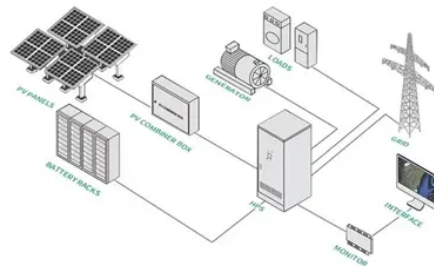


Grid for long-term energy storage



Overview

LDES encompasses a group of conventional and novel technologies, including mechanical, thermal, electrochemical, and chemical storage, that can be deployed competitively to store energy for prolonged periods and scaled up economically to sustain electricity provision, for days or even weeks. 1 What they can provide is system flexibility—the ability to absorb and manage fluctuations in demand and supply by storing energy at times of surplus and releasing it when needed.



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In grid energy storage, generation and consumption of electricity must be balanced across the entire grid because energy is consumed as it is produced.

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