



Voltage and Reactive Power in Active Distribution Networks

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Increased intake of Distributed and Renewable Generation (DG) causes transformation of distribution networks into active distribution networks (ADN) clustered into microgrids. In this book, three phase power flow algorithms are developed to provide simulation tools of ADNs and microgrids. Using the developed power flow tools, the issues of voltage and reactive power (Volt/Var) control are assessed in order to shed the light on the potential conflicts that are expected with high DG penetration. The problem of optimal sizing and allocation of Volt/Var resources is reformulated to account for the characteristics of ADNs clustered into microgrids and capable of operating in both grid-connected and islanded modes of operation. Moreover, smart grid offers new digital technologies to be combined with the existing utility grids to substantially improve the overall efficiency and reliability of the network. Advanced network monitoring, two ways communication and intelligent control methods represent the main features of smart grids. Hence, a two ways communication-based distributed control is developed in this book to provide smart Volt/Var control in ADNs under the smart grid paradigm. | Format: Paperback | Language/Sprache: english | 236 pp.



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Reviews

Extensive information for book fans. It is written in basic words and never hard to understand. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- Otis Wisoky

This publication is great. It is full of wisdom and knowledge. You will not really feel monotony at any time of the time (that's what catalogs are for relating to when you ask me).

-- Dr. Everett Dicki DDS