

Key Technologies and Control Strategy for Distributed Photovoltaic Micro-Grid

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Abstract

As an effective means to improve the energy consumption of new energy photovoltaic, improve the grid-friendliness of new energy sources, and realize the power supply in remote and non-electric areas, photovoltaic micro-grid has gradually attracted the attention of scholars at home and abroad. Relying on the 863 project of the Ministry of Science and Technology, "Development and Demonstration of Key Equipment and Control System for Distributed Photovoltaic Micro-Grid", this paper analyzes the key technologies of distributed micro-grid operation control, improving micro-grid power supply reliability and grid connection adaptability in detail. The demonstration construction and operation test of 5.5MW distributed photovoltaic micro-grid project are introduced. Finally, combined with China's future smart grid construction planning, the development prospects of distributed photovoltaic micro-grid technology are prospected.