

# बीईई लाईन



Issue-18, January'23 - March'23

समाचार पत्रिका

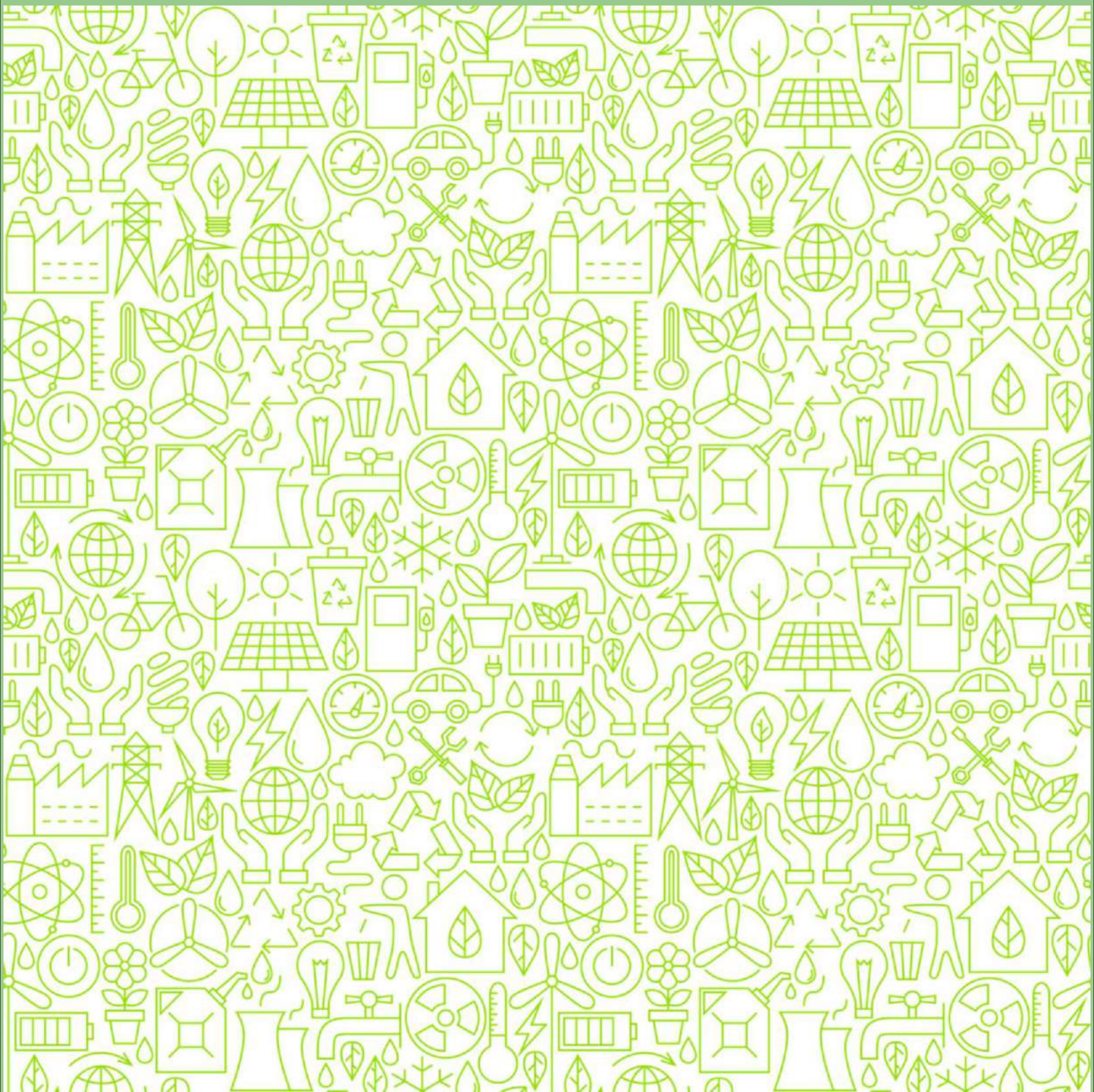


# BEE LINE

NEWSLETTER



- › India Energy Week
- › Nurture Nature
- › BEE Foundation Day



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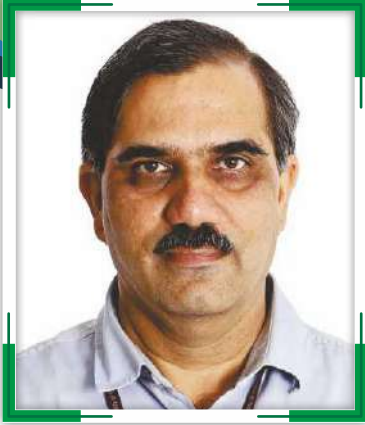


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**अस्वीकरण:** सर्वाधिकार सुरक्षित। इस पुस्तिका की सामग्री के इस्तेमाल के सभी अधिकार ऊर्जा दक्षता ब्यूरो (BEE) के पास सुरक्षित हैं। इसमें शामिल सामग्री का कोई भी भाग प्रकाशन की पूर्व अनुमति के बिना किसी भी माध्यम, इलेक्ट्रॉनिक, मैकेनिकल, फोटोकॉपी, रिकॉर्डिंग या अन्य किसी तरीके से इस्तेमाल नहीं किया जा सकता। इस सामग्री के अनधिकृत उपयोग पर कानूनी कार्रवाई की जा सकती है।

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**अभय बाकरे**

महानिदेशक, बीईई

**Abhay Bakre**

Director General, BEE



## DG MESSAGE

During the Amrit Kaal, the BEE witnessed fascinating events that have the potential to transform the country and make India Vishwa Guru as we head towards achieving net zero emissions.

We observed India Energy Week where Hon'ble Prime Minister Narendra Modi listed four main verticals of India's strategy in the energy sector, stressing on the importance of harnessing the power of technology in scripting the growth story of the country.

India Energy Week aptly showcased industry prowess in dealing with the challenges. Hundreds of delegates and exhibitors expressed their commitment to align with BEE's mission in dealing with the energy challenges and be a part of the energy transition making India into a green powerhouse.

