

The Impact of New Energy Sources on Relay Protection



Overview

Abstract: The increasing penetration of new energy into the power system is accompanied by a series of challenges that traditional relay protection systems face: fast fault detection and decreased protection action time, and decreased system stability. By taking a series of countermeasures, the. able sources such as wind and solar. Renewable energy is expected to make up almost 50% of global electricity generation by 2050, according to the IEA World Energy Outlook 2024, up. Most Distributed Generators (DGs) are defined as renewable energy, green energy sources and are gradually being utilized to provide a power supply for conventional distribution networks. Distributed generators are made up of induction and synchronous machines.



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DG connections will have a significant influence on the protection coordination. When DGs are connected to the main grid, the

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Impact of Renewables on Relay Protection Operation

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- Investigation of the impact of integrating RESs and FACTs in power systems on the performance of protection

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