

# **Expected ROI of hybrid renewable storage project in Indonesia 2026**





## Overview

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Are renewables the future of Indonesia's energy mix?

As of 2023, renewables account for only around 13% of the energy mix, indicating a need for rapid acceleration. Advancements in energy storage, smart grids, and hybrid renewable systems are shaping the future of Indonesia's energy landscape.

What is Indonesia doing with its energy storage capacity?

Indonesia is currently building on its storage capacity through the planned/ongoing installation of 5 MW battery energy storage systems (BESS), linked to PLN's renewable sites. Indonesia is also building its first utility-scale integrated solar and energy storage project in Nusantara.

Is Indonesia ready for a diversified energy strategy?

The current energy demand is projected to reach 1,200 TWh by 2030 and 1,800 TWh by 2040, underscoring the urgency for a diversified energy strategy. Indonesia is actively seeking to enhance foreign direct investment (FDI) in its renewable energy sector, driven by ambitious climate targets and regulatory reforms.

How can Indonesia prepare for a future of renewables?

By moving to a well-connected, high capacity, multi-directional grid, Indonesia can prepare for a future of renewables. That means crowding in private investments, which in turn means creating business cases for public-private partnership deals. Investing in storage is also a prerequisite. 3. Deploying the off-balance sheet to lower financing costs.

Why did France and the EU launch the Indonesia energy transition facility?

France and the EU reinforced momentum by launching the EUR 14.7 million Indonesia Energy Transition Facility in February 2025. These inflows unlock lower-cost capital, cut project risk premiums, and widen participation in the



Indonesian renewable energy market, particularly in provinces grappling with coal-plant phase-outs.

How to optimize energy yield & cost in re project development?

Therefore, utilizing the matching technology with resources should be identified during the planning stage of RE project development to optimize energy yield and cost. Certainty of land procurement, including ease of obtaining land use permits, is an important factor to consider when investing in RE.



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### Optimal energy storage configuration to support 100 % renewable ...

The analysis delineates the complex relationship among renewable energy integration, the expansion of battery storage, and the changing electricity generation landscape ...

### How battery storage accelerates decarbonisation in Asia Pacific

Battery Energy Storage Systems--or BESS for short--could accelerate the energy transition. They can balance out the intermittency of renewable energy, support the grid infrastructure and ...



### INDONESIA RENEWABLE ENERGY INVESTMENT ...

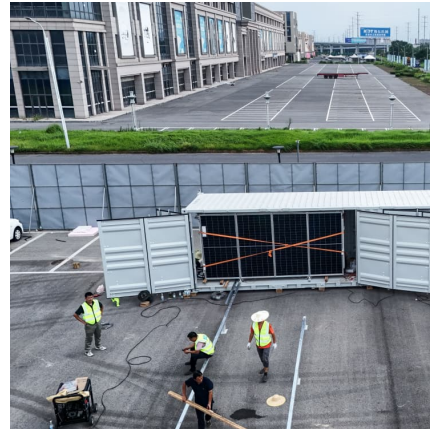
Indonesia's excessive reliance on fossil fuel over the years has resulted in excess power supply. The commissioning of several coal-fired power plants from the 35.000 MW mega project is ...

### CVC DIF to acquire a large scale hybrid solar PV and battery storage

Gabriela will combine large-scale PV and battery storage to deliver reliable, clean energy and improve the resilience of the Chilean grid. This



investment underlines our long-term ...



### [Battery Energy Storage System \(BESS\) market di Indonesia](#)

KfW-BMU's Renewable Energy Storage Program: The program aims to encourage further technical development of solar + storage installations and to increase their market penetration ...



### **CVC DIF to acquire a large scale hybrid solar PV and battery storage**

CVC DIF, the dedicated infrastructure investment strategy of leading global private markets manager CVC, is pleased to announce that it has agreed to acquire the ...



### [Indonesia Begins Construction on Its First Carbon ...](#)

First injection of carbon in the CCUS project is expected in 2026, and BP is estimated to have invested \$2.6 billion in the facility, according to an Indonesia official from the energy ministry





### [JICA's Cooperation for Energy Transition in Indonesia](#)

Cooperation outline: The Parties will strengthen their comprehensive cooperation in; (i) Research and development of policies, regulatory framework and standards on new energy (hydrogen ...



### [China's role in scaling up energy storage investments](#)

This study explores the challenges and opportunities of China's domestic and international roles in scaling up energy storage investments. China aims to increase its share ...

### **Renewable Energy Trends and Forecasting in 2025 , Diversegy**

The global energy market is set to witness significant shifts in renewable energy in 2025. Learn what trends, challenges, and opportunities experts forecast.



### **CVC DIF to acquire a large scale hybrid solar PV and battery storage**

CVC DIF has agreed to acquire a utility-scale hybrid PV-BESS energy project in Chile from Grenergy. The project is currently under construction in Northern Chile and ...



### [ACEN expands global renewable projects with new ...](#)

ACEN Corporation is accelerating the launch of its renewable energy projects worldwide as it moves toward its goal of 20 gigawatts (GW) in attributable capacity by 2030. Philippine Star reported that by 2026, ACEN ...



### **Indonesia Hybrid Battery Energy Storage System Market Size ...**

Hitachi Energy Eaton Corporation Recent Developments Fluence Energy announced a hybrid battery project in Indonesia that combines lithium-ion and flow battery ...

### [Unlocking Indonesia's Renewables Future](#)

This study aims to identify economically viable renewable energy projects in Indonesia, considering the technical potential (capacity based on natural resources), land availability, and ...



