

Given the high energy density, layout flexibility and absence of geographical constraints, liquid air energy storage (LAES) is a very promising thermo-mechanical storage solution, currently on the verge of industrial deployment.



Liquid air energy storage (LAES) gives operators an economical, long-term storage solution for excess and off-peak energy. LAES plants can provide large-scale, long-term energy storage with hundreds of megawatts of output.



Liquid air energy storage (LAES) is becoming an attractive thermo-mechanical storage solution for decarbonization, with the advantages of no geological constraints, long lifetime (30???40 years), high energy density (120???200 kWh/m 3), environment-friendly and flexible layout.

LIQUID AIR ENERGY STORAGE





Due to their low capacity-specific investment cost and the fact that the efficiency of air liquefaction increases with volume, liquid air energy storage systems are particularly suitable for large-scale storage (>50 MW) and provision of energy in multi-hour, day, or week balancing.



Liquid air energy storage (LAES) uses air as both the storage medium and working fluid, and it falls into the broad category of thermo-mechanical energy storage technologies. The LAES technology offers several advantages including high energy density and scalability, cost-competitiveness and non-geographical constraints, and hence has attracted



In recent years, liquid air energy storage (LAES) has gained prominence as an alternative to existing large-scale electrical energy storage solutions such as compressed air (CAES) and pumped hydro energy storage (PHES), especially in ???