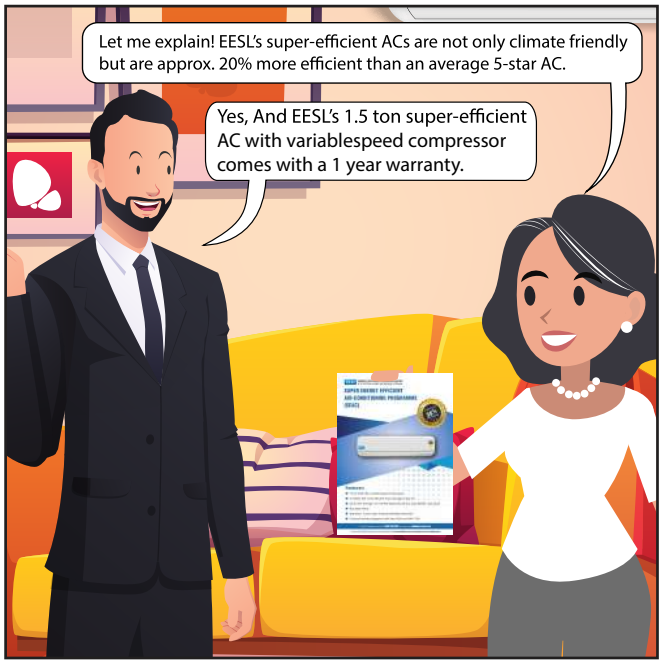
NTPC has inked a pact with Moroccan Agency for Sustainable Energy (MASEN) for cooperation in renewable energy. The MoU between NTPC and MASEN, which are pioneers in the field of renewable energy generation, promises to usher in the joint development of utility scale projects based on renewable energy in Africa. Through this cooperation, it is intended to support services for capacity building, share experience, know-how and expertise in the areas of mutual interest, especially in the field of research and development. The cooperation may witness NTPC and Masen exploring common development opportunities in renewable energy power projects in other African Countries.

India preparing to submit new climate targets to UN ahead of COP27 talks

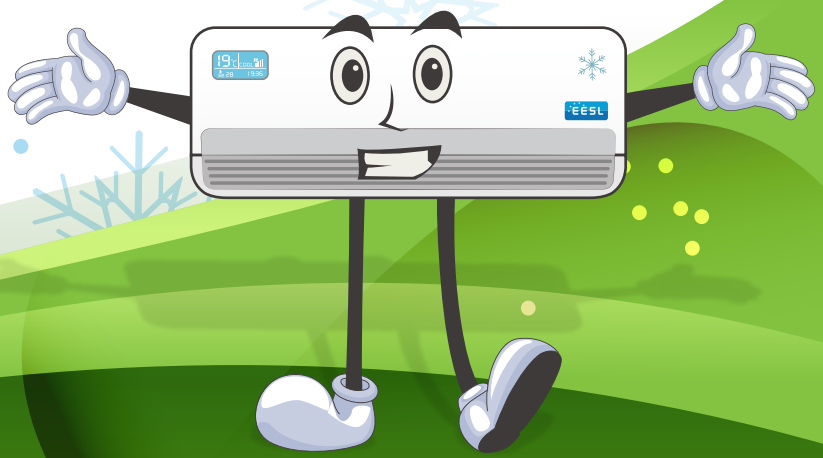
India is set to finally submit official plans to cut emissions to the United Nations, as one of the world's largest polluters backs away from a threat to withhold more climate commitments until rich nations provide more funds for poorer countries. The South Asian country is preparing to put forward the document - an obligation under the Paris Agreement - in September, just weeks before crucial COP27 climate talks in Egypt. The official commitment would come close to a year after countries were told to submit updated targets by the UN before last November's summit in Glasgow.

U.S. to seek dispute settlement talks with Mexico over energy policy-sources

The United States will request dispute settlement consultations with Mexico under a regional trade deal over what it considers discriminatory Mexican energy policies. The consultations relate to measures taken by Mexico which the U.S. Trade Representative argues undermine American companies in Mexico and U.S.-produced energy in favor of Mexican state-owned power utility Comision Federal de Electricidad (CFE) and oil firm Petroleos Mexicanos (Pemex). Mexican President Andres Manuel Lopez Obrador, a left-leaning energy nationalist, has pledged to revive Pemex and CFE, which he believes his predecessors deliberately "destroyed" to leave the market in the hands of foreigners



SUPER ENERGY EFFICIENT AIR-CONDITIONING PROGRAMME (SEAC)



Monthly Highlights

EESL India @EESL_India

We organised a consultation workshop on @beeindiadigital's Demonstration of Energy Efficiency Project for Perform, Achieve and Trade (PAT) sector industries. DEEP will increase profitability & help industries in achieving their Specific Energy Consumption (SEC) reduction targets.