Energy is the catalyst of a brighter future. We must leverage it to help our future generation lead a good lifestyle, only then, we can nurture nature in a great way. The concept of a Smart Home is quite relevant in today's times where the agenda is to utilise energy in the most efficient way. As new innovations are continuously evolving, a Smart Home can automate technology for security, convenience, comfort and energy saving appliances. This year, we have celebrated not only our 21 years of existence, but also a decade of the successful implementation of the Perform, Achieve and Trade Scheme. This Scheme was designed to reduce Specific Energy Consumption (SEC) in energy intensive industries, with an associated market based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded. The completion of 10 years of this scheme has reduced carbon emissions and lead to energy conservation.

BEE is striving to make 'Lifestyle for Environment' sustainable lifestyle campaign a mass movement towards deliberate and mindful utilization instead of mindless and destructive consumption. LIFE puts individual and collective duty on everyone to live a life that is in tune with Earth and does not harm it. BEE effectively promotes eco-homes for energy conservation and decreasing CO<sub>2</sub> emissions for sustainability needs and controlling global warming.

During India's G20 leadership era, BEE express its commitment to strive to make India cleaner and greener and be the torchbearer of climate change.



**आर.के. राय**  
सचिव, बीईई  
**R.K. Rai**  
Secretary, BEE



## SECRETARY MESSAGE

The Bureau of Energy Efficiency truly energises India's energy sustainability efforts. Twenty years young, it has developed strategies with a thrust on self-regulation.

It is a moment of pride as BEE commemorated its twenty-first Foundation Day programme on March 1, by organising National Innovation Conclave on Low Carbon Technologies. It provided a platform to present the innovations showing benefits of energy savings and greenhouse gas emission reduction potential when deployed at a large scale in industrial and commercial sectors.

As energy consumption norms and standards are set by the BEE for energy intensive industry sectors, it invigorates itself and functions in a gender equitable environment.

The BEE enthusiastically celebrated International Women's Day. In order to ensure all women participation essay writing and other activities were organised.

The energy eminent experts appreciated its women employees by distributing medicinal plants. On this occasion, the women employees shared their views and opinions on what changes can be brought about. The winners of essay writing were felicitated by Hon'ble Director General Shri Abhay Bakre in the presence of other senior officers.

BEE has a track record of creating awareness regarding energy conservation among the general public. It is of immense importance for all of us to take steps in the direction of Energy conservation. Its efforts in all spheres including gender equality and making the country greener and cleaner need to be applauded.



## India Energy Week - 2023

### REFORMS ARE CREATING AN ASPIRATIONAL SOCIETY



Power Pavilion at IEW 2023, Bengaluru

India aspires to explore and harness the power of technology while developing standards to control potential risks. As geographical territories are obliterated due to man-made catastrophes and large human populations are displaced; there is no denying that Climate Change is the single most defining issue of our time.

The problem is global in scope and unprecedented in scale. It is our actions, no matter how seemingly small or big, will impact our present and future generations! With this in mind, Hon'ble Prime Minister Narendra Modi inaugurated the India Energy Week 2023 in Bengaluru in the first week of February.

India Energy Week held under the patronage of the Ministry of Petroleum & Natural Gas, Government of India, and officially supported by the Federation of Indian Petroleum Industry (FIPI), India Energy Week convened

more than 500 international speakers, over 30,000 energy professionals and 8,000 international delegates from more than 100 countries, to discuss India's pioneering approach towards diversifying its energy mix. The India Energy Week Exhibition attracted more than 650 exhibiting companies at the Bangalore International Exhibition Centre (BIEC), between 6 – 8 February 2023.

As India emerges as the epicentre of the global energy landscape and the energy sector represents one of the most critical components of India's growth, the success of



Secretary (Power), Government of India being greeted at the Pavilion



LED panels on display at IEW

India Energy Week 2023 has showcased India's achievement as a catalyst for global economic growth with billions of dollars of investment needed to facilitate India's energy transition and achieve its net-zero goals.

Strategically positioned for global collaboration, India Energy Week follows the Honourable Prime Minister Narendra Modi's pledge at COP26 to cut India's emissions to net-zero by 2070. As the first major event under India's G20 Presidency, India Energy Week 2024 will showcase India as a global powerhouse for energy transition.

India is projected to witness the largest increase in energy demand of any country over the next two decades, as its economy continues to grow and create opportunities for its people to fulfil their potential.



- India's share in global energy consumption will rise from 7% to 14% by 2050
- IEA predicts India will account for 25% of energy demand growth from 2020 to 2040

- India's oil and gas demand will triple by 2050
- Gas consumption to grow threefold by 2030
- Share of gas in energy mix to rise from 6.3% today to 15% by 2030

Prime Minister Modi said, "India is one of the strongest voices in the world for energy transition and for developing new resources of energy. Unprecedented possibilities are emerging for energy sector in India that is moving with a resolution of a Viksit Bharat."



Glimpse of Power Pavilion, IEW 2023

The Prime Minister explained four major verticals for the strategy for the energy sector. First, increasing domestic exploration and production, diversifying the supply, and third, expanding fuels like biofuel, ethanol, compressed biogas and solar. Fourth, decarbonisation via electric vehicles and hydrogen.

India Energy Week aptly showcased India's rising prowess as an energy transition powerhouse. This is why, it is important to lend a voice and effort towards mitigating the impact our choices have on the planet.



## BEE's Facilitation Centre

Bureau of Energy Efficiency (BEE) has set-up an online Facilitation Centre for encouraging and up-scaling Energy Efficiency Financing in the country. This online portal (<https://www.adeetie.beeindia.gov.in/>) was launched in November 2022. Borrowing units can fill online application forms seeking funding support to implementation of Energy Efficiency projects in their facilities.

