

Solar power generation parameters of Uruguay communication solar base station





Overview

What are PV plant capacity factors in Uruguay?

The study finds an average capacity factor of 22.4% over the five-year period, with monthly variations ranging from 14.1% to 28.1%. This work provides the first precise assessment of PV plant capacity factors in Uruguay, providing valuable insights for grid management and future solar energy investments.

Are solar powered cellular base stations a viable solution?

Cellular base stations powered by renewable energy sources such as solar power have emerged as one of the promising solutions to these issues. This article presents an overview of the state-of-the-art in the design and deployment of solar powered cellular base stations.

Where are the large-scale PV plants installed in Uruguay?

DATA The environmental and operational data of the large-scale PV plants installed in Uruguay are public and available on the ADME1 website. The PV plant known as “La Jacinta”, located in the northwest of Uruguay (latitude -31.43°S and longitude -57.91°W), is considered for this study as it is one of the largest PV plants in the country.

How is solar radiation measured in Uruguay?

It is based on 15 years of solar radiation data generated with a low uncertainty satellite estimation model, locally adapted to the specific characteristics of the Uruguayan territory. The non-solar quantities were measured on the ground by national measurement networks.



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