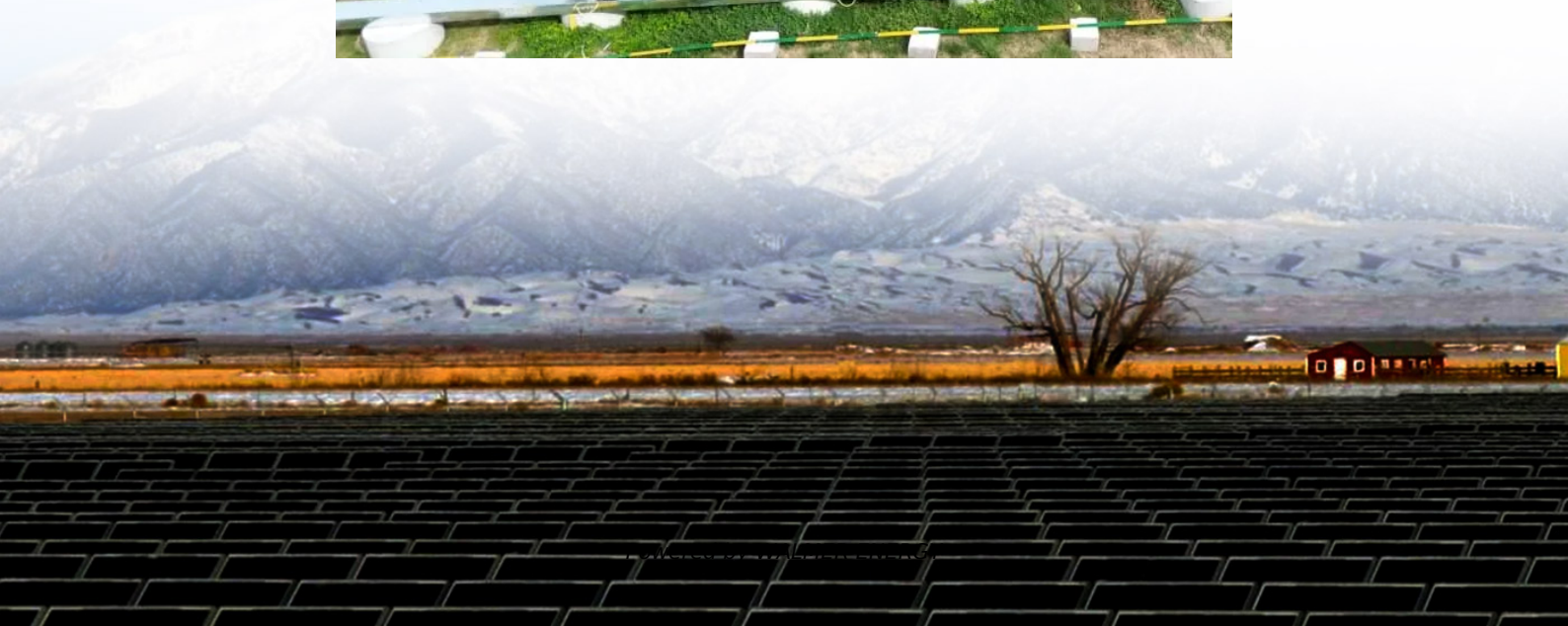


Secondary frequency regulation of grid-side energy storage





Overview

What is secondary frequency regulation?

High Precision: Secondary frequency regulation allows for precise control of the system frequency, restoring it to its nominal value. - Centralized Control: Managed by the power dispatching department, enabling optimized decision-making based on the overall system conditions.

How does electrochemical energy storage work?

In this mode, the electrochemical energy storage system functions as an independent frequency regulation resource directly connected to the power system. When the system frequency fluctuates, the energy storage system automatically adjusts its power output in response to frequency changes, thereby assisting in frequency regulation.

How does the energy storage system respond to frequency fluctuations?

When the system frequency fluctuates, the energy storage system automatically adjusts its power output in response to frequency changes, thereby assisting in frequency regulation. In this mode, the energy storage system can respond quickly to frequency fluctuations, enhancing system frequency stability.

How ESS can adjust grid frequency within the allowable range?

ESS can adjust grid frequency within the allowable range as ESSs have the features of high degree of automation, flexibility of operation and rapid response to random and transient changes in load. Thus, flywheel, SMES, batteries and flow batteries are ideal for this service.



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