



GS Yuasa Corporation Head Office 1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku, Kyoto 601-8520, Japan English website: www.gs-yuasa.com/en/

# Creating the Future of Energy

### **GS** Yuasa Corporation GS Yuasa Report 2023 For the fiscal year ended March 31, 2023



### Contents

### Key Points of the GS Yuasa Report 2023

The GS Yuasa Report 2023, an integrated report, has been issued to familiarize our stakeholders including shareholders and investors with the management policies and business strategies of the GS Yuasa Group. This Report was prepared so that readers can gain an understanding of the value creation strategy that we envision for the next 100 years for the Group, which has continuously innovated and grown since the corporate merger in 2004.

This Report comprises four chapters—Vision 2035 (Long-Term Vision), Management Strategies, ESG, and Financial / Corporate Data—and a narrative has been created centered on Vision 2035, our long-term vision. Amidst increasingly active initiatives to solve social issues globally, this report presents an easy-to-understand path for the GS Yuasa Group to use its energy technologies to contribute to the creation of a sustainable society while

also pursuing sustainable growth and increased corporate value by the Group itself. We also report on ESG initiatives and key issues (materiality), which are essential for corporate management. Comprehensive information on the detailed ESG initiatives and data not presented in this report are disclosed on the Company website (Sustainability).



### **Overall Picture of Information Disclosure**

### **Business and financial information**

### Period and content covered

Results for fiscal 2022 (April 1, 2022–March 31, 2023)

### **Companies covered**

This report covers the GS Yuasa Group, comprised of GS Yuasa Corporation, the holding company; GS Yuasa International Ltd., the Group's core operating company; and consolidated subsidiaries. Notes are included for data that fall outside the scope of the companies covered.

### Date of issue

September 2023

### Referenced guidelines, etc.

- IFRS Foundation, International Integrated Reporting Framework
- Ministry of Economy, Trade and Industry, Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation



 Global Reporting Initiative (GRI), **GRI** Sustainability Reporting Standards

### About importance and comprehensiveness

This report focuses on particularly important information, presented in such a way as to be easy to read and understand. The website discloses comprehensive information in order to meet public demands.



### Sustainability and ESG information

### PDF Website GS Yuasa Report

This report is the Group's integrated reporting tool. It summarizes initiatives for value creation, business models, and medium- to long-term strategies, primarily for investors.

### Website Investor Relations

On this website, we disseminate a variety of information, including financial materials and financial highlights, in a timely manner. https://ir.gs-yuasa.com/en/ir.html

### PDF Investors' Guide

The guide is a brief and easy-to-understand summary of basic information including an overview of the Company, financial results, and ESG information https://ir.gs-yuasa.com/en/ir/library/investorsquide.html

### PDF Financial Report for Shareholders Japanese only

We issue quarterly for shareholders a report of business performance information, details of initiatives, and other information. https://ir.gs-yuasa.com/jp/ir/library/report.html

#### Website Sustainability

An explanation of our policy and initiatives relating to sustainability. https://www.gs-yuasa.com/en/csr/

### PDF Sustainability Report

A summary of sustainability-related initiatives in PDF format. https://www.gs-yuasa.com/en/csr/archive.php

### Website Diversity & Inclusion Japanese only

A summary of GS Yuasa's diversity-related initiatives. https://www.gs-yuasa.com/jp/diversity/

#### Disclaimer

This report contains earnings forecasts and other financial information pertaining to future business performance. These contents are based on information available at the time of issue and include an element of latent risk and uncertainty related to economic trends, demand, the forex rate, the tax system, and other factors. Please understand that actual earnings could diverge greatly from those presented here.

#### 1 Vision 2035 (Long-Term Vision)

This section features an introduction to the Vision 2035, our roadmap for achieving Vision of GS Yuasa in 2035, and our growth story. A message from the president concerning his thoughts and strategies when formulating the vision is also presented.

- 3 Corporate Philosophy and Significance of Existence
- 5 History of GS Yuasa
- Vision 2035 7
- 13 Message from the President
- 19 Value Creation Process
- 21 Underpinnings of Value Creation



#### 3 ESG

This section includes a detailed statement concerning targets relating to materiality and sustainability initiatives. A summary of ESG measures and disclosure data, messages from directors in charge of Environment and Human Resources, and messages from outside directors are also presented.

- 55 Sustainability Management 57 Materiality
- 59 Environment 59
  - Message from Director in Charge of Environment
- 60 GY 2050 Carbon Neutrality Target
- 61 Response to Climate Change (TCFD)
- Environmental Initiatives 65
- 69 Social
- Message from Director in Charge of 69 Human Resources
- Social Initiatives 70
- 77 Governance 77
  - Corporate Governance
- Messages from Outside Directors 91
- 95 **Directors and Auditors**





### 2 Management Strategies

This section presents a summary of the Sixth Mid-Term Management Plan and an explanation of the Group's financial condition and strategies by the director in charge of finance. Also included are messages by the director responsible for business divisions on a review of the Fifth Mid-Term Management Plan and an outlook and strategies for achieving Vision 2035 as well as a roundtable discussion by members of R&D divisions.

- 23 Previous Mid-Term Management Plans
- 25 Sixth Mid-Term Management Plan
- 29 Message from the Director in Charge of Finance
- 33 **Automotive Batteries**
- 39 Industrial Batteries and Power Supplies
- 43 Automotive Lithium-ion Batteries
- 47 Specialized Batteries and Others
- 51 **R&D** Department Roundtable Discussion: The Outlook for Next-**Generation Battery Development**



### 4

### Financial / Corporate Data

In addition to financial trend data, a financial analysis of fiscal 2022, and materiality results, this section presents basic information for understanding GS Yuasa.

- 97 **Business Structure**
- 99 **Financial Analysis**
- 11-Year Key Consolidated Financial Data 101
- 103 **Financial Section**
- Key Financial Indices by Business 163 Segment
- Targets and Results Concerning Material 165 Issues
- 167 Corporate Information
- 169 Stock and Investor Information
- 170 **External Evaluation**



### Philosophy and Significance of Existence

### Corporate Philosophy

# Innovation and Growth

We are committed to people, society and the global environment through "Innovation and Growth" of our employees and business entities.



Early automotive lead-acid batteries from the former Japan Storage Battery and the former Yuasa Corporation

### Policy on Sustainability Management We are committed to utilizing advanced technologies developed in the field of stored energy solutions to deliver security and comfort to our customers around the globe, to make a real contribution to the global effort toward sustainability, and to grow corporate value.

- 1. We will strive to help address the challenges to sustainability and seek lasting growth together with the community.
- 2. We will pursue fair and healthy business practices, and maintain steadfast business foundations able to support sustained growth.
- 3. We will strive to earn the understanding and trust of a diverse range of stakeholders through dialogue.

### Corporate Slogan **Creating the Future of Energy**

The commitment instilled in this slogan: We pledge to pioneer new modes of futuristic energy (storage batteries), engineered to address the constantly changing needs of the times.

### **Creating new value** to realizing a sustainable society

Our Company comprises two parents—Japan Storage Battery Co., Ltd. and Yuasa Storage Battery Co., Ltd. Since the beginning of the 20th century, we have been able to supply products to society that meet the needs of the times, such as backup batteries and power supplies to support a variety of public infrastructure and lead-acid batteries for automobiles and motorcycles. The spirit of invention and challenge cherished by the founders of both companies have been the driving force behind the creation of new value solving social issues.

Today, when carbon neutrality has become an important social issue, the role expected of our Group's products, which have the functions of storing energy and supplying it when needed, is becoming even greater than ever. I understand our corporate philosophy of "Innovation and Growth," which was formulated in 2004 on the occasion of our management integration, to mean creating new value that contributes to society and thereby achieving sustained growth ourselves. To continue growing amid the changing social environment, we must further innovate the technologies that we have nurtured so far and become a company able to spread these technologies in society and implement energy management. To clearly document this course of action, we have revised our previous Management Vision and Management Policy and formulated a new Sustainability Management Policy. This document demonstrates our management stance of creating the new value required by the present age by capitalizing on the energy technology that we have fostered so far and growing together with society. I personally intend to take the helm and put the Sustainability Management Policy into practice throughout the entire Group with the aim of becoming an indispensable entity for society over the next century as well.

President and Representative Director **GS** Yuasa Corporation

Jonwar





### **History of GS Yuasa**





1895 Genzo Shimadzu manufactured Japan's



Contributing to the automobile industry's development in Japan

1919 Start of automotive lead-acid batteries production





the development of public infrastructure in Japan 1920s

Expanded demand for auxiliary power for buildings and public infrastructure



Contributing to

the diffusion of motorcycles 1954

Marketing of small and light storage batteries for motorcycles



Contributing to the development of global motorization

1960s Overseas expansion at an early stage





Assisting the electric

vehicles (EVs) boom

Development of a high-performance

and long-life lead-acid batteries

1972

prismatic lithium-ion batteries



### Specialized Batteries and Others

Supporting aircraft development

2000s Order received for lithium-ion battery systems for the Boeing 787



Contributing to

energy storage systems

2000s

Specialized Batteries and Other Supporting the progress of space development

projects 2016 Installation of lithium-ion batteries on the International Space Station

### Automotive Lithium-ion Batteries

Ushering in a new EV era 2009 Supply of lithium-ion batteries for the i-MiEV, the world's first mass-produced EV



Successive marketing of renewable

al Batteries and Power Suppli

Automotive Lithium-ion Batteries Contributing to the widespread use of electric vehicles

2010s Lithium-ion batteries for hybrid electric vehicles (HEVs) supplied to Honda



Honda "FIT HYBRID"

History of GS (Japan Storage Battery)

1917 1920 Establishment of Invention of reactive lead Japan Storage oxide production method by Genzo Shimadzu Battery Co., Ltd.

1910

### History of YUASA (Yuasa Corporation

1918 1920 Establishment of Start of automotive Yuasa Storage lead-acid batteries Battery Co., Ltd. production

1941 1963 Start of alkaline Establishment of first overseas site batteries production (Yuasa Battery (Thailand) Pub.

1950

1938

Start of alkaline

batteries production

site in Thailand (Siam GS Battery Co., Ltd.)

Establishment of first overseas

1966

Co., Ltd.)

1990

1993

batteries

Development of

prismatic lithium-ion

1998 Marketing of ultra-thin lithium-ion polymer secondary batteries

# **GSYUASA**

2000

### 2004

**Corporate merger** Establishment of GS Yuasa Corporatio

### History of GS Yuasa Corporation

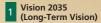
2010

### 2007

Establishment of a joint venture company. Lithium Energy Japan with Mitsubishi Corporation and Mitsubishi Motors Corporation

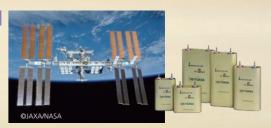
### 2009

Establishment of a joint venture company, Blue Energy Co., Ltd. with Honda Motor Co., Ltd









### **Industrial Batteries and Power Supplies**

Contributing to the realization of decarbonized society

### 2021

Delivery of a world-class storage battery facility for wind power generation



### Specialized Batteries and Others

Contributing to reinforcement of the defense industry

2010s

Mass production of the world's first lithium-ion batteries for submarines



Automotive Lithium-ion Batteries

Contributing to the widespread use of electric vehicles

2020s Lithium-ion batteries for HEVs supplied to Toyota



### 2020

### 2016

Transfer of lead-acid batteries business from Panasonic Corporation (currently GS Yuasa Energy Co., Ltd.)

### 2019

Start of operation of the plant for automotive 12V lithium-ion batteries in Hungary

### 2021

Transfer of infrastructure business from Sanken Electric Co., Ltd.

### 2022

Start of operation of second plant for Blue Energy Co., Ltd.

Inci GS Yuasa Akü Sanayi ve Ticaret Anonim Şirketi, a site in Turkey, turned into consolidated subsidiary

### 2023

Honda+GS Yuasa EV Battery R&D Co., Ltd. established

# Vision 2035

GS Yuasa announced Vision 2035, our long-term vision, in April 2023. Vision 2035 expresses our ideal vision of GS Yuasa in 2035 in order to achieve "Innovation and Growth" for the next 100 years, based on the DNA of our founders and the knowledge we have accumulated over the past 100 years.

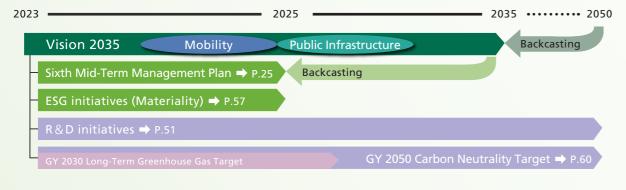
Achieving Vision 2035 requires two elements, some innovating and some eternal. Our philosophy "Innovation and Growth" inherited from the Company's founders should not be changed as well as a commitment to technical innovation, namely the sustainable development of energy storage technology that has been polished up for more than 100 years. Conversely, we seek to innovate in business areas and in the value we provide. In the past, we have offered "mono," that is "products" to customers, in the form of lead-acid batteries, lithium-ion batteries, power supply systems, etc. Going forward, in addition to products, we also want to offer solutions and services in the domains of mobility and public infrastructure, and aim to become an Energy Management Company.

### Vision of GS Yuasa in 2035

Based on the "Four Re's" formula, we strive for innovation in energy technology, endeavor to address the challenges facing society through the development of mobility and other public infrastructures, and seek to create comfortable living environments and play our part in the global effort toward sustainability.



### Overall picture of Vision 2035



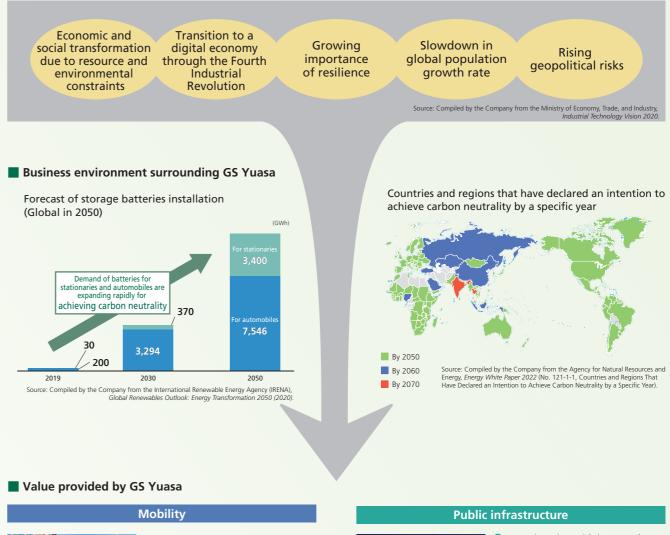
### Vision 2035 formulation process



**Business environment and value provided** 

As global markets change in the lead up to 2050, we are aware that economic and social transformations due to resource and environmental constraints as well as other developments are mega trends that are deeply related to our business. Among the changes in the Company's business environment is the projected expansion of global demand for storage batteries from 230 GWh in 2019 to approximately 10,000 GWh in 2050 as efforts are made to achieve carbon neutrality. By backcasting from these types of forecasts, we have adopted a policy of focusing on mobility and public infrastructure.

#### Mega trend toward 2050





- Acceleration of electrification toward zero emissions Advancing levels of self-driving
- cars Acceleration of shift from
- ownership to use (e.g., car sharing)









- In conjunction with increased introduction of renewable energy, the importance of storage batteries and the need for energy management are expanding
- Increasing importance of backup for electric power, information, and communication infrastructure, etc.

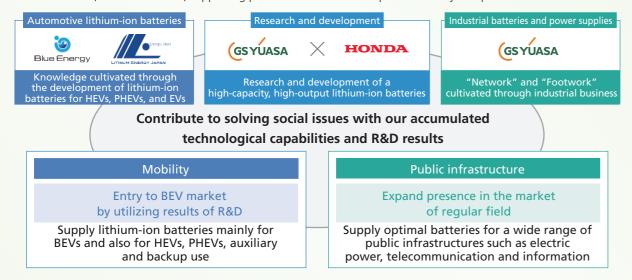
### Value provided by GS Yuasa Expansion of renewable energy and provision of safe and secure public infrastructure



### Key points of "Innovation and Growth" for achieving Vision 2035

To achieve Vision 2035, we will advance "Innovation and Growth" with a focus on mobility and public infrastructure, contributing to solutions to social problems. We will leverage the knowledge of Blue Energy and Lithium Energy Japan concerning lithium-ion batteries for hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and electric vehicles (EVs) acquired through the automotive lithium-ion battery business, the technology accumulated in the industrial battery business, and our network and footwork for delivering safety and peace of mind through maintenance and service. We will also conduct research and development of high-capacity, high-output lithium-ion batteries as part of our collaboration with Honda Motor Co., Ltd. We will use this expertise, technological capabilities, and R&D results in the mobility and public infrastructure fields.

In the mobility field, we will leverage the results of research and development to supply lithium-ion batteries, mainly for battery electric vehicles (BEVs), contributing to the advancement of mobility. In the public infrastructure field, we will use our supply capabilities, which we developed with batteries for BEVs, to expand our presence in growing regular (renewable energy) field markets and supply batteries that are optimal for a wide range of infrastructure including electric power, telecommunications, and information, supporting public infrastructure that provides safety and peace of mind.



### Mobility: Strategy for lithium-ion batteries for BEVs

By using the results of research and development conducted by a new company established with Honda Motor for mass production of lithium-ion batteries for BEVs, the pillar of the mobility business, we plan to start operation of a production line in April 2027 and start full-scale mass production in October of that year. We will supply the batteries mainly to Japanese automakers, and by launching a series of production lines through 2030, the combined production capacity of GS Yuasa, Honda Motor, and Blue Energy will reach 20 GWh/year. We will later seek to expand production capacity within the GS Yuasa Group alone to more than 20 GWh/year by 2035.





### Establishment of Honda · GS Yuasa EV Battery R&D Co., Ltd.

In July 2023, GS Yuasa and Honda Motor established Honda · GS Yuasa EV Battery R&D Co., Ltd. to collaborate on high-capacity, high-output lithium-ion batteries with a focus on use in BEVs.

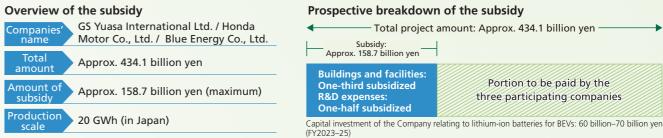


#### Image of business by the new company



### Production of lithium-ion batteries for BEVs by using subsidies (Project for Securing Supplies of Storage Batteries)

The joint research and development to be conducted by the Company and Honda Motor and the mass production investment plan including Blue Energy was approved by the Ministry of Economy, Trade and Industry as a Project for Securing Supplies of Storage Batteries. The subsidy amount is approximately 158.7 billion yen, which will cover one-third of the buildings and facilities (excluding land) and one-half of the R&D expenses. Using this subsidy will further accelerate our initiatives concerning lithium-ion batteries for BEVs.



### Public infrastructure: Strategy for the regular field

Under national policy, numerous subsidies relating to carbon neutrality are planned. In connection with this, it is expected that the introduction of renewable energy will expand, and the importance of ESS for controlling fluctuations and adjusting supply and demand is increasing. The competitive environment in the regular field is challenging, particularly with regard to renewable energy, and to increase profitability, in addition to the sale of products, like our container-integrated ESS, we will develop business models that can secure profits over the long term through the "Koto-zukuri (service creation) business" including STARELINK services.\*2



\*2 Maintenance services that use proprietary remote monitoring technology and forecasting and preventive technologies. Preventive maintenance services that use AI and DX are provided to maintain the stable operations and optimal control essential for power generating facilities that are used for extended periods \*3 Power conditioners

#### 9 GS YUASA Report 2023



4 Financial /

FSG

Vision 2035

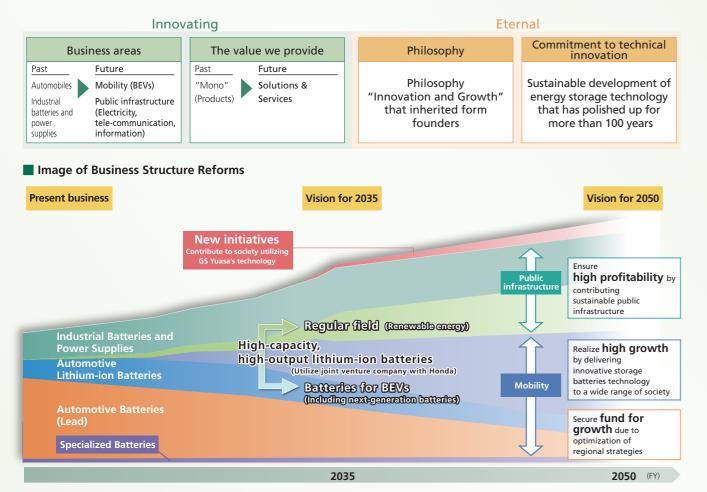
batteries, primarily for EV use, and the required production methods Establishment and management of intellectual properties including patents related to the joint research and development

 Planning for products that utilize technologies resulting from the joint research and development, and planning for the required sales channels

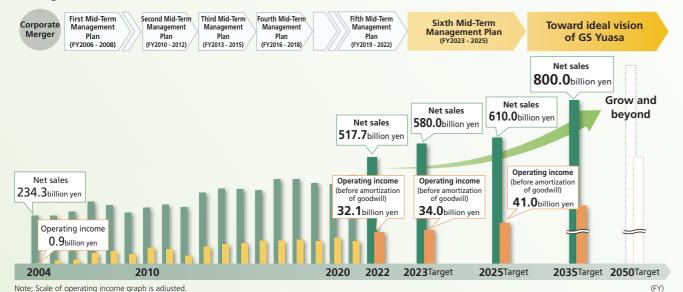
Designing of an efficient production operation including the supply chain for key raw materials

### Business structure reforms and business growth through 2035

Automotive batteries, currently centered on lead-acid starter batteries, is undergoing a gradual decline over the long term, but we will secure funds for investment in growth areas by optimizing regional strategies. Lithium-ion batteries for HEVs are expected to expand until the mid-2030s, after which they will see a gradual decline. Industrial batteries and power supplies play a role in the maintenance of public infrastructure, and demand is expected to remain stable. Areas that will undergo significant growth in the periods until 2035 and 2050 are high-capacity, high-output lithium-ion batteries, primarily for BEV use and the regular field. We will provide innovative storage battery technologies for mobility and public infrastructure. Starting in about 2035, we will nurture new businesses that contribute to society by utilizing the technologies that we have acquired through new initiatives.

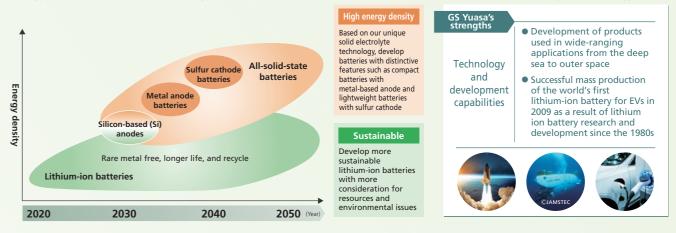


### Image of Business Growth



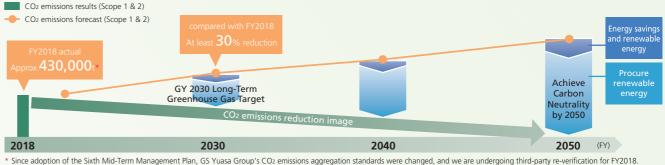
### In Focus R&D Initiatives

Liquid electrolyte lithium-ion batteries as they currently exist will evolve into batteries free from the use of rare metals, possessing longer lives, and capable of being recycled. As such, we will continue to develop more sustainable batteries with more consideration for resources and environmental issues. Regarding all-solid-state batteries, we are aiming to achieve higher energy density, and will be developing batteries with distinctive features, based on our unique solid electrolyte technology.



### In Focus GY 2050 Carbon Neutrality Target

We have announced its commitment to achieving carbon neutrality by fiscal 2050 in terms of Scope 1 and Scope 2 emissions. Adding to the GY 2030 Long-Term Greenhouse Gas Target, which was announced in fiscal 2021, we will be enacting further energy savings and the use of renewable energy, as well as initiatives within the procurement of renewable energy. Through these, we will be achieving carbon neutrality. Additionally, the products we supply make a contribution to the reduction of CO<sub>2</sub> emissions throughout society as a whole.



Since adoption of the Sixth Mid-Term Management Plan, GS Yuasa Group's CO<sub>2</sub> emissions aggregation standards were changed, and we are undergoing third-party re-verification for FY2018.
 (1) Recalculated using the 2018 emission coefficient obtained from the Ministry of the Environment and IEA
 (2) Adopted the control standard as the calculation standard, and consolidated subsidiaries that can be directly influenced are included in the scope of calculation.

### Efforts through achieving carbon neutrality

Promote energy-saving measures

Promote of generating renewable energy

### Vision 2035 (long-term vision) website

The website features materials including briefing videos and explanatory presentations, and briefly explains the key points of Vision 2035 in an easy-tounderstand manner. Please access the site for more information.



https://ir.gs-yuasa.com/en/ir/management/plan.html



### ➡ P.51 R&D Department Roundtable Discussion

### ➡ P.60

### Procure renewable energy



# Osamu Murao

President and Representative Director, GS Yuasa Corporation

# Top Message

Toward the next 100 years enhancing corporate value through business structure reforms, we aim to become an Energy Management Company

### **Policy on Sustainability Management**

Our goal is to achieve sustainable growth and enhanced corporate value through our commitment to people, society, and the global environment

The global trend toward carbon neutrality is accelerating, a trend we recognize as representing a major tailwind for the Company. This is because the fields in which our products and solutions can play an active role are expanding further as the importance of storage batteries grows, including with the electrification of the means of mobility and the growing deployment of renewable energy in public infrastructure. To contribute to the realization of a sustainable society in this environment, it is important that we innovate further in those technologies we have developed to date for storing and using electricity, and that we widely implement and operate those technologies as part of public infrastructure.

Thus, in April 2023 we reviewed our previous "Management Vision and Management Policy" and formulated a new "Policy on Sustainability Management." In it, we clearly set out our management stance of contributing to achieving a sustainable society through energy technologies. We also intend to contribute to solving sustainability issues, while aiming to enhance corporate value through sustainable growth for ourselves. We are confident that the growth of the Group's employees and others involved with our business under this policy can contribute to people, society, and the global environment.

This Policy on Sustainability Management also serves to supplement our corporate philosophy of "Innovation and Growth." The word "Innovation" typically tends to be associated with groundbreaking new technologies or the invention of new products, but innovation is more than that. Innovation is also an effort to integrate, combine, and unify existing technologies and mechanisms to evolve them into something better. Further, this is not limited to the field of technology development; innovation also includes Improvement Activities carried out across a variety of divisions, from production sites to sales, quality assurance, human resources, and others. Small, everyday improvements create new value, and through these, we too can grow.

The capabilities of each and every employee are essential if the Company is to grow sustainably. I tell them that I want them to work toward our goal of contributing to the realization of a sustainable society, and to remember to be constantly aware of innovation in addressing the work before them.

### Vision 2035

### Committing to solving social issues by focusing on mobility and public infrastructure

In April 2023, we announced "Vision 2035," our long-term vision. This defines GS Yuasa's ideal vision for 2035 of achieving "Innovation and Growth" for the next 100 years, based on the DNA of our founders and the knowledge we have accumulated over a history of more than 100 years. This is a guideline for our strategy and may become something of a North Star for us to follow in the years to come. Our goal will be to contribute to solving social issues in the fields of mobility and public infrastructure, as we work toward the realization of a sustainable society and the creation of comfortable living environments for all. By steadily expanding our business, we aim to see 800.0 billion yen in net sales in fiscal 2035.

Vision 2035 encompasses "Four Re's," key words aimed at achieving this vision

#### - The Four Re's **Re**liable Reborn Carry on the founding spirit of Continue to be trusted by all GS Yuasa, a century-old stakeholders by remaining company, while being reborn in committed to technical anticipation of the next 100 nnovation and delivering solid, reliable energy vears Renewable **Re**spect Make a genuine contribution to Grow to become a respected carbon neutrality in the fields ompany by honoring efforts to of mobility and public achieve the SDGs and infrastructure contribute to society

### Backcasting to define a path to realizing our ideal vision

In formulating Vision 2035, we began by first predicting some of the long-term environmental changes in our areas of business. Global demand for storage batteries, our mainstay product, is expected to grow by more than 40 times, from 230 GWh in 2019 to about 10,000 GWh in 2050.

In the mobility field, electrification aimed at achieving zero emissions is expected to accelerate, while advancements continue in self-driving technology. In response to this shift to electrification, we felt it necessary to also shift our business structure from one focused primarily on conventional lead-acid starter batteries to one centered on lithium-ion drive batteries.

In the public infrastructure field, meanwhile, the importance of storage batteries, which are necessary for adjusting supply and demand in power grids and business sites, is expected to grow further as deployment of renewable energy expands toward the realization of carbon neutrality. In addition, the importance of backup applications in areas such as electric power, information, and telecommunications infrastructure will increase further.

In this market environment, we have thus set a firm direction aimed at steadily growing our business by riding global tailwinds and expanding in our areas of strength, while transforming our business structure.

### A commitment to technology and trusting relationships with partners as strengths

During our project to formulate Vision 2035, we had members at the section manager level, who are expected to be active on the front lines by sometime around 2035, to participate, starting with initial discussions of our vision and preparation of a draft. Later, our management team, including myself and our outside directors, examined the draft closely, discussing the future of the Company while



working out a final version of Vision 2035.

One of the most memorable parts of these talks was when we discussed the opinion that, given the financial and competitive environment, a large-scale investment in the lithium-ion battery business for BEVs might be too risky. Certainly, the decision to switch gears to lithium-ion batteries for BEVs from our base in lead-acid batteries, on which the Company had grown, was a decision that comes with some risk. That said, I personally felt that lithium-ion batteries for BEVs were a piece absolutely essential to our company's growth. To compete in the BEV lithium-ion battery market, we cannot do business on our ownpartnerships with companies that have extensive experience and expertise are critical. Our growth has continued thanks to collaboration and co-creation with a variety of partners, including Blue Energy Co., Ltd. and Lithium Energy Japan. That is why, as a technology-driven company since our founding, we must be thoroughly committed to technology. We have concluded that by doing so, partners will choose to work with us, and the Company can continue its sustainable growth with them.

### Working toward sustainable corporate growth with lithium-ion batteries for BEVs and energy storage systems (ESS)

As our first foray into the mobility field centered on lithium-ion batteries for BEVs, in July 2023 we established a joint venture company with Honda Motor Co., Ltd. called Honda · GS Yuasa EV Battery R&D Co., Ltd. The new company will promote R&D of lithium-ion batteries highly competitive on a global level to meet rapidly growing demand in the BEV market. At the same time, it will build a supply chain for key raw materials and efficient production systems with the goal of making a full-scale entry into the BEV business.

In addition, leveraging the results of the new company's R&D, a production line for lithium-ion batteries for BEVs is scheduled to begin operating in April 2027, with mass production starting in October. A series of production lines will be launched through 2030, and by 2035, we plan to expand production capacity for the Group as a whole to over 20 GWh/vear.

The success or failure of the development of lithium-ion batteries for BEVs is very important, as it will have a significant bearing on the strategy for the regular use field, such as for ESS (for stationaries) of renewable energy. Earnings for lithium-ion batteries for ESS, where bidding projects are numerous, have greater volatility when taken on alone. We believe that by taking advantage of our stable production capacity and technical expertise in lithium-ion batteries for BEVs we can reduce costs and increases competitiveness. Working steadily on development with Honda Motor Co., Ltd. will lead to expansion for both for BEVs and ESS.

As we compete globally, we feel extremely fortunate to be able to pursue the BEV lithium-ion battery business with

### Key points of "Innovation and Growth" for achieving Vision 2035

### **Mobility Field**

Leverage achievements of joint venture company with Honda to provide society with high-capacity, high-output lithium-ion batteries for BEVs and achieve growth Solidly capture demand for lithium-ion batteries for HEVs and ensure high profitability Secure funds for growth through optimization of regional strategies for lead-acid batteries

### Public Infrastructure Field

Respond to firm demand for industrial batteries and power supplies, primarily backup batteries and power supplies, to ensure high profitability Leverage expertise in lithium-ion batteries for BEVs to strengthen competitiveness in lithium-ion batteries for ESS of renewable energy

such an outstanding partner. Behind our realization of this partnership is the track record of and relationship of trust with Blue Energy, a joint venture launched with Honda Motor Co., Ltd. in 2009. I believe this allowed us to deliver steady growth in the hybrid electric vehicle (HEV) lithium-ion battery business while responding to Honda's needs.

In the field of public infrastructure as well, we are aiming to further expand our business by utilizing our production capacity based on lithium-ion batteries for BEVs. By increasing our competitiveness in lithium-ion batteries for ESS, we will expand our presence while supporting the safety and security of society as a whole.

Having businesses in both the mobility and public infrastructure fields is our strength. Our goal is to enhance our corporate value by leveraging this strength in contributing to society.

### Create investment resources for growth in the lead-acid battery business

Meanwhile, we recognize that the market for lead-acid batteries for automobiles, an existing business, will gradually decline due to stricter regulations on the use of lead in Europe and other regions. That said, lead is a sustainable resource that is both abundant and easily recycled. We thus do not expect lead-acid batteries to disappear anytime soon in proportion to the shift to electrification. We also expect that this electrification will not progress uniformly through the world, as market conditions vary from country to country. We will ensure that we capture demand by monitoring the situation in each country on the axes of both time and region. We believe that industrial lead-acid batteries and power supply units will continue to grow in importance for backup applications, and we recognize that we have a significant role to play in that market. Profits earned after reaping cash from these markets will be used as a source of investment in new areas. If, on top of that, a certain level of







### **New initiatives**

Use accumulated, diverse technology and expertise as seeds to create new businesses that contribute to society

➡ P.11 Business structure reforms and business growth through 2035

business remains for automotive lead-acid business, we believe this will be even more beneficial to the Company.

