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Droop control of solar container energy storage system

Overview

What is adaptive droop control for energy storage batteries?

Battery energy storage system (BESS) is an indispensable part of DESs, the control strategies of which have a great influence on system performance. In this paper, we present a novel adaptive droop control (ADC) for energy storage batteries.

How to control battery droop?

An adaptive droop control method considering battery power characteristics is proposed. Virtual battery droop algorithm is combined with the battery online estimation. Suitable power distribution for batteries is realized in a decentralized way. SOC balancing among energy storage systems can be achieved.

What is battery droop algorithm?

Virtual battery droop algorithm is combined with the battery online estimation. Suitable power distribution for batteries is realized in a decentralized way. SOC balancing among energy storage systems can be achieved. The proposed control is applied on the microgrid model with DAB converters.

How does a Droop controller work?

Then the droop controller is designed based on the battery parameters by the “virtual battery” algorithm, benefit from which power can be distributed among battery packs adaptively for their power characteristics, meanwhile SOC balancing can be achieved automatically.

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