

Can energy storage power stations participate in dual carbon trading





Overview

What happens if energy storage participates in carbon and green certificate trading?

In Scenario 4, after energy storage participates in the integration of carbon and green certificate trading, the electricity generated by the energy storage system is classified as green electricity. As a result, the actual green electricity generated exceeds the system's green electricity quota.

What is a multi-energy complementary system containing energy storage?

Multi-energy complementary system containing energy storage is constructed based on an example of local power grid in China. Propose the ICGCT mechanism with price linkage characteristics. Verify the effectiveness of the ICGCT mechanism in responding to changes in market trading information through sensitivity analysis.

Are tradable green certificates and green power trading policies relevant?

The carbon emission trading scheme (ETS), tradable green certificate (TGC) and green power trading (GPT) policies are vital for promoting energy transformation and carbon reduction under the dual carbon goals. However, the effects of and relationships among multiple policies urgently need to be studied.

How does system optimization affect carbon trading?

Ultimately, there is a decrease in the converted green certificates, leading to an increase in the cost of carbon trading and the comprehensive operating cost of the system. As a result, the total revenue of the system decreases.

Table 2. System optimization results under different renewable energy ratios.
6. Conclusions



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