### Strengthening R&D and new initiatives for the future

Our research and development strategy under Vision 2035 will center around lithium-ion batteries, while also advancing R&D and commercialization of all-solid-state and other next-generation batteries. Among these, our research and development in advanced solid-state batteries, being conducted in collaboration with Osaka Metropolitan University, was selected in November 2022 as a Green Innovation Fund Project by the New Energy and Industrial Technology Development Organization (NEDO), a national research and development corporation. We will be accelerating the speed of our R&D efforts even further going forward as we work toward the commercialization of all-solid-state batteries.

Beginning around 2035, we will also develop new initiatives, treating our accumulated, diverse technology and expertise as the seeds of new business creation. We have already launched our "Biz Challenge" project, recruiting ideas in-house for new business creation, and more than a dozen business ideas have already been selected as of the end of first-round submissions. We are beginning shape potential businesses from among those diverse submissions, including ideas for derivative business areas utilizing the customer bases, business infrastructure, and technologies of our existing businesses, as well as businesses that add value to existing products by incorporating digital technology. The applicants have all been highly motivated and many of our employees have shown they inherit our founding spirit of challenge. I am reminded that this is a valuable asset for the Company's future, and that it can lead to strengthening our human capital going forward.

### **Review of the Fifth Mid-Term Management Plan**

### Fifth Mid-Term Management Plan numerical targets achieved

In our fiscal 2022 results, net sales, operating income, and net profit all increased and set new record highs, and in this, the final fiscal year of the Fifth Medium-Term Management Plan, we succeeded in achieving our numerical targets.

Among the achievements of the Fifth Mid-Term Management Plan, we can point to the automotive battery business, where synergistic effects with the lead-acid battery business transferred from Panasonic Corporation and the conversion of our site in Turkey into a consolidated subsidiary both led to strong results.

In the industrial battery and power supply business, we have taken over the social infrastructure business of Sanken Electric Co., Ltd. and are exploiting synergies across multiple divisions, including procurement, development and manufacturing, and sales and service. Another major accomplishment was the order for and delivery of the world's largest storage battery system for a wind power generation plant in Hokkaido, which includes undertaking maintenance and servicing work for a period of 20 years, allowing us to enter the *"Koto-zukuri* (service creation) business" which has been one of our goals. We would like to use this as an example of a business that can successfully earn revenue on an ongoing basis.

In the automotive lithium-ion battery business, one major accomplishment was that we now have a structure for generating solid profits. In addition to the start of operations at the Blue Energy No. 2 Plant, we also began supplying lithium-ion batteries for HEVs to Toyota Motor Corporation, allowing us to lay the groundwork for an expansion both in business scale and in profits. We have also received numerous inquiries from other automobile manufacturers, increasing our expectations for this mainstay business going forward.

Since we failed to achieve our targets under our Third and Fourth Mid-Term Management Plans, we advanced our goals for the Fifth Mid-Term Management Plan with the strong determination that the entire Group would work together to achieve them. The fact that we were able to do what was needed and complete the plan under unexpectedly challenging business conditions—including the COVID-19 pandemic—gave us confidence.

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

# Three years aimed at laying the foundation for even greater growth

Our Sixth Mid-Term Management Plan began in fiscal 2023. We have positioned these next three years as a time for laying the foundation for the Group to make even greater leaps forward as we work toward achieving our Vision 2035. To that end, we will implement three measures. The first measure calls for putting in place development, production and supply systems for lithium-ion batteries for BEVs. Preparations will move forward steadily toward the start of mass production in fiscal 2027.

The second measure is the further reinforcement of earning capacity in existing businesses. I have long spoken on various occasions of the importance of ambidextrous management. It is important for the Company's sustainable growth that we focus on expanding earnings in our existing businesses as well as reinvesting profits generated by those businesses in growth areas. We will improve capital efficiency by establishing optimal production systems, including consolidation of production systems both in Japan and overseas, to secure the profits that are the main source of investment for growth. In addition, over the course of the Sixth Mid-Term Management Plan, we will expand production capacity in lithium-ion batteries for HEVs to 70 million cells annually to meet demand and increase profitability.

The third measure is digital transformation (DX) and strengthening of new businesses. In DX, we are already promoting the use of AI, IoT, and other digital technologies in a variety of settings in our R&D and sales divisions. In addition, we will continue to invest in human capital, and, as mentioned earlier, will work toward the commercialization of new businesses starting around 2035.

By advancing these kinds of strategies, our goal for fiscal 2025, the final fiscal year of the Sixth Mid-Term Management Plan, is to generate net sales of 610.0 billion yen and operating profit of 41.0 billion yen before amortization of goodwill.

### ESG

ESG initiatives are essential as we work to achieve Vision 2035. I realize this will require firm commitment on the part of management. In fiscal 2023, we restructured the CSR Committee as the Sustainability Promotion Committee. We intend to continue promoting our sustainability initiatives while also stimulating further discussions regarding sustainability at our Board of Directors' meetings.

### E: Environment

In May 2021, the Company announced the "GY 2030 Long-Term Greenhouse Gas Target." Since then, we have been engaged in efforts aimed at the transition to a decarbonized society, including switching 100% of the electricity used at our Kyoto Plant to renewable energy. In April 2023, we announced the "GY 2050 Carbon Neutrality Target." In that statement, we expressed our commitment to moving steadily forward with three key measures to achieve carbon neutrality: (1) Promotion of energy conservation measures; (2) Promotion of renewable energy power generation; and (3) Procurement of renewable energy.

In addition, we also recognize that our products have a very significant role to play as society as a whole works toward achieving carbon neutrality. We will continue to expand sales of environmentally considered products to reduce CO<sub>2</sub> emissions and contribute to the global environment and society.

### S: Social

We place great importance on the human capital that is the foundation of any company. For us to continue to grow sustainably and provide new value to society, it is essential that we ensure human resources and an organization that are not only strong, but also flexible enough to adapt to change. We will continue offering new value to society by working to strengthen our human capital and by encouraging the hiring and training of self-directed personnel, those who will bring a spirit of challenge to the goal of creating new businesses.

We will also focus even more on diversity, equity, and inclusion (DE&I) initiatives, further developing systems and programs that support the personal growth of human resource with diverse personalities and capabilities. These will enable them to play an active role in accordance with their individual life stages, characteristics, and willingness to take on challenges. Note that we have established an employee engagement KPI to assess these efforts, a way of linking the enthusiasm of our employees to the growth potential of the Company. In advancing Vision 2035, we will strengthen cooperation between the business and human resource divisions so that business issues can be incorporated into individual employee issues and goal setting.

Human resources are also key to DX, which we are promoting throughout the Company. We are currently advancing an in-house DX human resource development plan, and in fiscal 2022, we implemented a Company-wide e-learning program in basic DX knowledge. In fiscal 2023, we plan to open a "DX training dojo" to provide specialized training for members recommended by each division to develop more advanced DX human resources.

### G: Governance

We are currently considering the possibility of reflecting ESG evaluations, including performance against environmental goals and employee engagement, in our executive evaluations. This is something that has been discussed by our Nomination and Compensation Committee for some time. We plan to establish appropriate KPIs for ESG issues and their evaluation according to each executive's area of responsibility, incorporating them into our executive compensation system.

We also intend to further expand our succession plan. In addition to candidates for CEO, CFO, and other director positions, we are currently engaged in discussions with the Human Resources Division, directors in charge of human resources, and the heads of our business divisions to create a framework for developing successors, with a view to three years out, for executive officers, business unit managers, the heads of overseas sites, and others.

### **To Our Stakeholders**

# Further deepening dialogue as we work to achieve sustained growth

Our PBR currently remains low at around 1x. I believe this is due in part to the fact that we have not been able to

3 ESG



present our growth story to our stakeholders in terms of return on capital and growth potential. This time, we have announced our growth story, and will continue to firmly lay the groundwork for going forward in our Sixth Mid-Term Management Plan. We expect, however, that the results of those efforts will not become apparent until fiscal 2027 or later. In the course of this process, we will place an emphasis on dialogues with our stakeholders, listen respectfully to your opinions, and work to deepen your understanding of the decisions we make.

With our announcement of Vision 2035, I think we have clearly presented to our stakeholders the direction and path we should proceed along going forward, including what we value, what we will change, and where we are headed for the future. Many of our stakeholders consider us to be a stability-oriented company. This time, however, we have decided to make a major switch in our business base by focusing on growth areas, shifting direction toward lithium-ion batteries for BEVs while also applying them to lithium-ion batteries for ESS. I cannot envision our sustainable growth as a company under any other policy.

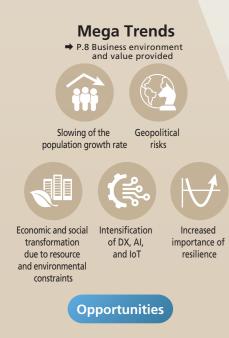
This decision is aimed at utilizing our accumulated technology not merely to sell things, but to become a company capable of controlling and managing energy as a whole. Our goal is to move from our existing stance as an energy and device company to become an Energy Management Company. I hope you will continue to look forward to the future of the Group, and support us in our efforts.

August 2023

must

President and Representative Director, GS Yuasa Corporation

# Value Creation Process



- Diffusion of eco-friendly vehicles
- Expansion of renewable energy
- Increase in demand for public infrastructure

Risks

- Changes in legal regulation and standards
- Changes in the supply chains
- Sustainability of human resources

### Philosophy Innovation and Growth

Sixth Mid-Term

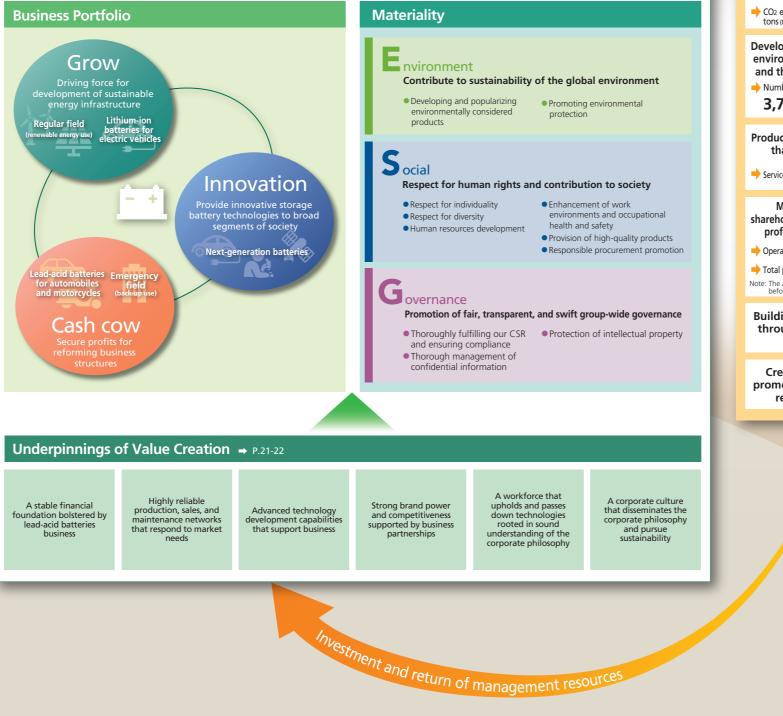
**Management Plan** 

(FY2023-2025) → P.25

We are committed to people, society, and the global environment through the "Innovation and Growth" of our employees and business entities.



Period for laying the foundation for reform to realize the vision envisioned in Vision 2035 FY2025 targets: Net sales of 610.0 billion yen; operating profit before amortization of goodwill of 41.0 billion yen



### Value Provided to Society

Energy management through increased sales of environmentally considered products

 $\rightarrow$  CO<sub>2</sub> emissions reduction of at least 8 million tons (FY2021)

Development of comfortable living environments through innovation and the creation of new business Number of patents held (in Japan and overseas)

```
3,748 (as of March 31, 2023)
```

```
Products and maintenance services
    that support people's lives
```

Service sites: At least **100** throughout Japan

```
Maximization of returns to
shareholders through maximization of
  profit and efficient use of assets

Operating profit 32.1 billion yen (FY2022)
→ Total payout ratio 27.9% (FY2022)
```

Note: The above indicators are based on profit before the amortization of goodwill

**Building stable supply systems** through strengthened bonds with suppliers

Creation of value through promotion of DE&I and human resource development





3 ESG



### Net sales target: 800.0 billion yen

➡ P.7 Vision 2035

Vision of GS Yuasa in 2035



Based on the "Four Re's" formula, we strive for innovation in energy technology, endeavor to address the challenges facing society through the development of mobility and other public infrastructures, and seek to create comfortable living environments and play our part in the global effort toward sustainability.

Х

### Mobility

Batteries for BEVs

Supply lithium-ion batteries mainly for **BEVs and also for** HEVs, PHEVs, auxiliary and backup use

Public infrastructure Regular field (renewable energy

Supply optimal batteries for a wide range of public infrastructures such as electric power, telecommunication and information

# **Underpinnings of Value Creation**

### A stable financial foundation bolstered by the lead-acid battery business Our wide range of lead-acid starting batteries for automobiles support the Group's financial foundation. In addition to those for new automobiles, profit is obtained continuously through demand for replacement with vehicle maintenance and inspections as the focus, and stable earnings can also be gained from backup batteries and power supplies and lead-acid batteries for forklifts, which support public infrastructure. • Changes in net sales over 10 years 434.3billion ven 1 Atimo 2022 (FY) 2016 2017 2018 2019 2020 \*1 Total from the automotive battery business and industrial battery and power supply business

### Highly reliable production, sales, and maintenance networks that respond to market needs

We establish a global network of business sites and offer proposals tailored to needs in each region. In the automotive battery business, we have a network of more than 4,000 dealers nationwide that can propose the optimal battery to users. In the industrial battery and power supply business, our strength is the provision of services up to maintenance and inspections at more than 100 service sites in Japan.

• Number of global sites (As of July 2023)







 Dealers in the automotive battery business (Japan) More than **4,000** 



### Advanced technology development capabilities that support business

As a pioneering manufacturer of automotive lithium-ion batteries, since supplying the lithium-ion batteries for the world's first mass-produced EVs and HEVs, we have focused on cutting-edge technology and product development, and our products are used in the models of many Japanese automakers.

We are developing high-capacity, high-output lithium-ion batteries for BEVs and ESS and also focusing on R&D and practical application of next-generation batteries with "Sustainability" and "High energy density" as the key concepts.

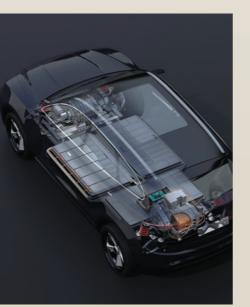
• Honda Motor Co., Ltd. Excellent Appreciation Awards received in the Cost Category<sup>\*2</sup> and **Delivery Category**<sup>\*2</sup>(2023)

\*2 Received by Blue Energy



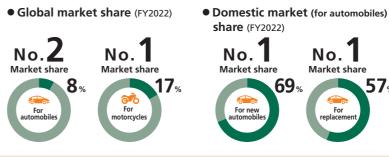
Toyota Motor Corporation Development Award<sup>\*3</sup> received (2021)

(Lithium-ion battery for hybrid vehicles "EHW4S") \*3 Received jointly by GS Yuasa International Ltd. and Blue Energy Co., Ltd.



Strong brand power and competitiveness supported by business partnerships

The Group's lead-acid batteries maintain high market shares in both the automobile and motorcycle battery markets. Since every vehicle including electric vehicles contains a lead acid battery, we believe that demand will be maintained in the future. We are also maintaining our leading share of the domestic market for backup applications and forklifts.



# A **workforce** that upholds and passes down technologies rooted in sound understanding of the corporate philosophy

We promote integrated management as a Group and implement "Innovation and Growth" imbued with our inventor and challenge spirit on a daily basis. We hold "Mono-zukuri (product creation) expert" education workshops and case presentations of team activities to drive kaizen (improvement). Also, each department registers topics in a dedicated database and undertakes Improvement Activities activities on a daily basis, which leads to visualization and invigoration of activities. In this way, the Group's manufacturing technologies are maintained and passed down through various activities.



A corporate culture that disseminates the corporate philosophy and pursue sustainability

We reviewed the existing Management Vision and Management Policy and formulated a new Sustainability Management Policy in April 2023. We have been holding sustainability workplace meetings to address topics related to CSR policies since fiscal 2018 with the objectives of establishing business activities with an awareness of sustainability and promoting awareness of compliance.

 Ratio of implementation of sustainability workplace meetings (FY2022)



Target All GS Yuasa workplaces: 363 / Group companies in Japan: 22

21 GS YUASA Report 2023

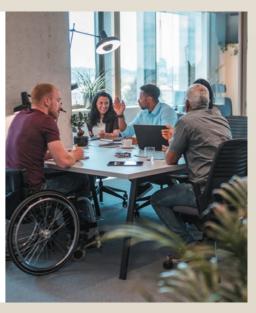
### 1 Vision 2035



FSG







# **Previous Mid-Term Management Plans**

First Mid-Term	Second Mid-Term	Third Mid-Term	Fourth Mid-Term
Management Plan	Management Plan	Management Plan	Management Plan
(FY2006 - 2008)	(FY2010 - 2012)	(FY2013 - 2015)	(FY2016 - 2018)
Increase productivity to create strong group management	Form a high-profit global company that contributes to society and the environment	Become an energy device company that offers comfort and security	Build a foundation for sustainable growth over the long term with the aim of becoming an energy device company, the "Renewed GS Yuasa"

	First Mid-Term Management Plan FY2008 results	Second Mid-Term Management Plan FY2012 results	Third Mid-Term Management Plan FY2015 results	Fourth Mid-Term Management Plan FY2018 results
Net sales	283.4 billion yen	274.5 billion yen	365.6 billion yen	413.1 billion yen
Operating profit*1	14.3 billion yen	9.8 billion yen	21.9 billion yen	25.1 billion yen

4.8%

5.7 %

9.0%

\*1 Operating profit ratio refers to operating profit before amortization of goodwill after fiscal 2018

\*2 ROE has been calculated based on profit before amortization of goodwill after fiscal 2018

**6.4** %

#### Strategic pillars

ROE(return on equity)\*2



Note: Fiscal 2009 was set aside as a stand-alone fiscal plan based on the impact of a serious recession in the global economy.

### Fifth Mid-Term Management Plan (FY2019-2022)

Based on the Mono-Koto Zukuri (product and service creation) concept, GS Yuasa will engage in strategic activities that lead to sustainable growth of both the lead-acid battery and lithium-ion battery businesses through o

	Mid-term management targets	FY 2022 results	_	
Net sales	460.0 billion yen or more	517.7 billion yen	►	Achieved
Operating profit*1	28.0 billion yen or more	32.1 billion yen		Achieved
ROE (return on equity)*2	8.0 % or more	<b>6.5</b> %		Ongoing issue
Total payout ratio*3	<b>30.0</b> % or more	<b>27.9</b> %		Ongoing issue
Interest-bearing debt to cash flow ratio*4	Less than <b>3.0</b> years	<b>4.0</b> years		Ongoing issue
Equity ratio	Maintain at <b>45.0</b> % or more	<b>42.6</b> %		Ongoing issue

\*3 The total payout ratio is before amortization of goodwil

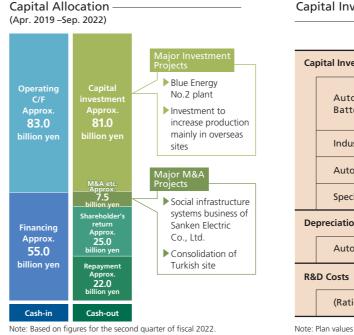
\*4 Interest-bearing debts (including lease obligations)/Operating cash flow

Note: The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the COVID-19 pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022

#### Main achievements and issues

Automotive Battery Business (Japan, overseas)	Achievements	<ul> <li>Creating synergistic effect with GS Yuasa Energy Co., Ltd.</li> <li>Converting Turkish site into a consolidated subsidiary</li> </ul>	Issues	<ul> <li>Intensifying competition in China</li> <li>Revise sales price due to soaring raw material price etc.</li> </ul>
Industrial Battery and Power Supply Business	Achievements	<ul> <li>Delivery of lithium-ion batteries for wind power generation in Hokkaido</li> <li>Acquisition of the social infrastructure systems business from Sanken Electric Co., Ltd.</li> <li>Starting "Koto-zukuri business" such as STARELINK service*5</li> </ul>	Issues	<ul> <li>Delivery delay due to shortage of components and materials</li> <li>Secure profits in regular field business</li> </ul>
Automotive Lithium-ion Battery Business	Achievements	<ul> <li>Start of operation of Blue Energy No.2 plant Production ability: FY2019 20million cells/year⇒FY2022 50million cells/year</li> <li>Start of supply lithium-ion batteries for HEVs for Toyota Motor Corporation</li> <li>Establishment of the BEV Battery Development Department</li> <li>Signing of basic agreement toward collaboration with Honda</li> </ul>	Issues	• Response to entry into EV market

\*5 Maintenance services that use proprietary remote monitoring technology and forecasting and preventive technologies. Preventive maintenance services that use AI and DX are provided to maintain the stable operations and optimal control essential for power generating facilities that are used for extended periods





creation of	new va	lue.
-------------	--------	------

### Capital Investment, Depreciation, R&D Costs

		FY2019-2022 Results (Four-year Total)
estment		102.0 billion yen
omotive	Japan	12.4 billion yen
teries	Overseas	22.8 billion yen
ustrial Batteries and Power Supplies		8.5 billion yen
omotive Lithium-ion Batteries		29.6 billion yen
cialized Batteries and Others		28.6 billion yen
on		67.0 billion yen
omotive Lithium-ion Batteries		14.1 billion yen
		46.6 billion yen
io of R&D expenses to net sales)		2.7 %

Note: Plan values as of the second quarter of fiscal 2022.

# Sixth Mid-Term Management Plan (FY2023-2025)

### Policy

Positioning this period as one for laying the foundation for reform to realize the vision envisioned in Vision 2035, we will implement a variety of measures to reform our business structure.

### Measure





- Development of a high-capacity, high-output lithium-ion batteries by utilizing joint venture company with Honda
- Establishment of production and supply systems of batteries for BEVs to expand mobility and public infrastructure business

**Reinforcement of** earning capacity in existing business

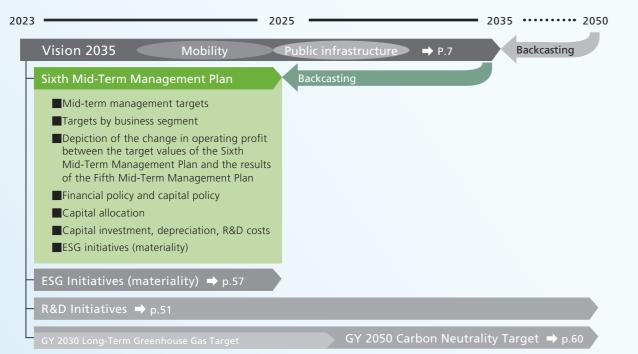


- Thorough value-added creation and improvement in profitability
- Maximization of profits due to unparalleled superiority in Industrial Batteries and Power Supplies Business in Japan
- Transformation of regional strategy, including review of business in China, maximization of profits by concentrating resources at main sites



- DX promotion to enable business structure transformation
- Create new business that contribute to solving social issues

### Positioning of the Sixth Mid-Term Management Plan



### Mid-term management targets

	Fifth Mid-Term Management Plan (FY2022 results)	Sixth Mid-Term Management Plan (FY2025 target)	Change
Net sales	517.7 billion yen	610.0 billion yen or more	+92.3 billion yen
Operating profit before amortization of goodwill	32.1 billion yen	<b>41.0</b> billion yen or more	+ <b>8.9</b> billion yen
ROE (return on equity)*1	6.5 %	<b>8.0</b> % or more	+1.5 P
ROIC (return on invested capital)*2	11.4 %	<b>10.0</b> % or more	-
Total payout ratio*1	<b>27.9</b> %	<b>30.0</b> % or more	+2.1 p
Domestic lead price quote	<b>347,000</b> yen / t	<b>342,000</b> yen / t	- <b>5,000</b> yen / t
LME	<b>2,105</b> US\$ / t	<b>2,000</b> US\$ / t	- <b>105</b> Us\$ / t
Exchange rate	<b>136</b> yen / US\$	<b>140</b> yen / US\$	+ <b>4</b> yen / US\$

1 Refers to profit before amortization of goodwill.

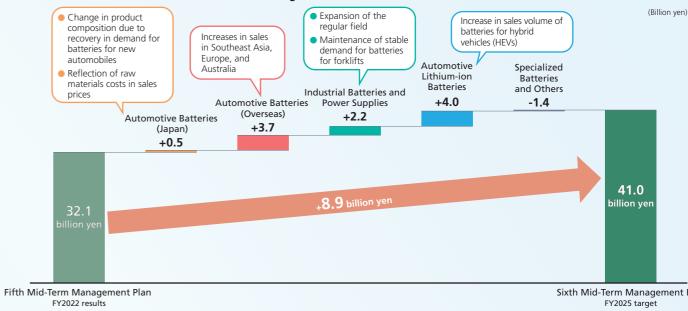
\*2 Calculate as follows: Operating income before amortization of goodwill / Invested capital (fixed assets [excl. goodwill amortization] + working capital). Invested capital is the average of amount at beginning and end of term.

### Targets by business segment

		FY2022 results		FY2025 target		Change	
		Net sales	Operating profit* <sup>3</sup> (profit ratio)	Net sales	Operating profit* <sup>3</sup> (profit ratio)	Net sales	Operating profit <sup>*3</sup> (profit ratio)
Automotive	Japan	87.8 billion yen	6.5 billion yen (7.5%)	100.0 billion yen	7.0 billion yen (7.0%)	+12.2 billion yen	+ <b>0.5</b> billion yen (-0.5P)
batteries	batteries Overseas		13.3 billion yen (5.4%)	240.0 billion yen	<b>17.0</b> billion yen (7.1%)	- 7.3 billion yen	+ <b>3.7</b> billion yen (+1.7P)
Industrial and powe	batteries er supplies	99.2 billion yen	8.8 billion yen (8.9%)	140.0 billion yen	11.0 billion yen (7.9%)	+40.8 billion yen	+2.2 billion yen (-1.0P)
	lithium-ion eries	65.4 billion yen	2.0 billion yen (3.0%)	<b>110.0</b> billion yen	6.0 billion yen (5.5%)	+ <b>44.6</b> billion yen	+ <b>4.0</b> billion yen (+2.5P)
	d batteries others	18.0 billion yen	<b>1.4</b> billion yen (7.7%)	20.0 billion yen	0.0 billion yen	+2.0 billion yen	- <b>1.4</b> billion yen
То	tal	517.7 billion yen	32.1 billion yen (6.2%)	610.0 billion yen	41.0 billion yen (6.7%)	+92.3 billion yen	+ <b>8.9</b> billion yen (+0.5P)

\*3 Operating profit has been operating profit before amortization of goodwill and the operating profit ratio has been the operating profit ratio before amortization of goodwill.

### Depiction of Change in Operating Profit<sup>\*4</sup> between the target of the Sixth Mid-Term Management Plan and the results of the Fifth Mid-Term Management Plan



\*4 Operating profit before amortization of goodwill





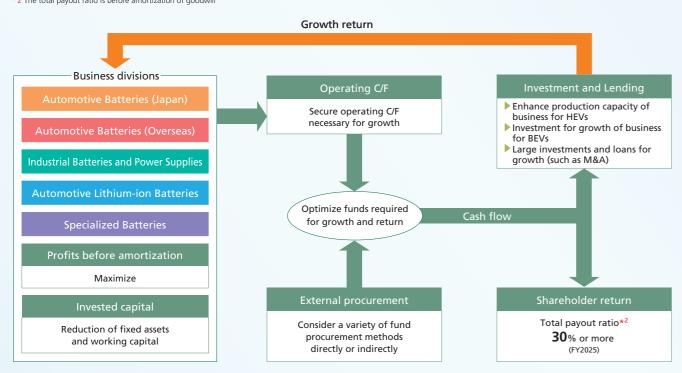
Sixth Mid-Term Management Plan

### Financial policy and capital policy

We seek to maintain an equity ratio of 40% or more while investing in growth in mobility and public infrastructure. We have also set a target for total payout ratio before amortization of goodwill of at least 30%. We are working to achieve both investment in growth and shareholder returns by maximizing profits through ROIC management and utilizing optimal financing.

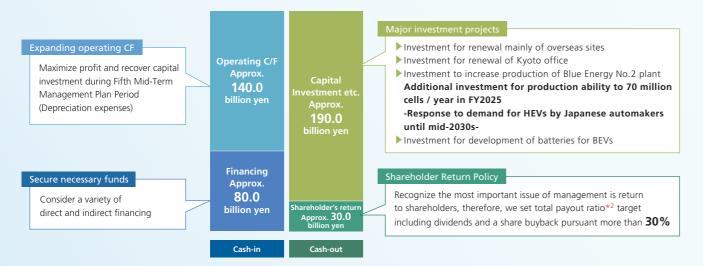


\*1 Interest-bearing debts (including lease obligations) / operating cash flow \*2 The total payout ratio is before amortization of goodwill



### Capital allocation

We will prioritize investment in the mobility field, which is expected to grow considerably, centered primarily around batteries for BEVs, and in the public infrastructure field, centered on renewable energy. We will pursue business growth while providing solid returns to shareholders by maximizing operating cash flow securing needed capital.



### Capital investment, depreciation, R&D costs

Capital investment will increase considerably, particularly in the automotive lithium-ion battery business. We will make the capital investments needed for growth while making use of subsidies and the like. Expenses associated with research and development will also increase significantly, in order to accelerate R&D at our joint venture with Honda Motor.

			Sixth Mid-Term Management Plan (FY2023-2025)	Change from the Fifth Mid-Term Management Plan Results
Сар	ital Investment		190.0 billion yen	+88.0 billion yen 🔶
Γ	Automotive	Japan	12.0 billion yen	- <b>0.4</b> billion yen 👎
	Batteries	Overseas	20.0 billion yen	-2.8 billion yen 👎
	Industrial Batteries	and Power Supplies	16.0 billion yen	+7.5 billion yen 💧
	Automotive Lithiun	n-ion Batteries	105.0 billion yen	+75.4 billion yen 💧
	Specialized Batterie	es and Others	37.0 billion yen	+8.4 billion yen 💧
Dep	preciation		65.0 billion yen	-2.0 billion yen 🔸
	Automotive Lithiun	n-ion Batteries	24.0 billion yen	+9.9 billion yen 🔶
R&D	D Costs		60.0 billion yen* <sup>3</sup>	+13.4 billion yen 🔶
	(Ratio of R&D expe	nses to netsales)	3.3 %	+0.6 P

\*3 R&D costs in equity method affiliates are included. Note: Plan values as of the second quarter of fiscal 2022.

### ESG Initiatives (Materiality)

		Materiality	Major Activities and targets (FY2025 Target)
ŊØ	Environment Contribute to sustainability of the global environment	<ul> <li>Developing and popularizing environmentally considered products</li> <li>Promoting environmental protection</li> </ul>	<ul> <li>Ratio of reduction of CO<sub>2</sub> emissions : 15% or more (compared with FY2018)</li> <li>Ratio of reduction of water use : 15% or more (compared with FY2018)</li> <li>Ratio of recycled lead used : 70% or more</li> <li>Percentage of environmentally considered products in total sales : 45% or more</li> </ul>
***	<b>S</b> ocial Respect for human rights and contribution to society	<ul> <li>Respect for individuality</li> <li>Respect for diversity</li> <li>Human resources development</li> <li>Enhancement of work environments and occupational health and safety</li> <li>Provision of high-quality products</li> <li>Responsible procurement promotion</li> </ul>	<ul> <li>Promotion of compliance education and thorough management of human rights risks</li> <li>Promotion of diversity &amp; inclusion</li> <li>Promotion of work-life balance and health management</li> <li>Promotion of human resource development programs</li> <li>Promotion of occupational health and safety risk management</li> <li>Strengthening of product safety management, promotion of quality improvement and strengthening of quality communication</li> <li>Responses to responsible mineral procurement and managing CSR risks in the supply chain</li> </ul>
	Governance Promotion of fair, transparent, and swift group-wide governance	<ul> <li>Thoroughly fulfilling our CSR and ensuring compliance</li> <li>Protection of intellectual property</li> <li>Thorough management of confidential information</li> </ul>	<ul> <li>Promotion of compliance education, provision and thorough of legal information</li> <li>Thorough avoidance of infringement and elimination of counterfeit products</li> <li>Promotion of security measures and information security training</li> </ul>

### Transformation of the CSR Committee into the Sustainability Promotion Committee

In fiscal 2023, the existing CSR Committee was reorganized as the Sustainability Promotion Committee. The earlier committee monitored the progress of issues relating to materiality and deliberated on topics such as responses to CSR information disclosure from a CSR perspective, and as of fiscal 2023, the new committee deliberates on issues including responses to the TCFD recommendations and responses concerning the human rights of foreign workers from a variety of perspectives.

### romotion Committee → P.55 Sustainability promotion framework

# CFO Message

Maximize profit through ROIC management and use optimal capital procurement to make ever greater advances



### The CFO's Mission

### Act as a Compass for Management

When I took up this post one year ago, I stated in this report, "The basic mission of the CFO is to support the sustainable growth of the Company from a finance viewpoint. Maintaining a long-term perspective, I hope to steadily enact capital policies and financial strategies that help enhance our corporate value. "My thoughts on this have not changed, but I feel that my awareness of the significance of my mission and the degree of my responsibility has deepened.

