

**JH Solar**

# Japanese automobile energy storage

 **TAX FREE**    

## ENERGY STORAGE SYSTEM

**Product Model**  
HJ-ESS-215A(100KW/215KWh)  
HJ-ESS-115A(50KW 115KWh)

**Dimensions**  
1600\*1280\*2200mm  
1600\*1200\*2000mm

**Rated Battery Capacity**  
215KWH/115KWH

**Battery Cooling Method**  
Air Cooled/Liquid Cooled



## Overview

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Japanese automotive giants Toyota and Mazda have joined forces to test a new energy storage solution that could revolutionize the way manufacturing plants power their operations. By repurposing old electric vehicle (EV) batteries, Toyota aims to provide a sustainable and cost-effective alternative.

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In the future, the storage system will be used to regulate power supply and demand from renewable energy, which fluctuates depending on weather and time of day, contributing to carbon neutrality. The tests are aimed to contribute to building a battery ecosystem, which is part of the seven mobility.

Nissan launched the world's first mass-produced EV, the Leaf, in 2010, and became the first car company to reach 400,000 EV sales in 2019. The biggest challenge in vehicle electrification is energy storage, and it is here that Japan is playing a particularly vital role. Rechargeable lithium-ion.

In this edition of Policy Deep Dive, we talk about storage batteries. It's well known that the importance of batteries in general is undeniable, especially with the advent of electric vehicles in recent years. However, storage batteries in general are also expanding into areas that were.

Another challenge will be to strengthen electrified vehicle-related technologies, supply chains, and value chains, including storage batteries, fuel cells, and motors. It is especially important to develop small lightweight storage batteries and motors for light and commercial vehicles which face.

Toyota Motor Corporation (Toyota) and Mazda Motor Corporation (Mazda) have started field tests of Toyota's Sweep Energy Storage System \* at Mazda's Hiroshima Plant in Hiroshima Prefecture, Japan. For the tests, the power system at Mazda's headquarters campus—the only power generation

system.

Japan's energy storage sector is expanding, though growth remains uneven across segments. The overall market is expected to grow 11% annually, from USD 793.8 million in 2024 to USD 2.5 billion by 2035. Residential adoption is moving faster. Home lithium-ion battery systems generated USD 278.5. What is Japan's energy storage policy?

As policy, technology, and decarbonization goals converge, Japan is positioning energy storage as a critical link between its climate targets and energy reliability. Japan's energy storage policy is anchored by the Ministry of Economy, Trade and Industry (METI), which outlined its ambitions in the 6th Strategic Energy Plan, adopted in 2021.

Why does Japan need storage batteries?

As the energy transition leads to more renewable energy and electrification of transport, demand for storage batteries is increasing. Manufacturing such batteries, however, requires a wide array of raw materials that Japan must import, often competing with both allies and rivals.

What is Japan's storage battery industry strategy?

The "Storage Battery Industry Strategy" document from METI sets out three key targets: Boost Domestic Manufacturing: Japan aims to ramp up its domestic production of automotive storage batteries to 100 GWh by 2030, with a long-term goal of reaching 150 GWh annually. This move highlights the potential for foreign companies to invest in Japan.

How is Japan's energy storage landscape changing?

Japan's energy storage landscape is shifting, pushed by household demand, corporate ESG mandates, and domestic battery manufacturing. The residential lithium-ion market, projected to grow at a CAGR of 33.9% through 2030, remains one of the fastest-expanding segments.

Should Japan re-use aging batteries?

This development holds potential to extend the life of batteries, and as a result can help to partly insulate Japan from disruptions in international supply chains. Plus, with the cost of recycling and battery disposal high, there's likely to be no shortage of those willing to hand over aging batteries.

What is Japan's Automobile decarbonization technology?

Moreover, Japan's automobile decarbonization technology goes beyond electrification, as research into hydrogen fuel and biofuel continues to progress. In 2014, Toyota released the Mirai, a fuel cell vehicle that generates electricity from hydrogen, and the technology has been used by public buses in Tokyo since 2017.

## Japanese automobile energy storage

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### Japan Battery Energy Storage System

Gurin Energy is developing a pipeline of utility-scale battery energy storage system (BESS) projects to enable greater flexibility of the grid and support the increased use of renewable energy in Japan.

## THE RENEWABLE ENERGY TRANSITION AND SOLVING ...

THE RENEWABLE ENERGY TRANSITION AND SOLVING THE STORAGE PROBLEM: A LOOK AT JAPAN The rapid growth of renewable energy in Japan raises new challenges regarding ...



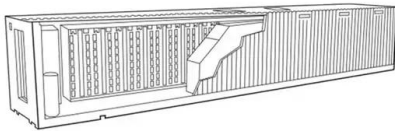
## Japan: Large-scale battery storage opportunities in an evolving ...

The energy storage market is experiencing a wave of significant growth in Japan, as ESN Premium hears from Eku Energy and BloombergNEF.



## About US

AESC is a global leader in the development and manufacturing of high-performance batteries for zero-emission electric vehicles and energy storage systems. Founded in Japan in 2007 and headquartered in Yokohama, ...



## Japanese gov't selects aggregators for JPY9 billion ...

The Japanese government has published list of battery aggregators that successfully applied to a scheme to promote energy storage systems.

## What are Japan's energy storage vehicles?

Japan's energy storage vehicles embody a pioneering approach to sustainable mobility, showcasing innovative technologies that enhance efficiency and environmental stewardship.



## Aiming to Build Battery Ecosystem, Toyota and Mazda Start ...

2 ???· Aiming to Build Battery Ecosystem, Toyota and Mazda Start Tests of Battery Energy Storage System Using Electrified Vehicle Batteries Toyota Motor Corporation (Toyota) and ...

