

A Monte Carlo Analysis of a Wind Power Generation Investment

Abstract

This paper conducts a Monte Carlo analysis of a wind power generation investment using EViews. The analysis is based on modeling of the electricity price and costs uncertainties as stochastic variables and simulating Net Present Values (NPV) of the project. A generated NPV distribution enables a much deeper investment assessment comparing to a single point estimate of NPV or a collection of scenarios outputs. It allows users to estimate several informative risk measures: standard deviation, skewness, behavior in the distribution tails, and probabilities of extreme NPV values. The described Monte Carlo analysis can be useful for assessment of alternative power generation technologies.