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(71) Applicant: **CONTEMPORARY AMPEREX
TECHNOLOGY CO., LIMITED,**
Ningde (CN)

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(72) Inventors: **Xinwei CHEN,** Ningde (CN); **Xiangtao
LI,** Ningde (CN); **Xianxi PAN,** Ningde
(CN); **Tianyi HUANG,** Ningde (CN);
Yu YAN, Ningde (CN); **Zhimin DAN,**
Ningde (CN)

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(73) Assignee: **CONTEMPORARY AMPEREX
TECHNOLOGY CO., LIMITED,**
Ningde (CN)

(57) **ABSTRACT**

This application relates to a control method, an apparatus, a device, a storage medium, and a program product for an energy storage system. The method may include: obtaining a first cluster voltage of a target battery cluster in the energy storage system; determining a second cluster voltage based on the first cluster voltage and a preset redundancy voltage, and determining an output voltage of a first regulator corresponding to the target battery cluster in the energy storage system based on a bus voltage and the second cluster voltage, where the redundancy voltage may be within a regulation range of the first regulator; and controlling the output voltage of the first regulator for voltage regulation on the target battery cluster.

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