

Base station wind power solar power





Overview

Accurate solar and wind generation forecasting along with high renewable energy penetration in power grids throughout the world are crucial to the days-ahead power scheduling of energy systems. It is.

Why is accurate solar and wind generation forecasting important?

Accurate solar and wind generation forecasting along with high renewable energy penetration in power grids throughout the world are crucial to the days-ahead power scheduling of energy systems. It is difficult to precisely forecast on-site power generation due to the intermittency and fluctuation characteristics of solar and wind energy.

Can on-site solar and wind generation data be used for forecasting?

Solar and wind generation data from on-site sources are beneficial for the development of data-driven forecasting models. In this paper, an open dataset consisting of data collected from on-site renewable energy stations, including six wind farms and eight solar stations in China, is provided.

Where is wind power generation data stored?

Wind power generation data are in the wind_farms folder, which includes six Microsoft Excel files. The real-time power generation and weather conditions are recorded in these files. The basic information about each wind farm is listed in Table 1.

How many MW does a solar station produce?

Table 2 describes the meaning of column headings. The nominal solar generation capacity varied from 30 MW to 130 MW, and the average real output ranged from 4.2 MW to 29.8 MW. The statistics of each solar station can be seen in Table 5.



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