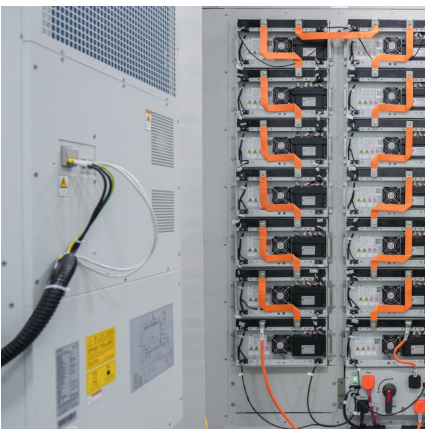
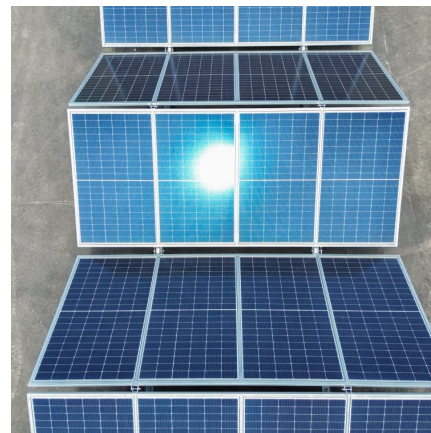


### **The importance of financial cost for renewable energy ...**

In this paper, local data are used to evaluate the economic viability of renewable hybrid mini-grid systems in Indonesia. In some studies, hybrid mini-grid systems with mini-hydro energy and ...

### [Green Energy Transition Indonesia \(GETI\)](#)

Green Energy Transition Indonesia is a project undertaken by the Institute for Essential Services Reform that is supported by the British Embassy Jakarta. Conducted until March 2026, this ...



### [India expected to hit 132 GW of installed solar ...](#)

ICRA, an Indian credit rating agency, expects India's installed renewable energy capacity (from solar, wind, large hydro and other RE sources) to increase to about 250 GW by March 2026 from 201 GW as of September ...

### [The Future Of Renewable Energy In Indonesia: 2025 ...](#)

In theory, renewable energy is cheaper to produce than fossil fuels, but the way total energy costs are calculated is complex and involves an understanding of upfront investment, operating costs, and payment mechanisms.



### Value Assessment of Energy Storage in Hybrid Renewable ...

He is engaged with production (dispatch) simulation modelling and analysis, reliability assessment studies, financial evaluation for thermal, renewable and energy storage projects, microgrid ...



### Indonesia

Misna said hydrogen development in Indonesia is still at the research and pilot-project stage, and the industry is projected to grow after 2030 with wider usage in vehicles, power generation, ...



### [The Average and Expected ROI of RE Plant for ...](#)

Unsure of the ROI for your renewable energy plant? This guide explores average and expected Return on Investment (ROI) for RE facilities across various scenarios and factors.





[PRESS RELEASE RGE and TotalEnergies Ink Co ...](#)

Solar Power and Battery Energy Storage Project in Indonesia Imelda Tanoto, Managing Director at RGE (right) and Helle Kristoffersen, President Asia and Member of the Executive Committee ...



**Indian Renewable Energy capacity expected to reach 250 ...**

ICRA expects the installed renewable energy capacity (including large hydro) in India to increase to about 250 GW by March 2026 from the level of 201 GW as of September ...

**FACTSHEET ENERGY STORAGE**

16 GW to 680 GW. The storage addition pace accelerates from 6 GW added in 2021 to 140 GW added in 2030, with an average storage addition of 80 GW per year over the period. To reach ...



**BATTERY**

Featuring a comprehensive range of exhibitors showcasing batteries, energy storage systems, and supporting technologies, the event provides a comprehensive overview of the rapidly ...



[Vena Energy to build Indonesian clean energy hybrid ...](#)

A framework agreement has been signed between developer Vena Energy and key technology suppliers to a cross-border clean energy 'hybrid megaproject' in Indonesia.



[INDONESIA RENEWABLE ENERGY INVESTMENT ...](#)

Indonesia aims to transition to clean energy without compromising economic growth. While coal is the country's main source of electricity, it is excessive reliance on fossil fuel over the years has ...

[Vena launches plan to support solar, storage ...](#)

Singapore-based developer Vena Energy says it will investigate opportunities to make solar panel components and battery energy storage systems in Indonesia, in order to support a hybrid





### India expected to hit 132 GW of installed solar capacity by March 2026

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### Hybrid Battery Storage Systems in Industrial Applications

Battery cost declines: BloombergNEF expects lithium-ion battery prices to drop below \$100 /kWh by 2026, providing an additional lift for hybrid systems. Grid service revenue: ...



### [Green Hydrogen Innovation Centre , International](#)

Fiscal incentives for green hydrogen projectsAccording to Indonesia Investment Guidebook, there are several fiscal incentives that green hydrogen projects could potentially benefit from: Import duty exemption for import of capital goods for ...

### Indonesia: Deploy 5.7GW of rooftop photovoltaic power stations ...

Last month, IESR called for the implementation of power wheeling in Indonesia, saying it would create a renewable energy market and have a positive impact on industrial ...



### **TotalEnergies and RGE Ink Co-Investment Agreement to ...**

Driving Economic Value and Green Workforce Transformation The project is expected to: Position Indonesia as a global renewables hub through the creation of skilled jobs ...

### [Hybrid Renewable Energy Systems--A Review of ...](#)

The growing need for sustainable energy solutions has propelled the development of Hybrid Renewable Energy Systems (HRESs), which integrate diverse renewable sources like solar, wind, biomass, geothermal, hydropower ...



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