

Quantifying PV Power Variability Using Lorenz Curve

Abstract

Short-term variability of utility-scale solar PhotoVoltaic (PV) plant is a significant issue for grid reliability. It is necessary to quantify the solar power variability in order to analyze the power variations on the electricity distribution network. In this paper, a Lorenz curve-based method is described to quantify the variability of power output from a MW-scale solar PV plant. The proposed method is used to analyze the power variability of Yelesandra PV power plant located in the state of Karnataka, India.

The document can be accessed at: <https://aip.scitation.org/doi/full/10.1063/1.4881655>