

Sub-synchronous resonance damping based on wind farm system

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Extracted from:

<https://www.theconstructionindex.co.uk/news/view/last-of-150-turbines-installed-for-dutch-offshore-wind-farm>

Large-scale wind farms have been developed by more and more countries to meet clean energy demands and public environmental appeals. However, with the increasing penetration of wind energy, the electricity grid experiences sub-synchronous resonance issues. It has been reported that the sub-synchronous issues in wind farms result in several events of power blackout. Our goal is to find effective and economic solutions to damp the sub-synchronous resonance, as well as provide guidelines on the best choice of technology such as advanced control techniques to be implemented in the wind turbine converters and extra hardware systems, e.g., flexible alternating current transmission systems (FACTS) and high-voltage direct-current (HVDC) converters.



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