The Group has grown by providing value to society through the manufacture and sale of lead-acid batteries as its core business for more than 100 years. Amidst the movement toward carbon neutrality, however, for the Group to continue practicing its corporate philosophy of "Innovation and Growth" and pursue sustainable growth, we believe that the Group needs to evolve into an enterprise that contributes even more to society, and management has repeatedly examined the future that we should seek and the path to get there. In April 2023, we announced Vision 2035, our long-term vision. I believe that we were able to demonstrate, both internally and externally, the Group's strong commitment to transforming business structures in the coming 100 years and focusing on mobility and public infrastructure fields.

To expand the mobility and public infrastructure fields, we are about to make a series of large-scale investments that are an order of magnitude greater than anything we have done in the past. We also need to investigate the various options concerning capital policies that will serve as the basis for these investments. It goes without saying that we must ensure returns to shareholders and protect the Group's financial soundness. If Vision 2035 is the north star showing the direction that we will head, then my role as CFO is to serve as the compass so that we do not lose sight of our path. I hope to perform this role and guide GS Yuasa in the correct direction.

The recent announcement of Vision 2035 can be said to be a significant historical turning point for the Group. My desire to make the Group a business enterprise that in 20 and 30 years from now employees will be happy to work for is stronger than ever.

### **Review of the Fifth Mid-Term Management Plan**

### Numerical Targets Achieved

In fiscal 2022, the final year of the Fifth Mid-Term Management Plan, consolidated net sales reached 517.7 billion yen as a result of an increase in the sales volume of lithium-ion batteries for HEVs, the conversion of our site in Turkey into a consolidated subsidiary, and effects from the lower value of the yen. In terms of profit, operating profit before amortization of goodwill increased substantially to 32.1 billion yen due to steady progress in reviewing sales prices in response to effects from high raw material costs. As a result, we largely achieved the numerical targets set under the Fifth Mid-Term Management Plan.

The original term of the plan was extended one year due to the unexpected COVID-19 pandemic during the plan, but I view the achievement of the targets very highly. With regard to growth strategy, we brought to fruition many of the measures that we have been steadily carrying out for the past four years. In particular, the facts that the automotive lithium-ion batteries business has become profitable and further growth in earnings is now in sight are highly significant as the turning point from upfront investment to reaping profits.

On the other hand, there are issues that need to be addressed. During the Fifth Mid-Term Management Plan, Lithium Energy Japan and our sites in China recorded impairment losses, and our target for return on equity (ROE) was not achieved in the final year of the plan. Also, large-scale investments totaling approximately 81.0 billion yen including the expansion of production capacity of the Blue Energy Co., Ltd. No.2 plant and investment to increase production at overseas sites resulted in expansion of the balance sheet, and asset efficiency deteriorated somewhat



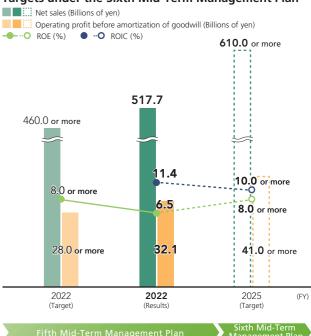
as a result of this. We will continue to make efforts during the term of the Sixth Mid-Term Management Plan to improve those issues that have become apparent.

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

# Building Foundations for Achieving the Ideal under Vision 2035

The Sixth Mid-Term Management Plan, which started in fiscal 2023, is positioned as a three-year plan for building the foundations for transformation toward achieving our ideal vision for 2035. For the final year of the plan, we will pursue further improvement of results including net sales of 610.0 billion yen and operating profit before amortization of goodwill of 41.0 billion yen.

During this period, my most important roles will be to bolster the cash-generating capacity of existing businesses to ensure we generate the funds needed to build foundations and to pursue optimal capital allocation so that we can implement business structure reforms. I believe that growth investment is based on a cycle in which cash generated from existing businesses is used as a source of funds and the cash is allocated to priority markets. In addition to the automotive batteries business and industrial batteries and power supplies business, in the automotive lithium-ion battery business, lithium-ion batteries for HEVs can generate



Results under the Fifth Mid-Term Management Plan and Targets under the Sixth Mid-Term Management Plan

Notes: 1. The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021, but due to effects from the COVID-19 pandemic, the single-year plan for fiscal 2020 was excluded and the mid-term plan was changed to a four-year plan with fiscal 2022 as the final year.
2. ROE and ROIC refer to profit before amortization of goodwill (operating profit and profit).

substantial cash. We will seek to use this cash to achieve growth over the medium to long term by investing in growth fields including mobility and public infrastructure.

### **Capital Policy**

# Raising Capital for Upfront Investment for the Future is an Issue

The term of the Sixth Mid-Term Management Plan will be a three-year period for upfront investment. We plan to make large-scale investments in further increasing production capacity of lithium-ion batteries for HEVs and production of lithium-ion batteries for BEVs, which is expected to become a new pillar of business in the future. We may also implement M&A if we determine that we can steadily recover cash and a business will contribute to corporate growth.

Taking these factors into consideration, we estimate that investing cash flow will be approximately 190.0 billion yen. In contrast to this, the Group is expected to generate cumulative operating cash flow of approximately 140.0 billion yen over the next three years, while free cash flow will be minus 50.0 billion yen. When capital needed for shareholder returns is added, we need to raise approximately 80.0 billion yen. These figures only include a portion of the investment relating to production of lithium-ion batteries for BEVs, and we expect to need to raise even more capital in the future.

As a CFO, I am aware that our biggest issue is securing the funds that we will need for large-scale investment in the future. As I mentioned earlier, we will first work to maximize operating cash flow, but will also reduce cross shareholdings to improve capital efficiency. For some time, we have had a basic policy of reducing cross shareholdings that do not lead directly to the generation of profit, and we will continue to carry out divestment after rigorously

Capital Allocation (FY2023 - 2025)

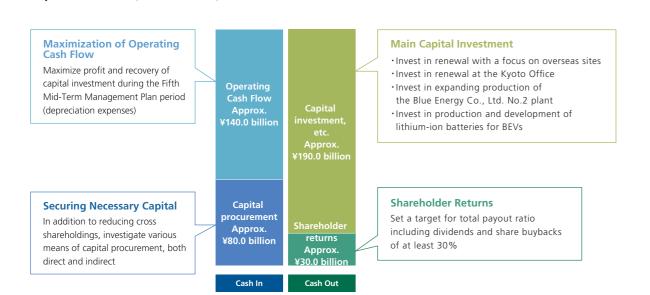
assessing relationships with partner companies in the future and allocate the proceeds to growth investment.

### **ROIC Management**

### Set ROIC Target of 10% and Raise Capital Efficiency

I recognize that generating returns that exceed the cost of capital and improving capital efficiency are important missions of the CFO. In the Sixth Mid-Term Management Plan, in addition to a target of ROE of 8% or more, we set a management target of ROIC of 10% or more.

From the perspective of capital efficiency, in the automotive batteries business (Japan), we expect to maintain ROIC at a high level, so it will be crucial to earn as much cash as possible while we can and reinvest it in growth fields. In the automotive batteries business (overseas), we will strategically allocate resources to each region to raise capital efficiency and maximize profits. In the industrial batteries and power supplies business, we will steadily secure profits in the emergency field, which is a solid earnings base, and link this to additional business growth in the regular field including renewable energy. In the automotive lithium-ion batteries business, sales of lithium-ion batteries for HEVs are expanding and profitability is increasing, but considering the investment that will be necessary for BEV batteries in the future, we predict that there is a high likelihood that ROIC will decline temporarily, even if we are able to use subsidies from the Ministry of Economy, Trade and Industry. We see the next several years as a period to accumulate energy to leap forward so that we can increase business growth starting in fiscal 2027, and we plan to conduct management from a medium- to long-term perspective.



### Expansion from the Bottom-Up and Top-Down

We seek to improve the earnings capacity of the Group as a whole by reinforcing profit management on the business division level. When calculating ROIC, operating profit after tax is generally used as of the numerator, but we use operating profit before amortization of goodwill. This is because we seek to increase understanding of ROIC by using operating profit, which has already been introduced as a target management indicator for business divisions, in order to expand ROIC management throughout the entire company.

To promote a change in awareness concerning the execution of business based on an awareness of invested capital, we hold regular internal study sessions regarding ROIC for managers and front-line employees. In addition, we seek to establish ROIC throughout the organization by linking it to the TQM activities implemented by individual departments and enabling each employee and each department to make improvements autonomously.

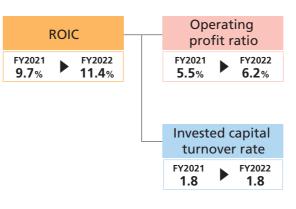
In addition to this bottom-up expansion of understanding, we are also conducting top-down expansion. We are introducing evaluation criteria that clearly reflect the degree of achievement of ROIC targets for management.

### **To Shareholders and Investors**

### Building Deeper Relationships of Trust Through Dialogue

The Company positions shareholder returns as the highest-priority management issue, and we return profits to shareholders after comprehensively considering consolidated financial performance, internal reserves for future growth, financial conditions, and other factors. During the term of the Sixth Mid-Term Management Plan, which will be a period for upfront investment, we will continue to provide shareholder returns with a total payout ratio target of at least 30%. Taking shareholder interests into consideration, we will use

### ROIC Tree (FY2021 and 2022)



B ESG



profit before amortization of goodwill as the basis for calculating the total payout ratio.

Regarding shareholder dividends for fiscal 2022, we paid 50 yen per share, the same as in the previous fiscal year. In fiscal 2023, assuming that we achieve our profit forecasts, we plan to pay an interim dividend of 15 yen per share and a year-end dividend of 35 yen per share, for an annual dividend of 50 yen per share.

To increase shareholder value, we believe it is important to raise shareholder returns through improved business performance, leading to higher stock prices over the long term. Currently, our PBR is at around 1x, and it is my understanding that what we can do as a company to increase the stock price is to understand the expected rate of return by engaging in active dialogue with shareholders and investors, ensure that shareholders and investors have a proper understanding of the Company's growth strategies, and steadily execute and achieve the stories portrayed by those strategies.

I hope that you understand the vision for the future and the value creation story depicted by the Group in Vision 2035 and that you will closely monitor the Group's growth from a medium- to long-term perspective, rather than a short-term perspective. We hope to provide returns that exceed expectations to those who believe in the future of the Group and continue to support us.

August, 2023

Director and Chief Financial Officer, GS Yuasa Corporation

**Automotive Batteries** 

### Takashi Abe

Director Business Unit Manager of Automotive Batteries GS Yuasa International Ltd.

### Review of the Fifth Mid-Term Management Plan

### Reforms for high profitability in Japan, selection and concentration of resources overseas

The automotive batteries business accounts for approximately 60% of the Group's sales, and market characteristics of each region vary greatly in Japan and overseas.

In Japan, automobile ownership has peaked as a result of the declining population, and changes in the business environment are becoming more prominent in conjunction with electrification. To respond to these conditions, during the Fifth Mid-Term Management Plan period, we pursued reforms intended to achieve high profitability, revised the prices of products for new automobiles, and focused on sales of high-value-added products for replacement. In terms of production, we took measures to eliminate the imbalance in production volumes at our four domestic production sites (Gunma, Osadano, Kyoto, and Hamanako) including GS Yuasa Energy Co., Ltd., which was established through the transfer of the lead-acid batteries business from Panasonic Corporation, and to raise production efficiency while achieving complementation among models. During the Sixth Mid-Term Management Plan period, we will continue to pursue stable production and supplies while achieving a balance between products for new automobiles and for replacement. In addition, we generated synergy effects with GS Yuasa Energy. I believe that exchanges of human resources developed under different corporate cultures also produced significant results in terms of creating new ideas concerning production systems and the execution of business.

Overseas, we conducted business activities with the aim of expanding our market shares by focusing on two core measures—selecting business sites for concentration of resources and optimization of production and sale structures. In Southeast Asia, where we have high market shares, we reinforced sales with a focus on high-value-added products, and we achieved strong results by accelerating measures for achieving high profitability. In Europe, our site in Turkey became a consolidated subsidiary in 2022, and we also reinforced supply capacity in undeveloped regions including the Middle East and North Africa. In China, the business environment has changed drastically since the start of the Fifth Mid-Term Management Plan period, competition has intensified, and business conditions remain challenging as a result of the recording of impairment losses in fiscal 2021 and equity method losses in fiscal 2022. In North America, we focused on production and sales of batteries for power sports, but the market environment is changing, and we are aware that we need to reexamine our sales routes.

Ô

In Japan and overseas, during the Sixth Mid-Term Management Plan, we will make steady responses to issues that became apparent during the Fifth Mid-Term Management Plan period.

## Measures to Achieve Vision 2035 and the Sixth Mid-Term Management Plan

### Reforms for more robust systems in line with changes in the business environment

In the recently-announced Vision 2035, we anticipate a challenging market environment for lead-acid batteries in light of the electrification trend. The term of the Sixth Mid-Term Management Plan will be an extremely important period for examining how the positioning of lead-acid batteries will change amidst the electrification trend as well as in which regions demand will increase.

Amidst changes in the lead-acid battery market, it is necessary that we refine even further our technology development capabilities for continuously providing high-performance products, manufacturing and production technology capabilities for continuously ensuring stable product quality, and technical service capabilities for supporting product safety in the market. There are no goals in manufacturing, and consequently, we will continue to refine our on-site capabilities and work to achieve even more ambitious targets.

A major target of the Sixth Mid-Term Management Plan is the implementation of reforms to transform systems so that they can reliably generate profits no matter what changes occur in the market, that is, to create robust systems. We will raise profitability by concentrating management assets in high-efficiency areas.

### Japa

### Expanding sales of high-value-added products and reinforcing the *Koto-zukuri* (service creation) business

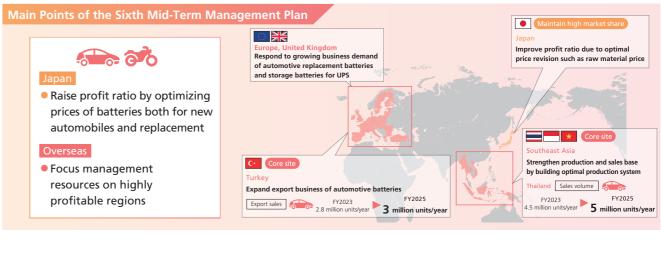
In Japan, specific measures will include negotiating with automakers so that we can secure appropriate profits commensurate with the volume of products for new vehicles. With regard to replacement products, we will continue our efforts to create stronger sales structures and slimmer organizations. I too have personally experienced battery problems, and I want customers to use high-quality products, so we will expand sales by clearly conveying the appeals of high-value-added products.

We will also strengthen the *Koto-zukuri* (service creation) business as a means of facilitating increased sales of our products by buyers including car dealers. Until now, we have developed services for repair shops and automobile dealers in inspection and service situations for suggesting replacement depending on the storage battery status. In the future, we plan to accumulate data on storage batteries through such inspections and services and make data visible in various formats so that we can provide support to dealers to enable them to make easy-to-understand recommendations to users on the appropriate time for battery replacement and avoiding battery problems. By reinforcing the *Koto-zukuri* business in this way, we hope to provide even greater peace of mind to customers.

### Overseas

### Pursuing increased market shares and maximization of profits through selection and concentration of management resources

Our policy for overseas is to concentrate management resources in high profit efficiency regions. Motorization will initially advance in Southeast Asia in conjunction with economic growth, and we expect that markets will continue to grow steadily in the future. Thailand will continue to function as a core site, and we will develop production structures with annual capacity of 5 million units. In Vietnam and Indonesia, we plan to expand sales in line with robust market demand while closely monitoring fixed expenses





and rising prices. We also plan to make investments for automation and labor-saving in production. In Europe, it will be important to use our site in Turkey to reinforce production and sales activities while steadily developing new products. In Australia, we will leverage our local production strengths and reinforce sales of

high-value-added products to increase market share. And in China, which is undergoing drastic change and markets are extremely challenging, we will closely monitor demand for lead-acid batteries and rebuild our strategies.

### Fulfilling our responsibilities as a source of funds for growth by the Group

Local production for local consumption is crucial for lead-acid batteries. Because of this, when making decisions on how to produce and sell products in what regions, as the responsible director, I believe that it is important to view things from a local perspective, and I try to visit local sites as much as possible.

Reinforcing human capital is also important. As part of our rank-specific human resource development programs, we will create mechanisms that enable the employees who carry out management plans on the front lines to demonstrate their capabilities to the maximum degree, including assigning assistant manager (section leader) and manager class employees who work in Japan to overseas sites so that they can gain management sensibilities that include local perspectives and implementing human resource exchanges between domestic and overseas divisions through job rotations.

Improving profitability is a major target under the Sixth Mid-Term Management Plan. The automotive batteries business has long supported the Company's growth, but there are no groundbreaking methods for increasing profits. For this reason, I tell employees that I want everyone to work with the mindset of shaving off one second or one yen. I believe that the steady implementation of such efforts will lead to improved ROIC, and I hope to spread this idea throughout the Company.

The profits of the Automotive Batteries Business Unit are a source of funds for further growth by the entire Group. We will fulfill our responsibilities with an awareness of this role.

### **Automotive Batteries (Japan)**

### Sixth Mid-Term Management Plan

### **Business Policy**

### Build an optimal supply system in response to change of business environment and improve profit rate

### Strategies and Important Tasks

### Production

#### Sales: For new automobiles Sales: For replacement

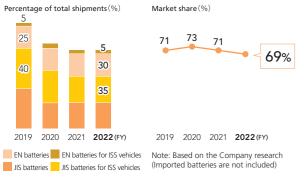
- Establish supply system that enables both rapid response to demand fluctuations and inventory reduction
- Improve profit ratio due to optimal price revision such as raw material prices
- Rebuilt marketing strategies and maintain high market share
- Improve efficiency by using IT and other means

### Review of the Fifth Mid-Term Management Plan

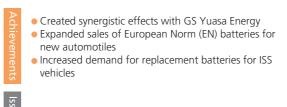
During the term of the Fifth Mid-Term Management Plan period, we took measures to increase profit ratios and reinforce sales of high-value-added products. In addition to creating synergistic effects with GS Yuasa Energy, which was established as a result of transfer of the lead-acid battery business from Panasonic Corporation, we expanded sales of high-value-added products.

To respond to soaring prices for raw materials, we reflected costs in sales prices for batteries for new automobiles by entering into contracts that provide for changes in sales prices according to the domestic lead price guote (a lead price slide system). For replacement batteries, we raised prices 10% or more in February 2022 and 15% or more in February 2023.

• Batteries for new automobiles shipped as a percentage of total shipments/the Company's market share



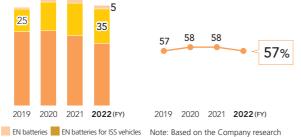
### Achievements and issues



Revise sales price due to soaring raw material prices

#### Batteries for replacement shipped as a percentage of total shipments/the Company's market share





JIS batteries JIS batteries for ISS vehicles (Imported batteries are not included)

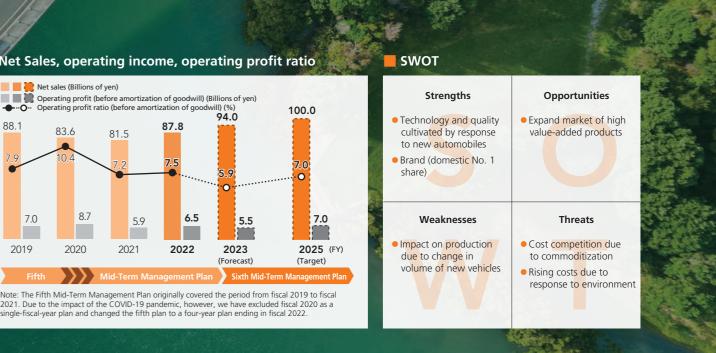
### TOPIC

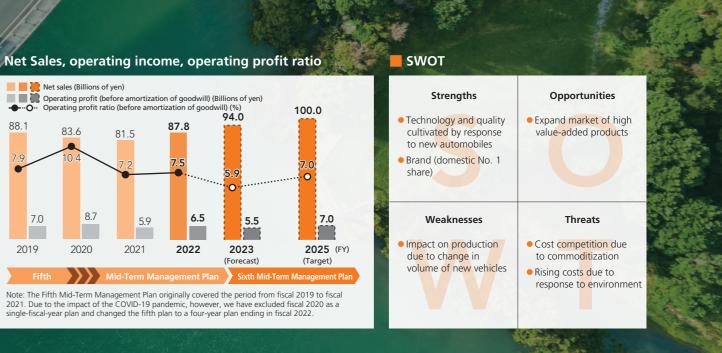
### Creating synergistic effects with GS Yuasa Energy

Since the business transfer, GS Yuasa Energy has reported cumulative operating profit of approximately 20.1 billion yen, generated profit that greatly exceeds the cumulative amount of goodwill amortization, and made substantial contributions to increasing market share in the domestic automotive lead-acid battery business. Synergistic effects were also created through reciprocal supply of storage batteries and joint purchasing.



#### Exterior of GS Yuasa Energy





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

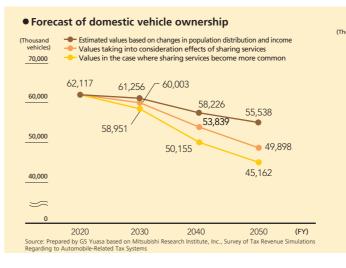
During the term of the Sixth Mid-Term Management Plan, demand for batteries for new automobiles is expected to recover from the reduced production by automakers due to the COVID-19 pandemic and semiconductor shortage and to increase as a result of reflecting high raw materials costs in sales prices.

Increase due to recovery of production by automakers

### For replacement

• Flat due to the recovery in demand for batteries for new automobiles

### **Relevant data**





FSG

4

Financial / Corporate Data

### Outlook for fiscal 2023

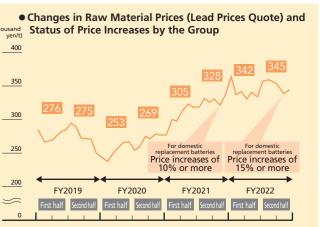
In fiscal 2023, an increase in the sales volume of batteries for new automobiles is expected as effects from the shortage of semiconductors ease, and effects from passing higher costs to sales prices are also expected. Although sales volumes of batteries for replacement are expected to decline due to the recovery of new automobiles sales, progress will be made in reflecting costs for raw materials in sales prices and other measures, resulting in higher sales for the segment as a whole. Despite this, a decrease in profit is expected due to a deterioration of the product composition.

### For new automobiles

- Increase in sales volume due to easing of impact from semiconductor shortage
- Progress in shifting higher costs to sales prices

### For replacement

- Down due to increased demand for batteries for new automobiles
- Progress in shifting higher costs to sales prices



### **Automotive Batteries (Overseas**

### Sixth Mid-Term Management Plan

### **Business Policy**

### **Reform management structure for the future** by selection and concentration and strengthen profitability

### **Strategies and Important Tasks**

			-	
Southeast Asia	China	Europe	Other (Australia)	and the second second
<ul> <li>Maximize profit by strengthening sales in ASEAN area</li> </ul>	<ul> <li>Promote fundamental review of business</li> </ul>	<ul> <li>Reinforce sales to Europe and nearby regions utilizing the Turkish site</li> </ul>	<ul> <li>Strengthen production base and expand market share of replacement batteries</li> </ul>	

Achievements and issues

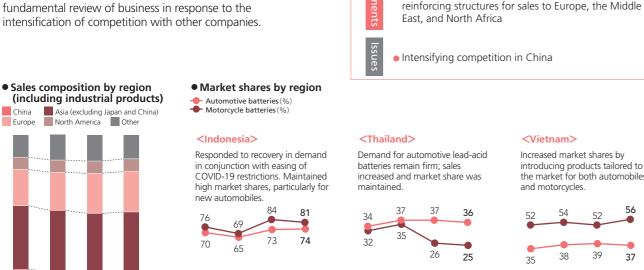
structures in Southeast Asia

• Expanded production capacity and reinforced sales

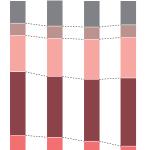
Converted Turkish site into a consolidated subsidiary,

### Review of the Fifth Mid-Term Management Plan

In Southeast Asia, where the Group has high market shares, we increased our development, production, and sales capacity according to the different needs of each region. In Europe, our site in Turkey became a consolidated subsidiary in fiscal 2022, reinforcing our structures for sales in Europe, the Middle East, and North Africa. In China, we conducted a fundamental review of business in response to the







2021

2022 (FY) 2019



<Vietnam>

Increased market shares by

introducing products tailored to

the market for both automobiles

37



2021 2022 (FY) 2019 2020 2021 2022 (FY) Note: The method of calculating market share for motorcycles in Thailand was changed in fiscal 2021

### TOPIC

2019

2020

### Reinforced sales to Europe, the Middle East, and North Africa from our site in Turkey

2020

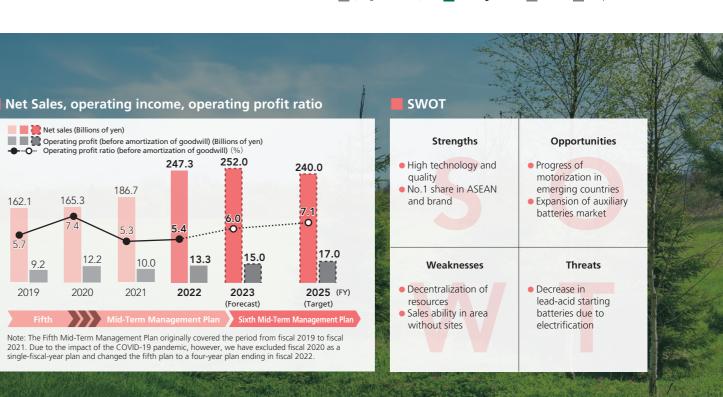
2021

2022 (FY)

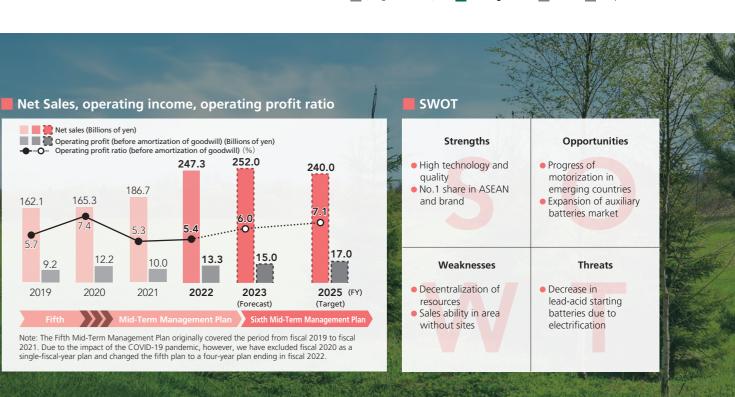
2019

2020

İnci GS Yuasa Akü Sanayi ve Ticaret Anonim Şirketi, our site in Turkey, started joint-venture business in 2015, began operations at a new plant in January 2019, and has expanded manufacture and sales of high-performance lead-acid batteries for eco-friendly vehicles. It became a consolidated subsidiary in May 2022 and will reinforce structures for sales to Europe as well as the Middle East and North Africa.



1 Vision 2035



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

We anticipate an expansion of sales in Southeast Asia, Europe, and Australia during the term of the Sixth Mid-Term Management Plan, and we will strategically allocate resources.

### Southeast Asia

Demand is expected to continue growing

### China

Promote fundamental review of business

### Europe

 Slight increase due to continued demand for replacement batteries

### TOPIC

### Contract concluded for partial transfer of equity interests in consolidated subsidiary in China

The environment surrounding the automotive lead-acid battery busin is undergoing major changes including tightening of environmental r in recent years and the imposition and subsequent lifting of zero-COV

As our growth strategy in China, we have decided to transfer 70% equity holdings in Tianjin GS Battery Co., Ltd. and Yuasa Battery (Shu Ltd., which are consolidated subsidiaries, to Leoch Battery Company Chinese company, and we concluded an equity transfer agreement a venture agreement. We determined that the most profitable option v transfer management rights to Leoch Battery, which operates under of Leoch International Technology Limited, a company that has achieved in this business in China, while continuing to provide technical support combined market share of the GS Yuasa Group and Leoch Internation will be the third largest and close to the second largest (according to GS Yuasa), and we synergies are expected in terms of both sales and



### Outlook for fiscal 2023

In fiscal 2023, we expect increases in volume, mainly in Thailand and Indonesia. In Europe, a decrease in volume is expected due to inflation in Turkey, advancing electrification, and other factors, and we are reviewing our product sales price strategy. We project higher sales and profit for the segment as a whole.

4

FSG

Financial /

Corporate Data

### Southeast Asia

• Higher volumes, mainly in Thailand and Indonesia

### China

Promote fundamental review of business

### Europe

• Decrease in volume due to effects from inflation and other factors

/	Name	Tianjin GS Battery Co., Ltd.	Yuasa Battery (Shunde) Co., Ltd.
ess in China regulations VID policies. 6 of our unde) Co., Limited, a and joint will be to the umbrella eved success	Main business	Manufacture and sale of lead-acid batteries for automobiles	Manufacture and sale of lead-acid batteries for automobiles and sale of lead-acid batteries for motorcycles
	Shareholders and shareholding ratio	GS Yuasa 92.5% → 22.5% Yuasa Battery (Guangdong) Co., Ltd. 7.5% → 7.5%	GS Yuasa 100% ➡ 30%
ort. The nal Group research by	Transfer price (approx.)	0.95 billion yen (RMB 49 Mil)	3.08 billion yen (RMB 158 Mil)
logistics.			

### **Industrial Batteries and Power Supplies**



Managing Director Business Unit Manager of Industrial Batteries and Power Supplies GS Yuasa International Ltd.

### Review of the Fifth Mid-Term Management Plan

### Delivering peace of mind and safety to customers through the *Koto-zukuri* (service creation) business

Our fundamental policy for fiscal 2022, the final fiscal year of the Fifth Mid-Term Management Plan, was to deliver peace of mind and safety to customers and evolve into a business enterprise that gains the trust of society. One of the results was the start of provision of STARELINK services\* using remote storage battery monitoring services to customers in the regular field. This service gathers and analyzes information on the operational status and degradation of energy storage systems (ESS) using a cloud-based system equipped with monitoring, analytical, and diagnostic functions and is a first step in the area of *Koto-zukuri* (service creation) business. The Company is already receiving orders, and we will continue to focus our efforts in this area in the future.

In terms of sales, we took measures to appropriately reflect soaring costs for raw materials and fuel in sales prices. Regarding production, operating rates declined and sales were below the initial plan due to deliveries for many projects being delayed until fiscal 2023 or later as a result of disruption of supply chains and long delivery times for parts, mainly in the emergency field. On the other hand, there were shortages of parts and materials in the regular field and overseas markets, but we were able to respond as needed and there were positive effects from the weaker yen, and as a result, the impact was minimal.

With regard to development, we made progress on the development of new ESS products and undertook development of even more competitive lithium-ion batteries in collaboration with the LIB Technical Center. For lead-acid batteries, which are essential as backup for public infrastructure, we worked to enhance heat resistance and extend lifespans and took measures to reduce energy used in manufacturing.

# Measures to Achieve Vision 2035 and the Sixth Mid-Term Management Plan

### Contributing to the development of sustainable public infrastructure and securing high profit

Under the Green Growth Strategy announced by the Japanese government, the composition of electric sources will be drastically changed to achieve carbon neutrality by 2050, and it is expected that renewable energy will account for 50% to 60% of all energy. Under these circumstances, the Company declared a policy of ensuring high profitability by contributing to the realization of sustainable public infrastructure in Vision 2035.

Under the Six Mid-Term Management Plan, we will maintain our market shares in the emergency field, which is expected to experience firm demand, while formulating scenarios necessary for growth including development of new ESS products and cutting the cost of forklift lead-acid batteries overseas in response to robust demand in the regular field and overseas markets, and we will take action to achieve the plan.

### Regular field

### Growth in *Mono-zukuri* and *Koto-zukuri* (manufacturing and service creation)

The Company is steadily increasing orders received in the regular field, such as the storage battery facility for wind power generation in Hokkaido, one of the world's largest storage facilities, which was completed installation in fiscal 2021. In the regular field, which is a driver of growth, we have adopted a policy of taking advantage of opportunities to achieve growth in both *Mono-zukuri* and *Koto-zukuri* (manufacturing and service creation). As a part of this effort, we established the Energy Systems Sales Division, which integrates technology and sales divisions. By having engineers

accompany sales personnel on sales visits, we hope to develop proposals that can leverage our strengths in mobility and specialization.

In Japan, we are currently focusing sales activities on projects that are eligible for subsidies, but in preparation for the termination of subsidy programs, we will continue to develop economical products for end users who use the power they generate.

Regarding overseas markets, we plan to start by enhancing our competitiveness in Japan and then developing business overseas by identifying our unique key factors for success.

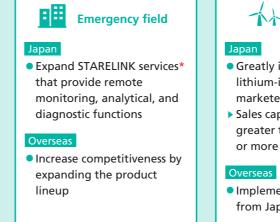
### Emergency field

### Maintain and expand market share by increasing added value

In the emergency field, where the pace of transition from lead-acid batteries to lithium-ion batteries is slower than that for automotive batteries, the key will be how to raise profitability while capturing robust demand. To increase added-value, we will begin providing the STARELINK service, \* which is already available to customers in the regular field, in the emergency field in fiscal 2023. We plan to distinguish this service from those of competitors including overseas manufacturers by enhancing convenience while listening to the opinions of on-site users. In addition, we implemented an absorption-type merger with GS Yuasa Infrastructure Systems Co. Ltd. (GYIS), which was established through transfer of the social infrastructure business from Sanken Electric Co., Ltd. in fiscal 2021, to maximize synergy effects so that we can enhance product competitiveness. By integrating the strengths of GS Yuasa and the former GYIS, we will leverage the battery control technologies and high-efficiency power electronics technologies developed over many years to accelerate development of high-quality products.

