

PV inverter maximum frequency delay





Overview

With the large-scale development of photovoltaic power generation, photovoltaic power plants (PVPP) are required to participate in primary frequency regulation to maintain the stability of the power system. Exi.

How can inverters improve the frequency regulation ability of PVPP?

The longer the delays, the weaker the PVPP's ability to participate in primary frequency regulation. In addition, the optimization of PVPP communication system and control strategy of inverters can help improve the frequency regulation ability of the PVPP, thereby maintaining the frequency stability of the power system. 1. Introduction.

Does data communication delay affect primary frequency regulation of photovoltaic power plants?

With the large-scale development of photovoltaic power generation, photovoltaic power plants (PVPP) are required to participate in primary frequency regulation to maintain the stability of the power system. Existing researches seldom consider the influence of the data communication delay of PVPP on the primary frequency regulation ability of PVPP.

How is delay linearized under photovoltaic participation in frequency modulation?

The delay is linearized by Pade approximation. The frequency stability of power system under photovoltaic participation in frequency modulation is analyzed and evaluated by establishing three indicators: system frequency steady-state error, feedback system sensitivity, and closed-loop system stability margin.

What is the frequency stability of power system with photovoltaic participation?

The frequency stability of power system with photovoltaic participation in frequency regulation is characterized by system frequency steady-state error, feedback system sensitivity, and closed-loop system stability margin.



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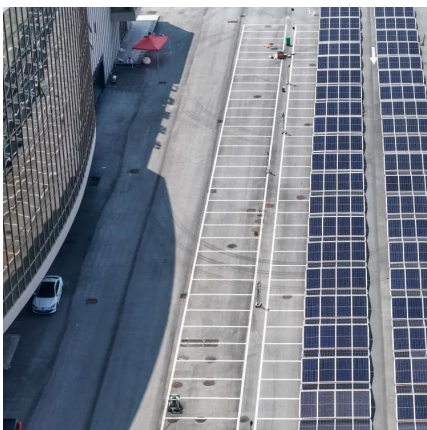
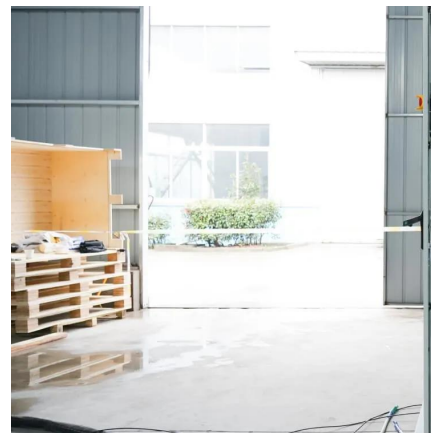


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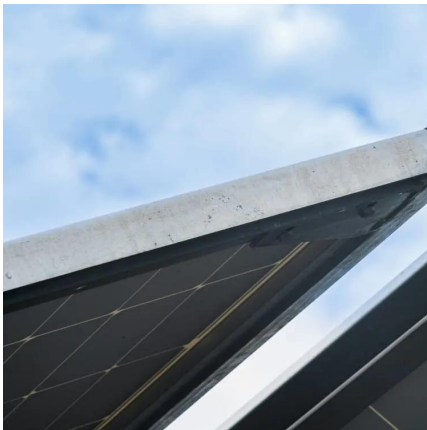
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