

Wind Power Relationships Homer Methodology Calculation

Fouzia BRIHMAT, Said MEKHTOUB

Abstract : This paper simplifies the evaluating designs task of power systems for a variety of applications. When we design a power system, we should make many decisions about the configuration of the system, a task that Homer takes in hand. HOMER simulates the operation of a system by making energy balance calculations for each of the 8,760 hours a year. In this work, stages of wind energy conversion system are given through a mathematical formulation, knowing that wind power is probably the most promising sustainable energy resource. The wind is a clean and inexhaustible resource available all over the world.

Keywords : wind layer, wind turbine output power, mathematical formulation, calculation, Homer.