In overseas markets, we will deploy the heat resistance and lifespan extending technologies that we accumulated in Japan while expanding sales of second brand products to customers that require moderately-priced products.

# Main Points of the Sixth Mid-Term Management Plan





### For forklifts

### Steadily capture electrification demand

In light of the trend toward electrification in the forklift field, we will develop a lineup of both lead-acid batteries and lithium-ion batteries and expand our customer base. We will seek to increase sales volumes by developing and providing trial deliveries of products that meet lithium-ion battery demand. Overseas, we will increase production capacity at our site in Thailand, focus sales efforts in ASEAN area, and also expand sales channels to Europe.

### Developing human resources who can carry out strategies and creating the foundations for achieving Vision 2035

The biggest issue that we face in order to achieve the Vision 2035 is the development of human resources who can carry out our strategies. I value communication with employees for enhancing engagement as we reinforce human capital. I often say that it is important for personnel to "listen to customer opinions, consider together what will make customers happy, and achieve growth together." If we can engage in dialogue with customers and affiliates in Japan and overseas and demonstrate our respective strengths to achieve common goals, this will lead to stronger human capital throughout business divisions and increased corporate value.

The Sixth Mid-Term Management Plan is a stepping stone for major growth in the future. We will lay the foundations for expanding business in the public infrastructure field so that we can achieve the Vision 2035.

\* Maintenance services that use proprietary remote monitoring technology and forecasting and preventive technologies. Preventive maintenance services that use AI and DX are provided to maintain the stable operations and optimal control essential for power generating facilities that are used for extended periods.



### **Industrial Batteries and Power Supplies**

Sixth Mid-Term Management Plan

**Business Policy** 

### Building a business foundation to capture the growth of the next generation

Strategies and Important Tasks

**Emergency field (Japan)** 

**Regular field (Japan)** 

- Expand our remote monitoring services
- Maximize profit by utilizing unparalleled superiority

Setting the stage for a second pillar of business

 Strengthen competitive ability by expanding

product lineup

**Emergency field (Overseas)** 

### Review of the Fifth Mid-Term Management Plan

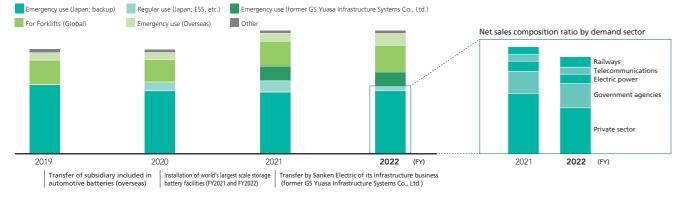
In the emergency field (Japan), we have been working to maximize synergies by acquiring the social infrastructure business of Sanken Electric Co., Ltd., which has extensive experience with uninterruptible power supplies (UPS) and power supply equipment for base stations.

In the regular field (Japan), we installed lithium-ion battery facilities for wind power generation in Hokkaido. We will perform service and maintenance of the storage battery facilities for 20 years.

### Achievements and issues

- Installation of lithium-ion batteries for wind power generation in Hokkaido
- Acquisition of the social infrastructure systems business from Sanken Electric Co., Ltd.
- Starting "Koto-zukuri business" such as STARELINK service
- Delivery delay due to shortage of components and materials
- Secure profits in regular field business

### • Composition ratio of net sales by product type



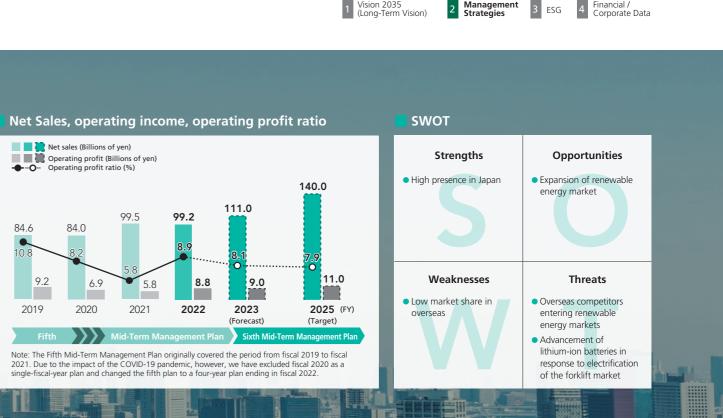
### TOPIC

### GS Yuasa lithium-ion battery-based power storage system to be installed at Honda's Kumamoto Factory

With a capacity of 20MWh, the system will be one of the largest\*1 demand-side in-house consumption-use power storage facilities in Japan. It will operate in conjunction with a solar power generation system. The system will facilitate efficient utilization of solar power (the levels of which fluctuate depending on weather and other conditions) by storing, in lithium-ion batteries, surplus energy generated at times, and then releasing the energy when necessary. The system will be equipped with LEPS-2-14 industrial lithium-ion batteries newly developed by GS Yuasa. \*1 As of March 1, 2023; according to GS Yuasa research



How system will appear when installed



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

We expect that the regular field (Japan) will expand substantially in conjunction with expansion of the renewable energy market during the term of the Sixth Mid-Term Management Plan. Securing profit is an issue, and we will increase profit over the medium to long-term by expanding the servicing and maintenance business. We also expect stable demand in the emergency field (Japan and overseas) and the forklift field (global).

### Regular field (Japan)

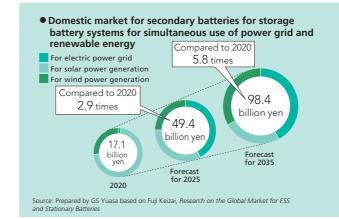
- Expansion of renewable energy market
- Expansion of servicing and maintenance business

Emergency field (Japan and overseas)

### For Forklifts (Global)

- Maintenance and expansion of market share in Japan
- Expansion of overseas business

#### Relevant data



### Outlook for fiscal 2023

In fiscal 2023, in the domestic emergency field, we anticipate effects from increased volumes and sales price revisions due to recovery of private-sector demand and ongoing improvement of delivery lead times for parts, which became longer in the previous fiscal year. In the regular field, we expect increased sales in conjunction with an increase in subsidized projects, and we also anticipate an increase in volume of batteries for forklifts, primarily overseas. For the segment as a whole, we expect higher sales and profits.

### Emergency field (Japan)

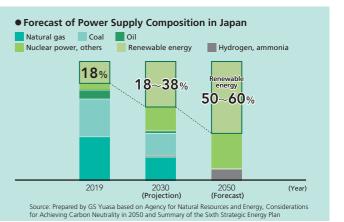
- Recovery of private-sector demand Increase in volumes due to improvement of long delivery lead times for parts
- Sales price revision

### Regular field (Japan)

 Increase in ESS sales as a result of increased subsidized projects Development of ESS products

### For Forklifts (Global)

 Japan: Sales price revision Overseas: Increase in volumes



### **Automotive Lithium-ion Batteries**

### Ryoichi Okuyama

Managing Director In Charge of Lithium-ion Battery Development, Intellectual Property, and Lithium-ion Battery Bus GS Yuasa International Ltd.

### Review of the Fifth Mid-Term Management Plan

Production capacity of batteries for hybrid electric vehicles (HEVs) expanded and preparations of batteries for battery electric vehicles (BEVs) started

The electrification of automobiles is advancing rapidly around the world in order to achieve carbon neutrality. It is expected that demand for lithium-ion batteries will grow even more in the future.

Under this market environment, new vehicle production by automobile manufacturers was weaker than expected and growth in volume was slower than planned during the Fifth Mid-Term Management Plan due to effects from the COVID-19 pandemic, the semiconductor shortage, and other factors. On the other hand, the sales volume of lithium-ion batteries for HEVs increased due to sales to Honda Motor Co., Ltd. as well as the start of deliveries to Toyota Motor Corporation. In addition, both net sales and operating profit increased as a result of sales price revisions in response to soaring prices for raw materials and other factors. Blue Energy Co., Ltd. began operating a second plant in April 2022, and production capacity increased to 50 million cells per year in the second half of fiscal 2022, enabling the Group to reliably meet demand from automakers. Regarding lithium-ion batteries for plug-in hybrid vehicles (PHEVs), Lithium Energy Japan reported impairment losses in fiscal 2020, but business took a turn for the better in fiscal 2022 as a result of increased demand from Mitsubishi Motors Corporation, its main client. In the business for 12V lithium-ion batteries, Europe delayed its restrictions on lead, and we believe that the market will require close monitoring in the future. Regarding batteries for BEVs, we made our first step toward a full-scale entry into the BEV lithium-ion battery market with the establishment of the BEV Battery Development Department in April 2022, resulting in the signing of a basic agreement for collaboration with Honda Motor in January 2023.

The overall business environment has been challenging, but I feel that the measures that we have been steadily implementing until now are finally starting to bear fruit.

# Measures to Achieve Vision 2035 and the Sixth Mid-Term Management Plan

### For BEVs

### Development of lithium-ion batteries that will become the global standard

Premises of the Vision 2035 are that the trend towards carbon neutrality will take root and that the electrification of automobiles will undoubtedly advance. Currently in the BEV lithium-ion battery market, Chinese and South Korean manufacturers have taken the lead and competition is fierce, and it will be necessary for the Company to align with Japanese automakers and establish a strong presence.

A key feature of the Sixth Mid-Term Management Plan for building the foundations needed to achieve the Vision 2035 is development of high-capacity, high-output lithium-ion batteries. As a first step, we established Honda • GS Yuasa EV Battery R&D Co., Ltd., an R&D joint venture company with Honda Motor in July 2023. This project is an essential element for the Group to make significant strides forward in the future, and we absolutely cannot fail. The first and highest priority of this joint venture company will be to develop high-performance lithium-ion batteries for BEVs that will be highly competitive and become the global standard.

The joint venture company with Honda Motor will serve as a driving force for putting these strategies into practice, and personnel are working with the determination to make this happen.

### For BEVs Building product

### Building production systems for mass production in 2027

In addition to R&D of lithium-ion batteries for BEVs, we are also making preparations for mass production. This project was certified under the Supply Security Plan for Storage Batteries of the Ministry of Economy, Trade and Industry, and the Company plans to receive up to about 158.7 billion yen in subsidies. We will use the subsidies to launch a new production line in April 2027, and Blue Energy will play a central role in the stable supply of batteries to various automakers. We will also expand whole Group production capacity, which exceed 20 GWh per year in 2035. Achieving this scale of production with high yields will be a major challenge, and we will make steady preparations.

Lithium-ion batteries for BEVs will also be used in the production of industrial lithium-ion batteries used for electric power storage and other applications. We will examine these initiatives, including how to fully leverage Blue Energy and Lithium Energy Japan, during the term of the Sixth Mid-Term Management Plan.

### For HEVs Expanding production capacity in anticipation of growing demand For PHEVs Reinforcing measures to acquire orders

We project that demand for lithium-ion batteries for HEVs, primarily from Japanese automakers, will remain robust through the mid-2030s. During the term of the Sixth Mid-Term Management Plan, we will start delivering products to new Japanese automakers in addition to Honda Motor and Toyota Motor which we currently supply products to. To meet this demand, Blue Energy will increase its production capacity from 50 million cells to 70 million cells per year by fiscal 2025 in response to requirements from automakers.

We are reinforcing our measures to acquire orders with the aim of achieving adoption of the lithium-ion batteries for PHEVs that we currently supply to Mitsubishi Motors on a wider range of models. We are also expanding sales of

### Main Points of the Sixth Mid-Term Management Plan

### For BEVs

- Establishment of Honda GS Yuasa EV Battery R&D Co., Ltd., an R&D joint venture company with Honda Motor Co., Ltd.
- Promotion of joint R&D of high-capacity, high-output lithium-ion batteries
- Preparations for mass production in fiscal 2027



lithium-ion batteries for commercial EVs and strengthening sales by Lithium Energy Japan.

## Increasing the pace of decision-making and establishing clear policies and direction

Looking at developments in global automotive markets, we expect that the European market will become nearly entirely electrified by 2040, but there have also been reports that internal combustion engine vehicles will be permitted, conditioned on the use of synthetic fuels. The pace of the shift to electric vehicles is difficult to forecast. There will likely be situations when difficult business decisions must be made, and we hope to increase the pace of decision-making by the management team so that establish clear policies and a clear direction.

I request that employees perform their on-site work with the awareness that each individual is a driver of the reforms that will lead to future growth. I also expect that the wide-ranging experience that will be gained through collaboration in the BEV business will become a substantial source of sustenance for growth by employees.

The Lithium-ion Batteries Business Unit has faced numerous challenging goals and has made considerable efforts to achieve commercialization, resulting in stable profitability. During the term of the Six Mid-Term Management Plan, we will lay the foundations for the Group to make great strides in the future. To compete successfully in the BEV lithium-ion battery business, we must take aggressive action with unprecedented speed. Society also holds tremendous expectations for this business, and we will move forward with a strong commitment to succeeding.

### For HEVs

• Expansion of production capacity of Blue Energy (from 50 million cells/year in fiscal 2022 to 70 million cells/year in fiscal 2025)

### For PHEVs

 Reinforcement of measures to acquire orders in order to expand models that use our batteries

### **Automotive Lithium-ion Batteries**

Sixth Mid-Term Management Plan

### **Business Policy**

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

For **BEVs** 

### Strategies and Important Tasks

### For HEVs, PHEVs

- Improve yield rate and plant utilization rate
- Establish further increasing production system of Blue Energy No.2 plant
- Strengthen development and production systems of batteries for PHEV

- Strengthen development systems
- Prepare to enter business

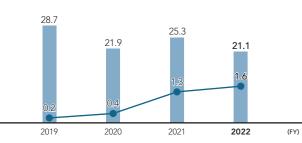
• Development of products / preparation of production

Auxiliary and backup use

Review of the Fifth Mid-Term Management Plan

With regard to batteries for HEVs, supply to Toyota Motor started and production capacity was increased to 50 million cells per year with the start of operation of the Blue Energy No. 2 plant. For batteries for BEVs, we established the BEV Battery Development Department. We also decided to collaborate with Honda Motor to conduct research and development of high-capacity, high-output lithium-ion batteries.

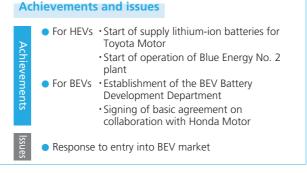
- Change in net sales and operating profit of Lithium Energy Japar
- Net sales (Billions of yen) Operating profit (Billions of yen)



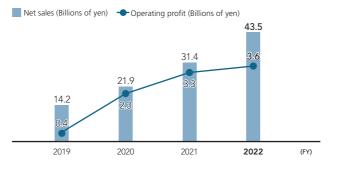
### ΤΟΡΙΟ

### Blue Energy No. 2 plant started operations in April 2022

In order to respond to the growing demand for HEVs, mainly by Japanese automakers, operation of Blue Energy's No. 2 plant started in April 2022. Deliveries to Honda Motor and Toyota Motor are increasing, and Blue Energy plans to expand production capacity to 70 million cells per year in fiscal 2025.

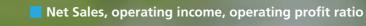








Exterior of Blue Energy No. 2 plant





Note: The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fis 2021. Due to the impact of the COVID-19 pandemic, however, we have excluded fiscal 2020 as single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022.

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

We expect that during the term of the Sixth Mid-Term Management Plan, sales volume of batteries for HEVs will increase, and we plan to increase Blue Energy's production capacity to 70 million cells annually in fiscal 2025. Demand for batteries for PHEVs is expected to remain solid. We established a joint venture company with Honda Motor for next-generation lithium-ion batteries for BEVs.

### For HEVs

• Increase in sales in conjunction with increased demand from Japanese automakers

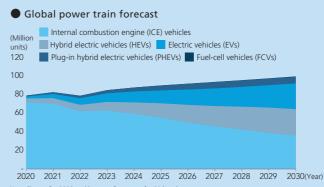
### For PHEVs

• Firm sales as a result of sales activities and reinforcement of production systems

### For **BEVs**

 Collaboration with Honda Motor on next-generation lithium-ion batteries

### **Relevant data**



Note: Figures for 2023 and later are forecasts of vehicle volumes Source: Prepared by GS Yuasa based on materials from securities compa

1 Vision 2 (Long-Te	035 erm Vision) 2 Management Strategies	3 ESG 4 Financial / Corporate Data
-		-
	Strengths	Opportunities
	<ul> <li>Connection with automakers in Japan</li> <li>Delivery results by BEC and LEJ</li> </ul>	<ul> <li>Expanding demand for HEVs by automakers in Japan</li> <li>Expanding demand for batteries for BEVs</li> </ul>
.0	Weaknesses	Threats
<b>5</b> (FY) t)	<ul> <li>Business scale compared to manufacturers in China and Korea</li> </ul>	<ul> <li>Concerns about stable procurement of raw materials</li> </ul>
ent Plan	<ul> <li>Concentration of production sites in Japan</li> </ul>	<ul> <li>Legal regulation in Europe and the U.S.</li> <li>High market share by</li> </ul>
as a		foreign manufacturers

### Outlook for fiscal 2023

In fiscal 2023, the volume of batteries for HEVs will increase, and the scope of models on which our products are used is expected to expand. The volume of batteries for PHEVs will also increase as the semiconductor shortage eases. We expect higher sales and profit for the segment as a whole.

### Increase in volume due to easing of semiconductor shortage

• Expansion of models using the Company's batteries

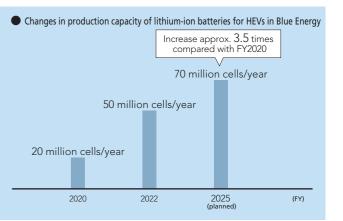
### For PHEVs

For HEVs

• Increase in volume due to easing of semiconductor shortage

### For **BEVs**

 Establishment of Honda · GS Yuasa EV Battery R&D, a research and development joint venture company with Honda Motor



### **Specialized Batteries and Others**

### Yoshiaki Namikawa

Corporate Officer, GS Yuasa International Ltd. President, GS Yuasa Technology Ltd.

### **Review of the Fifth Mid-Term** Management Plan

### Sales and profit in excess of plan achieved due to higher sales of aircraft batteries and other factors

The Specialized Battery and Other business includes profit, mainly from GS Yuasa Technology, which develops, produces, and sell specialized batteries for use in submarines, satellites, and other applications, as well as company expenses, but the explanation here focuses on the specialized batteries business. In fiscal 2022, which was the final fiscal year of the Fifth Mid-Term Management Plan, GS Yuasa Technology achieved the highest net sales and operating profit since its establishment, and the segment as whole achieved results in excess of plans. The causes were a peak in repair (replacement) demand for aircraft lithium-ion batteries and an increase in the delivery volume for new aircraft. In addition, foreign exchange gains due to the weaker yen also contributed. Overseas sales of lithium-ion batteries for satellites also contributed to the increase in profit. The ability of lithium-ion batteries for satellites to steadily generate profits despite the disappearance of large projects was a significant achievement. In addition, we received orders for and delivered prototype next-generation lithium-ion batteries for submarines. We will continue with commercialization of these products so that they can grow into a pillar of business under the Sixth Mid-Term Management Plan and beyond.

Specialized batteries are often developed through projects that last for extended periods, and we are steadily developing next-generation lithium-ion batteries for satellites and submarines as well as lithium-ion batteries for electric aircraft.

Measures to Achieve Vision 2035 and the Sixth Mid-Term Management Plan

### For Aircraft Applications Responding continuously to demand

Lithium-ion batteries for aircraft will be a pillar of sales under the Sixth Mid-Term Management Plan. We are developing the production systems that will enable us to respond reliably to customer requirements. We are also actively expanding sales by developing new products and acquiring new customers, and we will continue to focus our efforts in these areas.

We are developing lithium-ion batteries for use in electric aircraft with the research and development departments under a project of the New Energy and Industrial Technology Development Organization (NEDO). The GS Yuasa R&D Center is responsible for the polar plate design and confirming performance, and GS Yuasa Technology is handling commercialization tailored to customer applications. We are currently in the prototype stage, and we will continue this work to ensure successful development.

### or Defense Applications

### Reliably responding to demand against a backdrop of reinforcement of the defense industry

Since fiscal 2015, lithium-ion batteries have been used instead of lead-acid batteries in Japan's newly-manufactured submarines, and since we started mass producing lithium-ion batteries for submarines in March 2017, we have improved quality. We will maintain stable supplies in the future to respond to continuous demand. Today, high-capacity and cost-competitive batteries are required, and in response, we are developing next-generation lithium-ion batteries for submarines. We are creating structures that will enable the Company to generate profits even during the development

#### stage.

In conjunction with the reinforcement of Japan's defense capabilities, demand for thermal batteries for defense applications is expected to grow to about five times the current level. To meet this demand, we plan to prepare production lines under the Sixth Mid-Term Management Plan and to expand production capacity even further under the Seventh Mid-Term Management Plan. In addition, we will negotiate with the Ministry of Defense and other customers to improve profitability in fiscal 2023. We will also make efforts to reduce costs, improve production efficiency, and enhance development efficiency by adopting common specifications, improving existing products, and taking other measures.

### For Space Applications

### Increasing sales in the rapidly-growing satellite field

The Group began developing lithium-ion batteries in the late 1980s and has been manufacturing lithium-ion batteries for space applications since 1998. Our products, which were created based on the knowledge acquired through numerous projects and the results of research and development, have been highly praised. In Japan, nearly all of the satellites launched by the Japan Aerospace Exploration Agency (JAXA) have been equipped with our products, as have many overseas commercial satellites. We receive many inquiries from Japan and overseas and expect this business to expand even further.

Until now, launching large satellites and using them for 10 to 15 years has been the norm in the satellite business, but more frequent launches and shift to smaller satellites are expected in the future. We are developing plans to respond to this change in the business in collaboration with a subsidiary in the U.S., and we plan to develop business using a business model whereby cells are manufactured in Japan, modules are produced by a subsidiary in the U.S., and products are customized according to the specific needs of overseas customers

### Main Initiatives of the Sixth Mid-Term Management Plan For Defense For Aircraft ÷ **Applications Applications** Stable supply of lithium-ion Expand sales by developing batteries for submarines new products and acquiring new customers Develop increased production systems of Develop lithium-ion batteries thermal batteries for for use in electric aircraft defense applications



### Refining technology development capabilities in response to high-level customer demands and raising production efficiency

In fiscal 2023, we announced a policy of developing 10 new products. Our specialized batteries are used under extremely harsh environments from the deep sea to outer space. Also, the performance required varies for each product ordered. Since these products involve high levels of technical difficulty and are not mass-produced, automation of production lines is also challenging. Nonetheless, we believe that we can contribute to the development of new public infrastructure by leveraging to the greatest possible degree GS Yuasa Technology's strengths in the form of advanced technological capabilities, cutting costs, and raising production efficiency. To achieve this, we will continue to meet customer expectations based on an attitude of solving problems while tackling new challenges.





- Develop increased production systems of lithium-ion batteries for satellites use
- Promote product development in response to changes in the satellite business

### **Specialized Batteries and Others**

Sixth Mid-Term Management Plan

### **Business Policy**

### Contribute to the building of new public infrastructure through batteries with the highest level of performance and quality

#### Strategies and Important Tasks

### Specialized batteries business

- Improve profitability due to efforts to strengthen the foundation of the defense industry
- Development of next-generation lithium-ion batteries for submarines
- Response to expanded demand of lithium-ion batteries for aircraft
- Expand sales of lithium-ion batteries for satellites

### Review of the Fifth Mid-Term Management Plan

We strove to provide stable supplies of batteries for submarines in accordance with contracts and are steadily developing next-generation batteries.

Passenger demand in air travel is recovering, and sales to airlines (for replacement) of batteries for aircraft were firm.

≥	<ul> <li>For Submarine Applications</li> </ul>
Achi	Completed delivery of prototype next-generation
ievements	lithium-ion batteries for submarines
em	<ul> <li>For Aircraft Applications</li> </ul>
en	Increase in orders received from airlines in response to
ts	demand for replacement

### TOPIC

### Numerous lithium-ion batteries from GS Yuasa Technology used for space applications



### Kounotori/

### International Space Station

Lithium-ion batteries manufactured by GS Yuasa Technology were loaded onto the H-II Transfer Vehicle (HTV) Kounotori. The HTV delivered lithium-ion batteries manufactured by GS Yuasa Technology to the International Space Station (ISS) for installation



The International Space Station

#### October 2021

#### New quasi-zenith satellite "Michibiki-1R"

As was the case with the Cabinet Office's Michibiki-1 to Michibiki-4 quasi-zenith satellites, the Michibiki-1R satellite, which was launched in October 2021 as the first successor to the earlier Michibiki satellites, was equipped with lithium-ion batteries from GS Yuasa Technology. The Michibiki-1R will; replace the Michibiki-1 and take over the role of providing satellite positioning services and is expected to transmit positioning signals with even greater accuracy.



Michibiki-4 (Source: Cabinet Office of Japan's Ouasi-Zenith Satellite System website)

### November 2021

### **Epsilon-5 Launch Vehicle**

Cells used in space-use lithi

The common lithium-ion batteries for launch vehicles installed in the Epsilon-5 Launch Vehicle were developed under a contract with IHI Aerospace Co., Ltd. and have been continuously used since the first Epsilon was launched in 2013. The batteries were installed in stages 1, 2, and 3 of the Epsilon-5 Launch Vehicle to supply electricity to control equipment and other onboard systems.



Image of the Epsilon-5 Launch Vehicle in flight (©JAXA)

### Net Sales, operating income, operating profit ratio



Note1: The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to f 2021. Due to the impact of the COVID-19 pandemic, however, we have excluded fiscal a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 20 Note2: Since company-wide expenses (including labor expenses and R&D expenses) are included results, segment loss may occur

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

During the term of the Sixth Mid-Term Management Plan, demand for lithium-ion batteries for submarines is expected to remain firm, while demand from airlines (for replacement) for lithium-ion batteries for aircraft will expand and volumes will increase.

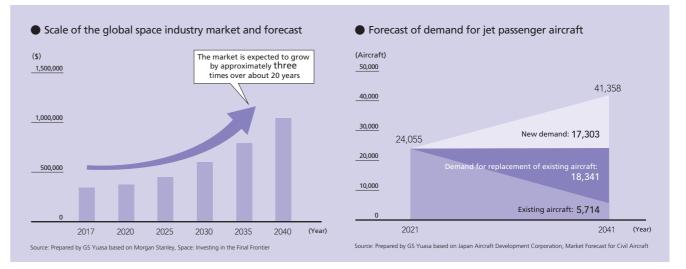
### For Submarine Applications

### Steady results

### For Aircraft Applications

 Increase in response to demand from airlines (for replacement)

### **Relevant data**





response costs

Increase in environmental

Increase in costs for DX and

creation of new business







4

Financial / Corporate Data

	Strengths	Opportunities
CONTRACTOR NO.	<ul> <li>The only one specialized batteries manufacturers in Japan</li> </ul>	• Formulation of the Three Principles on Defense Equipment Transfer
	<ul> <li>High technology and reliability</li> </ul>	• Expansion of new market such as for space use
	Weaknesses	Threats
	<ul> <li>Delay in digitalization</li> <li>Aging equipment</li> </ul>	<ul> <li>Higher costs due to increased development difficulty</li> </ul>
		<ul> <li>Increased social responsibility</li> </ul>

### Outlook for fiscal 2023

In fiscal 2023, although orders for lithium-ion batteries for submarines will be stable, it is expected that operating profit will decrease slightly. Demand for lithium-ion batteries for aircraft will remain solid.

### For Submarine Applications

• Slight decline in operating profit due to effects of soaring prices for raw materials

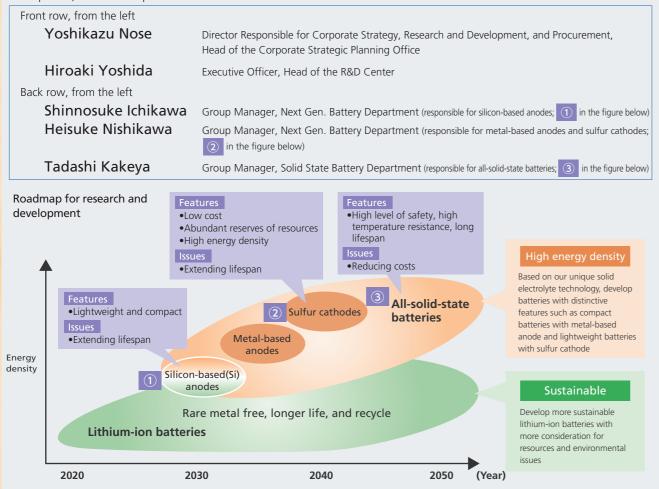
### For Aircraft Applications

• Sales volumes to airlines (for replacement) will remain solid

### **R&D Department Roundtable Discussion: The Outlook for Next-Generation Battery Development**



GS Yuasa released its R&D roadmap through 2050 in Vision 2035. Three employees involved in next-generation battery development, the head of the R&D Center, and the head of the Corporate Strategic Planning Office, who is the officer responsible for R&D departments conducted a roundtable discussion at the GS Yuasa International Ltd. R&D Center. The five participants discussed the outlook for next-generation batteries, the strengths of R&D departments, human resource development, and other topics.



### Q: What are the roles of R&D departments?

# Nose In Vision 2035, we announced a company policy of focusing on the mobility and public infrastructure fields. As expectations for storage batteries increase further in the future, R&D departments will become even more important for meeting those expectations and contributing to carbon neutrality.

Yoshida That's right. Technological capability is a source of value creation for the Company, and the R&D Center, which is conducting development with the longest perspective in the Company, can be said to be in a position of bearing the future of the Company. The three groups appearing today are responsible for major development projects for achieving the sustainable and high energy density batteries mentioned in the roadmap of research and development.

Ichikawa My group is working to develop silicon-based anodes. Silicon is characterized by abundant resource reserves and extremely high theoretical capacity compared to earlier materials. Among the three groups, we have set the earliest target for commercialization, and although there are significant hurdles that we have to overcome, I believe that it is necessary for us to work with a sense of speed.

Nishikawa My group is working on development of a lithium-sulfur battery that uses sulfur for the cathode and lithium for the anode to create a so-called dream battery. Under the roadmap, we are working toward commercialization around 2035 to 2040. We are currently making use of a New Energy and Industrial Technology Development Organization (NEDO) project with the aim of electrifying aircraft.

Kakeya My group is developing next-generation solid-state batteries through collaboration among industry, government, and academia. Our work was selected for a NEDO Green Innovation Fund project.

Nose Everyone is working on development of next-generation and next-next-generation batteries. The mission is to plant the seeds for the Group's future business. In addition to achieving the targets of Vision 2035, I feel that there is substantial pressure to create new technologies from an even longer-term perspective into the future.

Nishikawa I agree. R&D is essential for corporate growth, and everyone in R&D department including even the youngest employees feels a tremendous responsibility for this and is working with a sense of deep commitment.

Kakeya Recently, there has been a lot of reporting about all-solid-state batteries in the news, conveying the extremely high expectations for development. This means that there is also considerable pressure, but we feel that it is very rewarding to be able to play a part in development.

### Q: What progress has been made toward practical application of next-generation batteries?

Nose	Our competitors are also developing various
	materials, and we too have achieved steady results.
Yoshida	That's right. Even as customers demand ever higher energy densities, Mr. Ichikawa's group demonstrated a high energy density of 400 Wh/kg in a silicon-based anode battery in May 2023. I believe that this represents a major advance forward.
Ichikawa	Indeed. The issue with silicon-based anode batteries has been achieving both high energy density and a long lifespan. When using lithium metal, it is relatively easy to achieve high energy density, but achieving an energy density of 400 Wh/kg with a silicon-based anode was nearly unthinkable until just several years ago. We focused on technologies that haven't been used because they were thought to be impossible, and we were finally able to achieve this result by making full use of synthesis and other technologies to steadily overcome the issues we were facing one by one. It's a good thing that we did not allow ourselves to be constrained by the conventional wisdom.
Nose	Few of our competitors have achieved comparable levels, and we have an advantage regarding cycle life assuming practical application. We can say that we have achieved world-leading performance with silicon-based anode batteries.
Ichikawa	Thank you. Currently, however, it will be difficult to
R	achieve even higher energy densities with silicon-based anode batteries, and Mr. Nishikawa is conducting development of lithium-sulfur batteries to achieve this.
ishikawa	We've been conducting development since 2019 while making use of a NEDO project. We achieved energy density of 400 Wh/kg with a lithium-sulfur battery in fiscal 2021. Fiscal 2023 will be the final year of the NEDO project, but reaching 500 Wh/kg is within sight, and if we can achieve this, I believe that it will be possible to say that lithium-sulfur batteries have the world's highest energy density.

### Silicon-based anodes

Developing technology for achieving both high energy density and lifetime performance and making major progress in practical use of next-generation batteries

By developing technologies that achieve both high energy density and long service life in silicon-based anode batteries, which face many practical challenges, we demonstrated high energy density of 400 Wh/kg, which exceeds that of conventional lithium-ion batteries. The silicon-based anode is a technology is also applicable to all-solid-state batteries, and this represents substantial progress in terms of the practical application of next-generation lithium-ion batteries.



Silicon-based anode batteries



Nose Speaking of next-generation batteries in general, the Company's unique strength is our ability to adopt various development approaches in terms of materials and partners. Mr. Nishikawa and Mr. Kakeya, your project involves collaboration among industry, government, and academia, doesn't it?

