

Capability Chart of a Doubly Fed Induction Generation based on its Ratings and Stability Margin

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Abstract

The limitations with regard to the capability of Doubly Fed Induction Generator based wind turbines are discussed. The importance of considering the stability margin when constructing the capability curve was highlighted. Then the total power output vs the reactive power output of the turbine within its capabilities was obtained. A case study was carried out to discuss the capability of a wind farm with regard to the Great Britain grid code requirements.