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A STUDY OF POWER SYSTEM WITH USING MULTI-TERMINAL VSC-BASED HVDC LINK

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ABSTRACT:

Improving the efficiency and operation of power transmission is important due to the continual increase in demand for electric power. HVDC links provide a good solution for transmitting power over long distances. A model of a three-terminal VSC-HVDC system is presented in this paper. One of the converters is used to regulate the DC voltage while the others converters control the active power independently and bidirectionally. The vector control strategy and pulse width modulation (PWM) technique are described and implemented in PSCAD/EMTDC. In addition, the region of controllability as a function of power flow has been analyzed.