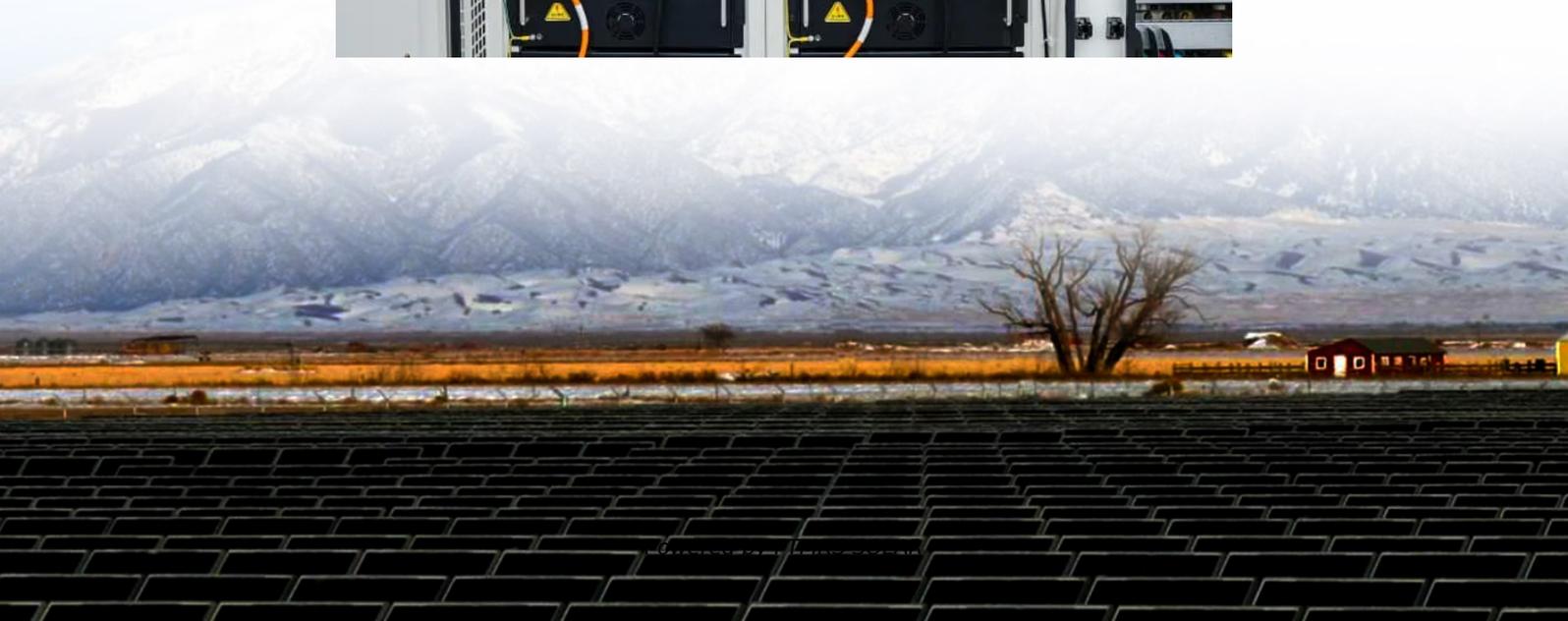


# **Monitoring Solar Energy Systems in Surabaya Indonesia**





## Overview

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What is the average solar energy output in Surabaya Indonesia?

Average 5.58kWh/day in Autumn. Average 5.62kWh/day in Winter. Average 5.88kWh/day in Spring. To maximize your solar PV system's energy output in Surabaya, Indonesia (Lat/Long -7.2484, 112.7419) throughout the year, you should tilt your panels at an angle of 8° North for fixed panel installations.

How should solar panels be positioned in Surabaya?

In Autumn, tilt panels to 14° facing North for maximum generation. During Winter, adjust your solar panels to a 23° angle towards the North for optimal energy production. Lastly, in Spring, position your panels at a 2° angle facing North to capture the most solar energy in Surabaya, Indonesia.

Is Surabaya a good location for solar power generation?

Surabaya, East Java, Indonesia, located in the tropics, is a very suitable location for solar power generation throughout the year. This is due to its consistent sunlight exposure and tropical climate characterized by wet and dry seasons.

What is solar PV output in Indonesia?

Seasonal solar PV output for Latitude: -7.2484, Longitude: 112.7419 (Surabaya, Indonesia), based on our analysis of 8760 hourly intervals of solar and meteorological data (one whole year) retrieved for that set of coordinates/location from NASA POWER (The Prediction of Worldwide Energy Resources) API: Average 4.99kWh/day in Summer.



