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## Direct Power Control of DFIG Used in Wind EnergyConversion System

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**Abstract :** The problems caused by traditional systems on the environment of energy production havesucceeded, in the immediate, the utilization the renewable energies for to preserve theenvironment and to satisfy the energy. So, thanks to the encouragement of governments andthe global orientations, the development of wind energy has grown significantly due to thediversity of exploitable areas and to the relatively attractive costs. Therefore, the wind energy is becoming one of the most important renewable energy sources. Indeed, variable speedWind Energy Conversion System (WECS) have become the industry standard because oftheir advantages over fixed speed ones such as improved energy capture, better power quality. The WECS described in this work is show by figure 1. He includes the wind turbine, gearbox, DFIG, and back-to-back converters whereas the stator winding is fed by back-to-backbidirectional converter. In this system, the wind energy is transmitted Through theturbine to the three-phase DFIG. This energy is transmitted directly through a bridgerectifier and inverter to the electrical network.

Keywords : Wind energy conversion system; Doubly Fed Induction Generator; Maximum power point tracking; Simulation