

# Business Outlook

## Automotive Lithium-ion Batteries

### Message from the Business Unit Manager

We supplied batteries for the world's first mass-produced EVs and started mass production ahead of other manufacturers of lithium-ion batteries for HEVs, and have continued to supply batteries stably for over 15 years. Our experience as a pioneer with stable delivery of high quality products has deepened relationships with Japanese automobile manufacturers.

With the electrification of automobiles advancing on a global scale, the demand for lithium-ion batteries is on an irreversible trend. The demand for lithium-ion batteries for HEVs is expected to be strong until the mid-2030s, and gradual shift to lithium-ion batteries for BEVs is expected from the late 2020s. If there is a change in the speed of shift to BEVs, the HEV and PHEV markets are expected to expand, which will be advantageous for GS Yuasa that operates these businesses as well.

We expect the demand for lithium-ion batteries for HEVs to increase during the term of the Sixth Mid-Term Management Plan and plan to increase Blue Energy's production capacity to 70 million cells annually in FY2025 in

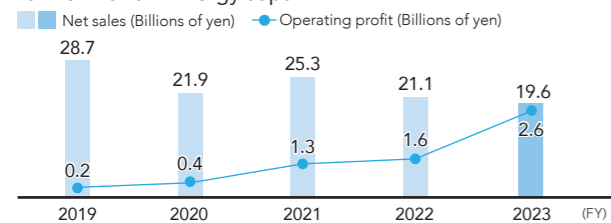
**Toshiyuki Aoyama**  
Executive Officer,  
Business Unit Manager of  
Lithium-ion Batteries,  
GS Yuasa International Ltd.



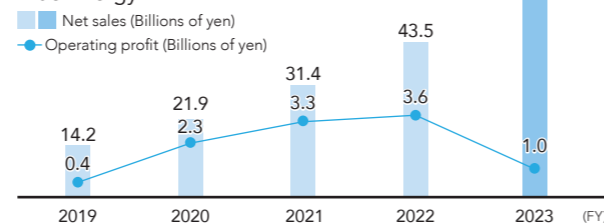
order to meet the demand. For lithium-ion batteries for PHEVs, we will strengthen the expansion of supported vehicle models. As for former LEJ absorbed in February 2024, we took over business dealings with existing customers, and future uses are under consideration. Regarding lithium-ion batteries for BEVs, we will pursue the development of high performance batteries with high international competitiveness, aiming to start mass production in 2027 led by HGYB, a joint venture with Honda Motor. Initially, we will steadily proceed with the starting up of businesses in Japan and solidify the foundation toward the establishment of technologies and supply chains.

### Basic information

Change in net sales and operating profit of former Lithium Energy Japan



Change in net sales and operating profit of Blue Energy



### SWOT analysis

<ul style="list-style-type: none"> <li>Solid customer base based on high quality evaluation and trust from Japanese automakers</li> <li>Delivery results by BEC and LEJ</li> <li>Over 10 years of experience in mass production of HEVs and PHEVs in the market</li> </ul> <p><b>S</b> Strengths</p>	<ul style="list-style-type: none"> <li>Business scale compared to manufacturers in China and Korea</li> <li>Concentration of production sites in Japan</li> </ul> <p><b>W</b> Weaknesses</p>
<ul style="list-style-type: none"> <li>Expanding demand for HEVs by Japanese automakers</li> <li>Growing demand for batteries for BEVs along with the electrification</li> </ul> <p><b>O</b> Opportunities</p>	<ul style="list-style-type: none"> <li>Concerns about higher raw material prices and stable procurement of raw materials</li> <li>Legal regulation in Europe and the U.S.</li> <li>Inferior competitiveness of next-generation products due to a high market share by foreign manufacturers</li> <li>Shortage of workers</li> </ul> <p><b>T</b> Threats</p>

### Outlook for the Sixth Mid-Term Management Plan

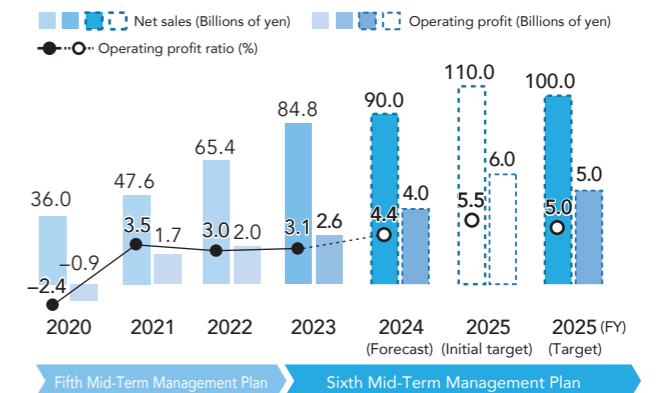
#### Policy

Achieve sustainable growth in the lithium-ion battery business by taking carbon neutrality and government targets as opportunities