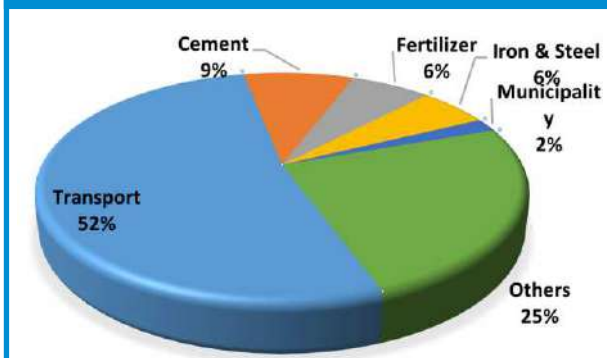
### Borrowing Units

Till March 2023, Facilitation Centre received willingness forms from more than 180 borrowing units from various industries including large industries (PAT DCs/Non-DCs), MSMEs and ESCOs having total Project Cost over ₹2,800 crore. Six projects of more than ₹640 crore from various sectors have been financed. The category-wise break-up and sector-wise project cost sharing is provided as below:

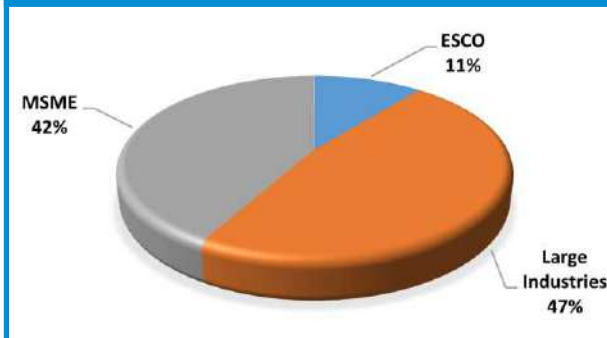
### State wise willingness forms received

States	Projects (No.)	Total Project Cost (₹Lakh)
Andhra Pradesh	28	41230
Arunachal Pradesh	10	359
Assam	2	50
Bihar	13	2574.85
Chhattisgarh	1	NA
Goa	1	60
Gujarat	8	72890
Haryana	8	6244
Telangana	7	14957
Jharkhand	1	5000
Karnataka	7	7136
Kerala	24	NA
MP	5	139.9
Maharashtra	30	23635
New Delhi	2	62372
Odisha	5	8228
Punjab	7	4413
Rajasthan	3	718
Tamil Nadu	8	1873.25
Uttar Pradesh	21	27808.37
Uttarakhand	7	3094
West Bengal	2	165
<b>Total</b>	<b>200</b>	<b>282947.37</b>

STATE WISE WILLINGNESS FORMS RECEIVED



CATEGORY-WISE BREAK UP OF WILLINGNESS FORMS





## Facilitation Centre – List of Energy Efficient Technologies

A comprehensive list of EE Technologies has been prepared by the Facilitation Centre in consultation with experts of technical committee formed by BEE meet every month to discuss and update the technology list.

The list of EE technologies includes the basic parameters that FIs take into consideration, such as proposed energy savings in percentage as well as in monetary terms, average cost of investment and payback period.

Till March 2023, BEE released the list of 151 EE Technologies for financing. This list can be downloaded from the BEE website (Link: <https://beeindia.gov.in/latest-news/bees-list-energy-efficient-technologies-financing>).

Sl. No.	Banks /NBFCs	Sl. No.	Banks /NBFCs
1	Bank of Baroda	12	IndusInd Bank
2	Bank of India	13	IREDA
3	Canara Bank	14	Karnataka Bank
4	Central Bank of India	15	Kotak Mahindra Bank
5	cKers Finance	16	PFC
6	Exim Bank	17	Punjab & Sind Bank
7	Federal Bank	18	Punjab National Bank
8	HDFC Bank	19	SBI
9	HSBC	20	SIDBI
10	IIFCL	21	Tata Capital
11	Indian Bank	22	Yes Bank

**For more queries on Facilitation Centre, please contact on:**

**Email ID:** [facilitation-centre@beeindia.gov.in](mailto:facilitation-centre@beeindia.gov.in)

**Phone No.:** 011- 26766813, 26766700 (09:30 am - 06:00 pm)



## अंतरराष्ट्रीय महिला दिवस

अंतरराष्ट्रीय महिला दिवस प्रति वर्ष 8 मार्च को पूरे विश्व में महिलाओं के प्रति सम्मान और आदर प्रकट करते हुए, महिलाओं के आर्थिक, राजनीतिक और सामाजिक उपलब्धियों और कठिनाइयों की सापेक्षता के उपलक्ष्य में उत्सव के तौर पर मनाया जाता है। इसका उद्देश्य महिलाओं को बराबरी के दर्जे को समाज में स्वीकार्य कराना है, जिससे उन्हें किसी भी अधिकार से वंचित न किया जाए। उनके साथ किसी भी क्षेत्र में भेदभाव न किया जाए। इसे संयुक्त राष्ट्र द्वारा चयनित राजनीतिक और मानव अधिकार विषयवस्तु के साथ महिलाओं के राजनीतिक एवं सामाजिक उत्थान के लिए मनाया जाता है।

सर्वप्रथम इस दिवस को मनाने की शुरुआत वर्ष 1908 में अमेरिकी समाजवादी और श्रमिक आंदोलनों से हुई थी। जब न्यूयॉर्क शहर में 15 हजार महिलाओं ने काम के घंटे कम करने, बेहतर वेतन और वोट देने की मांग के साथ विरोध प्रदर्शन निकाला था। इसके 1 साल बाद अमेरिकी सोशलिस्ट पार्टी ने पहली बार राष्ट्रीय महिला दिवस मनाने की शुरुआत की थी लेकिन इस दिन को अंतरराष्ट्रीय बनाने का विचार क्लारा जेटकिन नाम की महिला के दिमाग में सबसे पहले आया था। उन्होंने अपना ये आइडिया 1910 में कोपनहेगन में आयोजित इंटरनेशनल कॉन्फ्रेंस ऑफ वर्किंग वीमेन में दिया था। इसके बाद अंतरराष्ट्रीय महिला दिवस पहली बार 1911 में ऑस्ट्रिया, डेनमार्क, जर्मनी, स्विट्जरलैंड में मनाया गया। अंतरराष्ट्रीय महिला दिवस को औपचारिक मान्यता 1975 में उस समय मिली, जब संयुक्त राष्ट्र ने भी ये उत्सव मनाना शुरू कर दिया। इसका शताब्दी आयोजन वर्ष 2011 में मनाया गया था। संयुक्त राष्ट्र द्वारा हर साल अंतरराष्ट्रीय महिला दिवस की थीम निर्धारित की जाती है। जिसमें पहली थीम 'सेलिब्रेटिंग द पास्ट, प्लानिंग फॉर द फ्यूचर' 1975 में निर्धारित की गई थी। यह थीम उस समय के वर्तमान स्थिति को देखते हुए दिया जाता है। इसी क्रम में इस वर्ष 2023 के अंतरराष्ट्रीय महिला दिवस की थीम 'एम्ब्रेस इक्विटी' रखी गई है, जिसका अर्थ है लैंगिक समानता पर ध्यान देना।

