



WALMER ENERGY

Use of bifacial solar panels in Sao Paulo Brazil





Overview

To improve the performance of photovoltaic systems, solar trackers have been widely used in photovoltaic power plants. Recently, bifacial modules also have started being widely used in the photovoltaic market.

What is bifacial solar photovoltaic energy?

Bifacial solar photovoltaic energy is a technology that increases the energy productivity of solar photovoltaic power plants compared to the use of conventional solar modules, which only absorb light from one side. This increased performance helps reduce generation costs and helps increase the penetration of renewable energy.

What are bifacial solar panels?

The flexibility of bifacial modules allows for various installation orientations, including vertical and east-west, which can help balance load profiles and reduce bottlenecks. Bifacial solar cells are found to provide higher current density and power compared to monofacial cells.

Why are bifacial solar panels becoming more popular?

In the solar PV industry, bifacial PV modules are becoming increasingly popular. This is because, when compared to monofacial PV modules, the module can absorb radiation on both sides of the panels to generate electricity, increasing the energy yield per square area.

Why are bifacial modules used in large-scale photovoltaic systems?

Due to self-shading and the decrease in irradiance reflected by the ground, using bifacial modules in large-scale photovoltaic systems will result in less bifacial gain compared to smaller-scale systems. The optimum tilt angle for the south-facing module depends on location, elevation, and albedo.



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