



# UPSavesEnergy News Letter

UPSDA's Energy Efficiency endeavors towards achieving a Net Zero status for Uttar Pradesh

Quarterly Newsletter

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## Background

Uttar Pradesh New and Renewable Development Agency (UPNEDA) under the provisions of the Energy Conservation Act-2001, have been nominated as State Designated Agency to coordinate, regulate and enforce the provision of the Energy Conservation Act-2001 and implement schemes under the said Act within the State of Uttar Pradesh. UPNEDA is working as UPSDA since July 2015.

To reduce energy consumption and to focus on climate change Uttar Pradesh State Action Plan on Climate Change is developed to ensure the sustenance of its resource in a changing climate context allowing UP's economic and social development to proceed in a sustainable manner. Further UPSDA with the support of BEE is also developing Uttar Pradesh State Energy Efficiency Action Plan. The NDCs are continuously being revised as evidenced from

Hon'ble PMs speech in the CoP 26 of the UNFCCC in 2021. The new targets aim to

- reduce the emission intensity of India's GDP by 45% by 2030 with respect to 2005,
- increase in the share of non-fossil energy capacity to 500 GW and enhance its share to 50% in the total energy mix.
- India will reduce the total projected carbon emissions by one billion tones from now onwards till 2030 and will create additional carbon sink through additional forest and tree cover by the year 2070, India will achieve the target of Net Zero.



## Vision :

To make a long-term commitment to energy efficiency and conservation through harnessing the vast energy saving potential in Uttar Pradesh by exploring all possible pathways for minimizing overall carbon footprints.



## Mission :

The mission of the UPNEDA as State Designated Agency is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of reducing energy intensity of the Indian Economy

## Significant Energy Efficiency Programs in Uttar Pradesh

### Investment Bazar on Energy Efficiency

UPNEDA has organized a series of Conference on Investment Bazar, in continuation of this series a conference was organized at Kanpur on 23rd May 2023. More than 70 delegates participated. Five Energy Saving projects were submitted during this conference with the investment required for Rs. 171 Lakhs & energy saving potential 4795 MWh. Various banks and equipment manufacturers put up their stalls.

Investment Bazar Conferences were organized in association with BEE to assist financing in the field of Energy Efficiency projects. The objective of the Investment Bazar Conference is to create awareness among industry stakeholders on different financing schemes, Energy efficiency Products/ Services. This conference also provides a common platform for OEM, ESCOs, Financial Institutes, and Industries to interact and discuss the investment as well as financial potential. Investment Bazar Conference was organized to address:



Investment Bazaar conference in Kanpur

- To enhance investments in the projects of energy efficiency. To overcome barriers and myths related to the funding of EE projects
- To bridge the communication and knowledge gap between project implementers and funding agencies. To highlight the practical problems and to address them with collective deliberations of all stakeholders.

### Building Energy Efficiency:

BEE has established the Energy Efficiency in Buildings (EEB) Cell at UPSDA, which plays a pivotal role in multiple areas. This includes overseeing the implementation of UPECBC-2018, extending technical guidance to government stakeholder departments through practical building projects that demonstrate UPECBC implementation, conducting training sessions for both government and private stakeholders on the ECBC code and Eco Niwas Sanhita for residential structures, and managing the Star Rating program for energy-efficient buildings, encompassing both commercial and residential structures. Throughout the first quarter of the 2023-24 fiscal year, a total of eight training programs were conducted as webinars. These programs targeted officers from various Development Authorities, building sector professionals, as well as students. Notably, these sessions collectively trained more than 300 participants.



ECBC training at UP Project Corporation



### MuDSM: Municipal Demand Side Management:

The objective of this initiative is to provide awareness to municipal officers and engineers towards energy efficiency technics, appliances etc. To reduce the electricity bill for the municipalities. A total of 8 programs were carried out during this quarter across various Municipal Corporations. The workshop covered the significance of star-



MuDSM Programme in Lucknow Nagar Nigam

rated appliances and the subsequent reduction of energy consumption, energy efficient pumping stations, solar PV systems (rooftop), electric vehicles and charging station facilities, etc. This will enable them to pursue demand side management i.e., Overall reduction in electricity demand

### Webinar- (PAT Cell): Capacity Building of Designated Consumers:

On April 13, 2023, a webinar was meticulously organized by the PATCELL team, focusing on Fanless Cooling Towers. This webinar served as a platform to engage with diverse Designated Consumers (DCs) and enhance their understanding of Fanless Cooling Tower technology. During the session, M/S ARMEC Group delivered a comprehensive presentation on the system, complete with a case study showcasing its merits, energy-saving potential, cost-effectiveness, and other associated benefits.

### Capacity Building of DISCOMS:

DSM training Programme in Lucknow Considering the importance of Demand Side Management, a series of three One-Day Capacity Building Workshops on Demand Side Management (DSM)



Capacity Building Programme for MVVNL, Lucknow

and Energy Efficiency is scheduled for different DISCOMS. The first workshop took place on June 5, 2023, specifically catering to officials from Madhyanchal Vidyut Vitaran Nigam Limited (MVVNL). The program's primary goal is to enhance the capabilities of DISCOMS in executing load management initiatives, energy conservation projects, formulating effective DSM action plans, and effectively implementing DSM activities within their designated regions. This program would help the DISCOMS for reducing peak electricity demand. The remaining two workshops are planned to be held for Pashchimanchal Vidyut Vitaran Nigam Limited (PuVVNL) and Dakshinanchal Vidyut Vitaran Nigam Limited (DVVNL).

### Workshop on state energy efficiency action plan (SEEAP)

The 3rd Stakeholder Workshop of SEEAP was organized on 31st May 2023 in the conference room of the UPNEDA, Uttar Pradesh under the chairmanship of Sh. Anupam Shukla,



SEEAP Meeting in UPNEDA Conference Hall



Director, UPNEDA. Draft Energy Efficiency Action Plan presented in the workshop. The director recommended that all stakeholders provide their feedback on the Draft SEEAP report within the specified timeframe, aiming to enhance the quality of the report for its presentation and implementation.

## Case Study:

### Dalla Cement Works, CPP Auxiliary Power Reduction

**Theme:** Reduction in CPP Auxiliary Power consumption with VFD installation, higher efficiency pump, process optimization and In-House modifications.

**Problem:** CPP auxiliary power consumption 6.86% (FY-21) was higher as compare UTCL benchmark & National Benchmark. It is the impact of followings:

- Higher Wind box pressure
- Bed temp higher side
- Air nozzles jammed/ damaged.
- Air leakages/passing

**Solution:** Plant studied potential; Team has taken followings actions to reduce CPP auxiliary power consumption

- Installation Energy Efficient Boiler Feed Pump.
- Reduction in BFP– 1, 2 & 3 discharge pressure set point through bias optimization.
- Optimization of boiler fd fan discharge pressure for power saving.
- Optimized the furnace bed height at different load.
- Replacement of dummy & jammed FD air nozzles in boiler furnace
- Optimization of instrument air compressor power
- Optimization of CHP Power Consumption by reduction of idle running hrs.
- 7 Nos pump absolute in DM water operation by taking Raw water through gravity.

### Benefit:

- Reduced CPP auxiliary power consumption from 6.86% to 6.48%.
- Achieved Electrical saving of 620096.68 kWh resulting in a saving of 21.52 Lacs Rs/Annum (FY-22).
- GHG emission of 508.47 MT CO<sub>2</sub> reduced by reduction of power consumption.

## Uttar Pradesh New & Renewable Energy Development Agency (UPNEDA)

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