

UP Metro: A Catalyst for Environmental Conservation

Key Player in Reducing Carbon Footprint and Maintaining Green Cover

By Uttar Pradesh Metro Rail Corporation Limited 03-June-2024

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Since its inception, **UPMRC** Metro has championed environmental sustainability and the promotion of greenery. As the first organisation in the state to join the Energy Exchange program, UP Metro has saved Rs 3.5 crore on electricity in the past 1.5 years by procuring power through the Indian Energy Exchange (IEX) under the open access model.



Energy Efficiency and Cost Savings

UP Metro stands as the first organisation in the state to engage in the Energy Exchange program, achieving significant electricity savings of Rs 3.5 crore over the past 1.5 years. Through the Indian Energy Exchange (IEX) under the ‘open access model’, electricity for Lucknow Metro’s operations and maintenance is procured at rates set in 15-minute intervals. This strategic procurement model allows UPMRC to secure electricity at favourable rates, with standard rates from Uttar Pradesh Power Corporation Limited (UPPCL) covering the remaining time blocks. This approach has enabled **UPMRC** to save up to Rs 45 lakhs in energy costs in a single month.

Expanding Green Spaces

UP Metro’s dedication to environmental stewardship is evident in the creation of an extensive 1.1 lakh square meters of green belt. Lucknow Metro leads with 65,000 square meters of greenery, followed by Kanpur Metro with 35,000 square meters, and Agra Metro contributing approximately 1,200 square meters. Notable areas such as Polytechnic Chauraha, Metro Depot, Metro Officer’s Colony, KD Singh Stadium, and the medians along the entire metro corridor benefit from these enhanced urban landscapes.

Rainwater Conservation Efforts

A cornerstone of UP Metro’s environmental strategy is its substantial rainwater conservation initiatives. Collectively, Lucknow, Kanpur, and Agra Metros conserve about 35 lakh liters of rainwater annually, showcasing a strong commitment to sustainable water management. Additionally, metro trains are washed with recycled water, which is then used for horticulture, maximising water reuse and reinforcing UP Metro’s dedication to resource sustainability.

Innovative Waste Management

UP Metro’s zero discharge facilities at the depots in Lucknow, Kanpur, and Agra ensure that no pollutants are released into the environment. Waste is responsibly managed and converted into fertilizer through automatic composting systems, exemplifying UP Metro’s innovative approach to waste management.

Harnessing Solar Energy

UP Metro’s commitment to renewable energy is evident in its extensive solar installations. Together, Lucknow and Kanpur Metros boast a total solar capacity of 4.412 MW. In Lucknow, the Transport Nagar Metro Depot houses a 2.28 MW solar plant, with five metro stations collectively hosting another 1 MW. Additional installations include 10 KW plants at RSS buildings in Transport Nagar and Munshipulia, and a 12 KW plant at the Administrative Building in Gomti Nagar. Over the past five years, these solar plants have generated an impressive 60 lakh units of energy, with another 1 MW solar plant installed at the Kanpur Metro Depot.

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A Vision for Sustainable Urban Development

UP Metro’s environmental initiatives exemplify a visionary approach to urban development. By integrating green belts, efficient water management systems, and renewable energy sources, UP Metro is enhancing urban quality of life and setting a benchmark for sustainable practices.

This Environment Day, let us celebrate and draw inspiration from UP Metro’s exemplary efforts in fostering a greener, more sustainable future.