इस दिन महिलाओं के अधिकारों की तरफ लोगों का ध्यान आकर्षित करने और उन्हें जागरूक करने के मकसद से कई कार्यक्रम और अभियान भी आयोजित किए जाते हैं। प्रति वर्ष की तरह इस वर्ष भी अंतरराष्ट्रीय महिला दिवस आठ मार्च को मनाया गया। इस बार अंतरराष्ट्रीय महिला दिवस भारत में होली के रंग में



महिला कर्मचारियों को पौधा देकर किया सम्मानित



बीईई ने महिला दिवस पर नारी शक्ति को किया प्रणाम

रंगा हुआ था। इस खास अवसर पर महिलाओं के अधिकारों के प्रति लोगों को जागरूक करने के लिए कई कार्यक्रम और कैंपेन भी आयोजित किए गए। इसी कड़ी में बीईई (ऊर्जा दक्षता ब्यूरो) ने भी अंतरराष्ट्रीय महिला दिवस को उत्साहपूर्वक मनाया। आयोजन को रोचक बनाने के लिए बीईई की सभी महिला कर्मचारियों ने निबंध लेखन और अन्य गतिविधियों में भाग लिया और बीईई की सभी महिला कर्मचारियों को औषधीय पौधे बांटकर पर्यावरण बचाने का संदेश भी दिया गया। इस अवसर पर महिला कर्मचारियों ने अपने विचार और राय भी साझा की कि क्या बदलाव लाए जा सकते हैं। निबंध लेखन के विजेताओं को अन्य वरिष्ठ अधिकारियों की उपस्थिति में माननीय महानिदेशक श्री अभय बाकरे ने सम्मानित किया।



महिला कर्मचारियों को पौधा देकर किया सम्मानित





## January 2023 - New and Powerful BEEginnings



Officials at the Sectoral Advisory Meet

### Sectoral Advisory Meet for Iron & Steel Sector

On 5th January, 2023, the first Sectoral Advisory Meet (SAM) for the Iron and Steel sector was held. A discussion was done on various topics such as low carbon technologies, new R&D projects ongoing in the steel sector, hydrogen mission and its utilisation in steel.

### Training Workshops for Financial Institutions - Bengaluru

Bureau of Energy Efficiency (BEE) and the National Power Training Institute (NPTI) conducted a workshop on Energy Efficiency Financing from 5th-6th January 2023 at NPTI (PSTI) Bangalore, Karnataka. 29 participants from various banks attended the event. The workshop covered topics like energy efficiency projects, financing needs, and risk management. Participants visited Infosys Crescent Building, the most energy-efficient building in India, and learned about its Chiller Plant, Sewage Treatment Plant, and Smart Lighting and Parking Management System.



Participants visiting Infosys Crescent Building and Chiller Plant

## Training Workshop on EE - Alappuzha, Kerala

The Bureau of Energy Efficiency (BEE) in association with the National Power Training Institute (NPTI) organized the fourth training workshop (Phase- III) to train the officials of Banks/NBFCs on Energy Efficiency Financing. This workshop was held from 19th-20th January 2023 at NPTI, Alappuzha, Kerala. The purpose of the workshop was to cover various significant features of energy efficiency projects, business models, financing needs, risk management approaches, etc. and also discussed the energy efficiency schemes of BEE. The trainees got an opportunity to visit M/s Travancore Cochin Chemicals (TCC), Udyog Mandal, Cochin, Kerala on 19th January 2023 while the team of FIs visited various units of the Plant where EE technologies have been adopted like HCL Synthesis unit with steam co-generation; multi-fuel boiler; 125 TPD Membrane Cell Plant etc.



Participants visiting TPD Membrane Cell Plant, Cochin

## Two days Regional Meet for SDAs of Western Region in Maharashtra

MEDA and BEE organized a two-day Regional Meet in Pune from 24th-25th January 2023 to review the physical and financial progress of six SDAs from Western India. Discussions were held on State Energy Efficiency Action Plans, Stand Alone SDAs, LiFE mission targets, and fund utilization under Central Sector Schemes. The summit was attended by officials from BEE, MEDA, and the SDAs.

## Nurture Nature Exhibition

The Bureau of Energy Efficiency participated in the Nurture Nature Exhibition, held in Bengaluru from January 29 to January 31. In the event, the concept of a Smart Home with a BEE Smart Home pavilion featured with panels, corporate films, and brochures were represented. The Smart Home consisted of energy-efficient appliances such as ceiling fan, refrigerator, microwave, Scotty, and much more. The purpose was to show how energy conservation can be done at home. Power Foundation of India's (PFI) Director General and Ex-Secretary (Ministry of Power) Sanjiv Nandan Sahai inaugurated BEE Smart Home Pavilion at the Nurture Nature Exhibition.



Ministry officials visiting BEE stall



## February 2023 - Energised to Perform

### Review Meet for SDAs at Vishakhapatnam, Andhra Pradesh



Regional Conclave, Vishakhapatnam

The Regional Conclave for SDAs was held on 2nd & 3rd February, 2023 in Vishakhapatnam, Andhra Pradesh. Its objective was to inform SDAs about the latest developments on energy efficiency and review ongoing activities under different BEE schemes. The Summit discussed the State Energy Efficiency Action Plan, establishment of Stand Alone SDAs, LiFE mission targets, and the utilization of funds under all programs.

### BEE participates in India Energy Week 2023

As a part of India's G20 presidency, BEE under the Ministry of Power participated in the India Energy Week 2023 which was conducted from 6th - 8th February 2023. The event was inaugurated by the Hon'ble Prime Minister of India. An exclusive pavilion was created for this event. It witnessed a participation of more than 30000 attendees and 90000 visitors.



Power Pavilion, IEW 2023

## Investment Bazaar - Bhubaneswar, Odisha



Launch of EE Financing Brochure



EIC-cum-PCEI & SDA (Odisha), in association with BEE, Gol, organized a one-day conference on “Investment Bazaar for Energy Efficiency” on 7th February, 2023 at Bhubaneswar, Odisha. The event was inaugurated by distinguished guests and received an overwhelming response from over 100 attendees from diverse backgrounds. The event featured the launch of a brochure on EE financing, recognition of contributors in EE financing, and showcased 5 bankable projects with over ₹ 123 cr investment potential.