Kakeya Research on topics believed to be important can be conducted at universities over decades. For example, Osaka Metropolitan University, one of our research partners, has been researching solid electrolytes for decades. Unfortunately, companies are unable to conduct this type of research, and a partnership provides the benefit of being able to supplement areas where our knowledge is lacking by making use of the university's knowledge.

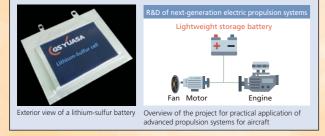
Nishikawa I think that's right. Collaboration among industry, government, and academia will be extremely important in Japan's manufacturing in the future. As overseas manufacturers become more prominent, industry, government, and academia are collaborating in a complementary manner to create new energy storage technologies in Japan, and I believe that this will also play a role in Japan's sustainability in the future.

Ichikawa I participated in a cathode material development project with a university, and I learned a great deal.

> Sulfur cathode Collaboration among industry, government, and academia

Joint research with Kansai University on a next-generation aircraft project

In a NEDO project for practical application of advanced propulsion systems for aircraft, we are conducting R&D on lithium-sulfur batteries in collaboration with Professor Ishikawa of Kansai University with the aim of maturing the technology to a level where proposals can be made for next-generation aircraft.



- Yoshida Collaboration among industry, government, and academia is an essential mechanism for the development of industry in Japan. As Mr. Kakeya indicated, I believe that the seeds for future technological innovation can be found in research that is conducted over many years. I hope to continue collaborating with universities in various ways in the future.
  - My role is communicating with government. Based on a solid understanding of national policy, I hope to convey our requests at the most appropriate times, collaborate with government to contribute to solutions to social problems, and convey information within the Company as well.

# What measures are you taking to increase the pace of R&D?

- Yoshida DX accelerated even more during the COVID-19 pandemic. We are advancing a variety of initiatives including making it possible to remotely acquire analysis results and increasing the pace of development by introducing materials informatics (MI).
- Nishikawa I agree. MI can be used to a certain degree to make predictions about materials that are likely to demonstrate good characteristics even without performing actual experiments, so it is useful in reducing testing processes and raising efficiency. New materials have been discovered in the development of electrolyte materials being performed by Mr. Kakeya.
  - Kakeya That's right. At the data that the Company has accumulated until now is an important asset. As a result of using this data and performing analysis with AI, materials have been proposed from

Ichikawa



between these situations. The Company is now in the third year of DX implementation, and I believe that the objective is

perspectives that we would never have imagined.

aspects where it is faster to do the experiments. I

You are all correct, but currently, there are still

feel that it is necessary to properly distinguish

### All-solid-state batteries Collaboration among industry, government, and academia

Joint research started with Osaka Metropolitan University on technological development of all-solid-state batteries

GS Yuasa is conducting joint research with Osaka Metropolitan University on development of next-generation storage batteries and next-generation motors, a technology proposal selected in April 2022 for the NEDO Green Innovation Fund (the selected research topic is "Next-Generation Storage Battery and Motor Development").

### Advanced solid-state battery development items

- Development of a solid electrolyte that combines high ionic conductivity with superior water resistance Development of high-capacity cathode with low cobalt content
- Development of anode with high capacity and long-life performance
- Development of cell design and manufacturing processes that facilitate mass production

to create an environment where all of you can focus exclusively on research. By using DX to eliminate wasteful work, you will be able to focus on work that enhances added value.

Yoshida To achieve this, it will be necessary for us to review and streamline workflows and determine what can be improved using DX.

Ichikawa Also, there are differences in the ways of organizing data among people, so standardization will be needed.

Nose In addition, the Company has accumulated more than 100 years of technology. I would like to consider digitizing and using this technology in the future. We plan to implement DX along two axes—raising efficiency and enhancing added value

### Q: What are the strengths of the R&D departments?

- Yoshida I believe that the mindset of tackling challenges that is been handed down from previous generations is a strength for the Company. Also, the Company has been forged as a battery manufacturer through many years of doing business with good customers.
  - We have been providing storage batteries to society for more than a century. In the early 20th century, we supported the development of wireless communications and industry, in the post-war period, we accelerated motorization, and later, we conducted business with all automakers in Japan. I think it is exactly right that the Company has been forged by its customers.

Yoshida I believe that we have been able to gain the trust of customers by dealing with them sincerely and producing results, no matter how unreasonable or difficult their requests are.

Kakeya I often think about the Company's strengths. Although the Company is a battery manufacturer, in addition to battery-related patents, it also has many materials-related patents. We have received high evaluations for our solid electrolytes, a key material for all-solid-state batteries. In this way, material



ESG

4

Financial / Corporate Data



	are able to develop products that meet customer requests.
chikawa	The R&D departments also have strong horizontal connections. Even though we are affiliated with different departments, we work in the same room and we create opportunities for information sharing including monthly report meetings.
shikawa	Sharing information leads to us noticing new things. The atmosphere enables personnel to causally ask questions such as "What is this research like?" and people can discuss things. There is a lot of exchange of technology among personnel.
Yoshida	Recently, frontline department members have been focusing on measures to truly understand the corporate philosophy and Vision 2035 and put them into practice. Mr. Nose has also explained these matters to us.
Nose	That's right. The Company has an extensive track record and substantial development capabilities in the areas of mobility and public infrastructure, and the roles that we are expected to play are growing more and more. I believe that it is important to link Vision 2035 with on-site work and develop an understanding.
Yoshida	It is important to be aware that Vision 2035 is not something created by the Company, but is connected to the work of every employee.
Nose	Certainly. I'm looking forward to increased opportunities to talk with development personnel. I hope that we can create new value and contribute to the creation of a sustainable society by transforming your dedication and enthusiasm into the power to create a new future under climate with an abundant spirit of tackling challenges

# **Sustainability Management**

### Message from the Chair of the Sustainability Promotion Committee

Aiming for both the realization of a sustainable society and the enhancement of corporate value through the enlivening of sustainability-related discussions



Hiroaki Matsushima Director and Chief Financial Officer (CFO), GS Yuasa Corporation Director, GS Yuasa International Ltd.

### **Reviewing Management Vision and Management Policy** and creating new Sustainability Management Policy

Previously GS Yuasa tackled the sustainable development of society and business by promoting business activities based on the CSR Policy and Code of Conduct that we had stipulated. In April 2023 our long-term vision "Vision 2035" was announced, and at the same time we compiled the new Sustainability Management Policy, which embodies our desire to both realize a sustainable society and enhance our corporate value. I believe that this Sustainability Management Policy will point the way to our growth toward 2035 and beyond to 2050.

### Strengthening discussions in the Sustainability Promotion Committee and further promoting materiality initiatives

Year by year sustainability and environmental, social, and governance (ESG) initiatives are becoming increasingly important in corporate management. At the Company too, we believe that our sustainability-related discussions should be further strengthened. Therefore, from fiscal 2023, to

realize not only CSR activities but also sustainability from a multilateral perspective, we have reorganized the CSR Committee into the Sustainability Promotion Committee. While taking account of the impact on society and business, we will enliven sustainability-related discussions by switching to a framework enabling debate on a diverse range of topics from a medium- to long-term and global perspective.

In addition, in the formulation of the Sixth Mid-Term Management Plan, we reviewed our materiality response plans and set targets to be achieved by fiscal 2025 and key performance indicators (KPIs). While it is of course important for the Group as a whole to achieve these targets, as the CFO, I am also considering how to link corporate value and materiality. Our top management also believes it is necessary to add ESG indicators to the remuneration scheme for directors and is going ahead with discussions on this matter.

Going forward, through our sustainability promotion framework centering on the Sustainability Promotion Committee, we will further bolster our sustainability initiatives and link them to the realization of a sustainable society and the enhancement of our corporate value.

### Sustainability promotion framework

Starting in fiscal 2023, the GS Yuasa Group has reorganized the CSR Committee into the Sustainability Promotion Committee to promote initiatives for sustainability in the Group as a whole from a medium- to long-term and

multilateral perspective. We are building a framework centering on the Sustainability Promotion Committee and under the supervision of the Board of Directors.

### Main changes with the Sustainability Promotion Committee





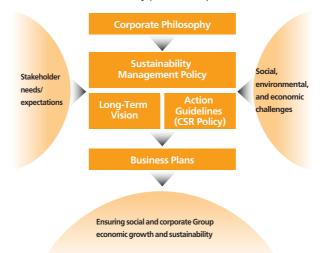
Sustainability promotion framework



### Sustainability promotion process

In order to implement our corporate philosophy, the Group has formulated the Sustainability Management Policy, which determines the future direction for achieving a sustainable society and enhancing corporate value. This policy emphasizes dialogue with stakeholders and makes a commitment to contributing to solutions to sustainability issues and maintaining strong business foundations.

### Overview of sustainability promotion process



To achieve our Sustainability Management Policy, we have implemented medium- to long-term business strategy processes (such as our Mid-Term Management Plan to achieve our Long-Term Vision that takes into consideration sustainability issues). In addition, to achieve this policy, we are committed to promoting initiatives to manage sustainability issues related to action guidelines formulated

55 GS YUASA Report 2023



Within the Group, the president has been designated as the Chief Commanding Officer for Sustainability Promotion managing the entire Group's sustainability promotion. Further, the Board of Directors plays a central role in making important management decisions for the Group as a whole and supervises and manages the suitability of sustainability management in the Group.

Moreover, the Sustainability Promotion Committee, established at our core operating subsidiary, GS Yuasa International, is the primary decision-making body for the Group's business execution and works to discuss, formulate, and promote overall sustainability activities, thereby promoting group-wide sustainability management initiatives.

for employees (the CSR Policy). We have formulated both these plans to ensure the economic growth and sustainability of society and the Group by taking into account the needs and expectations of stakeholders and social, environmental, and economic issues. Further, through suitable analysis and assessment of the status of responses to crucial risks and opportunities related to sustainability issues and conducting necessary reviews, we strive to ensure continuous

### TOPIC

### Promoting company-wide sustainability initiatives

To promote company-wide sustainability initiatives, the Group distributes the Vision Book, a document that clarifies our corporate philosophy and company system, to all our employees. Our CSR Manual, detailing the CSR Policy which serves as action guidelines for sustainability management, is also distributed to all our employees. The CSR manual has also been translated into local languages (six languages\*) that local employees can understand and distributed to overseas

Group companies. The Group is committed to ensuring that all domestic and overseas employees are cognizant of sustainability issues related to our CSR Policy and is making efforts for the promotion of sustainability initiatives through business activities. \* English, Chinese (simplified), Chinese (traditional),

Indonesian, Thai, and Vietnamese



Vision Book



# **Materiality**

### Identification process

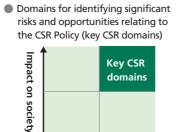
Step**1** Identify risks and opportunities relating to the CSR Policy

We identify risks and opportunities relating to the CSR Policy, taking into consideration key issues of the Mid-Term Management Plan, which is formulated based on the Sustainability Management Policy. When identifying these risks and opportunities, our actions are based on international guidelines concerning responsible corporate conduct.

Step2 Specify significant risks and opportunities relating to the CSR Policy

We evaluate and assign a score to the risks and opportunities identified in Step 1 and specify risks and opportunities that could have a substantial impact on business. Next, we evaluate the impact of our Group's business activities on society relative to these risks and opportunities that could have a substantial impact on business and then identify

significant risks and opportunities relating to the CSR Policy.



Impact on business

Step3 Determine materiality We analyze risks and opportunities identified in Step 2 and determine significant sustainability issues (materiality) relating to CSR Policy. In order to ensure the appropriateness of materiality, we also incorporate feedback from stakeholders including outside experts when determining materiality.

### Summary of materiality response plans in the Sixth Mid-Term Management Plan (FY2023–2025)

E Environment S Social G Governance					D Domestic	O Overseas G Global
Materiality	Activity outline	Scope of application	KPI (key performance indicator)	FY2025 targets	Impact on Society	Impact on Business
Thoroughly fulfilling our CSR and	Provision of legal information and	D	<ol> <li>Number of times compliance education information disseminated annually</li> <li>Number of significant compliance violations</li> </ol>	(1) <b>16</b> times (2) <b>None</b>	Maintenance of a sound and	Avoidance of financial losses from compliance violations
ensuring compliance G	promotion of compliance training	0	<ol> <li>Achievement ratio of compliance training plan</li> <li>Achievement ratio of significant compliance violation risk response plan</li> </ol>	100%	well-ordered society	
Respect and protection for intellectual	Thorough avoidance of infringement third-party intellectual property rights, promotion of the use of company intellectual property rights	G	Achievement ratio of patent acquisition plans that contribute to the expansion of business	100%	Promotion of high value-added technological innovations	<ul> <li>Increased profits in conjunction with the expansion of business</li> <li>Prevention of lost sales in the future due to sales of counterfeit products</li> </ul>
G G	Elimination of infringing products	0	Number of orders to cease manufacturing against manufacturers of infringing products	2	Maintenance of a fair competitive order	
Strict management	Promotion of security measures and strengthening of illegal /inappropriate access monitoring	G	Cyberattack response ratio at time of detecting high security alerts	100%		Avoidance of financial losses from leaks of confidential information
of confidential information		D	Information leak confirmation and response ratio at time of large data output	100%	Achieve a safe and secure information society	
G	Promotion of information security training	D	Ratio of employees passing information security proficiency test	95% or more		
	Promoting human rights	D	Achievement ratio of human rights training plan	100%	Raise awareness	Avoidance of financial losses from human rights violations
Respect for individuality	education	0	Achievement ratio of harassment education plan	100%	concerning respect for human rights	
S		D	Harassment incident response ratio	100%	Promotion of safe	
	Thorough management of human rights risks	G	Achievement ratio of foreign national employment risk response plan	100%	work environments that provide peace of mind	

Materiality	Activity outline	Scope of application	KPI (key performance indicator)	FY2025 targets	Impact on Society	Impact on Busines
Respect for Diversity	Women's empowerment	D	<ol> <li>Ratio of women in management positions</li> <li>Ratio of women among new graduates recruited for career-track positions</li> <li>Ratio of female workers</li> <li>Achievement ratio of training plan for female senior managers</li> </ol>	<ul> <li>(1) 6% or more</li> <li>(2) 30% or more</li> <li>(3) 17% or more</li> <li>(4) 100%</li> </ul>	•Realization of rewarding workplaces •Promotion of participation by women in decision-making	<ul> <li>Acquisition of shareholders equity in conjunction with higher external assessment measures regarding womer empowerment</li> <li>Securing labor capacity by increasing the retention rat for female employees</li> </ul>
	Promotion of the employment of persons with disabilities	D	Employment rate of persons with disabilities	2.67% or more	Promotion of full employment	Avoidance of financial losses in conjunctio failing to satisfy the statutory standard for employment ratio of persons with disabilit
Human resources development	Promotion of human resource development programs	D	<ol> <li>Achievement ratio of training plan for development of autonomous-minded human resources</li> <li>Achievement ratio of next-generation manager education plan</li> </ol>	100%	Promotion of skill development for young people	Reinforcement of organizationa capabilities through the utilizatio the diverse individuality of empl- Avoidance of human resou losses through separation Enhancement of human resource perform
	Promotion of the thorough management of employees' working hours and prevention of the recurrence of long working hours	D	<ol> <li>Response ratio to prevent the recurrence of long working hours</li> <li>Annual frequency of labor-management consultations relating to working hours</li> <li>Operational achievement ratio of standard for number of days of paid leave taken annually</li> </ol>	<ul> <li>(1) 100%</li> <li>(2) 12 times</li> <li>(3) 100%</li> </ul>		
Enhancement of		0	Achievement ratio of overtime work reduction target	100%	•Realization of rewarding	Avoidance of financial loss
work environments and occupational health and safety	Promotion of a work-life balance	D	Job turnover of full-time employee	2.3% or less	workplaces •Prevention of health damage	<ul> <li>Avoidance of financial losse from occupational accident</li> <li>Avoidance of financial losse from work in excess of statutory working hours an failure to use paid leave</li> </ul>
S	Thorough implementation of appropriate employment management	D	Number of corrective recommendations from the Labor Standards Inspection Office based on spot inspections	None	Promotion of safe and secure working environment	
	Promotion of health management	D	Rate of high stress individuals	10% or less		
	Promotion of occupational health and safety risk management	G	<ol> <li>Number of serious occupational accidents</li> <li>Number of accidents resulting in missed work</li> <li>Number of workers not meeting internal blood lead concentration management standards</li> </ol>	(1) None (2) Domestic: 2or less Overseas: 39or less (3) None		
Provision of	Promotion of quality improvement and strengthening of quality communication	G	<ol> <li>Achievement ratio of targets for claims and in-process defects</li> <li>Number of serious product accidents</li> </ol>	(1) <b>100%</b> (2) <b>None</b>	Improvement in energy efficiency eResponses to natural resource depletion eReduce waste	<ul> <li>Reduction of financial losse from quality defects</li> <li>Expansion of profits in conjunction with promotion services</li> <li>Avoidance of financial losse from the occurrence of product accidents</li> </ul>
high-quality products	Reinforcement of product safety management	G	<ol> <li>Achievement ratio of product safety-related incident reduction target</li> <li>Achievement ratio of product safety education plan</li> </ol>	100%	generation •Creation of highly reliable and robust infrastructure	
	Reinforcement of service provision	D	Achievement ratio of service promotion project plan	100%	•Development of a safe and secure society	
	Promotion of effective use of water resources	G	Ratio of reduction of water use (compared with FY2018)	15% or more	•Elimination of water shortage problems •Improvement in energy efficiency and	<ul> <li>Avoidance of loss of sales opportunities due to delaye responses to issues concern water security, carbon neutrality, and a recycling-oriented society</li> <li>Avoidance of financial losse from the occurrence of environmental accidents</li> </ul>
Promoting environmental protection	Contribution to realization of low-carbon society	G	Ratio of reduction of CO <sub>2</sub> emissions (compared with FY 2018)	15% or more	resource efficiency •Climate change mitigation •Prevention of water	
E	Prevention of environmental pollution	G	Number of major environmental accidents	None	pollution and air pollution •Reduction of natural resource	
	Improvement in ratio of use of recycled materials in products provided to markets	G	Ratio of recycled lead used as lead raw materials in lead-acid batteries	70% or more	•Reducing waste generation	
Developing and popularizing environmentally considered products	Expansion of market for GS Yuasa products contained in products contributing to the curbing of global warming	G	Percentage of environmentally considered products in total sales of all products	45% or more	Improvement in energy efficiency eReduction of natural resource consumption •Climate change mitigation	Avoidance of loss of sales opportunities due to delaye responses to carbon neutral Increased profits from expan- sales of environmentally considered products
Responsible procurement promotion	Responses to responsible mineral procurement	G	Achievement ratio of responsible mineral survey plan	100%	Realization of sustainable supply chain     Abolition of forced labor and child labor     Reduction of deaths due to violence     Eradication of all	Avoidance of financial losse from occurrence of supply c CSR risks
	Management of supply chain CSR risks	G	Achievement ratio of supplier CSR issues improvement plan	100%	forms of violence and torture against children	

→ p.105 Targets and Results Concerning Material Issues (Fiscal 2022)









### Message from Director in Charge of Environment

### Toward achievement of the GY 2050 Carbon Neutrality Target, a top priority of management



Vice President and Representative Director, GS Yuasa International Ltd.

Vice President and Representative Director, GS Yuasa Corporation

### Announcement of the GY 2050 Carbon Neutrality Target and aim to reach goal

As moves toward the realization of a sustainable society become increasingly lively on a global scale, we recognize that the achievement of carbon neutrality is one of the top priorities of management for the Company too. As well as setting the target of "Renewable—Making a genuine contribution to carbon neutrality," in Vision 2035, we have announced the GY 2050 Carbon Neutrality Target with the aim of realizing carbon neutrality in Scope 1 and 2 by 2050. As intermediary targets, we are aiming to achieve the Sixth Mid-Term Management Plan and the GY 2030 Long-Term Greenhouse Gas Target.

As well as carbon neutrality, the GS Yuasa Group is endeavoring to conserve the environment in consideration of the impact of our business activities, products, and services on the global environment, and continuous improvements are being made.

### Promotion of efforts on four priority issues based on our Environmental Mid- to Long-Term Plans

By including environmental targets in the Mid-Term Management Plan since fiscal 2019, the Group is promoting environment-related initiatives as a business strategy responding to an important management issue.

Furthermore, top management is engaging in repeated discussions on sustainable battery development in consideration of resource and environmental problems, and through early application we will contribute to the realization of a circular economy.

The Group recognizes that biodiversity conservation is important to maintain the natural environment in its present state. In the Sixth Mid-Term Management Plan, which started in fiscal 2023, we revised our Fundamental

Environmental Policy and clearly stated that we will strive for biodiversity conservation. Going forward, based on the revised Fundamental Environmental Policy, I hope that we can spread activities contributing to biodiversity conservation throughout the Group.

In addition, we are tackling the following four issues as important environment-related targets:

### Reduction of own CO<sub>2</sub> emissions

As a top priority topic of management, we are discussing and tackling how to reduce the CO<sub>2</sub> emitted in our business activities and how to allocate those resources. As an initiative to reduce CO<sub>2</sub>, in fiscal 2023 we have launched a dedicated organization, the Carbon Neutral Promotion Group, to promote energy-saving measures and further promote the installation of solar power generation equipment and strategic renewable energy procurement at our plants.

### Reduction of water use

We use a lot of water in the manufacturing process for cooling batteries. We recognize that water is an important resource for the continuation of business, and we have set the target of reducing water use by 15% compared with the fiscal 2018 level. We are actively tackling the recycled use of water.

Expanded sale of environmentally considered products Positioning products that can contribute to the electrification of automobiles, the expanded introduction of renewable energy, and so on as environmentally considered products, we are endeavoring to promote their sale with the target of boosting their sales ratio to 45% or more.

### Increased usage rate of recycled lead

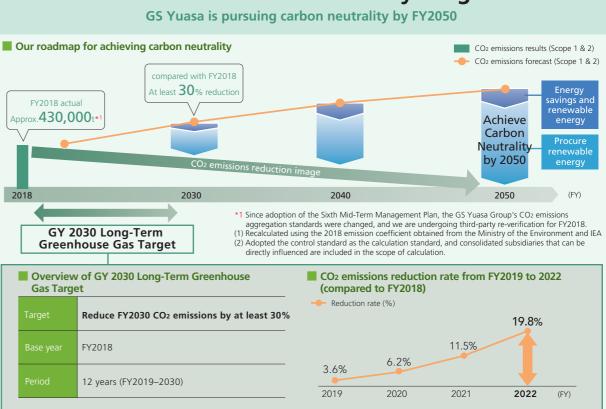
Since lead, the raw material for lead-acid batteries, which are our mainstay product, is highly recyclable, its recycled use is important. Our aim is to raise the ratio of recycled lead in the lead material of lead-acid batteries to 70% or more by fiscal 2025.

### Fundamental Environmental Policy

We are committed to people, society, and the global environment through the "Innovation and Growth" of our employees and business entities. We will apply the advanced energy technologies we have built up through battery research and development work to deliver comfort and peace of mind to customers around the world, and aim to realize a sustainable society and increase corporate value.

Note: The entire text of our Fundamental Environmental Policy is available on our website: https://www.gs-yuasa.com/en/csr/env\_policy.php

### GY 2050 Carbon Neutrality Target



- Promote energy-saving measures
- 2 Develop prescriptions for efficient charging methods and develop new ones

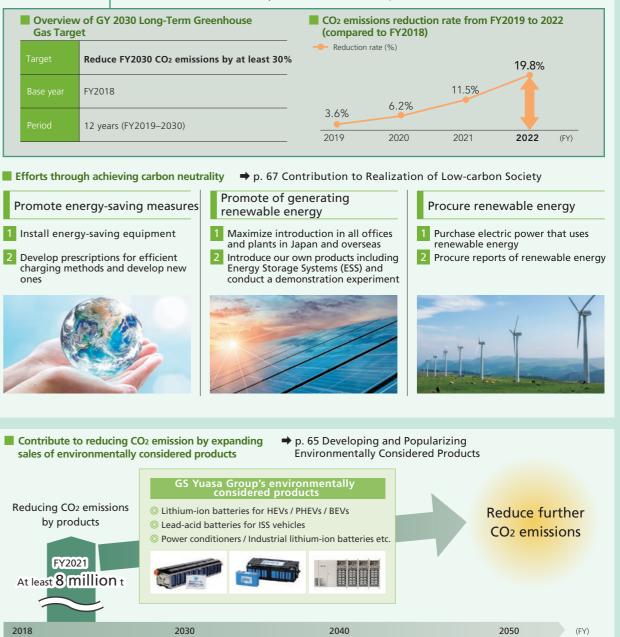


Y202

2018



Contribute to reducing CO<sub>2</sub> emission by expanding sales of environmentally considered products





# **Response to Climate Change (TCFD)**

The GS Yuasa Group recognizes that climate-related issues are one of our important management issues. In December 2019 we announced our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and

we are working on climate-related information disclosure based on the TCFD framework. In fiscal 2021, we launched a project to examine climate-related risks and opportunities in accordance with the TCFD framework. The major scenarios adopted for our analysis of risks and opportunities were the 1.5°C scenario and the stated policies scenario (equivalent to the 3°C scenario). We devised strategies based on the short-term (fiscal

2025), medium-term (fiscal 2030), and long-term (fiscal 2040 and fiscal 2050) time axes. In fiscal 2023 we disclosed quantitative financial impact assessments for each business

for some climate-related risks and opportunities.



Governance 🥖

GS Yuasa International Ltd., our core operating company, plans and implements responses to climate change in the Group. The company's Board of Directors supervises the entire Group, receiving regular progress reports from GS Yuasa International Ltd. and providing guidance as necessary.

Policies, targets, and important topics related to the environment are formulated and deliberated upon by the Sustainability Promotion Committee\* and reported to the Management Meeting and the Executive Conference, which is headed by the president.

### Governance Structures Relating to Climate Issues

Board of Directors	ige (FY2019–2022)
discussion at least once every three months>       and discussion several times annually>       Board of         Approves proposed responses to environmental issues (including climate change), receives status reports, and monitors and oversees progress       Discusses proposed responses to environmental issues (including climate change)       Board of Directors         Executive Conference       Sustainability Promotion Committee*1       Management Meeting, Executive Conference         < Meets once every six months>       Formulates and discusses proposed responses to environmental issues (including climate change) and manages the progress of responses       Management Meeting, Executive Conference, Sustainability         President, director in charge of the       Formulates and discusses proposed responses to environmental issues (including climate change) and manages the progress of responses       Management Meeting, Executive Conference, Sustainability	Topics reported and discussed
Committee*1 Meets once every six months> Receives reports on proposed responses to environmental issues (including climate change) and manages the progress of responses President, director in charge of the Committee*1 Management Meeting, Executive Conference, manages the progress of responses Director in charge of sustainability	<ul> <li>Formulation of the Fundamental Environmental Policy</li> <li>Establishment of the GY 2030 Long-Term Greenhouse Gas Targets</li> <li>Disclosure of business strategies based on the TCFE</li> <li>Renewable energy procurement policy</li> <li>Setting of carbon neutrality targets</li> </ul>
managers of each division and each business office	<ul> <li>Endorsement of TCFD recommendations and membership of the TCFD Consortium</li> <li>Launch of the Energy Saving and Renewable Energy Project to reduce CO<sub>2</sub> emissions</li> <li>Progress report on the Energy Saving and Renewable Energy Project</li> <li>Introduction of internal carbon pricing (ICP)</li> <li>Introduction of environmental targets in the Sixth Mid-Term Management Plan</li> </ul>

### Risk Management 🥖

Risks and opportunities are identified and evaluated through the process described below. Identified risks and opportunities, and the responses to them, are managed under our governance structures including the Sustainability Promotion Committee.

In fiscal 2021, each business division and management division established a project team to conduct companywide analysis of scenarios and examine countermeasures.

Identification of risks and opportunities relating to climate pursuant to the TCFD framework Evaluation of the degree of impact of the identified risks and

Examples of past reports and agenda items related to

\*7 EV: Electric Vehicle; PHEV: Plug-in Hybrid Electric Vehicle; FCV: Fuel Cell Vehicle

\*8 An economic mechanism for the circulation of resources without waste. Positioned as a medium- to long-term economic growth policy, particularly in European countries



### **Assumed Conditions / Main Scenarios**

### Main Scenarios Used in Scenario Analysis\*2

emperature increase	Main scenarios used	Overview
	IEA*3 Net Zero Emissions by 2050 Scenario (NZE)	A scenario indicatin achieve net zero glo
1.5°C	IPCC*4 RCP*5 2.6 Scenario and SSP*6 1-2.6 Scenario	RCP2.6: A scenar used in t SSP1-2.6: A scena less that
3°C	IEA Stated Policies Scenario (STEPS)	A scenario based policies that are c
	IPCC RCP 8.5 Scenario and SSP 5-8.5 Scenario	RCP8.5: A scenari SSP5-8.5: A scena

\*2 Scenario analysis uses the scenarios of public agencies and may differ from actual future social conditions. \*3 International Energy Agency \*4 Intergovernmental Panel on Climate Change \*5 Representative Concentration Pathways \*6 Shared Socioeconomic Pathways

### Time Axis

	Short term	Medium term	Long term
End year	2025	2030	2050
Reason for adoption	Periods of the Fifth (FY2019–FY2022) and the Sixth (FY2023–FY2025) Mid-Term Management Plans	Achievement period of the GY 2030 Long-Term Greenhouse Gas Targets and SDGs	Achievement period of the GY 2050 Carbon Neutrality Target

### Assumed social conditions based on scenario analysis

So	cial conditions un	Through 2025 (short te	
		Social demand for emissions reduction	-20%
	Operations	Carbon price	\$75 / t-CO <sub>2</sub>
	Automotive related business	Changes in the automobile market	<ul> <li>Expansion of automobile electrification</li> <li>Structural changes in the automobile industry in conjunction with electrification</li> </ul>
1.5°C		Development of alternative technologies to replace lead-acid batteries	<ul> <li>In conjunction with increase prices will decline for altern batteries</li> </ul>
1.5°C scenario	Industrial battery and	Changes in energy-related markets	<ul> <li>In conjunction with the ray power will expand</li> <li>Batteries for storing excess applications</li> </ul>
	power supply related business	Development of alternative technologies to replace lead-acid batteries	<ul> <li>In conjunction with increase prices will decline for altern</li> </ul>
	Supply chains R&D	Raw materials	<ul> <li>Demand for lithium, nickel use with energy storage te</li> <li>Competition to sustainably</li> </ul>
		Acceleration of the circular economy*8	Needs for products adapte
		Emergence and spread of alternative technologies to replace lithium-ion batteries	
3°C scenario	Operations	Storm and flood damage, storm surges	
	Industrial battery and power supply related business	Storm and flood damage, storm surges	• Expansion of business rela

61 GS YUASA Report 2023

1 Vision 2035 (Long-Term Vision)	2 Management Strategies	3 ESG	4 Financial / Corporate Data
ing what the world (policies, obal greenhouse gas (GHG) e			
ario that assumes future the IPCC Fifth Assessmi- ario for the introduction of an 2°C under sustainable d	ent Report f climate policies to lim	it future tem	perature increases to
ed on energy and climat			ted and individual

rio with maximum GHG emissions used in the IPCC Fifth Assessment Report ario with no climate policies used in the IPCC Sixth Assessment Report

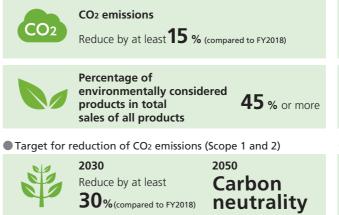
erm) Through 2030 (medium term) Through 2050 (long term)					
	-40%	-100%			
	\$130 / t-CO <sub>2</sub>	\$250 / t-CO <sub>2</sub>			
	Passenger ca	ars (Global)			
ation	Number of vehicles (compared to present) Sales: 1.3 times Ownership: 1.6 times Percentage of EVs, PHEVs, and FCVs <sup>*7</sup>	Number of vehicles (compared to present) Ownership: 2.1 times Percentage of EVs, PHEVs, and FCVs*7			
	• Sales: 64% • Ownership: 20%	Sales: 100%			
	Motorcycles and three-wheel vehicles (global)				
	Percentage of EVs Sales: 85% Ownership: 54%	Percentage of EVs Sales: 100% Ownership: 100%			
asing demand for batteries for applications relating to transportation and electric power, rnative technologies, such as lithium-ion batteries, to take the place of lead-acid					
ipid expan	sion of solar and wind power generation	, demand for batteries used for electric			
s power from renewable energy sources will increasingly be converted to use for backup					
sing demand for batteries for applications relating to transportation and electric power, native technologies, such as lithium-ion batteries, to take the place of lead-acid batteries					
el, and other resources will increase rapidly as demand for lithium batteries increases for echnologies and renewable energy ly secure raw materials will intensify					
ed to a recycling-oriented society will increase year-by-year					
<ul> <li>As battery demand for transportation and electric power related applications expands, the development and spread of battery technologies with higher added value in terms of safety, energy density, cost, charging speed, and life span will progress</li> </ul>					
		• The frequency of flooding will more than double compared to now in Japan and other regions			
		<ul> <li>Sea levels will rise about approximately 0.3 m</li> </ul>			
		<ul> <li>The frequency of intense storms in the vicinity of Japan will increase</li> </ul>			
ating to di	saster countermeasures				

### **Risks and Opportunities**

	Introduction of carbon tax and renewable energy				
Operations	Risk       energy to reduce CO2 emissions       cal         Risk       Increased carbon costs for the company's emissions in conjunction with the introduction of a carbon tax       im         Risk       Increased carbon costs for emissions in upstream segments of supply chains       an         Risk       Increased carbon costs for emissions in upstream segments of supply chains       of	the case of the 1.5°C scenario, targets for a major reduction of CO2 will be required and bon taxes will be introduced to achieve carbon neutrality. On the other hand, by plementing CO2 reduction measures through the introduction of energy-saving equipment d renewable energy, it will be possible to reduce the carbon tax burden to a certain extent. sults of a scenario-based estimate of the financial impact indicated a risk that the introduction a carbon tax will increase costs by about 3–4 billion yen over the medium to long term. By prough energy saving and the planned introduction of renewables, however, the cost increase uld be reduced to about 2 billion yen.			
	Opportunity Higher demand for batteries in conjunction with increased sales and ownership of passenger vehicles				
	Starting batteries and batteries for auxiliary equipment				
Automotive related business	Opportunity         Replacement of lead-acid batteries with lithium-ino batteries         for declining           Risk         Declining demand for starting batteries used in internal combustion engine vehicles         for declining	conjunction with expansion of the market for EVs, PHEVs, and other such vehicles, demand starting batteries used in internal combustion engine vehicles is expected to decline, but mand for batteries for auxiliary equipment is expected to increase. Also, the shift from a tain number of lead-acid batteries to lithium-ion batteries is expected to advance. a result of our estimate of the financial impact, based on the establishment of certain nditions with reference to a scenario-based market, we concluded that while sales of starting tteries will decline sharply, overall sales could increase by 35–55 billion yen over the medium long term due to a substantial increase in the demand for batteries for auxiliary machinery.			
	Batteries for HEVs*9 , PHEVs, and EVs				
	PHEVs Changes in demand for batteries used	s expected that over the short to medium term, sales of HEVs and PHEVs will increase, but in e long term, as sales of EVs increase substantially and account for approximately 100% of es in 2050, the battery market will change.			
	Lead-acid batteries for backup applications and forklifts				
•		mand for batteries used in transportation and electric power related applications is expected			
Industrial battery	Risk Replacement of lead-acid batteries with lithium-ion batteries ba	increase, but as technological innovation progresses, it is expected that prices for lithium-ion tteries and other such products will fall and that a certain number of lead-acid batteries will replaced by lithium-ion batteries.			
and power supply	Energy storage systems (ESS) for renewable energy				
related business	systems and devices rer ele As scc me	s expected that in conjunction with the increased introduction of solar, wind, and other lewable energy generation, demand for batteries and peripheral systems and devices for ctricity load leveling and the like will increase. a result of our estimate of the financial impact, setting certain conditions with reference to a nario-based market, we concluded that sales could increase by 7–22 billion yen over the edium to long term due to an expansion of the market for energy storage systems for newable energy in Japan.			
	Raw materials procurement and circular economy				
Supply chains R&D	Opportunity         lead in a recycling-oriented society         mm           Risk         Difficulty procuring and rising price for metal resources         exp           Difficulty sustainably procuring and rising price for         exp	ks such as rising resource prices and difficult securing resources are expected over the short to edium term. On the other hand, with the development of alternative technologies, it is bected that tight supply and demand situations will be alleviated over the long term. It is also bected that competition relating to sustainable procurement of raw materials will intensify in ms of the environment and society.			
	Technological innovation				
	Opportunity         Risk         result of leading development of next-generation batteries technologies (all-solid-state batteries, etc.)         (all	s expected that the development and spread of higher added value battery technologies -solid-state batteries, metal-air batteries, sulfur batteries, etc.) for transportation and electric wer related applications will advance. In cases where the company can lead the development new technologies, business opportunities will arise.			
	Natural disasters and temperature rise				
	Risk flooding disasters and increased loss of profit due to da	ere is a risk of greater impact due to increased storm and flooding damage, including property mage to facilities and machinery at the company's plants, loss of profits from business spension, and the inability of workers to report to work. The interruption of supply chains is			
Operations	Risk         Increased costs for air conditioning and cooling processes         As           www.www.www.www.www.www.www.www.www.ww	o anticipated. a result of an examination of flood and storm surge risks based on future climate change pacts using natural disaster simulations, five sites and subsidiaries (two in Japan and three erseas) were evaluated as high-risk. In the event of a 100-year disaster at the Kyoto Plant, iere the estimated scale of damage would be large, there could be a potential loss in sales of 13 billion yen over the medium to long term.			
Industrial	Emergency power supplies				
battery and power supply related business	Increased demand for emergency power It i	s expected that demand for emergency power supplies will increase out of concern regarding ensification of natural disasters due to climate change.			