#### Strategies and important tasks

- For HEVs**
  - Improve yield rate and plant utilization rate
  - Establish further increasing production system of Blue Energy No. 2 plant
- For BEVs**
  - Strengthen development systems
  - Prepare to enter business
- Future initiatives**
  - Preparations for the start of factory operation in FY2027
  - 12V (auxiliary and backup use)
    - Development of products / preparation of production
- For PHEVs**
  - Improve yield rate and plant utilization rate
  - Strengthen production systems of batteries for PHEVs

#### Net sales, operating profit, operating profit ratio



#### Outlook for the fiscal year ending March 31, 2025

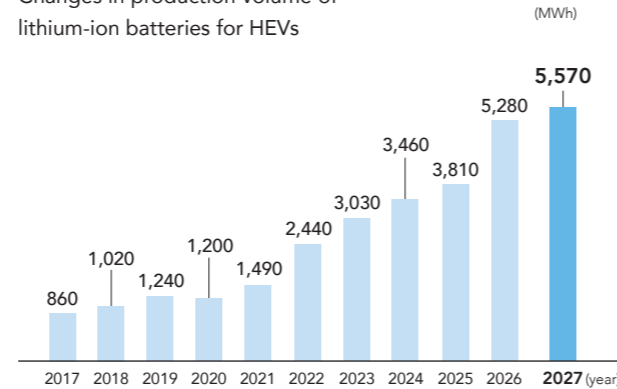
- For HEVs**
  - Increase in sales volume buoyed by growing demand for HEVs by Japanese automakers
- For PHEVs**
  - Increase in sales volume by expansion of vehicle models and production capacity (FY2023: 6 million cells/year ⇒ FY2024: 8 million cells/year)
- For BEVs**
  - Promoting the development of batteries for BEVs

# Initiatives for Automotive Lithium-ion Batteries

## Market Environment Surrounding Lithium-ion Batteries for HEVs

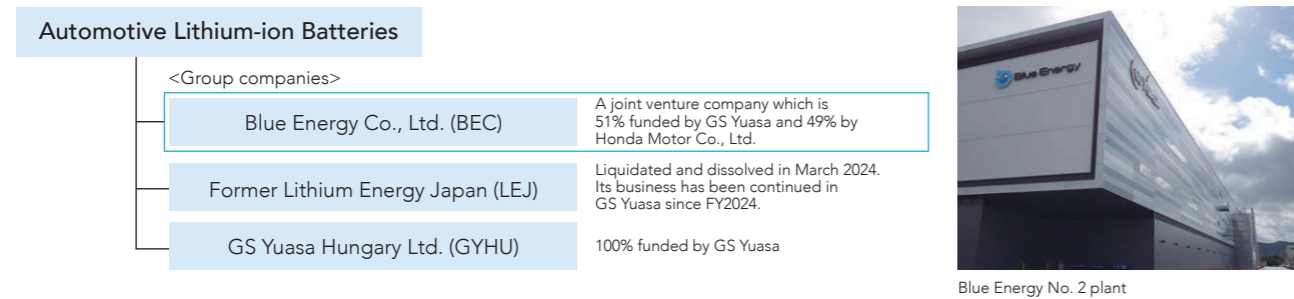
The production volume of lithium-ion batteries for HEVs is increasing year by year. Especially in Japan, the demand for lithium-ion batteries for HEVs is expected to grow in the medium- to long-term partly because of Japanese automakers' strategies toward the goal of electrification of all new automobiles in the mid-2030s. GS Yuasa responds to the demand from Japanese automakers by increasing production capacity.