## Investment Bazaar - Varanasi, Uttar Pradesh

Uttar Pradesh New & Renewable Energy Development Agency (UPNEDA), in association with BEE, the Government of India organised a one-day conference on Investment Bazaar for Energy Efficiency. it was held on 8th Feb 2023 at Varanasi, Uttar Pradesh. In this event, tokens of recognition were given to SBI, PNB, BOB, SIDBI, Union Bank, BUP Gramin Bank, etc. for their contribution to EE Financing and for participating in this event. The interesting part of the event was the showcasing of 5 bankable projects with more than ₹ 935 Lakhs investment potential.



Officials inaugurating the Investment Bazaar and conference in progress

## Roundtable discussion on market surveillance of S&L Programme



BEE, Secretary and Director with participants at the round table conference

BEE with support from CLASP Appliances organized a roundtable discussion. It was attended by Secretary, BEE, and Director (S&L). The purpose of the discussion was to share the findings of the pilot study on market surveillance of the S&L programme and introduce draft guidelines for market surveillance.

## Investment Bazaar - Trivandrum, Kerala



Officials from DCs, Industries and Financial Institutions, at Investment Bazaar at Trivandrum

On 14th February 2023, a one-day conference on Investment Bazaar for Energy Efficiency was organized by EMC Kerala, in association with BEE at Hotel Apollo Dimoro, Trivandrum, Kerala. More than 100 distinguished guests from various backgrounds like DCs, Industries, Financial Institutions, etc were a part of this event. Many stalls were put up by Industries and Financial Institutions to showcase their energy-efficient technologies and schemes. In this event, 5 Bankable projects were showcased.



Snapshots of the Investment Bazaar



## Workshop on Partnership to Support an Accelerated Transition to Zero Emission Vehicles in India

The first ever workshop of the newly launched 'Partnership to Support an Accelerated Transition to Zero Emission Vehicles in India', was held under the chairmanship of Shri Suman Bery, Vice Chairman, NITI Aayog. It was held on 21st February 2023. The workshop was attended by representatives of the Govts of India, UK, & US. Shri Sameer Pandita, Director, BEE spoke about initiatives taken by the Ministry of Power to create an affordable, reliable, safe, & accessible infrastructure for public EV charging in the country. The purpose of the workshop was to discuss the future of the G20 Summit and COP28.



UK, USA and GOI representatives at the workshop

## Regional Meet in Varanasi, Uttar Pradesh



Secretary BEE with SDAs

A Regional Meet was held in Varanasi from Feb 24 to Feb 25, 2023 with Uttar Pradesh New and Renewable Energy Development Agency. The aim was to update SDAs on recent developments in energy efficiency and review ongoing activities. The meeting discussed the way forward for the State Energy Efficiency Action Plan, Establishment of Stand Alone SDA, Establishment of State Level steering committee, and reviewed physical and financial progress made by SDAs. Large-scale projects on solar cooking, solar charging, and net-zero energy were recommended, and a presentation was made on IOCL's clean cooking project and Energy Club activities.



Participants at the meet



## March 2023 - An Empowering Month of Success & Celebration

### BEE celebrates Foundation Day and Decade of PAT Scheme



Hon'ble Minister Shri R K Singh felicitating a DC



Glimpse of the Foundation Day

The Bureau of Energy Efficiency (BEE), commemorated its 21st Foundation Day on 1st March, 2023 and also celebrated the completion of 10 years of the PAT Scheme. Shri Abhay Bakre, Director General of BEE discussed about the impact of Perform, Achieve and Trade Scheme. An MoU was signed with DCs with EESL for technology deployment under DEEP Project. Shri R.K. Singh, Hon'ble Union Minister of Power and Renewable Energy launched the Voluntary Star Labelling Program for Multi-Door Refrigerator, Table/Wall Mounted and Pedestal Fans and Induction Hub. He also launched the iDEEKSHA portal and released the Flyer and Newsletter of BEE. Later, the Hon'ble Union Minister of Power and Renewable Energy the top performer DCs under PAT Cycle II. The event concluded with a vote of thanks by Shri Abhay Bakre, Director General of BEE.

### Training Workshop for Financial Institutions - Nagpur, Maharashtra



Participants attending the training workshop

The Bureau of Energy Efficiency (BEE) in association with the National Power Training Institute (NPTI) organized the fifth training workshop to train the officials of Banks/NBFCs on “Energy Efficiency Financing” from 2nd -3rd March 2023 at NPTI, Nagpur, Maharashtra.



Officials and team of FIs



The purpose of the workshop was to cover significant features of energy efficiency projects, business models and grading of EE Projects, EE programs run by MEDA, and the investment potential of EE in Maharashtra. A discussion on the energy-efficient schemes of BEE was also held. As a part of the training workshop, the trainees visited M/s NTPC, Mauda Super Thermal Power Station, Nagpur, Maharashtra. The team of FIs visited various sites in this plant where EE technologies have been adopted and participated in the discussion.

## Investment Bazaar - Chhatrapati Sambhajnagar, Maharashtra



SDA and PAT Cell members attending one day conference on Investment Bazaar at Chhatrapati Sambhajnagar

On 10th March 2023, a one-day conference on Investment Bazaar for Energy Efficiency Financing was held. It was organised by the Maharashtra Energy Development Agency (MEDA), Govt. of Maharashtra. The program was attended by the officials from BEE Director (online), SIDBI, SDA, and PAT Cell Members & by various Industries, Banks, Energy Auditors and ESCOs. More than 70 delegates attended the event. An investment potential of more than Rs. 50 crores were also identified prima facie and got 7-8 willingness forms from various industries with a commitment to get more demands for funding by local industries.



## Investment Bazaar - Namsai, Arunachal Pradesh



Participants from MSME, Bricks sector, Hotel, Tea Industry and different banks attending the Investment Bazaar at Namsai

The Bureau of Energy Efficiency (BEE) in collaboration with the Arunachal Pradesh Energy Development Agency (APEDA) organized the “Investment Bazaar for Energy Efficiency Financing” on 10th March 2023 at Namsai, Arunachal Pradesh. More than 45 participants from MSME, Bricks sector, hotel, tea industry and different banks attended the workshop. NABARD & SIDBI also shared a presentation on Green Financing Scheme and PRSF Scheme. More than ₹ 3 crore EE projects were identified in this workshop.

