# Microgrid anti-interference consistency

How to improve microgrid control?

To better adapt to the needs of the microgrid,it is considered to apply a distributed control algorithmbased on finite time consistency to the hierarchical control of the microgrid. In the traditional microgrid control,to automatically realize the power distribution,the DC voltage control unit often adopts droop control.

What is secondary control in dc microgrid?

Based on the principle of finite time consistency,the secondary control realizes the secondary adjustment of DC microgrid voltage. It avoids the problem that the active output cannot be allocated according to the power mapping factor due to the unbalanced node voltage. The control strategy is formulated as

What is the hierarchical control strategy for AC/DC Hybrid microgrids?

Due to the diversity of microgrid equipment and the complexity of control optimization objectives,the hierarchical control strategy is generally adopted,to realize the stable parameter recovery and optimal economic operationof AC/DC hybrid microgrid groups [12,13].

What is ILC control strategy in microgrid intergroup control?

ii. In terms of microgrid intergroup control,the ILC control strategy with the average power mapping factorrealizes the economic power distribution among AC/DC hybrid microgrids,and the application of finite-time consistency algorithm further speeds up the convergence of microgrids.

To address the above problems, a novel Narendra-based adaptive anti-disturbance control strategy for microgrid voltage source inverter is proposed in this paper. Firstly, a Narendra ...

At present, the microgrid mostly adopts the hierarchical control mode, in which the secondary control mainly realizes the accurate tracking of voltage and frequency. The agent consistency control ...

By leveraging the finite-time consistency algorithm, this strategy facilitates autonomous operation of sub-microgrids and enables mutual aid and assistance within the microgrid cluster. The ...

The microgrid structure is complex, the operating environment is diverse, and each subsystem is far away from other subsystems. At present, the microgrid mostly adopts the ...

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To solve the problems of low power distribution efficiency and large voltage deviation of different energy storage units in microgrid hybrid energy storage, this paper proposes a flexible ...

Microgrids (MGs) play a crucial role in modern power distribution systems, particularly in ensuring reliable and efficient energy supply, integrating renewable energy sources, and enhancing ...

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A distributed optimal control strategy based on finite time consistency is proposed in this paper, to improve the optimal regulation ability of AC/DC hybrid microgrid groups. The control ...

Simulation and experimental results indicate that utilizing the proposed control strategies, large-capacity HESS has stronger anti-interference ability, shorter regulation time, smaller switching ...

The improved inverter CP further enhances its anti-interference ability and stability. To simulate complex working conditions, a set of three-phase symmetrical loads was switched on and of ...