# SOLAR PRO.

### **Indonesia Solar Energy and Batteries**

Can solar power improve Indonesia's energy security?

Indonesia Solar Energy Outlook 2025highlights the crucial role of solar power in improving Indonesia's energy security. The report analyzes how solar PV can help reduce dependence on fossil energy, improve the reliability of electricity supply, and address the challenges of climate change.

#### Why is battery energy storage system important in Indonesia?

However, given the challenge of Indonesia's geological landscape, with many off-grid and remote areas, there is growing intermittency issue that hamper the development of solar and wind generation. Hence, the battery energy storage system (BESS) technologies have a critical role in the development of Indonesia's renewable energy.

#### What is Indonesia's solar energy capacity?

The capacity of solar energy in Indonesia is steadily climbing. With total capacity reaching over 322.6 MWas of the first half of 2023, this is an increase of over 800% in the last 10 years. This progress is part of Indonesia's solar energy plan, which targets 5 GW of installed capacity by 2030.

#### Why is solar and wind energy important in Indonesia?

Solar and wind energy are some of Indonesia's most developed renewable energy resourcesgenerating 207 GW and 135 GW of power respectively. However, given the challenge of Indonesia's geological landscape, with many off-grid and remote areas, there is growing intermittency issue that hamper the development of solar and wind generation.

#### Could Indonesia build a solar power plant in Singapore?

If it is built, the project could export clean energy to Singapore and catalyze a domestic solar manufacturing industry, analysts say. Last year, Indonesia's energy ministry approved a new 10-year business plan in which renewable projects make up more than half of planned new capacity, up 25 percent from the previous blueprint.

#### Is solar PV the future of energy in Indonesia?

Under a newly issued regulation by the Minister of Energy and Mineral Resources, the electricity state-owned enterprise (PLN) will pay for 100% of the electricity produced by customers' solar panels (previously 65%). This will encourage households to install more solar on rooftops. Solar PV is the future of energy in Indonesia.

Enda Ginting, Country Manager of Gurin Energy Indonesia, shared his perspective on the need to build a renewable energy manufacturing ecosystem such as solar panels, batteries, inverters to run various strategic projects.

This is the vision outlined in a recently published study by the 100% Renewable Energy team at the Australian

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National University (ANU), which showed Indonesia has vast solar energy potential -- far larger than all other energy sources combined and far larger than needed.

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Expanding solar energy, combined with battery storage to maximise harnessing can present significant opportunities, ... Additionally, Indonesia's Just Energy Transition Partnership (JETP) and the CIPP 2023 targets further emphasise the role of renewables, with an increased focus on solar, wind, geothermal, bioenergy and hydro for 2040. These ...

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transition, as well as its challenges and market opportunities. Previously, solar progress was included in the IESR"s annual flagship report Indonesia Energy Transition Outlook (IETO), but this year we made it into a separate publication.

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To foster a vibrant solar PV manufacturing ecosystem, Indonesia could explore paths to increase domestic demand for solar products. One viable approach is to focus on the rapidly growing battery manufacturing sector by providing incentives for operators to produce batteries for storing renewable energy.

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