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Institute of Electrical Power Systems

Bachelor Thesis

Concept of a Method for the Calculation of Reactive Power Capacity

Motivation

Meeting the regulatory requirements for reactive power capability is often a mandatory condition for connecting new plants to the grid, both for industrial consumers and for power generators. This helps to stabilise the overall grid, especially in times of high levels of renewable energy supply or increasing changes in load flow. The regulations define technical requirements, such as the reactive power capability to be maintained. Factors such as transformer tap control or variable transformer reactance play a crucial role.

Research Topics

- What is the design of a calculation process with regard to different levels of complexity?

Procedure/methodology/terms of reference

- Literature review on reactive power capability
- Identification of different methods for calculating reactive power capability
- Development of a practical concept for the calculation of reactive power capability
- Documentation

Organisational Issues

Starting immediately

Contact Person/Supervisor

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