Changes in production volume of lithium-ion batteries for HEVs (MWh)



Source: "FY2020 In-depth Analysis and Research on the Market Related to HEVs and EVs" by Fuji Keizai  
 Note: Expectation for 2020; forecasts for 2021 and beyond

## Outline of Blue Energy



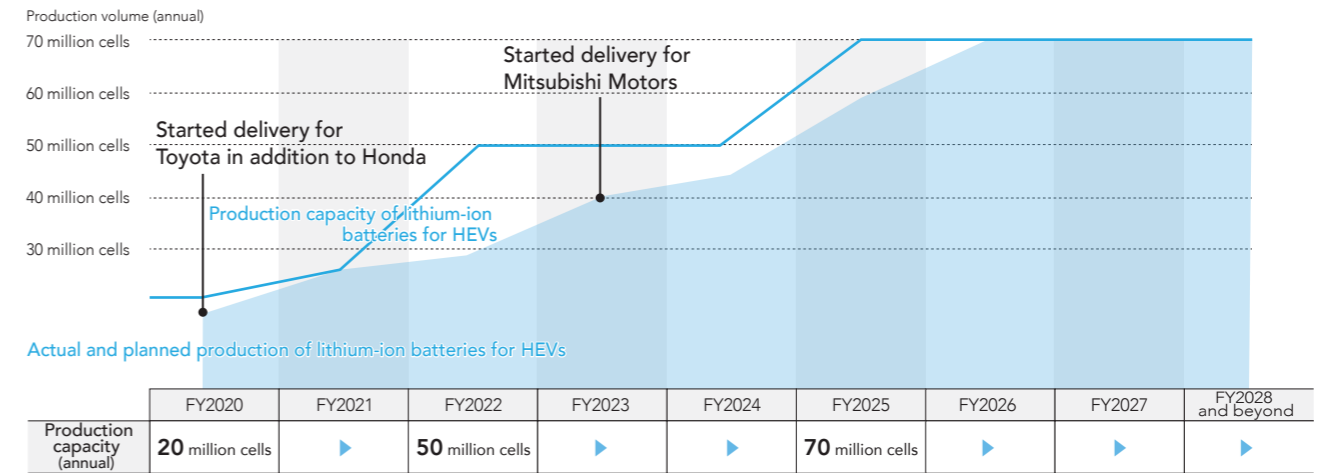
## Major Models Equipped with Lithium-ion Batteries for HEVs

		FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026 and beyond
Blue Energy's financial performance	Net sales	21.9 billion yen	31.4 billion yen	43.5 billion yen	58.7 billion yen	-	-	-
	Operating profit	2.3 billion yen	3.3 billion yen	3.6 billion yen	1.0 billion yen	-	-	-
	Operating profit ratio	10.6%	10.7%	8.4%	1.8%	-	-	-
Blue Energy's production capacity (annual)		20 million cells	▶	50 million cells	▶	▶	70 million cells	▶
Models	Honda	FIT HYBRID	VEZEL HYBRID	STEP WGN HYBRID	Accord HYBRID	FREED		
	Toyota	HARRIER HYBRID	RAV4 HYBRID					
	Mitsubishi Motors							

Continue to expand models for sale

For details, please see the website of Blue Energy. ▶ <https://www.blue-energy.co.jp/en/products/>

## Changes in Production Capacity and Volume of Lithium-ion Batteries for HEVs



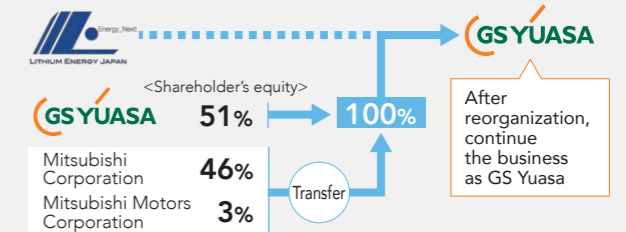
## TOPICS About the reorganization of Lithium Energy Japan

In March 2024, the shares of former Lithium Energy Japan which had manufactured lithium-ion batteries for PHEVs were transferred to GS Yuasa from Mitsubishi Corporation and Mitsubishi Motors Corporation, and GS Yuasa made it a wholly owned subsidiary, which was then dissolved.

The main purpose of this reorganization is to make effective use of the resources of GS Yuasa and conduct the lithium-ion battery business more efficiently. We continue to supply lithium-ion batteries to Mitsubishi Motors Corporation as GS Yuasa.

### [Effect by the reorganization]

- As the GS Yuasa Group, it is possible to realize flexible responses to the expansion of on-board products and ESS
- Receiving shares involves non-recurring costs but leads to improvements in net profit and ROE in the medium- and long-term



### [Responses after the reorganization]

