

عنوان مقاله:

Voltage Sag Investigation of Microgrid in the presence of SMES and SVC

محل انتشار:

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خلاصه مقاله:

A Doubly Fed Induction Generator (DFIG)-based wind power generation system in microgrid significantly affects the power system operation. This paper describes the behavior of a microgrid with DFIG's by use of control strategies under voltage sag conditions. Superconducting Magnetic Energy Storage (SMES) unit and a Static Var Compensator (SVC) are employed to increase the operation of a wind power generation system based on DFIG during a voltage sag. Comprehensive simulation with the relevant details is performed using MatLab/Simulink software to define the effect of the SMES and SVC units by increasing the efficiency and performance of the system during voltage sag condition in a microgrid and the results are compared. For optimal use of the SMES and SVC units, economic considerations are applied.

کلمات کلیدی:

SMES, SVC, Voltage sag, Microgrid, DFIG

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