



Managing Reactive Power in Electric Grids

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Summary

Reactive power (MVAR) is an associate power component to real power (MW) in alternating current grid. It is the power that determines the behavior and performance of transmission voltages as function of the real power transferred and delivered to connected loads. Inadequate reactive power support may lead to lower voltages, which may result in voltage instability and voltage collapse. Managing and controlling reactive power, both capacitive and inductive power, ensuring the right balance, results in, not only, increased transmission capacity and power transfer capability of transmission system of electric grid, but also, improved quality and reliability of power delivery.

The tutorial will give an overview of reactive power in alternating current grid, its function, and how it can be managed to improve the controllability, capacity, and reliability of electric grids.