EESL India @EESL_India · 19h
Replying to @EESL_India
Under DEEP, we've been entrusted with providing support to PAT industries for the demonstration of #EnergyEfficient technologies & enable market transformation for such innovative technologies. @MinOfPower @OfficeOfRKSingh @ntpclimited

EESL India @EESL_India · 19h
Going forward we are also planning to introduce more #energyefficiency solution for varied sectors and help India achieve its climate action goals. @CEO_EESL @gyltsen @Girija_eesl

EESL India @EESL_India · 1h
The interactive session was led by EESL's Mr. Jaspal Singh Aujla, CGM (Tech) & Ms. Harleen Sachdev, Head (Human Resources). It was focused on the importance of optimum utilization of #energy without compromising on comfort. @CEO_EESL @ConvergenceEESL @WorldBank

EESL India @EESL_India

Andhra Pradesh Chief Minister Shri @ysjagan reviewed the progress of housing scheme & further inspected EESL's #EnergyEfficient fans, #LED bulbs & tube lights which will be installed in the new houses being constructed in Jagananna Colonies. Read More:

thehindu.com
Andhra Pradesh: CM tells officials to expedite construction work in Jagananna ...
'Draw alternative plans for sites mired in litigation by August first week'

EESL India @EESL_India

During our meeting with Hon'ble CM of Andhra Pradesh @ysjagan, our team spoke about cost & energy saving benefits associated with #energyefficiency appliances under #UJALA @PMOIndia @MinOfPower @beeindiadigital @APStateHousing

EESL India @EESL_India · Jul 11
Replying to @EESL_India
With this programme, we have enabled universal access to affordable & energy efficient #LED bulbs, tubelights, & fans. These appliances have significantly reduced electricity bills & resulted in #GHG emission reduction of 39.20 million t CO2 per year
@OfficeOfRKSingh

EESL India @EESL_India

We hosted the first workshop along with @beeindiadigital for DEEP project in association with Gujarat Energy Development Agency (GEDA), and State Designated Agencies of state of Rajasthan, Maharashtra, Madhya Pradesh & Goa.
@gedagandhinagar @beeindiadigital

EESL India @EESL_India · Jul 13
Replying to @EESL_India
Demonstration of #EnergyEfficiency Projects' is aimed at implementation & adoption of innovative technologies, deploying large-scale implementation of #EnergyEfficiency measures in PAT industries & expand the learnings of demo projects of identified technologies. @MinOfPower

EESL India @EESL_India · Jul 13
Through DEEP, we will continue our collaborative efforts to help India meet its #ClimateAction goals. @Girija_eesl @SnwetalPShah

EESL India @EESL_India · Jul 8
We have set up a new consumer support cell in partnership with @Ghmcassistance for efficient maintenance of streetlights in #Hyderabad. #SLNP #UjjwalBharatUjjwalBhavishya2047 @MinOfPower @OfficeOfRKSingh @RaviBhu50463822 @Savitri38497958 bit.ly/3bZI8Fa

EESL India @EESL_India

We organised a 'Stakeholders Meeting' for modification in existing technical specification of Centralized Control Monitoring Systems (CCMS) under our Street Lighting National Programme #SLNP.
@MinOfPower @OfficeOfRKSingh

EESL India @EESL_India · Jul 19
Replying to @EESL_India
These modifications will further improve the quality and performance of our #LED streetlights. EESL is looking to procure CCMS of the highest standards as available in the market.

EESL India @EESL_India

In the presence of Deputy CM of Uttar Pradesh, Shri @kpmaurya1 and U.P. Minister of Gramin Vikas, Shrimati @VijayLaxmiMLA, our @CEO_EESL, Shri Arun Kumar Mishra & Managing Director of UPSRLM, Shri @bhanu_ias exchanged the Memorandum of Understanding. @OfficeOfKPM @Prerna_UPSRLM

EESL India @EESL_India

.@NPC_INDIA_GOV organised 'Internal Auditor's Training' workshop on Integrated Management Systems for our employees. The auditors received training from Mr. G Savanan, Group Head, Industrial Engineering & Head - Quality Management System, to better understand the 4 ISO standards.

EESL India @EESL_India · 1h
We're delighted to launch Gram Panchayat #LED Street Lighting Project in #Telangana. We'll retrofit around 7.9 lac #energyefficient LED streetlights in 12,753 Gram Panchayats. We are thankful to the state for extending this opportunity to us!
@MinOfPower @TelanganaCMO

EESL India @EESL_India · 1h
The project is a step in the right direction for empowering the rural community of #Telangana with well-lit streets & an improved standard of living
@DayakarRao2019 @CEO_EESL @PIB_India @venkat_dwivedi
@Savitri38497958
#LEDingEfficientIndia
#UjjwalBharatUjjwalBhavishya

ENERGY EFFICIENCY SERVICES LIMITED
A JV of PSUs under the Ministry of Power

Transforming
for a sustainable future

Vision

- Universal access to sustainable energy solutions
- Enable a low carbon future
- Economic and Social impact

With innovation in technology & business models and a passion to help the nation cut down its carbon emissions, we, at EESL, are making a difference by making clean energy and energy efficiency accessible and affordable.

Let's do more with energy • Energy Security • Sustainability • Self- reliance

Powering our vision with initiatives that make sustainable energy accessible

- Energy Efficient Domestic Appliances
- Industrial Energy Efficiency
- Building Energy Efficiency
- LED Street Lighting
- Retrofit of Air-Conditioning and Ventilation Systems
- Smart Metering
- Electric Mobility
- Charging Infrastructure for EVs
- Trigeneration
- Decentralised Solar Power Plants

- Building Energy Efficiency Programme (BEEP)
- Agriculture Demand Side Management (AgDSM) Programme
- Atal Jyoti Yojna (AJAY)
- International Operations
- GEF-5 & GEF-6
- National Motor Replacement Programme (NMRP)
- RAISE
- BLDC Fan

For more information, please contact us:

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