Note: Those items that were determined in the risk assessment to be of particular importance in the short to long term are listed. \*9 HEV: Hybrid Electric Vehicle

		Now	205	
	Operations	Reduce CO <sub>2</sub> emissions by at least 30% by 2030 Implement measures for energy conservation and use of renewable energy	Further accelerate measures for achieving carbon neutralit Further implement measures for energy conservation and procurement of renewable energy	
1.5°C scenario		Securing profits from lead-acid batteries for internal combustion engine vehicles Introduce differentiated products, strengthen our sales capabilities, and increase sales of high-value-added products with a focus on regions where internal combustion engine business remains such as ASEAN		
			Capture demand for batteries for auxiliary equipment use in electric vehicles Capture demand for 12V lead-acid or lithium-ion batteries for auxiliary equipment used in electric vehicles as well (for new automobiles and for replacement)	
	Automotive related business		Capture demand for redundant batteries used in electric vehicles Capture demand for lithium-ion batteries used for backup of self-driving vehicles	
		Expand production of lithium-ion batt PHEVs Production will increase, particularly for Japanese decline in the future		
		Full-scale entry into EV lithium-ion battery market Invest development resources to enter the market for lithium-ion batteries used in EVs, which are used under demanding environments and must be highly reliably		
	Industrial battery and	Apply automotive lithium-ion battery know-how to industrial applications Establish a lineup that includes both lead-acid batteries and lithium-ion batteries for industrial applications according to market needs		
	power supply related business	Focus on the renewable energy and energy • Strengthen operation, maintenance and inspection se • Introduce products and services aligned customer nee • Capture demand for peak cutting, peak shifting, and	ervices • Develop more price-competitive batteries eeds to capture demand for renewable energy	
	Supply chains R&D	Develop the market for lead-acid batteries with high recycling rates Commercialize lead-acid batteries compatible with the n of a recycling-oriented society	Conduct R&D of and commercialize rare metal-free batteries Promote R&D on and commercialize rare metal-free batteries such sulfur cathode batteries	
		Conduct R&D of and commercialize post-lithium-ion batteries Promote R&D of all-solid-state batteries and put them into practical application, promote R&D of and commercialize Si anode batteries, Li metal anode batteries, and sulfur cathode batteries		
3°C sc	Operations	countermeasures against intensifying disasters         • Evaluate future risks including climate risks and implement countermeasures as necessary         • Undertake BCP including supply chains		
cenario	Industrial battery and power supply related business	Contribute to countermeasures against intensifying disasters using backup power supplies Focus on market expansion conditions and respond to needs		
/letr	ics and Targets			
Sixt	n Mid-Term Manageme	nt Plan (FY2023–2025)		















Ratio of recycled lead used as lead raw materials in lead-acid batteries

70 % or more

### Internal Carbon Pricing (ICP)



The price will be set at **¥8,600** / t-CO2 Use as reference information when making investment decisions regarding energy-saving and renewable energy measures

### **Environmental Initiatives**

### Developing and Popularizing Environmentally Considered Products

The GS Yuasa Group announced GY 2050 Carbon Neutrality Target, which seeks to eliminate CO<sub>2</sub> emissions from the Group's business activities by 2050. We believe that the Group's products should play a major role in achieving carbon neutrality. By increasing sales of environmentally considered products, we will reduce CO2 emissions and contribute to the global environment and society.

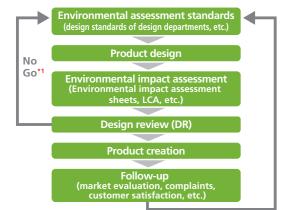
### Designing environmentally considered products

The Group's products have some impact on the environment during every stage of the product life cycle, from procurement and manufacturing to transportation, use and disposal. In order to reduce the environmental burden throughout the product life-cycle caused by the consumption of resources and the generation of greenhouse gases and waste, the Group is committed to improving the product performance through designing that considers selection of raw materials, ease of disassembly and segregation, energy conservation, and appropriate labelling.

### **Environmental assessment**

For an environmental assessment of product design, design departments employ design standards and then evaluate the suitability of products in design review (DR) meetings based on environmental impact assessments of every stage of the product life cycle. When environmental impact standards are not met, we review the design standards and redesign the product. We use the expertise of several departments in addition to design departments, including engineering, marketing, procurement, quality and the environment, to make sure that the results of Design for the Environment (DfE) are communicated widely, which also maximizes their effectiveness.

#### Flow of environmental assessment



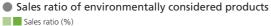
\*1 If the environmental assessment standards are not met, assessment will be conducted again from the beginning

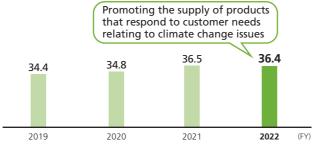
#### Environmental assessment items

<ol> <li>Energy conservation</li> <li>Recyclability</li> <li>Ease of separation processing</li> </ol>	<ol> <li>Volume reduction</li> <li>Ease of disassembly</li> <li>Safety and environmental conservation</li> </ol>
<ul><li>7 Material selection</li><li>9 Energy efficiency</li></ul>	8 Ease of maintenance 10 Reusability (life extension)

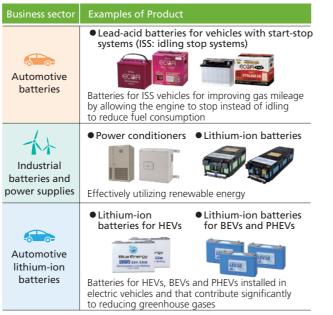
### Popularizing environmentally considered products

The Group defines environmentally considered products as those products that help mitigate global warming, and we are actively working to develop and popularize such products. We incorporate into the Mid-Term Management Plan sales targets for environmentally considered products, making it part of our business strategy to work on climate change through the products we provide to customers.





### Examples of environmentally considered products



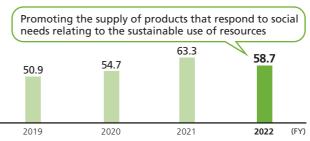
### Increasing usage rate of recycled lead in products

The Group is working to increase the usage rate of recycled lead the primary material used in lead-acid batteries, one of our core products. We take action to work toward a recycling-oriented society as part of our business strategy by incorporating into the Group's Mid-Term Management Plan targets for the usage rate of recycled lead contained in our lead-acid batteries.

We have been taking action to recycle our post-use products by building and operating a recycling system based on extended producer responsibility (EPR). Going forward, we also plan to strengthen our efforts to promote the use of recycled materials in our products.

### Ratio of recycled lead used as lead raw material in lead-acid batteries

#### Ratio of recycled lead used (%)



#### Management of chemical substances contained in products

The Group takes steps to provide products with minimal environmental burden based on the Chemical Substance Management Guidelines, which clarify the standards for chemical substances in products.

These guidelines are part of initiatives to examine chemical substances contained in materials delivered as stipulated in the GS Yuasa Group green procurement criteria. With these guidelines, we classify chemicals contained in our main materials, as well as the secondary

### Contribution to Realization of Low-carbon Society (Promoting Environmental Protection)

In order to reliably promote our initiatives for achieving carbon neutrality, we have reviewed the companies subject to our Environmental Mid- to Long-Term Plans so that we can exert appropriate control and concentrate our management resources within the Group. In addition, CO2 emission conversion factors for Scope 2 have also been changed to improve the suitability of greenhouse gas emission calculation results.

The reviewed scope of application (new standards) has been enforced since fiscal 2022; however, since the

#### Pavious of scape of application in our Environmental Mid. to Low

Scope of application		Old standards (prior to review)	New standards (after review)	Remarks	
Scope		Group companies with key production sites (7 domestic plants, 20 overseas companies)	Consolidated target companies with production sites for which annual CO <sub>2</sub> emissions of 1,000 tons or more (8 domestic plants, 16 overseas companies)	New standards include production sites with CO <sub>2</sub> emissions under 1,000 tons that are expecting increased emissions in the future	
		CO <sup>2</sup> emission conversion factors related to the usage of renewable energy derived electric power is set at			
Scope 2	0	Factors of each country released by GHG Protocol	Factors of each fiscal year issued in "Emissions Factors" by the IEA (International Energy Agency)	zero	



materials and the parts used in the products that the Group makes and sells as either prohibited substances or managed substances

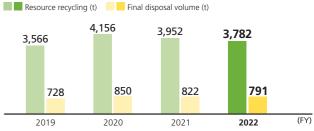
We work with our suppliers who supply main materials, auxiliary materials, and components to identify and definitively manage the substances covered by the guidelines.

### Resource recycling pursuant to wide-area certification system

The Group believes in the importance of creating and operating a system for recycling resources from used products to help create a recycling-oriented society. To achieve this goal, we are promoting initiatives for processing used products and resource recycling by using the wide-area certification system<sup>\*2</sup>. In January 2008, we acquired wide-area certification from the Ministry of the Environment for industrial batteries and power supplies, and we commenced operation of a recycling system based on this certification starting with orders received in January 2009. Even following the start of operations, we continue to make improvements such as expanding the scope of covered products and reviewing operational rules to create mechanisms for the reliable and proper disposal of used industrial batteries.

\*2 A wide-area certification system aims to involve the manufacturers of a product in the product's recycling and disposal once it reaches the end of its useful life. These systems make possible more efficient recycling and provide feedback on product design leading to easier disposal and reuse, while ensuring that discarded goods are disposed of properly

### Status of resource recycling pursuant to wide-area certification system



medium-term environmental goals within our Fifth Mid-Term Management Plan which ended in fiscal 2022 had been set under the scope of application before this review (old standards), the calculation results found through the old standards were used to evaluate the goal achievement status. Regarding the medium- to long-term environmental goals in our Sixth Mid-Term Management Plan, starting from fiscal 2023, we will continue to contribute to the realization of a sustainable society by promoting effective action plans for Group companies under the new standards.

ng-Term Plans
---------------

D Domestic O Overseas

### Reduction of CO<sub>2</sub> emissions

The Group believes that it is important to continuously improve the energy management system associated with its business activities and promotes the reduction of greenhouse gas emissions in order to respond to the social changes accompanying the transition to a decarbonized society (such as requests from stakeholders to reduce greenhouse gas emissions, addition of carbon prices to the use of fossil fuels, and shift from fossil fuels to renewable energy).

In fiscal 2023, the Group established an organization dedicated to promoting group-wide energy saving and renewable energy use in order to achieve our Carbon Neutrality Declaration targeted at fiscal 2050 and our long-term environmental goals (30% or higher reductions by fiscal 2030 compared to fiscal 2018). This organization promotes activities to formulate specific action plans for business divisions in order to continuously engage in company-wide project activities carried out in fiscal 2021 and fiscal 2022.

Note: The Group manages CO<sub>2</sub> emissions in totality and not on a basis of intensity, with the aim of reducing greenhouse gas emissions consistent with the Paris Agreement.

### Measures to achieve our CO<sub>2</sub> emissions reduction targets

Classification	Items	Main initiatives	
	Review of facility renewal standards	<ul> <li>Formulate an effective facility renewal plan (utilization of facility management ledger)</li> </ul>	
Promoting measures to save energy	Improvement of production processes	<ul> <li>Improvement of storage battery charging process</li> <li>Examining for improvement of charging facilities</li> </ul>	
	Efficient use of production facilities	Thorough periodic inspections of capacity utilization status	
Introduction of solar power generation facility in our own factories	Implementation of and examining for the plan to introduce solar power generation facility	<ul> <li>Installation of a solar power generation system at the Ritto Plant (rating capacity: 2.2MW; estimated reduction: 700t-CO2/year)</li> <li>Examining for the introduction of mega solar power generation facility at business sites and Group companies in Japan</li> <li>Solar power generation equipment installed at the Ritto Plant</li> </ul>	
	Survey on the introduction of solar power generation facility	<ul> <li>Survey the feasibility of introducing equipment at all 11 business sites and Group companies in Japan</li> </ul>	
Procuring renewable	Procuring electricity derived from renewable energy	<ul> <li>Switching to 100% renewable energy for electricity used at the Kyoto Plant (Procured 100 GWh equivalent per year from November 2021; fiscal 2022 reduction volume: 28,612t-CO<sub>2</sub>)</li> </ul>	
energy from the market	Procurement of electricity through renewable energy certificates	<ul> <li>Acquisition of domestic and overseas renewable energy certificates</li> <li>(20 GWh equivalent; fiscal 2022 reduction volume: 9,250t-CO2)</li> </ul>	

Usage status of renewable energy at our factories by

GS Yuasa International Ltd.

GS Yuasa International Ltd.

GS Yuasa International Ltd.

GS Yuasa Ibaraki Co., Ltd.

Siam GS Battery Co., Ltd.

Yuasa Battery (Thailand) Pub.

GS Yuasa Siam Industry Ltd.

GS Battery Vietnam Co., Ltd.

Total

GS Yuasa Battery Manufacturing

Kyoto Office

Osadano Office

Ritto Office

UK Limited

Co., Ltd

n-house In-house power generation External External procurement

Classif catior

Externa

110

92,001

304

377

2,555

856

1,569

1,231

156

99,161

2

region (FY2022)

Country

Japan

UK

Thailand

Vietnam

### TOPIC

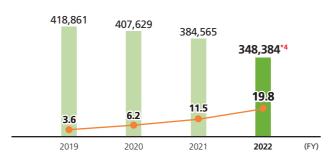
### **Energy conservation activities at our Gunma Plant**

The Group has continued to promote initiatives for the rational utilization of energy in order to reduce greenhouse gas emissions. The Gunma Plant has engaged in the cyclic utilization of hot air emitted from electric hot-air generators used in the battery manufacturing process. These activities are expected to reduce electric power consumption by 28.2% (15 tons of CO<sub>2</sub> emission reductions per year) compared to previous levels.



Electric hot-air generator

Changes in the Group's CO<sub>2</sub> emissions and the reduction rate<sup>\*3</sup> Emissions (t-CO<sub>2</sub>) --- Reduction rate (%)



<sup>\*3</sup> Compared to fiscal 2018

\*4 The amount of CO<sub>2</sub> emissions in fiscal 2022 is provisional Note: The scope of application was changed in fiscal 2018.

### Promotion of Effective Use of Water Resources (Promoting Environmental Protection)

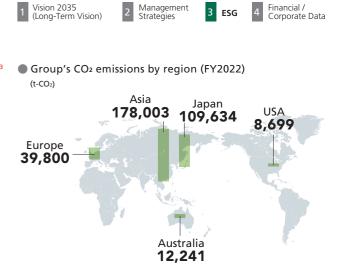
The Group uses a large amount of guality fresh water for applications such as dilution of electrolytes, which are storage battery materials, and cooling of storage batteries in the charging process. Since water resources are important natural resources for the continuation of business activities, we believe it is important to work on ensuring quality freshwater and reducing water consumption. In addition, in the production process of lead-acid batteries, water containing harmful substances (such as lead) is discharged. We recognize the importance of properly treating wastewater so that such wastewater does not adversely affect the surroundings of our business sites.

### Responding to water risks

By securing water necessary for business activities and through an appropriate response to water risks such as environmental pollution around business sites due to wastewater, the Group aims to promote water security initiatives as well as realize the sustainable use of water resources. To that end, we are working to prevent water risks from surfacing by taking measures such as efficient use of water and appropriate wastewater treatment. Further, we are responding to climate change-related risks based on the TCFD recommendations with respect to risks of damage due to floods (such as the shutdown of our factories due to flooding and disruptions in the supply chain).

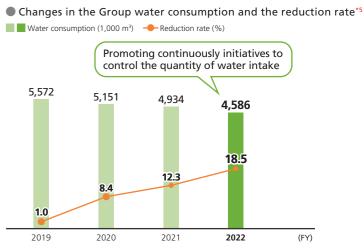
#### Examples of a water risk initiative

Category	Item	Example of Initiative
Water consumption	Reusing water	Recycling water used in the production process
Treatment	Wastewater management	Thorough implementation and management based on voluntary management standards that are stricter than regulatory standards; regular maintenance and management of wastewater treatment facilities
of wastewater	Preventing under seepage	Installation of dikes at wastewater treatment facilities and impermeability of floor surfaces
	Responding to emergency situations	Establishing response procedures and training for emergency situations in case of water leakage



### Reducing water use

The Group is working to improve the efficiency of water use in conjunction with our business strategy by incorporating the target for reducing water consumption in production activities worldwide (reduction of water consumption by 15% or more by fiscal 2025 compared with the fiscal 2018) in its Mid-Term Management Plan.



\*5 Compared to fiscal 2018.

Note: The scope of application was changed in fiscal 2018.

### Group's water consumption by region (FY2022) (1,000m<sup>3</sup>)



\*6 Total of China, Taiwan, Vietnam, Malaysia, Indonesia, and Thailand \*7 Total of UK. Hungary, and Turkey



### Message from Director in Charge of Human Resources

### Proactive investment in HR development, HR acquisition, and HR measures to enhance and fully draw out the value of human capital



### Fostering flexible and robust human resources and organization through DE&I initiatives

Amid the volatile business environment, the Company recognizes the importance of enhancing and fully drawing out the value of human capital in order to achieve sustained growth and to continue supplying new value to society. Until now, out of the belief that it is precisely the frontlines that are the engine generating the Company's value, we have been promoting Frontline Capability Enhancement Activities to develop autonomous-minded human resources and creating workplaces where they can be fully active. In addition, by disseminating and practicing the perspective of diversity, equity, and inclusion (DE&I) throughout the Group, we will take maximum advantage of the diverse values. experience, knowledge, and skills possessed by everyone working in our workplaces, pool our wisdom, and continue to create new value. Also, we will foster flexible and robust human resources capable of enduring unexpected changes.

### Implementation of organizational improvement activities through mentality management diagnosis as an initiative to enhance engagement

We believe that establishing an environment in which, through efforts to enhance employee engagement and mental health, employees can fully display their skills and continue working in a healthy and lively manner both physically and mentally contributes to the improvement of labor productivity, the creation of innovations, and the securing of human resources.

Since fiscal 2021, once a year we have been measuring the conditions of employees and the organization through mentality management diagnosis combining both engagement and mental health and, using the results of this diagnosis, promoting the plan-do-check-act (PDCA) cycle for organizational improvement activities. By understanding the actual condition

and issues of the organization as objective indexes, we aim to prevent mental health problems among employees, enhance engagement, and vitalize the organization through balanced improvement activities.

#### Important management indexes of mentality management diagnosis (deviation value)\*1

ltem	Results (FY2022)	Target <sup>⁰</sup> (FY2025)
Employee engagement	49.0	53.9
Stress response	49.7	53.0
Work engagement	50.0	53.9
Mental toughness level*3	50.4	54.0

\*1 Results for GS Yuasa International Ltd., including employees seconded to other companies and excluding employees seconded from other companies.

\*2 Target figures are the top levels in the industry (manufacturing companies

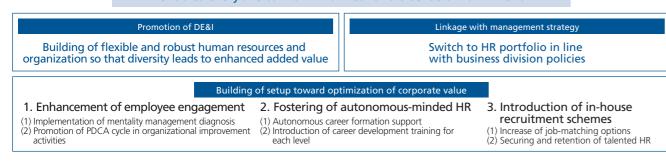
with 3,000 or more employees). \*3 This index correlates both stress response and engagement.

### Developing autonomous-minded human resources and switching to an HR portfolio required for business reform

We will urge our employees to properly understand the impact of environmental changes, clarify their own career visions with a sense of ownership, and, by taking the initiative in managing their own careers, grow as needed human resources. We are promoting various efforts for this purpose, including the provision of career development training for each level and the introduction into personnel changes of in-house recruitment schemes, such as the Job Challenge Program.

In Vision 2035 the Company showed the way toward realizing our desired future image. Going forward, to realize a switch to an HR portfolio required for business reform, we will proactively invest in human resource development, human resource acquisition, and human resource measures.

Providing an environment that respects individual personalities and abilities and enables everyone to work with zeal and a sense of fulfillment





### **Social Initiatives**



The GS Yuasa Group is aware that respect for human rights is at the foundation of business activities and that preventing the occurrence of human rights violations through decision-making and activities is a key element of management. Furthermore, since the Group engages in business on a global scale, we believe that appropriate management of human rights issues not only within GS Yuasa and its Group companies, but also in our transactional relationships with business partners including domestic and overseas suppliers is essential.

The Group's fundamental approach regarding respect for human rights is expressed in the CSR Policy, and we make employees aware of this policy. In addition, we undertake human rights risk management by conducting human rights due diligence in accordance with the Guiding Principles on Business and Human Rights, international norms on human rights. To ensure respect for human rights within the Group, the organization that undertakes group-wide sustainability activities has supervisory responsibility, and important matters relating to the promotion of respect for human rights are determined by resolution of the Board of Directors.

### Identification of human rights risks

We identify human rights issues that pose human rights risk in collaboration with outside experts so that we can conduct proper management of those risks.

# Matters taken into consideration when identifying human rights issues

- Human rights issues that require management by a manufacturing business that is active on a global scale
- Setting the scope of application to persons subject to impact on human rights throughout the value chain (not limited to employees, but also including supplier workers, local residents, customers, users, and others)
- Complicity in human rights violations that occur in the supply chain (contributing to human rights violations)
- Examples of human rights risks that have occurred in other companies

Furthermore, we evaluated risks relating to human rights issues at GS Yuasa, a core business company, and identified issues to be addressed with priority. We assess risk that originates not from business but from people from the perspective of whose rights and which rights will be negatively impacted from the Group's business activities. We address related human rights issues by taking human rights risk countermeasures integrated into existing business





processes. In the future, we will deploy this process at domestic and overseas Group companies as well.

To undertake human rights risk management in the supply chain, we administer a questionnaire survey of suppliers to confirm the status of their responses regarding human rights issues, and when necessary, request that suppliers take human rights risk countermeasures. We collaborate with a variety of stakeholders in the mineral supply chain and undertake activities to avoid being complicit in human rights violations in mineral procurement.

### Human rights issues to be addressed with priority (GS Yuasa International Ltd.)

Issue	Human rights risk	Persons subject to impact
Unsafe or unhealthy work environment	Risk that employees will not be able to work healthily due to inappropriate labor health and safety management	Employees
Harm to health from environmental pollution	Risk that the lives or health of local residents will be harmed due to atmospheric pollution or water contamination resulting from	Local residents

### Promoting human rights education

Informative and education initiatives help employees to grasp various human rights issues and the importance of business activities keyed to human rights. When necessary, personnel participate in human rights management training sessions, nurturing and expanding knowledge vital in properly recognizing and evaluating human rights risks and their negative effects.

• Human rights worksite training implementation rate (FY2022)



• Average implementation time of human rights worksite training (FY2022)



Scope: 363 GS Yuasa worksites and 149 domestic Group companies

### **TOPIC**

### Implementation of Worksite Training on Diversity

In fiscal 2022, we set "diversity (psychological safety)" as an essential topic of human rights education conducted on the form of meetings for all employees. Through discussions based on workplace case studies, employees are made aware that respect for diversity and awareness of unconscious bias led to psychological safety.

## Human Resource Development/Respect for Diversity

At the Group, we believe that front-line workplaces are the engines that generate corporate value, and the lead players in those workplaces are employees. Thus, we encourage the development of "autonomous-minded human resources" who can think independently, work proactively, and generate results at their day-to-day work sites, which are the best places for developing human resources. In addition, in order to nurture a culture in which diverse human resources can grow together and play an active role, we undertake diversity management so that we can fully utilize the diverse individuality of employees and strengthen organizational capabilities.

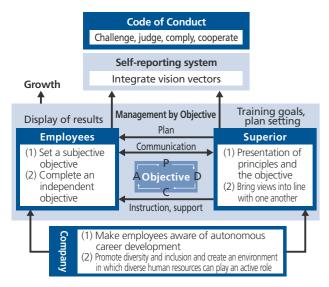
# Fostering autonomous-minded human resources

Through on-the-job training (OJT) that focuses on the management by objective system, we are working on fostering autonomous-minded human resources. In addition, off-the-job training (Off-JT) which includes rank-specific training and open-to-all training, is used to improve leadership and management skills and promote career development.

With respect to career development, we promote career management using a self-assessment system whereby employees take the initiative in setting goals and thinking about their vision of work by implementing annual reviews relating to career development.

We conduct career development training on each level to encourage career development by employees. In 2021, we introduced a new employee training program that provides opportunities for employees to confirm that performing their work with enthusiasm, gaining experience, knowledge, and abilities and enhancing skills will lead to a career in the future. Going forward, we will take additional measures to support independent career development including the introduction of an open recruiting system and providing support for improving and expanding career interviews.

#### Basics of human resource development



HR development training times (FY2022)\*

Items	Categories	Total training time (hours)	
Gender	Male	16,005	
	Female	4,085	
	Total	20,090	

\*1 Training conducted within GS Yuasa by the Human Resources Division Period: April 2022–March 2023

Scope: All employees (regular and fixed-term employees)

#### Promoting diversity (diversity, equity, and inclusion)

We are actively promoting diversity, equity, and inclusion (DE&I) as one of its management issues. In 2018, the Company launched the "GY Mirai Project" to actively recruit diverse human resources and continuously develop an environment that allows each individual to make the most of their individuality and abilities, and to create a workplace where each individual can continue to work with enthusiasm and fulfillment.

#### Career development

We are working to build a system that enables early identification of candidates for directors and managerial positions.

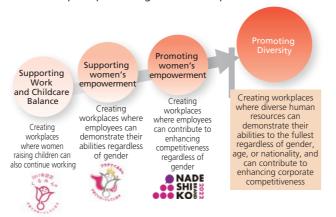
#### Main initiatives

- Conducting training on the theme of career advancement for female employees and their superiors
- Proactive dispatch for external leadership training
- Encouraging employees to take training to foster next-generation management

#### Promoting women's empowerment

The Group is committed to increasing opportunities for female employees to play an active role by supporting the two axes of "career development" and "support for work-life balance."

#### Roadmap for promoting women's empowerment

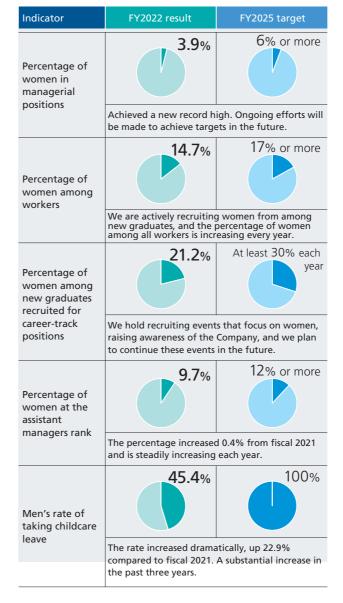


# TOPIC

#### Conducting Career Advancement Training for Female Assistant Managers

In July 2023, GS Yuasa conducted training targeting female employees at the assistant managers rank with the aim of enabling them to face the challenges and anxieties of balancing life events with career development for positive career advancement. While providing opportunities to recognize individual qualities and strengths by using diagnostic tools, and to learn how to leverage one's strengths to demonstrate leadership based on one's own individual style, we also held panel discussions featuring female managers and guest lecturers, to foster familiarization with managerial positions. We believe this has led to the nurturing of a career vision among female employees that focuses on managerial positions.

#### Key indicator concerning the promoting women's empowerment (regular employees of GS Yuasa only)





## Support for work-life balance

With the aim of "creating an environment that makes it is easy for employees to participate in childcare," we have established a support system for childbirth and childcare, etc. In addition, we are working to ensure that both men and women can use the system, such as by establishing an Expert Committee on the Development of Future Generations that holds consultations between the labor union and the Company.

#### Main initiatives

- Babysitter fee subsidy program\*2
- Sharing information on support systems using the in-house intranet
- Conducting information exchange meetings for work-childcare balance
- Published and distributed the Handbook on Supporting Work-Childcare Balance
- Implementing a Questionnaire
   on Balancing Work and

Handbook on Supporting Work-Childcare Balance

Nursing Care and utilizing it to further understanding of the current situation and consider countermeasures <sup>•</sup>2 Applies to the babysitter dispatch services provided by the All Japan Childcare Services Association commissioned by the Cabinet Office.

Indicators concerning use of the childcare support system (FY2022)





## Promotion of diversity initiatives in management

We are incorporating and promoting DE&I initiatives into our management targets.

#### Main initiatives

- Establishing a roadmap and targets, and publicize the details of initiatives and results both internally and externally
- Discussing initiatives and issues at meetings attended by senior management, and report plans and implementation status at Board of Directors meetings
- Establishing an item on diversity as part of director's priority issues

## Initiatives to improve engagement

In fiscal 2021, the Group introduced mentality management diagnosis to measure employees' mental health and engagement (enthusiasm for work and for the organization). By understanding of the status of employees and organizations from the perspectives of mental health and engagement, we can recognize current organizational issues and use the information in measures for improving and revitalizing organizations.

→ p.69 Message from Director in Charge of Human Resources

#### Reinforcing mid-career recruitment

GS Yuasa actively conducts mid-career recruitment. To promote the formation of workplaces where employees hired mid-career can demonstrate their diverse skills at an early stage, we conduct training for such employees to

facilitate interaction among human resources and adaptation to the environment within the company, and improve engagement.



A training session for mid-career employees

Percentage of mid-career employees among newly hired employees (GS Yuasa)\*





#### Promoting employment of persons with disabilities

GS Yuasa Socie Ltd., a special subsidiary of GS Yuasa, actively employs persons with disabilities. Since 2016, the company has introduced a system to ensure safe and stable employment by designating all employees as "regular employees" with indefinite-term employment regardless of whether they have a disability or not.