## Investment Bazaar - Kochi, Kerala



Officials from BEE, SIDBI, EMC attending the Investment Bazaar at Kochi

EMC Kerala, in association with BEE, successfully organized a one-day conference on “Investment Bazaar for Energy Efficiency” on 14th March 2023 at Hotel Abad Plaza, Kochi. The event was attended by officials from BEE, SIDBI, EMC, PAT cell members, and various industries. Shri Paul Antony IAS (Rtd) inaugurated the event along with other notable personalities. 5 bankable projects were showcased during the event.

## Investment Bazaar - Kozhikode, Kerala



Officials from DCs, Industries and Financial Institutions attending Investment Bazaar Kozhikode

On 16th March, 2023, BEE in association with EMC Kerala organised a one day Investment Bazaar for energy efficiency at Hotel Manuelsons Malabar Palace, Kerala. More than 70 distinguished guests from various backgrounds such as DCs, Industries and Financial Institutions attended the event. Energy efficient technologies and schemes were showcased in the stalls set up by the industries and financial institutions. 13 Willingness Forms were received in the event.

## Workshop on Energy Efficiency Financing - Guwahati, Assam



Officials from Banks and NBFCs participating the workshop on Energy Efficiency Financing at Guwahati

Bureau of Energy Efficiency (BEE) and National Power Training Institute (NPTI) organized a workshop on Energy Efficiency Financing in Guwahati, Assam on 16th & 17th March 2023. 23 officials from various banks and NBFCs participated. The workshop covered topics like energy efficiency projects, grading, and investment potential in Assam. Participants visited M/s Radisson Blu Hotel to observe the adoption of energy-efficient technologies and participated in discussions on the Building Management System and Maintenance Department.

## Regional Meet of SDAs conducted by BEE



Regional Meet attended by SDAs



Regional Meet attended by SDAs

Assam State Designated Agency in association with BEE organised a Regional Meet for Arunachal Pradesh, Mizoram, Nagaland, Assam, Tripura, Manipur, Meghalaya, Sikkim and West Bengal to review the physical and financial progress of the SDAs for the financial year 2022-2023. The objective of the meeting was a brief discussion on the current developments and to decide the future action of the State Energy Efficiency Action Plan, establishment of standalone SDAs, LIFE mission targets of all states.

## Bidding adieu to Shri Rakesh Kumar Rai



Farewell to Shri Rakesh Kumar Rai

Shri Rakesh Kumar Rai, who joined Bureau of Energy Efficiency as Secretary on 1<sup>st</sup> October, 2019 relinquished the charge to join back in the O/o Development Commissioner, Ministry of MSME as Director. On his last working day at BEE, he was felicitated by Shri Abhay Bakre, Director General, BEE for his special contribution and achievements. During his tenure with BEE, he introduced many positive changes at BEE, we were grateful to have him as a co-worker and a wonderful person whose thinking and support set new benchmarks in ensuring quality contribution towards completing the task.



## BEE observes its foundation day & decade of PAT Scheme



BEE 21st Foundation Day Ceremony

With the primary objective of reducing the energy intensity of the Indian economy, the Bureau of Energy Efficiency (BEE) came into force on March 1st, 2002 under the provisions of the Energy Conservation Act, 2001. Since then, BEE has been successfully co-ordinating with designated consumers and agencies to create awareness and disseminate information on energy efficiency and conservation.

With a decade of PAT up its sleeve, the BEE commemorated its twenty-first Foundation Day programme by organising National Innovation Conclave on Low Carbon Technologies.

There has been a significant rise in energy savings and reduction of CO<sub>2</sub> emissions in the last decade as commendable efforts have been made by industries to adopt various measures for improving energy efficiency with PAT. Implementation of various PAT cycles has led to a significant rise in energy savings and reduction of CO<sub>2</sub> emissions. Working on a market-based

mechanism that enhances the cost-effectiveness, approximately 38 lakhs energy saving certificates that can be traded have been issued in the last decade.

The concept of 'Lifestyle for the Environment (LiFE)' was introduced by Prime Minister Narendra Modi at COP26 in Glasgow. Since then over 1.7 lakh people have taken a pledge to drive LiFE as a mass movement towards "mindful and deliberate utilisation, instead of mindless and destructive consumption" to protect and preserve the environment.

Shri R. K. Singh, Union Minister of Power and New & Renewable Energy, Government of India, delivered a special address on the



Hon'ble Minister Shri RK Singh launching iDeeksha Portal

occasion. Shri R.K. Singh emphasised that there is a need to establish a robust ecosystem for innovation. “We need to help people working in this direction and fill in the gaps for bringing such technologies to the market,” he said.

With the aim to augment the use of energy efficiency solutions in the industry sector, BEE signed a Memorandum of Understanding with the Energy Efficiency Services Limited (EESL), a joint venture under the administration of Ministry of Power, to enable designated consumers (DCs) to deploy technology under the DEEP project. The MOU was signed under the PAT Scheme to improve the energy efficiency in the industry sector through demonstration of energy efficient technologies.



Hon'ble Minister Shri R.K. Singh launching the Voluntary Star Labelling Programme for Induction Hob

Shri R. K. Singh, Union Minister of Power and New & Renewable Energy, launched the Voluntary Star Labelling Programme for multi-door refrigerators, table and wall-mounted fans, pedestal fans and induction hobs. It is expected to save 11.2 billion units of electricity by 2030 and will enable the reduction of CO<sub>2</sub> emission close to nine million tonne. The program shall support



Hon'ble Minister Shri R.K. Singh launching the Voluntary Star Labelling Programme for multi-door refrigerators

India to transition towards low carbon sustainable grow and achieve its ambition by 2070.

Industrial Decarbonization and Energy Efficiency Knowledge Sharing Platform (iDeeksha), portal was also launched on the occasion. It is a joint initiative of the BEE and UK Government's Foreign, Commonwealth and Development Office (FCDO) under the Accelerating Smart Power and Renewable Energy (ASPIRE) Programme. The purpose of this Knowledge Sharing Platform (KSP) is to promote Industrial Energy Efficiency and Decarbonisation (IEED) measures through sharing of best practices and sectoral learnings.

The certificates for the selected winners of the 2019 innovation challenge were also distributed. More than 35 innovators participated in the exposition organised under the event and top performers DCs under PAT cycle II were facilitated.



