

PV energy storage project financing options in Indonesia 2025





Overview

How much solar energy investment in Indonesia has doubled in 2021?

Alvin Putra Siswinugraha, Lead Author of ISEO 2025 and IESR's Electricity and Renewable Energy Analyst, revealed that solar energy investment in Indonesia has doubled, from USD 68 million in 2021 to USD 134 million in 2023.

Could solar and wind be the backbone of Indonesia's energy transition?

However, advancements in energy storage technology, such as battery energy storage systems and grid-forming inverters, could enable solar and wind, together boasting a technical potential of 3.4 TW, to serve as the backbone of Indonesia's energy transition.

Could solar power be the backbone of a competitive energy transition?

The findings show that solar, wind, and hydro could serve as the backbone of a competitive energy transition. The IESR study *Unlocking Indonesia's Renewables Future: The Economic Case of 333 GW of Solar, Wind, and Hydro Projects* highlights 1,500 suitable locations for ground-mounted solar, onshore wind, and mini- and micro-hydro power plants.

How can Indonesia accelerate the adoption of energy storage?

IESR urges the Indonesian government to accelerate the adoption of energy storage, among others, by first improving the regulatory framework and establishing legal certainty to provide adequate compensation for ESS developers, reduce development risks, and boost investor confidence.

How can IESR accelerate the growth of Indonesia's electricity system?

IESR emphasized that a solid understanding and strong commitment from policymakers and energy planners regarding the potential and benefits of solar energy and ESS are essential prerequisites for accelerating their growth in Indonesia's electricity system.



Is solar energy a good investment?

However, there is significant potential to increase installed capacity and attract investment in solar energy, as the government and PLN plan to develop a total of 17 GW of solar energy. In addition, IESR's report *Powering the Future* notes that the country is still in the early stages of adopting energy storage systems (ESS).



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IESR study reveals 333 GW of renewable energy projects ...

IESR also found that around 61 percent of the 333 GW of potential renewable energy projects, or around 206 GW, have an EIRR level above 10 percent based on the ...

[How to finance battery energy storage , World ...](#)

Battery energy storage systems can address the challenge of intermittent renewable energy. But innovative financial models are needed to encourage deployment.



[SOLARTECH INDONESIA 2025 \(Sub event with : ...](#)

The 10th edition of Solartech Indonesia, which will be held in conjunction with Battery & Energy Storage Indonesia 2025, INALIGHT 2025, Smart Energy Indonesia 2025 and Smart Home + City Indonesia 2025, will be ...

[Indonesia announces 100 GW solar, storage minigrid plan](#)

The new initiative features plans for 1 MW solar minigrids tied with 4 MWh of accompanying battery energy storage, to be deployed across 80,000 villages, alongside 20 ...



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The financing mechanisms for onsite renewable generation, energy storage, and energy efficiency projects include a spectrum of options ranging from traditional to specialized.



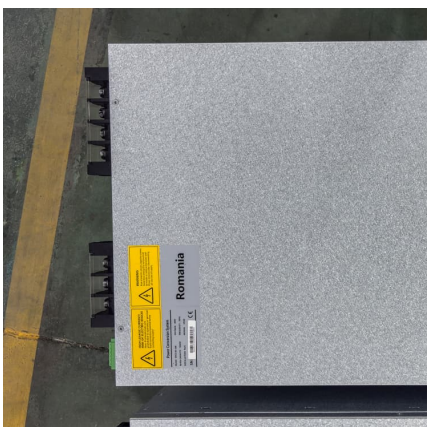
Solar energy to drive Indonesia's transition away from coal, biofuels

The role of solar PV in Indonesia will extend beyond replacing coal-based electricity generation; it will also include the production of e-fuels for hard-to-abate segments, ...



[Sembcorp launches Indonesia solar-plus-BESS ...](#)

Despite the potential in scaling solar PV and wind generation, the rollout of energy storage capacity has lagged behind. From a deployment perspective, battery storage has not yet taken off in Indonesia beyond a ...





Market Information

Solartech Indonesia 2026 - ASEAN's Key Solar PV Systems Platform Solartech Indonesia 2026 is held to support government plan to achieve Net Zero Emission by featuring the largest exhibition in Southeast Asia that focuses on the Solar ...

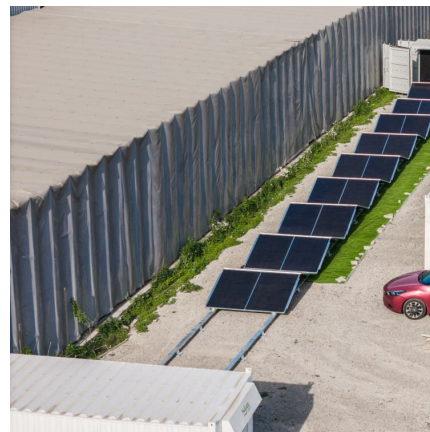


Indonesia announces bold 320 GWh distributed battery storage plan

The new initiative features plans for 1 MW solar minigrids tied with 4 MWh of accompanying battery energy storage, to be deployed across 80,000 villages, alongside 20 ...

Indonesia Unveils 100 GW Solar Initiative With Massive 320GWh ...

Operated by the village cooperative Merah Putih, these solar-plus-storage mini grids aim to provide affordable, reliable power while reducing dependence on costly diesel ...