## Japan Energy Storage Policies and Market Overview

Japan's energy storage policies, market statistics, and trends--from METI's strategic plans and subsidy programs to deployment challenges.



## How Japan is Driving BESS Investment

A Growing Need for Energy Storage The increasing generation of renewables on the Japanese grid has led to various support policies and CAPEX subsidy schemes to support the deployment of grid ...

## Battery Storage In Japan - Policy Deep Dive

Throughout this session, we will explain the Japanese government's policies regarding storage batteries and explore the future possibilities in Japan's market in this field.



## World-Leading Battery Technology Company , AESC

AESC is a global leader in the development and manufacturing of high-performance batteries for zero-emission electric vehicles and energy storage systems. Founded in Japan in 2007 and headquartered in Yokohama, ...

## Japan: 1.67GW of energy storage wins in capacity ...

Over a gigawatt of bids from battery storage have succeeded in Japan's first-ever competitive auctions for low-carbon energy capacity.



## Construction and Launch of a Large-capacity ...

Toyota City, Japan, October 27, 2022-JERA Co., Inc. (JERA) and Toyota Motor Corporation (Toyota) announce the construction and launch of the world's first (as of writing, according to Toyota's ...

## Tesla to supply batteries for major Japanese power ...

TOKYO -- U.S. automaker Tesla will deliver large storage batteries to one of Japan's largest power storage plants planned by financial services group Orix, as demand for facilities that help



## Japan's Automotive Industry

The automobile and parts manufacturing industry is Japan's core industry. Due to the global shortage of chips, the Japanese automobile industry produced 7.83 million vehicles of all types ...

## 27 grid-scale BESS projects secure 34.6B yen ...

2 ???· A total of 27 projects was awarded 34.6 billion yen in subsidies through METI's FY2024 program for supporting the expansion of renewable energy through introduction of energy storage, Sustainable Open ...



## Toyota repurposes old EV batteries to power ...

Japanese automotive giants Toyota and Mazda have joined forces to test a new energy storage system that gives a second life to electric vehicle batteries.

## Tokyo utilities put home battery storage in Japan

Home battery storage aggregation projects have launched with participation of Tokyo Electric Power Co, and Tokyo Gas, two major utility companies in the Japanese capital. On Tuesday (3 September), ...



## Aiming to Build Battery Ecosystem, Toyota & Mazda Start Tests of Energy

2 ???· Toyota Motor Corporation (Toyota) and Mazda Motor Corporation (Mazda) have started field tests of Toyota's Sweep Energy Storage System \* at Mazda's Hiroshima Plant in ...

## Japan: Tesla to supply 548MWh BESS, Sumitomo a 12MWh VRFB

Tesla will provide 548MWh of Megapacks for an Orix BESS while Sumitomo Electric will deploy a 12MWh vanadium flow battery, both in Japan.



## Foreign companies bet on Japan's battery storage market

TOKYO -- Foreign companies are piling into battery energy storage in Japan as they seek to gain an early-mover advantage in a market they expect to grow along with the use ...

## Fluence, ENERES launching trading, optimisation in Japan in ...

Fluence's Andrew Kelley (left) with ENERES Corporation president and CEO Sanehiro Tsuzuki. Image: ENERES Public Relations Dept. A senior APAC representative for ...



## Driving Together: Japan's Collaborative Path to ...

The biggest challenge in vehicle electrification is energy storage, and it is here that Japan is playing a particularly vital role. Rechargeable lithium-ion batteries are a born-in-Japan technology: their inventor, Dr. Akira Yoshino, ...

## Japan: Strong fundamentals for energy storage drive expectations

Rendering of Eku Energy's 150MW/600MWh Eshi BESS project, awarded a 20-year LTDA capacity contract. Image: Eku Energy ESN Premium's deep dive into Japan ...

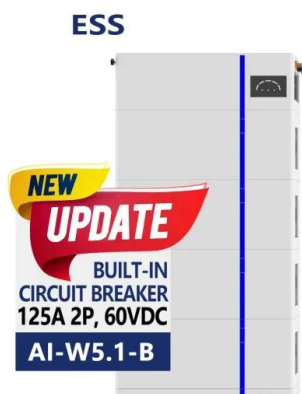


## Toyota repurposes old EV batteries to power ...

The project involves collecting used EV batteries from Toyota's electric vehicles, such as the Prius and the Mirai, and repurposing them to create a large-scale energy storage system for Mazda's car plant.

## Japan on cusp of energy storage boom

Solar power has become the largest source of clean energy in Japan this year. Interest among households has been strong, with more than 3mn residential solar systems ...

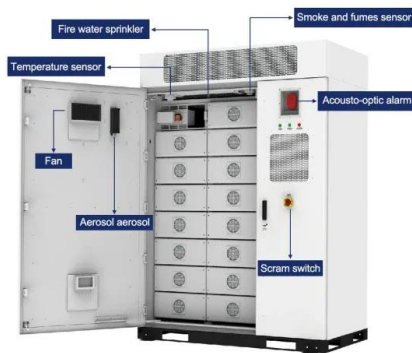


## 12 grid-scale BESS projects totaling ...

A total of 12 projects totaling 180MW/595.3MWh was awarded 13 billion yen through Tokyo's FY2024 subsidy for promoting grid-scale battery storage, the metropolitan government's document released ...

## Japan on cusp of energy storage boom

Solar power has become the largest source of clean energy in Japan this year. Interest among households has been strong, with more than 3mn residential solar systems installed last year.



## Battery Industry Strategy

In the face of intensifying international competition in the development of next-generation batteries, including all-solid-state batteries, Japan promote research and development through ...

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