Hon'ble Minister Shri R.K. Singh launching the Voluntary Star Labelling Programme for Pedestal Fans





## Capacity Building of DISCOMs

Under “Capacity Building of DISCOMs” program on Demand Side Management Scheme, BEE has organized following 4 awareness workshops on DSM action plans at DISCOMs in association with State Designated Agency (SDA).

1. Two workshops organized at Uttar Haryana Bijli Vitran Nigam Limited and Dakshin Haryana Bijli Vitran Nigam Limited in association with Renewable Energy Department, Haryana & HAREDA and State Designated Agency (Electrical Wing Chandigarh Administration). About 80 officers from UNBVN, DHBVN Haryana Electricity Regulatory Commission (HERC) and HAREDA, attended and benefited from this workshop.



Officials at the workshop for the Capacity Building of DISCOMs

2. The State Designated Agency (Electrical Wing Chandigarh Administration) Organized an Awareness Program for Engineers of Electricity Operation & Electrical Circle Chandigarh Administration on Demand Side Management Program on 22nd March 2023 at Hotel Mount View Sector 10 Chandigarh. The program was presided over by ER. C.B. Ojha Chief Engineer Chandigarh Administration. He stated that Demand Side Management (DSM) has been traditionally recognized as one of the major interventions to achieve reduction in energy demands while ensuring continuous development. As a customer strategy, DSM programs encourage the installation of end-use technologies that consume less energy, thereby reducing or shifting the customers' overall electric bill. Further, Er. Anil Dhamija, Superintending Engineer Electricity Department informed that Electricity Wing has taken various steps to increase energy efficiency like Proactive Maintenance of equipment's, Smart GRID, installation of 24213 Energy Meters in consumer premises which help real time monitoring of consumer power consumption, Reduction in Off Cycle Trip, Load Management, Improved Distribution System and thereof better, Efficient and Reliable Power quality. In last,

Er. Ranjit Singh, Head of SDA Chandigarh informed that the basic objective of the workshop is capacity building and to improve the overall energy efficiency of the Electricity Wing (DISCOM) Chandigarh, which could lead to substantial savings in the electricity consumption, thereby resulting in cost reduction/savings and ultimately reduce carbon foot print by reducing power consumption. It can also help utilities to reduce their peak power purchases on the wholesale market, thereby lowering their overall cost of operations. Around 100 Nos. of participants comprising of Sub Station Assistant, Junior Engineers, Assistant Engineers, Sub Divisional Engineers and Executive Engineers from Electricity Operation circle and Electrical Circle Chandigarh Administration participated in the said workshop.



Snapshots of the awareness campaign

3. The Renewable Energy Agency Puducherry (REAP) has organized one day awareness workshops at DISCOM namely Electricity Department, Puducherry on DSM action plan prepared based on load research survey carried out by BEE. About 45 officials from DISCOMs, REAP and implementing agency has benefited from this workshop.



Snapshots of the awareness campaign

These workshops will encourage DISCOMs to implement at least 50% of the identified DSM measures mentioned in the DSM action plans which are prepared based on load survey conducted through agency.



## Smart Homes for a better and brighter future



Display of Smart Home Model

Traditional large open-air homes have given way to small and constrained spaces with little or traditional design aesthetics.

In the world today, energy is a prized necessity increasingly becoming expensive. This essentially entails us to reshape our energy consumption habits and redesign our living and working environments to meet the human comfort level.

So, how should our future homes look like where we get more natural air and light and at the same time keep a check on the energy consumption.

Well, India apex energy body, the Bureau of Energy Efficiency, has come up with scientifically designed concept of new-age smart homes and buildings that would consume less energy and ensure better comfort and at the same time cost effective.

The BEE has redesigned the concept of

'Smart Home' in the Indian context to conserve energy. They not only allow you to have greater control of your energy use, but enable users to automate and adjust temperature, turn on and off lights according to the day timings and preferences, opening and closing window treatments based on the weather among other things.

It recently showcased the smart home concept at the Nurture Nature mega exhibition at Bengaluru in January this year.

Though the concept of Smart Home has been in existence for many decades, it has gained importance and traction in the present scenario due to the increasing dependence on appliances that are a drain on the vital resources.

With the availability of rooftop solar panels, houses have the potential of onsite generation and storage of energy. Smart



Top view of Smart Home Model

technology can also extend to kitchen appliances or outdoor or landscaping equipment too.

In addition, with the easy and cost-effective high speed computing internet data available over smart phones, reduction in sizes of IoT devices and sensors and by shifting sophisticated computing functions to cloud and development of complex algorithms to control systems has provided fresh push to the demand of smart homes, says BEE Director General Abhay Bakre.

And that's not all as new innovations are continually evolving. With the availability of rooftop solar panels, houses have the potential of onsite generation and storage of energy. Smart technology can also extend to kitchen appliances or outdoor or landscaping equipment too.

Essentially, smart homes means that appliances and devices are automatically controlled remotely from anywhere with an internet connection allowing users greater control functions including security access to the home, maintaining temperature, lighting, and a home theater remotely.

The smart home became an attraction at the exhibition and even Ministry of Power's Secretary Alok Kumar visited the BEE 'Smart Home' and was impressed with its design and concept.

Not only that a large number of delegates visited the BEE pavilion at the Nature Nurture Exhibition, who were briefed about the various Project of BEE regarding Energy Conservation. The BEE Smart Home pavilion featured panels, corporate films, brochures, and other give aways materials to showcase its wide-ranging sustainable projects and accomplishments.

The Smart Homes comply with the Eco Niwas Samhitta (ENS) that establish minimum requirements for energy-efficient designs and performance standards.

Though the Smart Home concept faces several challenges including the adoption of devices without interoperability protocols and standards, cyber security and lack of awareness among end-users about energy saving potential, BEE is determined to explore the full potential of the smart home eco-system for better and energy secure tomorrow.