• Change in employment rate for persons with disabilities (GS Yuasa)\*



April 2020 April 2021 April 2022 April 2023 \*4 Results are as of April 1 of each fiscal year

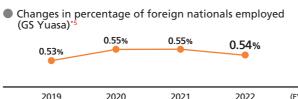
The GS Yuasa Group believes that securing the health and safety of its workers is the paramount priority in doing business and has established the Group Policy (The Fundamental Health and Safety Policy<sup>\*6</sup>) for the promotion of company-wide endeavors to build a corporate culture of safety. Furthermore, to ensure the health and safety of all employees who work for the Group directly or indirectly including subcontractors and temp workers, we have appointed an organization to conduct group-wide integrated management of health and safety. This has been instrumental in strengthening health and safety management at both domestic and overseas business sites and Group companies. In addition, we are undertaking initiatives based on our Fundamental Health and Safety Policy by creating organizational structures centered on safety and health committees established in business divisions and companies.

\*6 Our Fundamental Health and Safety Policy is available on our website.

https://www.gs-yuasa.com/en/csr/working\_env.php

#### Measures to hire foreign employees

We take measures to hire foreign nationals who possess skills and specialized knowledge, regardless of nationality. We believe that understanding and respecting the customs, cultural values, religions, and so on of each country will lead to the building of good relationships as well as effective business operations.



2020 2021 2022 (FY) \*5 Results are as of March 31 of each fiscal year

TOPIC

#### **Receives Bronze Award in PRIDE Index 2022**

The Group was awarded the Bronze Medal in the PRIDE Index 2022 in recognition of its initiatives for sexual minorities (LGBTQ+). The Pride Index, established by work with Pride, a voluntary organization, is an index established in 2016 for evaluating company initiatives for LGBTQ+ in organizations that originated in Japan. We

will continue to actively implement these initiatives in the future with the aim of creating a work environment where each and every employee can work with enthusiasm and a sense of satisfaction through diversity.



# **Enhancement of Work Environments and Occupational Health and Safety**

Operation of occupational health and safety management systems

Our Group's domestic business sites have obtained the certification of their occupational health and safety management systems in compliance with international standards (ISO 45001), and a majority of the production companies of overseas Group companies have also obtained ISO 45001 certification. Group companies in Japan are currently working to acquire ISO 45001 certification and seek to achieve effective management aimed at Group-wide attainment of the Fundamental Health and Safety Policy.

ISO45001 certification acquisition rate at 75% domestic and overseas production sites





#### Reducing occupational accident risk

At domestic business sites and domestic Group companies, we use risk assessment techniques to identify potential hazard sources by conducting general inspections and take mitigation measures according to the scale of the risk. Similar measures are also taken concerning safety patrol activities conducted under the leadership of the safety and health officer.

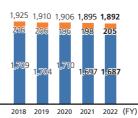
Personnel responsible for the promotion of health and safety have been providing support for the improvement of health and safety management at the production plants of overseas Group companies. In fiscal 2022, safety audits were conducted at our production factories in Indonesia, Thailand, Vietnam, Australia, and Taiwan, to further the mitigation of occupational accident risks at overseas Group companies.

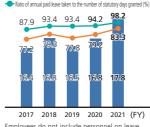
## Work style reform

The Group is striving to ensure the most appropriate work hours through cooperation between labor and management. GS Yuasa has introduced and managed systems to accurately understand and manage work hours (attendance management system and access control system). Based on this data, an expert committee combining labor and management is held monthly, and we check the condition of employees working long hours. Education at the workplace sites to improve awareness of employees and managers also addresses the theme of appropriate management of working hours. In addition, as initiatives aimed at creating a balanced working style, we are promoting improvement activities that contribute to the enhancement of work efficiency and creativity and the optimization of work allocation and taking other measures.

#### Annual working hours

Average number of fixed hours worked annually (Hours) Number of days of annual paid leave (Days) Average number of overtime hours worked (Hours) Percentage of annual paid leave taken (%)





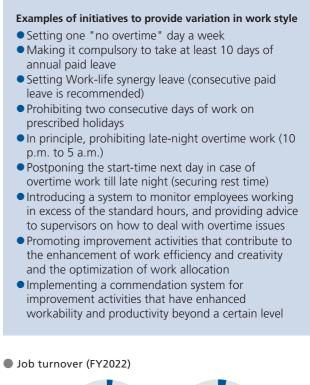
Number of days and percentage

of annual paid leave taken

mployees do not include personnel on leave or d to workplaces over Provide the second of the second seco prescribed work hours minus hours taken for and hours absent due to tardiness, leaving wo early, etc. Average number of overtimes hours worked annually: Monthly average number of overtime hours worked: 17.1 hours (FY2022)

pd: September to August







#### Scope: Domestic business companies

#### Wage disparity between male and female workers

	Wage disparity between male and female workers®					
	All workers Regular Fixed-1 workers work					
GS Yuasa	76.3%	75.8%	77.7%			
GS Yuasa Fieldings Ltd.	s Ltd. 73.7% 76.9% 12					

\*7 Period: April 2022 – March 2023

GS Yuasa wages include base pay, overtime wages, and bonuses; commuting allowances and severance pay are not included GS Yuasa Fieldings wages include base pay, overtime wages, bonuses, and commuting

allowances; severance pay is not included Regular workers include employees seconded to other companies and exclude employees seconded from other companies.

Fixed-term workers include contract employees, re-hired employees, and part-time employees and do not include dispatch (temporary) employees.

The wage disparity between male and female employees indicates the ratio of women's wages to men's wages. There are no differences in wages for the same qualifications, rank, or position, and the disparity is due to differences in the composition of personnel for each qualification, rank, and position

#### Health management initiatives

In order to realize the corporate philosophy of "innovation and growth of our employees and business entities," the Group believes that it is important to prepare the foundation to enable our employees to perform their duties while maintaining good physical and mental health so as to achieve maximum performance. The Group promotes company-wide health management of our

employees and their families based on the Health Management Policy\*8 established by the president of the company who constitutes the top management.

The Group appoints a general occupational health physician (a contracted occupational health physician) at the head office and occupational health physicians at its major offices, with 11 full-time nurses and public health nurses nationwide. In addition, in collaboration with the health insurance society, the Group conducts health management promotion meetings attended by the health management officer (concurrently serving as chairperson of health insurance society) and labor union executives to promote

measures for employee health issues.

Also, data about employee health checkups and stress checks is analyzed to identify health issues of employees in conjunction with measures such as work style reform and promotion of women's empowerment. For issues that are identified, we adopt measures for promoting health, and formulate plans to resolve the issues after verifying the effectiveness of the measures. In this way, we ensure effective health promotion by addressing employee health issues using the PDCA cycle.

developments in business divisions after assessing conformi-

ty with product safety standards as well as the safety of

products as they are used, age and deteriorate. For this

reason, we use results of product safety risk assessments

and utilize know-how gained from case studies of failures

In the unlikely event that a product accident which may

harm the customer occurs, we implement a system in which

we immediately confirm the facts and investigate the cause,

and respond to emergencies (prompt and appropriate

information provision, first aid measures to prevent the

In addition, to continuously improve product safety

management, we leverage information such as points for

improving product safety obtained through periodic internal

**GS Yuasa Corporatio** 

**Ouality Management Committee** 

Product Safety Management Committee hree-Year Quality Improvement Plan vality management activities lanagement of key quality items lanagement of product safety uality information

GS Yuasa Quality Management System (ISO 9001)

ment of workplace capabilities kaizen team activities

. . . . . . . . . . . . . . . . . . .

occurrence and spread of harm, measures to prevent

and so on. In addition, we make note of product unsafe

events on a daily basis, and provide our customers with

appropriate product safety information.

recurrence, and so on), as necessary.

Quality management organization

ality education

audits and external inspection.

GS Yuasa Int

\*8 Our Health Management Policy is available on our website https://www.gs-yuasa.com/en/csr/working\_env.php



## **Provision of High-quality Products**

The GS Yuasa Group believes that it is important that we approach manufacturing activities and strive to enhance guality of products and services from the customer's perspective so that we can remain a manufacturer trusted by customers at all times. We are aware that since the Group's products store, control, and convert electrical energy, product safety is of paramount importance.

#### Implementation of quality management system

We undertake group-wide activities aimed at improving the guality of products and services provided to customers based on our Quality Policy.\*<sup>9</sup> To this end, the Group has formulated, the GS Yuasa Quality Management System based on the ISO 9001 standard, under the leadership of top management. The aim is to promote a quality management system that crosses business divisions. The quality of our products and services is discussed every month by the Quality Management Committee, which is chaired by the executive officer in charge of quality, to enable us to enhance quality on an ongoing basis.

We are also making utmost efforts to bolster the awareness of quality among employees and to boost their understanding and skills related to guality management through guality-related education courses to all employees and team activities for improvement company-wide, thereby enhancing the quality of our products and services.

- \*9 Our Quality Policy is available on our website
- https://www.gs-yuasa.com/en/csr/guality\_index.php

## Initiatives for product safety

We created a companywide organization centered on the Product Safety Management Committee to undertake measures for ensuring product safety. We promote



# **Responsible Procurement Promotion**

The Group advances materials procurement based on awareness of such international social issues as forced labor, child labor, and environmental destruction. Along with quality, performance, pricing, delivery deadlines, and other conventional supply demands, it is also essential to promote procurement activities with the highest priority on CSR elements (including human rights, working conditions, and the global environment). For this, rather than engaging only in in-house CSR activities, we aim to continue implementing responsible procurement that responds to social issues in cooperation with suppliers. We believe that engaging in responsible procurement will enhance the corporate value of both the Group and our suppliers, and enable the realization of mutual prosperity throughout the entire supply chain.

#### Implementation of responsible procurement

In fiscal 2018, the Group published Responsible Procurement Guidelines and issued it to suppliers to better clarify the practices of responsible procurement. The Guidelines seek to support a sustainable society through the partnership linking the Group to all suppliers. By ensuring that all parties in global supply chains are fully aware of the Guidelines, we work to raise suppliers' awareness regarding the importance of responses to CSR issues in supply chains (such as human rights issues of workers). The key goal is to reduce business risks capable of negatively impacting improvements in mutual performance and sustainability, with supplier briefings held to raise awareness of the spirit and key points of these new parameters throughout the supply chain.

In addition, we are working to further deepen our awareness of the results of Responsible procurement by obtaining the consent of suppliers to cooperate with the content of these guidelines. When commencing transactions with new suppliers, we select suppliers that consent to the Guidelines and conclude contracts that include provisions on compliance with social standards (environmental preservation, compliance, respect for human rights, fair trade, exclusion of antisocial forces, and so on We also educate procurement personnel to enable them to appropriately implement responsible procurement. Also,

while nurturing a greater understanding of Responsible Procurement Guidelines, we also foster greater awareness of the importance of preventing CSR risks that may affect the business continuity throughout the supply chain.



Procurement policy briefing for suppliers

## **Responsible procurement survey of suppliers**

To create a sustainable supply chain, we periodically survey our major suppliers concerning their compliance with the requirements in the Responsible Procurement Guidelines. We are working in collaboration with our suppliers to resolve the CSR issues in the supply chain in order to strengthen our business foundation.

75 GS YUASA Report 2023



#### Overview of supplier CSR survey items (FY2022)

Category	Number of questions	Example question items
Labor	12	Forced labor, child labor, working hours, wages, inhumane behavior, discrimination
Health and safety	10	Occupational safety management, preparedness for emergency situations, industrial health, machinery and equipment
Environment	6	Environmental permits, pollution control, hazardous substances, waste, atmospheric emissions, wastewater
Ethics	7	Legal compliance, bribery, intellectual property, unfair trade, internal whistleblower systems, information security
Product safety	1	Ensuring product safety

#### Results of the supplier CSR survey (FY2022)

ltems	Suppliers of domestic business sites	Suppliers of overseas business sites	Total	
Number of companies surveyed	220	162	382	
Number of companies targeted for improvement	20	14	34	

# TOPIC

## Health and Safety Measures Targeting Suppliers

The Group considers occurrence of occupational accidents on the part of suppliers as occupational accidents of the Group, and is committed to working with our suppliers to adopt measures based on safety-first. Health and safety patrols that perform safety inspections at supplier plants point out potential hazards and propose measures to mitigate those hazards depending on the scale of the risks. We provide support for suppliers to identify workplace risks that pose hazards to workers and take appropriate action including monitoring of hazards and formulation of safe working procedures.

## Responsible mineral procurement

The Group believes that addressing social issues (armed conflict, human rights violations, etc.) that may arise during the extraction, transport, and trading of minerals used in our products is crucial in the global mineral supply chain. In our promotion of responsible mineral procurement, we have established a policy that sets out our basic approach based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, an international framework for ensuring the responsible procurement of minerals throughout the supply chain. We also further efforts to ensure transparency in the mineral procurement process making active use of the practical guidance developed by the Responsible Minerals Initiative (RMI), an international initiative to promote responsible mineral procurement.

We are engaging with risk management in mineral procurement based on our Responsible Mineral Procurement Policy to ensure that we can collaborate with suppliers and various other stakeholders to undertake activities without being complicit in armed conflict or human rights abuses.

# Governance

## **Corporate Governance**

#### Board of Directors

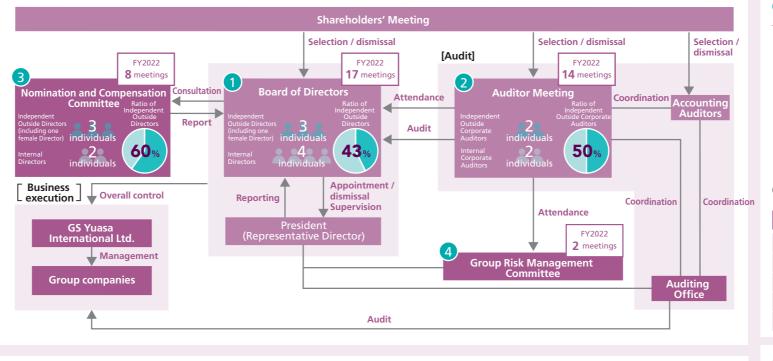
## Meeting frequency: In principle, once per month\*<sup>1</sup>

The Board of Directors determines medium- to long-term strategies for the Group including management strategies and medium- to long-term management plans, deliberates on significant matters, confirms progress concerning these matters, and creates systems for reporting the operational status of risk management by the Group, thereby overseeing management of the Group as a whole.

\*1 Extraordinary meetings are held, written resolutions are adopted, and reports are made as necessary.

#### Main matters discussed in meetings of the Board of Directors in FY2022





## 2 Auditor Meeting Meeting frequency: In principle, once per month

Corporate auditors conduct appropriate auditing and fulfill a management monitoring function by, among other activities, hearing reports on the business situation, risk management conditions, and other topics in meetings of the Board of Directors and other important conferences; offering their opinions and suggestions; interviewing directors, employees, and others about the execution of their duties; browsing important decisions, resolutions, and other documents; and investigating asset conditions.

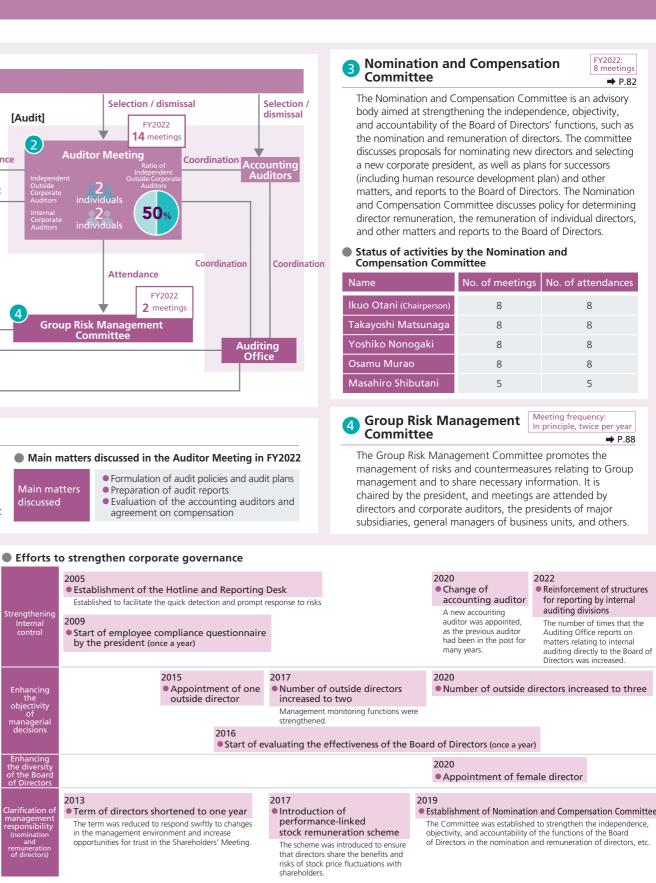
#### Approach and system of governance

To drive sustainable growth and enhance corporate value over the medium-to long terms, the Group is committed to establishing an organization and systems that enable fast, efficient responses to a changing business environment. At the same time, our basic policy on corporate governance is to make every effort to thoroughly implement and strengthen compliance and improve the soundness and transparency of management.

Based on this philosophy, GS Yuasa Corporation, a pure holding company, is responsible for formulating management strategies for all of the Group's businesses, as well as

management for the entire Group and oversight of the Group's business execution. GS Yuasa International Ltd., the Group's core operating subsidiary, is the key decision-making body for business execution, consolidating and strengthening business execution and enhancing dynamisms in the execution of business.

In this manner, functions are divided between GS Yuasa Corporation and GS Yuasa International to enhance and reinforce management structures while establishing governance structures that can increase the transparency and efficiency of management.







#### Skills matrix of directors and corporate auditors

			Knowled	lge and experie	ence expected	by GS Yı	uasa Corporatio	n		Nomination
Name	Position or responsibility	Corporate / business management	Financial accounting	Legal affairs Risk management	IT Digitalization	Global	Manufacturing Development	Marketing Sales	ESG	and Compensation Committee
Osamu Murao	President Chief executive officer (CEO)	•		•			•		•	-
Masahiro Shibutani	Vice President	•	•			•		•		
Kazuhiro Fukuoka	Director	•		•	•				•	
Hiroaki Matsushima	Director Chief financial officer (CFO)	•	•		•				•	
Ikuo Otani	Director Outside Independent	•	•	•					•	(Chairperson)
Takayoshi Matsunaga	Director Outside Independent	•				•	•		•	
Yoshiko Nonogaki	Director Outside Independent	•				•		•	•	-
Akio Furukawa	Corporate Auditor (Full-time)	•				•		•		
Masaya Nakagawa	Corporate Auditor (Full-time)	•				•		•		
Tsukasa Fujii	Corporate Auditor Outside Independent		•	•					•	
Akira Tsujiuchi	Corporate Auditor Outside Independent		•	•					•	

Note: The number of items expected of directors by the Company is limited to four. The above table does not show all the knowledge and experience possessed by directors.

#### Policy on the selection of directors and corporate auditors

To enable the Board of Directors to effectively fulfill its duties as the Board of Directors of the holding company, we select, in a well-balanced manner, persons with knowledge, experience, skills, and so on relating to the business of our Group as a whole and persons who can make statements and act from an objective standpoint and a long-term, wide-ranging perspective. In addition, we strive to achieve a size and composition that can reflect diverse opinions, including gender and international viewpoints. In the selection of candidate directors, the Board of Directors asks the Nomination and Compensation Committee for advice and makes a final decision in the light of its report.

Note: Reasons for the selection of individual internal directors are available on our website

https://ir.gs-yuasa.com/en/ir/management/esg/governance/governance.html

#### Fostering of next-generation management

In the evaluation of the effectiveness of the Board of Directors, there was a suggestion regarding policy on the fostering of next-generation management. In the light of this proposal, training is implemented for executives of GS Yuasa Corporation and directors and corporate auditors of GS Yuasa International Ltd., our core operating subsidiary, as well as executive officers and corporate officers, with the aim of deepening their understanding of the duties and responsibilities of directors.

Fiscal Year	Officer training topics
FY2023	Trends concerning carbon neutrality and the storage battery business
FY2022	Purpose-driven management and implementation of sustainable management
FY2021	Sustainable management, TCFD, management analysis

# Directors and Auditor Meetings (FY2022)

Dire

Dire

Dire

Corpo Audito

Corpo Audito

		• • •			
cial ition	Name	Reasons for nomination and status of main activities	No. of attendance		
ector	Ikuo Otani	Reasons for nomination Ikuo Otani has extensive experience and wide-ranging knowledge about management planning and overall group management of a holding company of a listed company engaged in global business. Status of main activities Mr. Otani has made valuable points and recommendations in deliberations, in particular with regard to business strategies including proposal of the Sixth Mid-Term Management Plan and risk management in the management of the Group's overseas subsidiaries. As the main independent outside director, he provides leadership as chair of the Nomination and Compensation Committee and when conducting interviews including evaluating the effectiveness of the Board of Directors and holding meetings with officers of GS Yuasa International, the core business company and also makes useful suggestion and proposals to strengthen the supervisory function of the Board.	Board of Directors	Auditor Meeting	
ector	Takayoshi Matsunaga	<ul> <li>Reasons for nomination</li> <li>Takayoshi Matsunaga has extensive knowledge for supervising overall management based on managerial experience as a director of a listed company engaged in global business and experience as an Audit &amp; Supervisory Board member of a listed company.</li> <li>Status of main activities</li> <li>In deliberations on overall management as well as business strategies including formulation of the Sixth Mid-Term Management Plan in particular, Mr. Matsunaga appropriately verifies suitability from an objective perspective and makes valuable suggestions and proposals, from new perspectives that differ from existing viewpoints including indicators and ideas. As an independent outside director on the Nomination and Compensation Committee and when evaluating the effectiveness of the Board of Directors and at other times, he makes various suggestions and proposals from the perspectives of accelerating the pace of management, nurturing candidates for future executives, and strengthening the Board's supervisory function.</li> </ul>	<b>17 / 17</b> times	_	
ector	Yoshiko Nonogaki	Reasons for nomination Yoshiko Nonogaki has extensive experience and wide-ranging knowledge as an outside director of listed companies in addition to experience in the business division of a listed company engaged in global business and in management at an overseas subsidiary. Status of main activities In deliberations on overall management as well as business strategies including formulation of the Sixth Mid-Term Management Plan and ESG measures in particular, Ms. Nonogaki makes indications and verifies suitability from an objective perspective. As an independent outside director on the Nomination and Compensation Committee and when evaluating the effectiveness of the Board of Directors and at other times, she makes various suggestions and proposals and provides valuable advice to management concerning the use of human capital that incorporates a perspective of diversity and inclusion.	<b>17 / 17</b> times	_	
orate tor	Tsukasa Fujii	Reasons for nomination Tsukasa Fujii has extensive knowledge gained through extensive experience as an attorney. Status of main activities Mr. Fujii offers valuable opinions and advice based on broad knowledge gained through extensive experience as an attorney and his advanced expertise regarding legal matters and risk management.	<b>17 / 17</b> times	<b>14 / 14</b> times	
orate itor	Akira Tsujiuchi	Reasons for nomination         Akira Tsujiuchi has broad knowledge gained through extensive experience as a certified public accountant.         Status of main activities         Mr. Tsujiuchi offers valuable opinions and advice based on his broad knowledge gain though extensive experience as a certified public accountant and his advanced expertise regarding finance and accounting.	<b>17 / 17</b> times	<b>14 / 14</b> times	

#### Policy on the independence of outside directors

We appoint several outside directors as persons with ample experience and knowledge who can make statements from an objective standpoint and contribute to the medium- to long-term enhancement of our corporate value without being restricted by corporate officers. When making such appointments, we also give consideration to their external independence, such as by ensuring that any company to which a candidate, or that candidate's close relative, belongs or belonged has no business ties, or just minor business ties, with our Group. We report all outside directors as independent directors to the Tokyo Stock Exchange.

#### Measures to support outside directors

The Company provide support for the main activities of outside directors and outside corporate auditors, primarily through their respective administrative offices and secretarial divisions. Materials for Board of Directors





#### Reasons for nomination of, status of main activities of, and record of attendance by outside directors at Board of

meetings are distributed in advance, and the relevant divisions provide prior individual explanations concerning important matters when necessary.

#### Provision of information to outside directors

The Company actively shares information with outside directors. In addition to the advance briefings intended to enhance the quality of deliberations at Board of Directors meetings, periodic liaison meetings and other meetings are held with representative directors, business divisions, and management divisions. To facilitate communication with outside directors, we create various opportunities for sharing information including annual briefings by overseas sites, internal databases, and the minutes from meetings of deliberative bodies.

Details of Activities in FY2022	Number of times held
Periodic liaison meetings with outside directors, outside corporate auditors, and representative directors	<b>16</b> times per year
Periodic liaison meetings with business divisions and management divisions	Approximately <b>10</b> times per year
Meetings for outside directors to report to the president	<b>2</b> times per year

#### **Evaluating the effectiveness of the Board of Directors**

Once each year, the Company evaluates the effectiveness of its Board of Directors under the leadership of the outside directors and the president with the objectives of confirming whether the current situation is consistent with the ideal status of the Board and the roles it should fulfill, identifying areas for improvement, and further improving operation of the Board. The Board then investigates and carries our improvement measures to address the issues that were identified through the evaluation. The Company will continue to evaluate the effectiveness of the Board and strive to make further improvements in the future.

#### **Evaluation method**

Each director and corporate auditor completes a questionnaire, and based on the responses obtained, individual interviews are conducted. The details of the responses are analyzed and evaluated, and based on the results, the Board of Directors deliberates on improvement measures.

#### **Evaluation items**

- Composition of the Board of Directors
- Management of the Board of Directors
- Agenda of the Board of DirectorsDuties of the Board of Directors

#### Results of FY2022 evaluation of effectiveness (Targeted period: January–December 2022)

#### **Overall evaluation**

The evaluations were positive for each item including the effectiveness of measures implement in the prior year, and we determined that overall effectiveness has been achieved.

#### Main opinions

There were opinions to the effect that further improvements are needed to strengthen systems for following up on important matters referred to the Board of Directors and for nurturing the next generation of human resources.

#### Our response

A review was conducted of the system for reporting important matters to the Board of Directors. In addition, with respect to nurturing the next generation of human resources, we looked into recruiting successor human resources for important posts including at subsidiaries.

#### Results of FY2021 evaluation of effectiveness (Targeted period: January–December 2021)

#### Main opinions

There were opinions to the effect that further improvements are needed in the efficient operation of resolutions, deliberations, and reporting matters of the Board of Directors and in strengthening the system for internal auditing divisions to report directly to the Board.

#### Our response

A review was conducted of the Group Approval Regulations, which specify decision-making authority within the Group, and the number of times that internal auditing divisions report directly to the Board of Directors.

#### **Remuneration of directors**

#### Basic policy

Basic

Sho

perf

rem

Med long perfe

To continuously enhance our corporate value and strengthen our corporate competitiveness, the remuneration of directors is ranked and structured in consideration of such factors as securing and retaining talented human resources and increasing their motivation to achieve better business performance.

#### Determination process and composition of remuneration

At a meeting held on February 25, 2021, the Board of Directors approved a policy on determining the details of remuneration including the remuneration of individual directors. In deciding this policy, the Board referred the matter to the Nomination and Compensation Committee and received a report. The Board also confirmed that the method of determining the remuneration for each director for the current fiscal year and the specifics are consistent with the decision-making policy approved by the Board and that the report from the Nomination and Compensation Committee was complied with and is in line with the decision-making policy. The Board of Directors determines the specific amounts to be paid within the limit of compensation approved by the Shareholders' Meeting and

#### Composition of GS Yuasa Corporation's director remuneration

Internal Directors	Basic remuneration 80%
Outside Directors	Basic remuneration 100%
Corporate Auditors	Basic remuneration 100%

#### Evaluation items regarding officer remuneration for directors

c remuneration	<ul> <li>Standard amount in accordance with the director's p</li> <li>Evaluation of the business performance of the of the</li> <li>Consolidated business performance</li> <li>Levels at listed companies with about the same busin</li> </ul>
rt-term formance-linked uneration	<ul> <li>Business performance in the fiscal year (profit attribut</li> <li>Degree of improvement and target achievement since</li> </ul>
lium- to J-term ormance-linked uneration	<ul> <li>Fixed points granted each month according to positic</li> <li>Performance-linked points that fluctuate in the range of Net sales / Operating profit ratio before amortiza the efficiency of business activities</li> </ul>

#### Total amount of remuneration, etc. by category, total amounts of remuneration, etc. by type, and number of applicable persons

	Total amount of	T	Number of				
Category	remuneration,	Basic	Performance-linked remuneration		Non-monetary remuneration included in	eligible persons	
	etc.	remuneration	Bonus	Share renumeration	the remuneration to the left	persons	
Directors (excluding outside directors)	¥197million	¥150million	¥22million	¥23million	¥23million	5 (including 1 retiree)	
Corporate auditors (excluding outside corporate auditors)	¥49million	¥49million	—	—	—	2	
Outside directors	¥43million	¥43million	_	_	_	5 (3 current directors and 2 current corporate auditors)	

Note: The above figures are the total amount of remuneration, etc. paid to directors by GS Yuasa Corporation and our subsidiaries

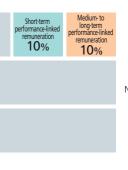


delegates decisions to the president based on the report of the Nomination and Compensation Committee.

A director's remuneration consists of a fixed basic remuneration, a performance-linked annual bonus as a short-term incentive, and a performance-linked stock remuneration scheme as a medium- to long-term incentive, and is decided in consideration of such factors as levels at listed companies with about the same business scale as the Company. An annual bonus is paid to directors (excluding outside directors) as short-term performance-linked remuneration, with the aim of increasing awareness of the need to contribute to sustained business growth and enhanced corporate value and a stock remuneration scheme is provided at the time of a director's retirement through a trust set up by the Company.

Corporate auditor remuneration is determined by discussion among the corporate auditors within the range of the amount approved by resolution at the first annual Shareholders' Meeting, which was held on June 29, 2005. In view of their role and independence, auditors receive only the fixed basic remuneration.

The Company also started investigations into linking evaluations of ESG indicators to remunerations systems.



Note: The figure is hypothetical with percentages calculated based on results for fiscal 2022 and may change due to variations in consolidated performance and other factors.

position, etc.

e relevant division and individual

iness scale as the Company and other factors

utable to owners of parent, etc.)

tions, etc.

of 0% to 100% depending on the degree of achievement of performance targets ration of goodwill, etc. / ROIC (return on invested capital), an evaluation of

#### Internal control system

To strengthen its management foundations, the Group has improved systems and relevant rules for ensuring the maintenance of ethical business practices in accordance with the Companies Act. Such systems include mechanisms to ensure effective auditing, information management, and risk management throughout the Group.

To comply with the internal control reporting system

#### **Cross-shareholding**

Cross-shareholding is the possession of shares of other companies for purposes other than pure investment. Possession of the shares of business partners and others can be expected to help maintain medium- to long-term relations, expand business, and promote synergy. Accordingly, every year the Board of Directors examines the rationale behind the holdings of specific shares. If it is decided that there is no rationale for holding them, efforts are made to reduce them.

In fiscal 2022, the Company sold a portion of its cross-shareholdings in accordance with these policies. Each year, the Board of Directors examines the rationale for holding each issue, primarily from the following perspectives

#### Number of cross-shareholdings and amount recorded on balance sheet

(Number of issues, millions of ye						
(	Categories	End of FY2021	End of FY2022	Change		
Listed shares	Number of issues	30	28	-2		
Listeu shares	Amount recorded on balance sheet	28,021	24,538	-3,483		
Non-listed shares	Number of issues	25	25	0		
Non-listed shares	Amount recorded on balance sheet	573	573	0		
Total	Number of issues	55	53	-2		
rotar	Amount recorded on balance sheet	28,595	25,111	-3,483		

Notes:1. The numbers of issues and the amounts recorded on the balance sheet include holdings of GS Yuasa, which is the company with the highest balance sheet amount for cross-shareholdings among consolidated subsidiaries of the Company 2. As of the end of FY2022, in addition to the amounts to the left, there was 22,946 million yer in deemed share holdings, and the total of cross-shareholdings (including deemed share holdings) was 48.058 million ven. This amount equals 17.7% of consolidated net assets at the end of FY2022. The amount of deemed share holdings is calculated by multiplying the market price at the end of FY2022 by the number of shares held.

#### Measures to reinforce overseas governance

We are reinforcing collaboration with Group companies to ensure comprehensive control by the Company of the business management aspects of overseas Group companies and to prevent the occurrence of problems in

the execution of business. Specifically, we are taking action to gain a timely understanding of conditions through briefing meetings with overseas sites and on-site observations of important sites.

required under the Financial Instruments and Exchange Act,

we are maintaining an internal control system and financial

implementation of internal controls. Following external audits,

reporting mechanisms to meet all requirements. Our

international subsidiaries and other consolidated Group

companies evaluate the status of the improvement and

reports on these internal controls are publicly disclosed.

to confirm the reasonableness of maintaining holdings.

loss on share valuation

Dualitativ

nformation

Quantitative

Whether there is a trading relationship

Risks if the shares are disposed of

Regarding the voting rights of shares held as cross-shareholdings,

assessing the reasonableness of the proposals of the investment

target company from the perspective of enhancing corporate

value over the medium to long term.

the Company exercises voting rights after comprehensively

• Possibility of trading or alliance in the future

Significance of the holding other than trading

Most recent trading volume and profit amount

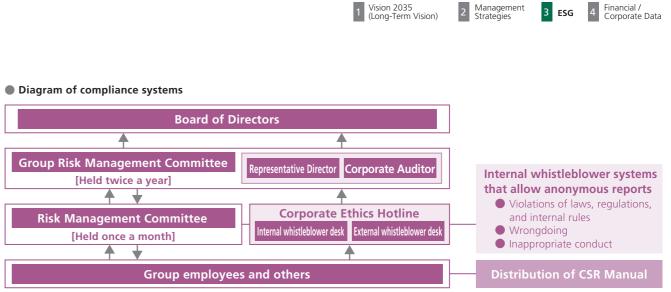
Amount of dividends received annually, profit /

## **Thoroughly Fulfilling Our CSR and Ensuring Compliance**

#### Basic approach

By training our personnel according to our philosophy of "Innovation and Growth" while manifesting our commitment to society and preserving the global environment, we are ensuring that all employees are guided in their behavior focusing on compliance with laws, company regulations and ethical standards.