[Indonesia's installed solar capacity surpasses 700 MW](#)

The report explained that Indonesia is still in the early stages of energy storage adoption and stresses the need for a comprehensive strategy to accelerate the development of an energy storage



Role of ESS Bintang 230627.pptx

PHS and CAES are superior in applications with a duration longer than 10 hours, except for power reliability applications that mandate distributed energy storage systems (i.e., BESS).



[Indonesia sending mixed messages about renewables](#)

Indonesia has the resources to quickly increase the share of renewables in its power mix, including abundant solar, geothermal and pumped storage potential to help stabilize the grid. The government has introduced ...

[Seven financing options for solar PV installations](#)

Here are seven financing options for the residential, commercial and industrial sectors to consider: Power Purchase Agreements PPAs are a popular choice among intensive energy users since the service provider fully ...





Indonesia Has 333 GW of Financially Viable Renewable Energy Projects

Indonesia's vast technical renewable energy potential, exceeding 3,686 GW, is a crucial asset for increasing the country's renewable energy mix beyond 23 percent, ...

Indonesia Unveils 100 GW Solar Initiative With Massive 320GWh ...

Indonesia has announced an ambitious plan to deploy 100 GW of solar power nationwide, combining large-scale generation with an unprecedented rural electrification push. ...



[Key Facts about Indonesia's Energy Storage System](#)

The Potential of The Energy System Storage 2021 was an important year for Indonesia as the government has issued necessary regulations to facilitate renewable energy growth and reach the ambitious goal of 2025. ...

[Indonesia announces 100 GW solar, storage minigrid plan](#)

These solar-plus-storage minigrids are set to be installed in 80,000 villages across Indonesia and will be managed and operated by village cooperative Merah Putih. The ...



[The future of solar with battery storage](#)

Integrating battery energy storage systems (BESS) with solar projects is continuing to be a key strategy for strengthening grid resilience and optimising power dispatch. With proper planning



Opportunities for Increased Adoption of Solar Energy and Energy Storage

Institute for Essential Services Reform (IESR), a leading energy and environment think tank, has released two new studies on solar energy development and an ...



The Hydrogen Stream: HDF signs deal for 23 projects in Indonesia

HDF Energy (Hydrogène de France) has signed a tripartite agreement with Indonesia's PLN and PT SMI to fund EUR2.3 billion (\$2.6 billion) of hydrogen projects, while ...





[Photovoltaic \(PV\) solar power plants in Indonesia](#)

Technological Innovation Technological advancements in solar energy are also propelling the growth of solar power plants in Indonesia. The introduction of advanced photovoltaic (PV) technologies, energy storage ...



New Energy Outlook

The 2025 edition presents a new, updated base-case scenario and a deep dive into key trends affecting the energy transition in the next 10 years to support corporations, financial institutions and policymakers navigating the energy ...

[Indonesia Has 333 GW of Financially Viable ...](#)

Indonesia's vast technical renewable energy potential, exceeding 3,686 GW, is a crucial asset for increasing the country's renewable energy mix beyond 23 percent, potentially reaching 50 percent by 2030.



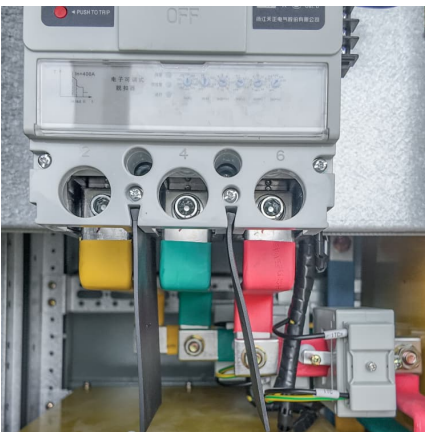
Solareit surpasses \$125 million in U.S. energy storage ...

The capital supported over 1.6 GWac of U.S. battery storage projects since the solar real-estate investment fund expanded into energy storage less than two years ago.



TotalEnergies And RGE Team Up To Build Solar And Battery Storage

TotalEnergies and RGE, through their equally-owned joint venture Singa Renewables (Singa), have entered into a Co-Investment Agreement to jointly develop, ...



[Advancing Renewable Energy in Indonesia: A ...](#)

This study examines Indonesia's evolving energy landscape, highlighting key challenges and opportunities for the implementation of renewable energy. The findings emphasize that a comprehensive and integrated roadmap ...

[Unlocking Indonesia's Renewables Future](#)

It builds upon the previous IESR study published in 2021 under the title Beyond 443 GW: Indonesia's Infinite Renewable Energy Potential, which assessed the technical potential for ...





[The Hydrogen Stream: HDF signs deal for 23 projects ...](#)

HDF Energy (Hydrogène de France) has signed a tripartite agreement with Indonesia's PLN and PT SMI to fund EUR2.3 billion (\$2.6 billion) of hydrogen projects, while Thyssenkrupp Nucera says it

[Indonesia's green powerhouse promise: Ten bold moves](#)

By identifying and acting on the opportunities on the road to net zero, Indonesia could--with ten strategic initiatives--help ensure a secure, green, and sustainable future for itself and the world.



Welcome To Solartech Indonesia

Based on the success of Solartech Indonesia 2025, which drew more than 780 exhibitors and 18,000 visitors from over 40 countries, the event has cemented its place as ASEAN's largest ...

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