## Monitoring Solar Energy Systems in Surabaya Indonesia

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Top Advanced Solar Energy Management System Indonesia

Feb 20, 2025 · A solar energy management system (SEMS) is a smart solution that helps track, control, and optimize solar energy use. It ensures that solar power is used efficiently, reducing ...

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Design and Implementation of Real-Time Monitoring ...

Design and Implementation of Real-Time Monitoring System for Solar Power Plant in Surabaya, Indonesia Ridho Hantoro1,\*,,Erna Septyaningrum1, Iwan Cony Setiadi1, Mokhammad Fahmi ...

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Monitoring Solar Energy Systems in Surabaya Indonesia

By integrating solar panels into the infrastructure of schools, students have the opportunity to learn about renewable energy firsthand. Surabaya Solar Schools offer a unique educational ...

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Assessment of Monitoring Data and Performance of a 4.5 ...

This study presents a performance analysis of a 4.5 kWp residential rooftop photovoltaic (PV) system installed in Surabaya, Indonesia. The system, comprising monocrystalline modules, a ...

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Design and Implementation of Real-Time Monitoring ...

Dec 15, 2021 · Design and Implementation of Real-Time Monitoring System for Solar Power Plant in Surabaya, Indonesia Ridho Hantoro1,\*,,Erna Septyaningrum1, Iwan Cony Setiadi1, ...

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Design and Implementation of Real-Time Monitoring System for Solar

Sep 25, 2025 · Dive into the research topics of 'Design and Implementation of Real-Time Monitoring System for Solar Power Plant in Surabaya, Indonesia'. Together they form a unique ...

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Top Advanced Solar Energy Management ...

Feb 20, 2025 · A solar energy management system (SEMS) is a smart solution that helps track, control, and optimize solar energy use. It ...

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Nusa Solar: Solar Energy in Bali , Solar Panel ...

Nusa Solar: Premier solar panel solutions for Bali, Lombok, and Indonesia. We offer top-notch On Grid and Off Grid solar energy systems for ...

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Design and Implementation of Real-Time Monitoring System for Solar

E3S Web of Conferences (Jan 2020) Design and Implementation of Real-Time Monitoring System for Solar Power Plant in Surabaya, Indonesia Hantoro Ridho, Septyaningrum Erna, Cony ...

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Design and Implementation of Real-Time Monitoring System for Solar

Abstract Availability of renewable energy now makes solar energy the right choice because of its advantages and easy application compared to other renewable energy sources. Monitoring of ...

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### Design and Implementation of Real-Time Monitoring System for Solar

Availability of renewable energy now makes solar energy the right choice because of its advantages and easy application compared to other renewable energy sources. Monitoring of ...

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### Design and Implementation of Real-Time Monitoring System for Solar

The design of an ATmega32 microcontroller-based system that is integrated with Raspberry-pi as a data acquisition system to provide a direct and real time monitoring of the output parameters ...

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### Assessment of Monitoring Data and Performance of a 4.5

Jun 12, 2025 · This study presents a performance analysis of a 4.5 kWp residential rooftop photovoltaic (PV) system installed in Surabaya, Indonesia. The system, comprising ...

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### Design and Implementation of Real-Time ...

Jan 1, 2020 · Monitoring of the output parameters of solar power plants needs to be done to assess the performance and efficiency of a solar ...

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### Design and Implementation of Real-Time Monitoring System for Solar

The aims of research is to provide a direct and real time monitoring. This research has been carried out in solar power plants at Engineering Physics Department, FTI-ITS. The design of ...

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### Design and Implementation of Real-Time Monitoring ...

Oct 23, 2023 · Design and Implementation of Real-Time Monitoring System for Solar Power Plant in Surabaya, Indonesia Ridho Hantoro1,\*,,Erna Septyaningrum1, Iwan Cony Setiadi1, ...

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### Monitoring the performance of the building attached ...

Feb 1, 2015 · Tarigan et al. [23] have studied the feasibility of installing a 1 kWp grid-connected photovoltaic (PV) system in a typical residence in Surabaya, Indonesia using PVsyst software ...

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### Solar Panel System, Residential Home, Commercial Buildings, ...

5 days ago · Solarion is Indonesia's premier solar energy company, dedicated to delivering high quality solar installations that effectively lower electricity expenses for households, businesses, ...

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### Solar PV Analysis of Surabaya, Indonesia

Mar 13, 2024 · Ideally tilt fixed solar panels 8° North in Surabaya, Indonesia To maximize your solar PV system's energy output in Surabaya, Indonesia (Lat/Long -7.2484, 112.7419) ...

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### Design and Implementation of Real-Time Monitoring System for Solar

Jan 1, 2020 · Monitoring of the output parameters of solar power plants needs to be done to assess the performance and efficiency of a solar power plant in real environmental conditions.

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