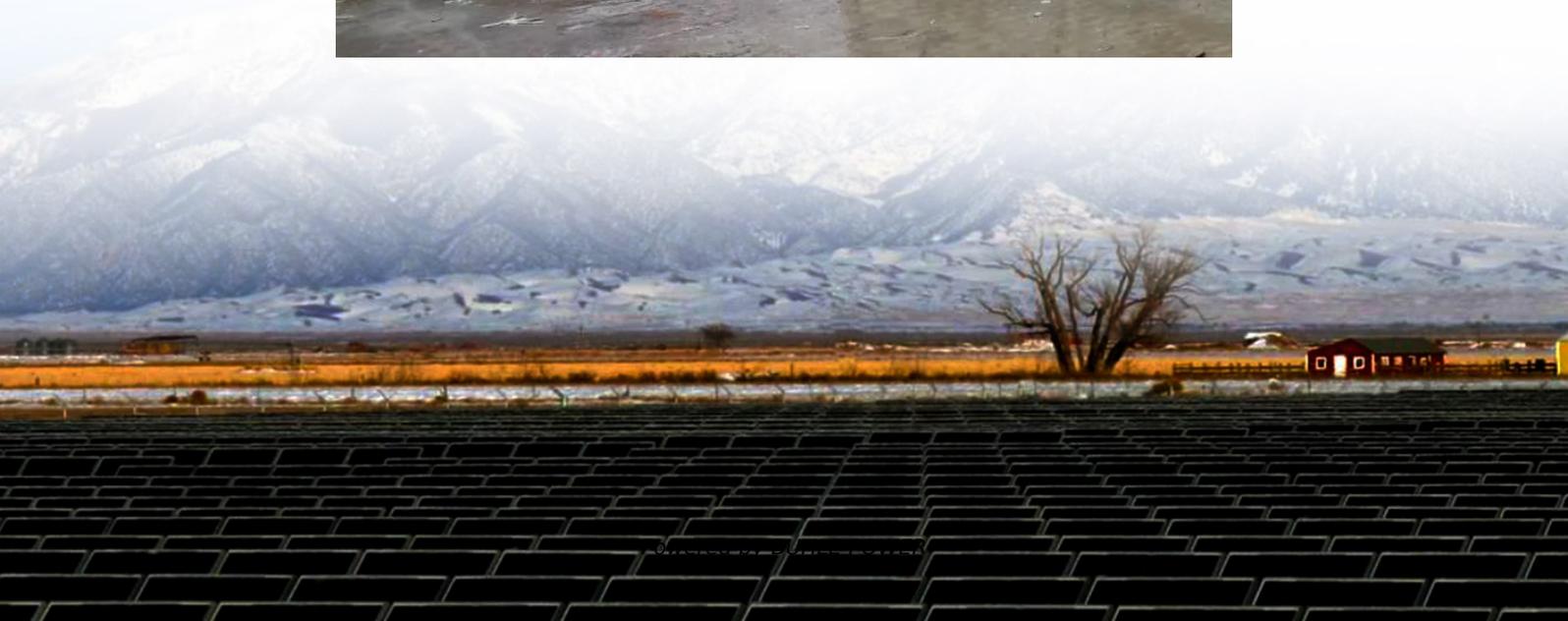


The role of energy storage in substations





Overview

Why do we need energy storage systems?

As a consequence, the electrical grid sees much higher power variability than in the past, challenging its frequency and voltage regulation. Energy storage systems will be fundamental for ensuring the energy supply and the voltage power quality to customers.

What are substation batteries?

Substation batteries are large-scale energy storage units installed within electrical substations. Their primary purpose is to supply backup power during outages, support grid regulation, and ensure continuous operation of protective systems.

Why are substation batteries important?

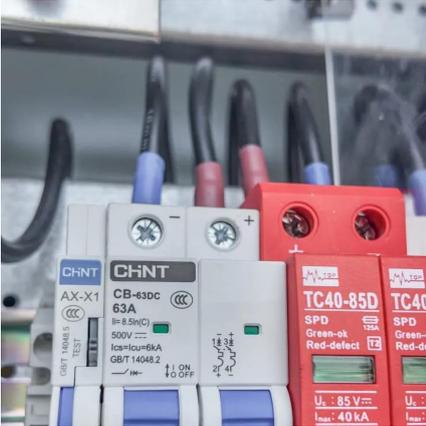
In the context of battery backup systems, the importance of substation batteries cannot be overstated: Ensuring Continuous Power: During outages, batteries keep critical systems running, preventing blackouts and equipment damage.

What is the main purpose of a substation?

Abstract— The main purpose of the substation is to provide reliable and continuous electric power supply for consumers connected to the distributive network. When a fault in the distributive network occurs, it is necessary to interrupt the power supply until the fault is removed.



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