

Shri Manohar Lal inaugurates India's First MWh-Scale Vanadium Flow Battery at NTPC NETRA

Minister lauds NTPC NETRA for developing technologies that will enhance renewable energy integration

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Shri Manohar Lal, Minister of Power and Housing & Urban Affairs, today inaugurated India's largest and first MWh-scale Vanadium Redox Flow Battery (VRFB) system of 3 MWh capacity. This milestone project marks a major step forward in the nation's journey towards long-duration energy storage (LDES) solutions, enhancing renewable energy integration and grid resilience.

The Minister inaugurated the system during his visit to NETRA, the R&D Centre of NTPC at Greater Noida. He was joined by Shri Pankaj Agarwal Secretary (Power), Additional Secretary Shri Piyush Singh and other senior officials of Ministry of Power. He was welcomed by Shri Gurdeep Singh, CMD (NTPC) and other senior officials of NTPC.



The Vanadium Redox Flow Battery is a contemporary technology that has the potential to emerge as one of the alternatives for more traditional lithium ion-based batteries. The development of this advanced battery system will widen the pool of elements that can be sourced and used for making battery systems.

The Minister commended the NETRA team for developing solutions that address the energy transition and energy security challenges. He emphasized that India's capabilities in innovation and technology are setting new benchmarks for sustainable development and energy transition.

Shri Manohar Lal was also briefed about NTPC's pioneering R&D work in the domain of Carbon Capture, Green Hydrogen, Energy Storage and Waste-to-Energy Technologies.

The Minister visited following demonstration plants at NTPC NETRA: (i) Green Hydrogen Mobility Plant, (ii) STP Water-based Green Hydrogen Plant, (iii) Solid Oxide-based High-Temperature Steam Electrolyzer, (iv) MSW-RDF based enhanced Steam Gasification Plant, (v) AC Microgrid (4 MWp & 1 MWh Li-NMC BESS) alongside state-of-the-art NABL-accredited laboratories.



NR/SK

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