**HVDC Grids: For Offshore and Supergrid of the Future**  
Dirk Van Hertem, Oriol Gomis-Bellmunt, Jun Liang

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**DESCRIPTION**

This book discusses HVDC grids based on multi-terminal voltage-source converters (VSC), which is suitable for the connection of offshore wind farms and a possible solution for a continent wide overlay grid. *HVDC Grids: For Offshore and Supergrid of the Future* begins by introducing and analyzing the motivations and energy policy drives for developing offshore grids and the European Supergrid. HVDC transmission technology and offshore equipment are described in the second part of the book. The third part of the book discusses how HVDC grids can be developed and integrated in the existing power system. The fourth part of the book focuses on HVDC grid integration, in studies, for different time domains of electric power systems. The book concludes by discussing developments of advanced control methods and control devices for enabling DC grids.

- Presents the technology of the future offshore and HVDC grid
- Explains how offshore and HVDC grids can be integrated in the existing power system
- Provides the required models to analyse the different time domains of power system studies: from steady-state to electromagnetic transients

This book is intended for power system engineers and academics with an interest in HVDC or power systems, and policy makers. The book also provides a solid background for researchers working with VSC-HVDC technologies, power electronic devices, offshore wind farm integration, and DC grid protection.
ABOUT THE AUTHOR

Dirk Van Hertem is an Assistant Professor within ESAT-ELECTA at KU Leuven, Belgium. Dr. Van Hertem has written over 100 scientific papers in international journals and conferences.

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