



WORKSHOP ON ENERGY STORAGE

The Role of Battery Energy Storage System (BESS) in Sustainably Integrating Renewable Energy Into the Grid

27 – 28 April 2023 | Hotel Grand Mercure, Gandhinagar

Workshop Summary

During COP26 held in Glasgow, Hon'ble Prime Minister of India has announced 'Panchamrit' which inter alia include reaching 500 GW capacity from non-fossil resources by 2030 and achieving net zero by 2070. Majority of the capacity from non-fossil resources would be from solar and wind energy which are intermittent in nature and possess challenges with the grid integration. Energy Storage technologies would be required to address these challenges of intermittency from solar and wind energy and would also help in reducing the Renewable Energy (RE) curtailments. As per the National Electricity Plan (NEP), Central Electricity Authority (CEA) has estimated the requirement of 236 GWh of Battery Energy Storage System (BESS) and 26.7 GWh of Pumped Hydro Power (PHP) by 2031-32.

In order to create an awareness about the benefits of energy storage and have a detailed discussion with States to understand their plans for increasing renewable penetration in their respective states in a sustainable manner, a workshop was organized for DISCOMs and Grid Operators during 27-28 April, 2023 at Gandhinagar, Gujarat under the Accelerating Smart Power and Renewable Energy in India (ASPIRE) Program, which is a flagship programme between India & UK Strategic Partnership.

The workshop was inaugurated by **H.E. Mr. Stephen Hickling** (British Deputy High Commissioner) and **Shri Lalit Bohra** (Joint Secretary-MNRE). The workshop was attended by 35 participants with representatives from DISCOMs from Ladakh, Gujarat, Uttar Pradesh, Punjab, Haryana, and Delhi and other organizations including developers of Battery Energy Storage Systems (BESS).

The inaugural session was followed by detailed technical session by KPMG, covering case studies, different energy storage technologies, global overview, policy and regulatory best practices, India's potential for energy storage and activities being conducted to accelerate storage penetration in India by various ministries and nodal agencies. Thereafter, an interactive session was conducted to understand DISCOM's plan to integrate storage at state level and the challenges that they are presently facing with increased renewable penetration in the grid.

On the second day of the workshop, a site visit was organized to MNRE funded project 'Solarization of Modhera Sun Temple & Town' (having BESS of 6MW/15MWh) which has been installed by Gujarat Power Corporation Limited (GPCL). GPCL has shared the information about the project and its operations with the participants. This has helped the participants to gain the in-hand experience and exposure related to BESS project.

The participants have expressed their satisfaction about the workshop and requested to organize more such workshops of this kind for the sensitization about the subject.