Smart Home Features



## ऊर्जा परिवर्तन की दिशा में भारत अग्रणी भूमिका निभाने को तत्पर



ऊर्जा की लगातार बढ़ती मांग के साथ भारत विश्व का तीसरा सबसे बड़ा ऊर्जा खपत वाला देश है। 2021–22 में 130 करोड़ से अधिक जनसंख्या वाले भारत में प्रति व्यक्ति बिजली की खपत 1,255 kWh है जो वैश्विक औसत खपत का लगभग एक-तिहाई है।

भारत की कुल स्थापित क्षमता में गैर-जीवाश्म ईंधन आधारित उत्पादन क्षमता का हिस्सा 2022 के अंत तक लगभग 42% से बढ़कर 2029–30 तक 64% से अधिक होने की संभावना है। इससे बिजली उत्पादन में जीवाश्म ईंधन पर निर्भरता कम होगी और सौर और पवन जैसे बिजली के वैकल्पिक स्रोतों को बढ़ावा मिलेगा।

भारत ने भू-राजनीतिक चुनौतियों के बीच जटिल जलवायु और ऊर्जा संकट के दौर में जी20 की अध्यक्षता ग्रहण की है। दुनिया ऊर्जा की कीमतों और बाजारों में अस्थिरता के साथ ऊर्जा आपूर्ति में कमी और कटौती का सामना कर रही है।

2022 में बाली में आयोजित जी20 के इंडोनेशिया शिखर सम्मेलन में जिन बातों पर ध्यान आकर्षित किया गया था, उसके अनुरूप ऊर्जा प्रणालियों को तेजी से बदलने और विविधता लाने के साथ ऊर्जा सुरक्षा और लचीलेपन को आगे बढ़ाने की आवश्यकता है। जिसकी सहायता से लंबे समय के लिए, टिकाऊ, उचित, किफायती और समावेशी ऊर्जा परिवर्तन और टिकाऊ निवेश के प्रवाह को अपनाकर, जलवायु संबंधी चिंताओं को दूर करें।

देश ने जलवायु परिवर्तन के खतरे को देखते हुए वैश्विक सहभागिता को मजबूत कर नई उपलब्धि



और योगदान को बढ़ाने की प्राथमिकता के साथ प्रधानमंत्री श्री नरेंद्र मोदी के नेतृत्व में, भारत ने 2070 तक 'नेट जीरो एमीशन' प्राप्त करने का लक्ष्य घोषित किया है। भारत 2030 तक अपने सकल घरेलू उत्पाद की उत्सर्जन तीव्रता को 45% तक कम करने के लिए प्रतिबद्ध है, और 2030 तक गैर-जीवाश्म ईंधन-आधारित ऊर्जा संसाधनों से लगभग 50% संचयी विद्युत ऊर्जा स्थापित क्षमता प्राप्त करने के लिए प्रतिबद्ध है।

ऊर्जा परिवर्तन के सहभागी के रूप में, भारत सरकार ने कोयले जैसे पारंपरिक जीवाश्म-आधारित स्रोतों के बजाय स्वच्छ और हरित ऊर्जा स्रोतों की ओर पीढ़ीगत बदलाव को बढ़ावा देने के लिए कई योजनाएं और पहल शुरू की हैं।

भारत सरकार ने ऊर्जा दक्षता ब्यूरो (बीईई) के माध्यम से ऐसी योजनाएं लागू की हैं जो ऊर्जा दक्षता बढ़ाने में मदद करती हैं, जैसे कि मानक और लेबल (एस एंड एल) कार्यक्रम, सभी के लिए किफायती एलईडी द्वारा उन्नत ज्योति (उजाला), स्ट्रीट लाइटिंग नेशनल कार्यक्रम (एसएलएनपी), ऊर्जा दक्षता निर्माण, कृषि और नगरपालिका मांग पक्ष प्रबंधन सहित ऊर्जा संरक्षण को बढ़ावा देने के लिए कई योजनाएं लागू की हैं।

अपनी तेजी से बढ़ती अर्थव्यवस्था को गति देने के लिए भारत में ऊर्जा की भारी मांग है। स्वतंत्रता के समय बिजली की कमी वाले देश से, भारत को ऊर्जा-स्वतंत्र बनाने के प्रयास सात दशकों से अधिक समय तक जारी रहे। आज, प्रधानमंत्री श्री नरेंद्र मोदी के कुशल नेतृत्व में, हम चार लाख मेगावाट से अधिक की कुल स्थापित बिजली क्षमता के साथ एक बिजली अधिशेष राष्ट्र हैं।

सतत विकास लक्ष्यों को ध्यान में रखते हुए, भारत का सकल बिजली उत्पादन तेजी से नवीकरणीय ऊर्जा पर अधिक केंद्रित हो रहा है। आज, भारत नवीकरणीय ऊर्जा का दुनिया का तीसरा सबसे बड़ा उत्पादक है, जिसकी 40% से अधिक स्थापित बिजली क्षमता गैर-जीवाश्म ईंधन स्रोतों से आती है।

4 जनवरी, 2023 को सरकार ने 19,744 करोड़ रुपये के प्रारंभिक निवेश के साथ 'नेशनल ग्रीन हाइड्रोजन मिशन' को मंजूरी दी। इस मिशन के व्यापक लाभों में इस योजना के द्वारा आयातित जीवाश्म ईंधन और फीडस्टॉक पर निर्भरता में कमी के साथ ग्रीन हाइड्रोजन और उसके डेरिवेटिव, औद्योगिक डीकार्बोनाइजेशन, ऊर्जा क्षेत्र में गतिशीलता हेतु मिशन के व्यापक लाभ के साथ और निर्यात के अवसर भी बढ़ेंगे।

जी20 का सदस्य और इसके वर्तमान अध्यक्ष के रूप में, भारत ने जलवायु और ऊर्जा परिवर्तन के रूप में अपनी अहम भूमिका निभाने के लिए अपनी प्रतिबद्धता व्यक्त किया।

**भारत 2030 तक अपने सकल घरेलू उत्पाद की उत्सर्जन तीव्रता को 45% तक कम करने के लिए प्रतिबद्ध है, और 2030 तक गैर-जीवाश्म ईंधन-आधारित ऊर्जा संसाधनों से लगभग 50% संचयी विद्युत ऊर्जा स्थापित क्षमता प्राप्त करने के लिए प्रतिबद्ध है।**

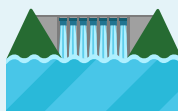
Let's  
**CONNECT** to  
**RENEWABLE**  
**ENERGY**  
For a sustainable  
tomorrow



SOLAR



WIND



HYDRO ELECTRIC



GEOTHERMAL



WAVE



TIDAL





## **BUREAU OF ENERGY EFFICIENCY (BEE)**

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