### **SOLAR** Pro.

## Energy storage for electric vehicles Indonesia

Will Indonesia build a battery energy storage system?

by Bambang Purwanto JAKARTA, March 18 (Xinhua) -- Indonesia's state-owned electricity company PT PLN and its subsidiaries have collaborated with the Indonesia Battery Corporation (IBC) to build a battery energy storage system (BESS) with a capacity of 5 Megawatts (MW) this year.

#### Why is battery technology needed in Indonesia?

In addition, the transmission system in Indonesia is vulnerable to black outs, hence battery technology will be needed to support the stability of the electricity infrastructure. Another approach taken by the Indonesian government to reduce the reliance on energy imports, is to accelerate the development of the electric vehicle industry.

#### Can electric vehicles reduce emissions in Indonesia?

Electric vehicles have been included in the mitigation action of our country. To meet the emission reduction target under Indonesia's Nationally Determined Contribution (NDC), 2-electric wheelers must reach 1.8 million by 2025 and 13 million by 2030, while 4-electric wheelers must reach 0.4 million by 2025 and 2 million by 2030.

#### Why is Hyundai launching a battery plant in Indonesia?

Hyundai and LG Energy Solution have opened a \$1.1bn battery cell plant in Indonesia as the south-east Asian country works to build an electric vehicle ecosystem. The launch of the country's first battery plant on Wednesday is part of Indonesia 's push to move up the global EV supply chain.

#### What is the purchasing power of EV in Indonesia?

The purchasing power of EV in Indonesia is lower than that of other major EV markets, as indicated by the difference in GDP per capita (Gaikindo, 2021). More developed EV markets either have higher GDP per capita or provide significantly higher cost reduction.

#### Why is Indonesia launching its first EV battery plant?

The launch of the country's first battery plant on Wednesday is part of Indonesia 's push to move up the global EV supply chain. Indonesia has the world's largest reserves of nickel, a crucial component in EV batteries and steelmaking.

South Korea"s Hyundai Motor Group and LG Energy Solution (LGES) on Wednesday inaugurated Indonesia"s first battery cell production plant for electric vehicles with an annual capacity of 10...

Indonesia has big ambitions to become a major player in the electric vehicle (EV) industry. However, the journey towards this goal is faced with a number of significant challenges. Powering the Future reveals that

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Battery Energy Storage Solution technology (BESS) will play a critical role in the development of Indonesia's renewable energy and electric vehicles. Those sectors are some of top priorities from the Indonesian government as Indonesia aims to increase its renewable energy contribution to 23% to the energy mix by 2025, vs. 13% today.

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This paper analyses the interplay between EVs, energy storage, and renewable energy integration with Indonesia's grid as a test case. A comprehensive energy system modeling approach using PLEXOS is presented, using historical data on electricity generation, hourly demand, and renewable energy, and multiple scenarios of charging patterns and ...

Indonesia Electric Vehicle Outlook 2023 Foreword Decarbonizing Transport In 2018, the transport sector contributed to 28% of Indonesia's energy sector emissions, and it is rapidly increasing. Emissions from the transport sector are expected to rise by 53% from 2015 levels by 2030, and nearly double between 2030 and 2060.

ENERGY STORAGE: FOR SMART (MICRO) GRID AND EV oThe priority of clean energy technology in Indonesia is how technology can help in fulfilling clean energy based on renewable energy / renewable energy variables oIn addition, the next priority is on the demand side, where the application of electric vehicles is the focus for achieving net zero

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