

Abstract

Provided in the embodiments of the present invention are a wind power generation apparatus and method. The wind power generation apparatus comprises an acquisition unit, a wind turbine, a generator, an electric power storage unit and a controller, wherein the acquisition unit is used for acquiring a wind power value; the controller is used for selecting, according to the wind power value, the wind turbine to drive the generator to generate power and/or the wind turbine to drive the electric power storage unit to charge, comprising: if the wind power value is between a first wind power threshold value and a second wind power threshold value, the wind turbine only drives the generator to generate power; if the wind power value is greater than the second wind power threshold value, the wind turbine simultaneously drives the generator and the electric power storage unit to charge; and if the wind power value is less than the first wind power threshold value, the wind turbine only drives the electric power storage unit to charge or drives the electric power storage unit to output induced electric energy to the outside, wherein the first wind power threshold value is less than the second wind power threshold value. The wind power generation apparatus can effectively convert wind energy into electric energy, thereby improving the output and stability of a wind generating set.