This handbook offers the whole knowledge of high voltage substations from their design and construction to the maintenance and the ongoing management, the entire asset life-cycle. The content of the book covers a range of substation topologies: Air-Insulated, Gas-Insulated and Mixed Technology Switchgear Substations together with the essential secondary systems. Additionally specialized substations such as ultra high voltage (UHV), offshore substations for wind power plants and the use of gas insulated lines are included. The book includes topics, providing information for increased reliability and availability, asset management, environmental management aspects, and the adoption of appropriate technological advances in equipment and systems in substations. The book was written by more than 30 experts from around the world and assembled through the CIGRE Study Committee on Substations. This guarantees that the book contains information that is based on the global exchange and dissemination of unbiased information for technical and non-technical audiences.

Although there are other works containing references to Substations, this book is designed to provide a complete overview of the topic in one book, providing a valuable reference for anyone interested in the topic.

- Presents complete knowledge of substations from their design and construction to the maintenance and the ongoing management
- Offers unbiased information designed by Cigré for technical but also nontechnical audiences
- Includes increased reliability and availability, asset management, environmental impact containment, and the adoption of appropriate technological advances in equipment and systems