

Abstract

Wind turbines already represent a large amount of energy generation and also in the future there is an expectation of further developments. Due to this reason wind turbines have to contribute for maintaining the grid stability. For example the wind turbines may not disconnect from the grid in the event of a short circuit and have to participate in voltage maintenance by supplying reactive power.

Through the planned dismantling of conventional power plants such as nuclear power, wind turbines have to accept further tasks to maintain grid stability.

This work outlines changes of energy generation and points out problems arising from the higher share of distributed generation. As a result, alternative regulatory approaches for wind turbines should be presented and these should be evaluated critically.

Keywords: Windpower, system services, power reserve, grid stability