

Abstract

Compensation Methods in Wind Energy Systems

Recently, generation of electricity using wind power has received considerable attention worldwide. During the last two decades, the production of wind turbines has grown in size from 20 KW to 3.6 MW. There currently exist various competing technologies for wind generator systems, whose differences lie in the complexity, cost, degree of control over the system characteristics. Induction generators are more attractive than synchronous generators as wind turbine generators, due to their low cost, ruggedness, the need for little no maintenance. Unfortunately, induction generators require reactive power from the grid to operate; therefore some means of compensation is required, specially, in the case of large wind farm connected to a weak power system.