



Reference: **697**



Type:

Technical Brochures

Title:

Testing and commissioning of VSC HVDC systems

Voltage Source Converter (VSC) technology has emerged as a commercially viable alternative to Line Commutated Converter (LCC) technology for certain applications of HVDC power transmission. With the first commercial VSC projects commissioned in the late 1990s, at the time of the development of this Technical Brochure there is over fifteen years of project and operational experience with this technology. VSC has become the preferred, if not the only, choice of technology for specific applications, including low power transfer applications, the connection of weak networks, offshore wind farm connections and d.c. grid developments.

Commissioning occurs during the latter stages of an HVDC project. It allows the HVDC supplier to verify and demonstrate the suitability of the installed equipment, the functional completeness of the system and compliance with the requirements of the relevant contracts and specifications. Commissioning also allows adjustments and optimisation to the HVDC system to be made and allows the owners, developers and/or end-user of the HVDC system to witness and be satisfied that the project and operational requirements have been demonstrated.

The technical brochure provides a practical guideline for the testing and commissioning of VSC HVDC schemes including a complete description of each of the three stages of commissioning (factory tests, subsystems tests and system tests). This technical brochure provides a summary of typical tests that make up each stage of testing and commissioning and for the system testing elements, provides a guide on the purpose, preconditions, procedure and acceptance criteria applicable to each test. The technical brochure also deals with other key aspects of the testing and commissioning of VSC systems, including the management of the commissioning process, training opportunities, documentation and approaches to deal with practical limitations to on site testing.

More Informations :

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