The Compliance Declaration made by the president states that success must never be achieved through legal and moral infringements and that "establishing rules and structure" and "developing a strong sense of commitment to realize compliance" are essential to becoming a corporate leader in compliance. Based on these guidelines, multifaceted compliance promotion activities are developed at every employee level, and each employee is encouraged to incorporate self-directed and proactive actions to yield an effective improvement in compliance awareness.



#### Permeation of compliance awareness

The CSR Manual which delineates rules for adherence by every corporate Group member is distributed to all employees to facilitate permeation of compliance awareness in the Company. This manual clarifies the Group's CSR policy. It outlines explicitly the behavioral standards that each employee must follow during business activities.

In addition, the manual details how to use the internal whistleblower system, a mechanism that facilitates detection of compliance risks, and introduces an emergency contact system for use in a crisis to realize quick responses to compliance infringements.

#### Items included in the CSR Manual

- Concrete examples of compliance operations and risk actualization (explained in a Q&A format and in columns)
- Diagnostic checklist to help employees assess their own adherence to corporate behavioral standards

#### Workplace meetings on sustainability

Workplace meetings on compliance were initiated in fiscal 2012 as a means of allowing compliance awareness to permeate to each and every employee, and have been held for 11 consecutive years through fiscal 2022.

Since fiscal 2018, meetings have been conducted as "workplace meetings on sustainability," covering topics relating to CSR policies. In addition to all GS Yuasa workplaces (363 workplaces), domestic group companies

Ratio of implementation of workplace meetings on sustainability (FY2022)

Ratio of workplaces where employees felt that workplace meetings on sustainability are meaningful (FY2022)



(22 companies) are also included in the scope of application. The educational materials used in the meetings are prepared by the division in charge for each topic and include content tailored to the circumstances of the Group. We intend to continue holding these meetings while constantly upgrading the content.

#### Examples of themes of sustainability workplace meetings

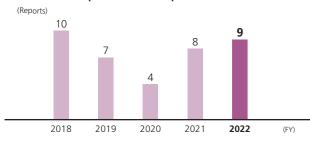
- Contribution to the SDGs through "Innovation and Growth"
- Diversity (psychological stability)
- Preventing intentional wrongdoing
- Handling confidential information
- Subcontracting laws
- Personal information protection
- Security trade controls
- Harassment (sexual harassment / power harassment)
- Management of working hours
- Occupational health and safety
- Product safety
- Specific facility reports
- Global warming and corporate responsibility
- Promotion of supply-chain CSR activities

#### **GS** Yuasa Group Corporate Ethics Hotline

We formulated Corporate Ethics Hotline Regulations and set up a corporate ethics hotline. Accessible both internally and externally, the Corporate Ethics Hotline, an internal whistleblower system, enables employees of the Group and business partners to provide information by telephone, email or in writing if they become aware of any violation of the law or company regulations, unethical or inappropriate conduct, or risk of such conduct by a Group employee, etc. Reports can be made anonymously.

In addition, we ensure that information identifying whistleblowers managed rigorously and that whistleblowers are protected so that they are not subject to disadvantageous treatment as a result of making a report.

Number of reports to the Corporate Ethics Hotline



#### Elimination of antisocial forces

The Group clearly disavows contact "with personnel or organizations of organized crime," in its CSR Policy while its CSR Code of Conduct similarly stipulates "separation from organized crime," stating a specific policy that, "we will not provide any form of benefit in excess of the normal shareholder's right to any person or company associated with organized crime" and "we will cut off business or any other relationships with individuals and organizations having an indication of support for organized crime." This policy and the Code of Conduct have been shared with all Group employees.

development of DX human resources on a full scale with

the aim of raising DX levels by having employees take the

course. In addition, we opened a "DX Training Dojo" and

are conducting specialized training for 49 employees who

were recommended by their divisions. We will focus on

training DX human resources so that we can implement

business structure reforms including higher operational

President

Strategy proposals

Information sharing and collaboration

Management divisions / Business division

In-house training

efficiency and high added value.

Digitalization of business

Internal structure for DX promotion

# **DX** Initiatives

The Group first introduced AI and IoT in 2018 and launched full-scale efforts to promote DX in 2021. In fiscal 2022, all GS Yuasa employees took the DX Literacy Course to enable employees to consider the use of digital technology in their individual work assignments, and was intended to further establish awareness of DX promotion.

In fiscal 2023, we distributed educational content on DX to all GS Yuasa employees to promote the internal

#### Examples of initiatives

Overview	Details
Demand forecasts	Use AI to automate demand forecasts for
for automotive	replacement lead-acid batteries, which had
lead-acid batteries	been performed based on experience
Al-based predictive failure detection technology for battery energy storage systems	Al can detect potentially faulty storage batteries before a failure occurs. Monitoringlarge-scale energy storage systems can save manpower
Al-based image	Introduce AI to image inspections to ensure
inspection for	battery quality, significantly reducing the
specialized batteries	number of man-hours required for inspections

#### Roadmap for DX initiatives



# Information Security

The Group places importance on efforts to ensure information security. In addition to preventing malware infection of endpoints including PCs, we are strengthening our countermeasures by introducing tools that can quickly

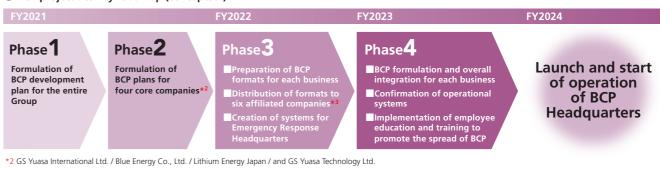
detect and respond if infection or intrusion is allowed to occur. In addition, through the regular monitoring of communications by an outside security service, the introduction of an illegal connection detection system and other measures, we endeavor to prevent illegal access to our in-house network and forestall damage.

We established Information Security Management Rules appliable to the entire Group and promote awareness-raising activities so that our employees follow our Procedures for the Management of Information System Usage. To prevent the outflow of confidential information, we conduct the encryption of personal computer data taken outside the company, the distribution of an information security handbook, the implementation of e-learning, distribution of email newsletters on information security, and so on. Furthermore, based on domestic security standards, we

# **BCP** Initiatives

Natural disasters, plant fires, and supply chain disruptions have occurred in recent years, and responding to risk has become critical as an aspect of corporate social responsibility. Accordingly, to promote BCP responses, in fiscal 2021 the Group launched a BCP project led by the Environmental Management, Occupational Health & Safety Division and including personnel from other divisions.

#### BCP project activity roadmap (conceptual)



\*3 GS Yuasa Ibaraki Co., Ltd. / GS Yuasa Iwaki Co., Ltd. / GS Yuasa Chemical Co., Ltd. / GS Yuasa Moldings Co., Ltd. / GS Yuasa Energy Co., Ltd. / GS Yuasa Azumino Co., Ltd.

#### Diagram of Emergency Response Headquarters systems in the event of an emergency

#### Companywide level

#### (A) Group Countermeasures Headquarters

Entire GS Yuasa Group heads from (B) to (E) convened Headquarters head: President Countermeasures Administrative Office: BCP Administrative

Office, Legal Division, Corporate Strategic Planning Office

#### Level in which individual responses are possible

#### (B) Business Division Countermeasures Headquarters

Business divisions and subsidiaries Heads: General managers of business units & branch office presidents Administrative Office: BCP Administrative Office of Business Unit

#### (C) Individual Site Countermeasures Headquarters

Plants, branches, sales office, logistics centers etc. Heads: Site managers Administrative Office: Site General Affairs Division or other division

Order of focus



conduct surveys of security measures in overseas Group companies and give guidance to address vulnerabilities.

#### Internal initiatives relating to information security (FY2022)

	Details	Number of times implemented
Education	e-learning	1
and training	Targeted attack email training (implemented only in some divisions)	2
Awareness-	Distribution of columns on information security in internal newsletter	4
raising activities	Distribution of awareness-raising information in email newsletters	11

In fiscal 2022, we prepared BCP formats for each business and distributed formats to affiliated companies. In the future, we plan to conduct full-scale operation of the Emergency Response Headquarters and a safety confirmation system, implement internal education and training to promote BCP, and make preparations for operation of BCP systems throughout the entire Group.





#### Intellectual property strategy

The Group's intellectual property activities are based on the PDCA cycle of identifying patent strength, identifying and avoiding risks, and acquiring rights with an awareness of how to link these activities to the growth of GS Yuasa's business. During the period from the Fifth to Sixth Mid-Term Management Plans, we emphasized transformation to strategic business, creation of intellectual property that is closely related to business units, clearance activities, and elimination of foreign competition and produced a certain degree of results.

During the terms of the Sixth Mid-Term Management Plan, we will focus on the three points described below with the objectives of ensuring the growth of existing businesses as well as new fields by using intellectual property rights and acquiring and capitalizing on intellectual property rights that other companies need from the perspectives of both mono (products) and koto (service creation).

#### **1** Calculation of patent scores and patent inventory

We use a patent power analysis tool to analyze our own patents and those of other companies, calculate patent scores to measure the degree of contribution from intellectual property activities to medium- to long-term growth and expansion of profits, and build a patent portfolio. By doing this, we can visualize our patent power and enhance the value of intellectual property.

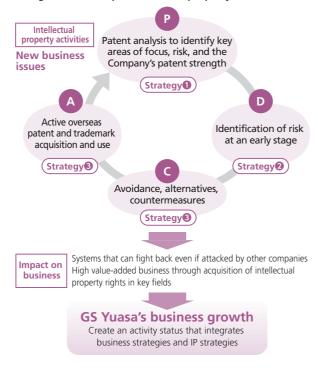
#### Reforming the rights acquisition process by using specialized and intellectual property information

Until now, we held invention policy meetings in cooperation with development divisions at the beginning of each fiscal year and formulated a patent application plan with a focus on patent applications, but starting in fiscal 2023, we are considering how patent--especially important patents-will affect business plans and select technologies by matching the development division with the business plan. By committing the maximum amount of resources based on this, we are taking action to build an even stronger patent network.

#### **③** Acquisition of patent rights in new business fields

One of the GS Yuasa Group's initiatives under Vision 2035 is transitioning from the provision of mono (products) to the provision of solutions and services. We have started measures to identify patents related to such provision of koto at an early stage. This means that in the future, we will conduct business not just by taking action independently, but also by creating patent assets that will be necessary for collaborating with other companies.





#### Communication with management

At the beginning of each fiscal year, we hold a business policy meeting to discuss activity policies with management as well as management meetings twice a year to report on these policies, new issues, and the status of disputes.

#### Issues investigated (partial list)

- Information on the patents of the Company and other companies relating to all-solid-state batteries
- Survey of patent trends relating to reuse of lithium-ion batteries

#### Intellectual property creation activities

We confer with each division to discuss key topics for the year and coordinate and make arrangements on important issues and methods for building a patent network related to them. Plan progress is reviewed, revisions are made at regular meetings with divisions, and measures are taken to achieve targets.

In addition, to enhance the incentives for invention, we have an annual award system that encourages inventions throughout the Company including the Outstanding Invention Award for the patent that has contributed the most to business and the Best Inventor Award for those who have created inventions that are outstanding both in quality and quantity.

#### Global activities

In addition to applying for foreign patents for most domestic patent applications, the Group is also focusing on business defense through patent rights in order to curb competition from emerging companies overseas. In the area of



We endeavor to communicate with shareholders, investors, and other stakeholders through various channels.

As investor relations activities, in addition to quarterly financial results briefings for institutional investors and analysts, we regularly hold individual meetings, conferences sponsored by securities companies, briefings for individual investors, and other events. We also actively hold events such as study meetings and plant tours to deepen understanding of our business. Furthermore, we make use of investor relations websites to actively transmit information in a timely manner.

As a means of disseminating information internally, the director responsible for investor relations provides video presentations of financial results to managers on a half-year basis and regularly publishes and investor relations column on the PR portal site, and we implement various other measures including briefings (external and internal) on Vision 2035 and the Sixth Mid-term Management Plan, distribution of pamphlets on Vision 2035, and in-house training programs to disseminate investor relations information.

We endeavor to regularly share opinions obtained through these activities with management including the Board of Directors and reflect them in our management and business activities.

## Risk Management and Risk Information

#### Basic approach

Risk management is essential for the lasting growth of a company. The GS Yuasa Group believes that the following two points are important as risk management so that crises stemming from the escalation of risks do not occur and exert a serious impact on the Group or on society.

First, by predicting and understanding risks and adopting appropriate preliminary measures, the escalation of risks (outbreak of crises) can be prevented (risk avoidance). Second, effective measures can be taken beforehand so that even if a crisis does occur, losses and other damage are kept to a minimum (risk reduction). Based on this approach, our Group has formulated risk management rules that stipulate the responsibilities of employees and our risk management promotion setup.



trademarks, the Group has been curbing counterfeiters in China, ASEAN countries, and other countries by exposing them and suing for injunctive relief and has publicized major results on its own websites and the websites of overseas affiliates to curtail them.





Video briefing on Vision 2035 and the Sixth Mid-Term Management Plan

Investor relations website

Record	of	main	IR	activities	(FY2022)

Activity content	Frequency
Financial results briefing for Institutional investors and analysts 🕫	4 times
Individual meetings	Japan: 170 Overseas: 51
Overseas roadshows	1 time
Conferences	4 times
Small meetings	3 times
Business briefings for institutional investors and analysts <sup>&amp;6</sup>	1 time
Plant tours	3 times
Briefing for individual investors®	4 times
Shareholders' Meeting	1 time

\*4 Audio data (Japanese only) for the first and third guarters is available on the investor elations website Video clips (Japanese and English versions) for the second and fourth quarters are

posted on the investor relations website Conducted online

\*6 A briefing session providing an overview of and strategies for the industrial battery and power supply business was conducted. \*7 One in-person briefing and three online briefings

The videos and briefing materials are posted on the investor relations website.

#### The Group Risk Management Committee

The Group Risk Management Committee, headed by the president and consisting of the chairs of departmental Risk Management Committees among others, holds semiannual meetings to promote group-wide risk management and to encourage the sharing of key information related to risk management. In addition to making decisions on measures to promote risk management, the Risk Management Committee confirms that the appropriate risk management measures have been implemented, and the committee chairs report on progress in this area. We also actively exchange opinions and share information on the different styles of risk management and so on.

#### **Risk management activities**

In accordance with our risk management rules, each department uses a risk management sheet and promotes risk management activities. The following is an outline of these activities:



In the event of the occurrence of a critical incident, measures are taken for early resolution and normalization of operations and efforts are made to strengthen management by identifying root causes, implementing and expanding preventive measures, and confirming their status each month using a risk management sheet.

#### • Structure and functions of risk management

Group Risk Management Committee [Held twice a year] Checking the management status Chairperson: President Members\*8: Heads of target corporations, general managers of each business unit, and general managers of each department of GS Yuasa \*8 In principle, attended by directors and corporate auditors Reporting the risk management status Review and evaluation of risk response Developing measures to promote risk management status using the risk management sheet **Preventive activities** Crisis management activities **Risk Management Committee** [Held once a month] Chairperson: Heads of target corporations (In GS Yuasa, general managers of each business unit or general managers of each department) Members<sup>\*9</sup>: Line general managers (in principle) \*9 In principle, attended by managing directors and corporate auditors Identification of risk **Development of** measures to promote risk management Implementation of the measures Employees

#### **Risk information**

Risk	ne in the next fiscal term ○: Some possibility of occurrence in the next fiscal term △: A Details of impacts if a risk occurs	Likelihood of occurrence	Countermeasure
Raw material markets fluctuations	Lead is a key material used in lead-acid batteries, our main product. However, changes in the market price of lead cannot be reflected immediately in our product prices, so our earnings and financial standing could be affected.	of risks	Optimizing production systems and working to reduce costs while building an optimum supply structure.
Intensification of price competition	We are exposed to intense price competition in each of the markets where it conducts business, and setting prices at advantageous levels has become difficult. We not only face the same competitors as in Japan, but also must deal with low-cost products supplied by overseas companies, which make competition more intense. It may not be easy to maintain and expand market share and secure profitability in the future. If business profitability declines as a result, there may be an impact on our earnings and financial standing including the risk of impairment of fixed assets.	0	Cutting costs and implementing measures to strengthen marketing power.
Foreign exchange rate fluctuations	Financial statement items that are denominated in local currencies outside of Japan, such as sales, expenses, and assets, are converted into yen for consolidated financial statements. The yen value of these amounts can change depending on the exchange rate, even if the amounts have not changed in local currencies. When local currencies appreciate in areas where the Group carries out overseas production, manufacturing and procurement costs can rise in these areas, and medium- to long-term currency fluctuations may impede the Group's ability to procure, manufacture, distribute, and sell goods according to plan. Therefore, it is possible for foreign exchange rate fluctuations to influence our earnings and financial standing.	O	Conducting forex-hedged transactions in an effort to hold the adverse effects of short-term foreign exchange rate fluctuations to a minimum.

The risk management sheets produced by the departments are compiled at the divisional level, and the directors in charge of the divisions and corporate auditors verify and assess the status of response through the Risk Management Committee. The deliberations by the committees are summarized and then fed back to each department and employee as required to enhance the effectiveness of risk management.

#### System for dealing with crises

To prepare for the possibility that a risk materializes, we have established a system that includes an emergency contact network to swiftly implement crisis management. If a serious crisis occurs, members from the Group Risk Management Committee will be appointed to organize a crisis management headquarters, under the president, to minimize corporate losses, and an effective response will be implemented swiftly and with appropriate care.

Risk	Details of impacts if a risk occurs	Likelihood of occurrence of risks	Countermeasure
Related to international activities and overseas expansion	<ul> <li>The following risks are intrinsic to overseas markets, and they could affect our earnings and financial standing.</li> <li>a) Unforeseen changes to laws or regulations</li> <li>b) Difficulty in hiring and keeping human resources</li> <li>c) The possibility that inadequate technology infrastructure will affect our manufacturing and other activities, or lower the reputation of our products among customers</li> <li>d) Social disturbances caused by terrorism or war</li> </ul>		Strengthening communications betw headquarters and our various sites to build a framework capable of rapidly supplying products and services that meet needs in each region of the wor
Environmental regulations	In China, the central government shows signs of strengthening environmental regulations on lead-acid battery manufacturers and lead smelters. Some manufacturing activities at the Group companies could be affected.	O	Established the Fundamental Environmental Policy outline our basic Group-wide approach to environm efforts. The policy aims to guide our contributions t emergence of a sustainable society. Also, developin and using environmental management systems tha help to reduce environmental impacts and prevent accidents that could cause environmental pollution.
M&A	When we carry out M&A, the transaction is considered from a range of viewpoints, including the target company's financial standing and potential synergy with our businesses. Due to drastic changes in the business environment or other factors, however, an acquired business might not perform as planned. If invested funds cannot be recovered or a loss on goodwill is recorded, our earnings and financial standing could be affected.		Monitoring financial results on a monthly basis.
Climate change	Based on an awareness that climate-related issues are one of the important management issues, we have announced our support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and are working to reduce greenhouse gas emissions in our business activities. However, the occurrence of events that make it extremely difficult to adapt to environmental regulations or unforeseen circumstances in the future could increase costs for environmental responses beyond expectations, damage facilities as a result of wind, flooding, or other causes, or restrict business activities, which could affect our earnings and financial standing.	It is difficult to make a complete forecast	Working to reduce greenhouse gas emiss throughout society as a whole by promo renewable energy that uses storage batt technology and other measures while further expanding information disclosure line with the TCFD recommendations.
Disasters and accidents	If a natural disaster such as an earthquake, storm or flood damage, or major snowstorm or if an accident such as a fire, explosion, or damage were to occur at our business site, there is a risk of unforeseen events occurring.		Creating earthquake, flood, and snowstorm resp manuals and working to enhance fire-preventior management and disaster preparedness.
Interest rate fluctuations	Our interest-bearing debt burden includes some debt with variable interest rates. Therefore, if interest rates rise, the Group's cost for procuring funds could increase.		Making efforts to keep the debt redemption period w three years and to achieve both growth and financial discipline during the Sixth Mid-Term Management PI when interest-bearing debts are expected to increase order to activate growth investment.
Lawsuits and other legal proceedings	In carrying out business, we may be sued by suppliers or third parties, and there is a risk that regulatory authorities could take legal action against us.		Continuously surveying the rights, patents, and other intellectual property of other companies and working to minimize the risks by reinforcing internal information sh
Economic conditions	Demand for the Group's products is influenced by economic conditions in the markets where products are sold. Therefore, in the Group's main markets, which include Japan, the rest of Asia, North America, and Europe, economic setbacks and accompanying demand contractions, could adversely affect the earnings and financial standing.		Providing reassurance and confidence to customers through bu operations based on a fundamental stance that emphasizes qu and working to enhance corporate value and build corporate infrastructure for sustainable growth in the future in accordan our corporate philosophy of "Innovation and Growth."
Market environment	The Group conducts business in Japan, Asia, North America, Europe, and other regions, and sales and profits/losses of these businesses are impacted greatly by the market environment and economic trends in each country. The Group has a consolidated subsidiary in Turkey, where inflation is high and the Turkish lira is decreasing in value. If the Turkish lira continues to depreciate due to continued inflation and other factors, the Group may incur substantial foreign-exchange losses and there could be a significant impact on business results depending on the balance of credits, liabilities, and the volume of transactions resulting from local overseas sales and procurement.		Working to strengthen information sharing between the headquarters ar sites and responding quickly and flex to risks from changes in the market environment.
Supply chains	The Group conducts business in Japan, Asia, North America, Europe, and other regions, and our supply chain extends to the entire world. Supply chain disruptions in individual countries or regions could impede procurement of parts and materials as well as sales, which could have an impact on the Group's business performance and financial status.		Working to strengthen communicatio between the headquarters and indivi- sites, optimize production systems, ar building optimal supply systems.
Information security	The Group holds important and confidential information, including technical, management, and sales information in its business activities. An information leak due to improper handling of information devices or information leaks or tampering resulting from external cyber-attacks could lead to a suspension of business activities, which could have an impact on the business performance and financial status.		In addition to preventing malware infection of endpoints, strengthening systems that can promptly detect and respou preparation for the occurrence of such an event. In addition prevent unauthorized access through continuous monitorin communications and the use of an unauthorized connection detection system. We take measures to raise the informatic security levels of employees including awareness-raising ar educational programs to ensure compliance by employees in internal rules. We also conduct surveys on the status of sec measures by overseas Group companies based on domestic standards and provide guidance to address vulnerabilities.
COVID-19 pandemic	The COVID-19 pandemic was downgraded to Category 5 under the Infectious Diseases Act in May 2023; and with the lifting of restrictions on activities, it is expected that social and economic activity will normalize. If there is a resurgence of COVID-19, however, there could be an impact on the Group's business performance.	0	Taking action to reduce the risk of infection by encouraging employees perform disinfection using alcohol, us web conferencing systems, and takin other measures.







# **Messages from Outside Directors**

Need for management decisions with a multilateral perspective and sense of speed as we enter a new management stage

Ikuo Otani Outside Director

## Hoping for the discontinuous growth depicted in Vision 2035

Various discussions took place in the formulation of our long-term vision "Vision 2035," which was announced in April 2023. Among them, I insisted that we must not lag in reforms by overreliance on the lead-acid battery business. My opinion was that while continuity from the current situation is important too, it is also necessary to have an orientation toward discontinuous growth. As a result, in Vision 2035 we portrayed a growth story centered on "mobility" and "public infrastructure" and were able to depict a future that was not just an extension of the present. While it is important for us to be sure to yield sustained profits by improving efficiency in the lead-acid battery business, we also need to secure a certain position in the lithium-ion battery business in order to establish our status in the field of next-generation batteries, including all-solid-state batteries, which have the potential to be a game changer in the future.

Our partnership with Honda Motor Co., Ltd. and establishment of a concrete roadmap toward the development and production of lithium-ion batteries for battery electric vehicles (BEVs) was a promising move. At the same time, going forward it is necessary for us to raise our stage of management a level higher by, among other things, conducting advance investment, strengthening our human capital capable of promoting business, and developing products that surpass those of overseas manufacturers. We need to have even more diverse viewpoints and greater speed than before. I myself intend to thoroughly fulfill my role in surveillance and supervision.

# The strengthening of coordination among administrative divisions is an issue in organizational management

Since fiscal 2022 the three outside directors have been holding semiannual meetings. In addition to matters requiring improvement based on the evaluation of the Board of Directors' effectiveness, we share issues on the management execution side, and we also exchange opinions with the president the following month. Every year improvements can be seen in matters raised by the outside directors. On the organizational management side, though, we have suggested anew the need to further strengthen coordination among administrative divisions and to tackle reforms with a Group-wide perspective.

In terms of Group governance, the monitoring of subsidiaries continues to be an important topic. There is a huge difference in profitability at our overseas sites. While further expanding highly profitable sites in Southeast Asia and elsewhere, at the same time we need to give due consideration to business structure and so on. In fiscal 2022 report briefings with overseas sites were held in-person for the first time in three years, and they functioned extremely effectively. I myself have inspected sites in Turkey and Tianjin in China in the past. Going forward, as far as possible I want to help the monitoring function by visiting sites and holding interviews with subsidiary management teams.

#### Strengthening discussions relating to sustainability and promoting the succession plan debate

Regarding our sustainability-related initiatives, we have requested that discussions should be bolstered with greater involvement by the Board of Directors and that overall reports should be increased. In addition, studies are going ahead on the reflection of materiality-related efforts and their evaluation in director remuneration as well.

In the Nomination and Compensation Committee, debate on the succession plan is taking place. At present we are considering candidates using information gleaned from gatherings with the executives of business companies, report briefings by overseas sites, site inspections, and so on. Since the strengthening of human capital is an extremely important topic, this debate, including the discussion of training plans, will continue.

Response to new risks in promotion of Vision 2035

Takayoshi Matsunaga Outside Director

## Clarification of route to building new pillars of business toward 2035

As I have said in previous outside director messages, the Company needs second and third pillars to follow the lead-acid batteries business, which is our mainstay business at present. Recently, in addition to the fact that the automotive lithium-ion batteries business at last has begun to yield revenue, a route has been shown in the recently announced Vision 2035 for promoting the lithium-ion batteries business for BEVs. I highly appreciate the fact that these second and third pillars, which we have been looking forward to so much, have come into view. I think we have managed to depict the future image of the Company, including the way forward to spectacular growth in the future. What is important now is to properly convey the growth story and attractions so as to gain empathy from stakeholders.

There are matters of concern as well, though. The outlook is for the annual production capacity of lithium-ion batteries for BEVs to expand to more than 20 GWh in 2035, but this will require a huge investment surpassing our experience so far. The response to this situation involves a mountain of issues, including fund procurement, the securing of sales channels to automakers and raw materials, and production efficiency. Naturally, the challenge of new businesses harbors risks. As the Company promotes its plans going forward, I intend to keep a close watch from the perspectives of how to reduce the risks and how to enhance business viability.

# Emphasis on fiscal-year plans and PDCA to increase the effectiveness of the Mid-Term Management Plan

The Sixth Mid-Term Management Plan started in the current fiscal year. The Mid-Term Management Plan is a promise to shareholders, investors, and other stakeholders, so the degree of effectiveness of the plan is going to be questioned. To achieve the results that are our targets for the three-year period, we need to press on the accelerator and promote the plan from the first fiscal year. To do so, it is important to continue rotating the plan-do-check-act (PDCA) cycle. While clarifying the positioning of fiscal-year execution plans against the Mid-Term Management Plan, annual targets, and important matters to be implemented for their achievement, it is also necessary to share them as an organization. I think that outside directors also will be able to further deepen our understanding of not only numerical management figures but the progress of important initiatives as well and that our checking function will work even better. I myself will be watching closely to make sure the PDCA cycle is properly rotating.

## Promoting mindset change among employees and speeding up business operations

Improvements have been made year by year in the speeding up of decision making and delegation of authority, two issues that I have been pointing out. As a consequence of changes in the social environment and the expansion of our business partners and business domains, however, an unprecedented speeding up of business operations and decision making is required if we are to realize our ideal vision depicted in Vision 2035. No doubt various reforms will be necessary. Not only top management but employees responsible for business execution will need a change of mindset too. I look forward to a further upleveling toward the realization of Vision 2035.



# **Messages from Outside Directors**

**Speedy business operations** while balancing short-term results and a long-term perspective

Yoshiko Nonogaki **Outside Director** 

#### Aiming for business growth through the solution of social issues

In response to the emergence of global environmental problems, geopolitical risks, and other factors, moves toward the achievement of carbon neutrality are accelerating at an unexpectedly fast pace. Amid this situation, the Company has announced Vision 2035 and set a direction of tackling the development and manufacture of lithium-ion batteries for battery electric vehicles (BEVs) in a full-fledged manner. The plan also is to deploy the know-how relating to BEV lithium-ion batteries to the storage use of renewable energy. For the Company, I understand this initiative to be both an effort to solve a social issue and at the same time a major business chance. Going forward, what is necessary for the realization of Vision 2035 is the creation of a culture of "going the whole way with a sense of speed." At a time when society is changing in a dizzying way, I hope that the Company will constantly engage in business operations with a sense of speed while balancing short-term results and long-term discussions.

Furthermore, the transmission of information is also important to make stakeholders both inside and outside the company properly understand and accept our growth strategy and scenario. My feeling is that, to a certain extent, the market has given a positive evaluation for Vision 2035. Going forward, however, I want to see the Company grasp needs through dialogue with stakeholders and steadily transmit information.

#### Strengthening of human capital in accordance with business portfolio reform

In Vision 2035, the Company presents an image of business portfolio reform from current businesses to the fields of mobility and public infrastructure. My feeling is that this image has been quite clearly set out. Amid a gradual decline in the lead-acid batteries business, which has been our mainstream business so far, Vision 2035 also outlines a strategy for improving earnings capability through the selection and concentration of business development areas. In the implementation of these strategies, the strengthening of human capital is an important management theme. First, top management and each business division are engaging in repeated discussions on the issues of human capital to match management strategy, the clarification of means of diversity, and ways to acquire and bolster insufficient human resources. I do feel that diversity and inclusion, such as proactive career recruitments and encouragement of women's participation, are being promoted with a sense of determination, but I hope that the Company will further boost diversity, including nationality and experience, in its core human resources.

In addition, in the promotion of Vision 2035, discussions are taking place to enable initiatives for materiality and their evaluation to be reflected in the remuneration system for directors, the meaning being to show that top management is making a firm commitment here. Some trial and error can be seen in the efforts of companies, including the Company, to include and operate ESG assessment in the remuneration of directors. But I propose that the Company should continue this stance, because it is an important area for the future of the company.

#### Continued scrutiny and proposals toward the visualization of overseas operation risks

Regarding overseas operation risks, which I also proposed last year, I think that improvements require a further step up the ladder. Because decisions about impairment losses at Chinese sites took an unexpectedly long time, discussions are being conducted to enable the constant forecast of risks and a swift response. In addition, I participate once a year in briefings by overseas sites, and I make efforts to offer appropriate suggestions about sites of concern. If sites can be managed with a sense of speed, I think we can achieve even better operations.

**Expectations of Vision 2035** in balancing the solution of social challenges and corporate growth

Akira Tsujiuchi **Outside Corporate Auditor** 

## Accelerating business structure reform toward realization of the desired image depicted in Vision 2035

In the process of compiling the long-term vision "Vision 2035," in addition to discussions in the Board of Directors, the latest situation was constantly shared with outside directors through meetings with the president and other forums. Going forward, as indicated by the course outlined in Vision 2035, the Company must accelerate business structure reform toward the realization of our desired image for the future. For that purpose, there will most likely be times when we have to take risks and go on the offensive. To gain the understanding and empathy of stakeholders for such decisions, I think it will be necessary for us to continue giving careful explanations of market forecasts and profitability in the lead-acid battery business, conditions in the development of lithium-ion batteries for battery electric vehicles (BEVs), strategy in such regular fields as renewable energy, and so on. Since discussions relating to capital procurement with a view to large-scale investment will be unavoidable, I intend to keep a close watch on such discussions.

I also have great expectations of the future perspective, outlined in Vision 2035, aiming for a balance between the solution of social challenges and corporate growth, and I hope that stakeholders will share them too.

## Properly displaying auditing functions to ensure sound management

We receive explanations from the accounting auditor, which changed in 2020, at appropriate times throughout the fiscal year, so communication is adequate. Within the Company as well, necessary information is properly shared with outside corporate auditors through principal meetings and databases. Also, reports on the state of implementation of internal audits are given at monthly meetings with the internal audit divisions. In the results of internal audits, no serious matters have been pointed out, and it seems that minor matters indicated are being steadily improved day by day. My view of the present situation is that internal audits taking due consideration of risk assessment are being implemented. In the future, if any sites deemed to have serious problems emerge, I think it will be necessary for us to visit them and directly check the situation.

## Aiming for an even higher level of governance

For the GS Yuasa Group to achieve sustainable growth into the future, it is necessary for us to aim for an even higher level of

As an evaluation of the Company's governance as a whole, I think that although in general we have cleared the criteria required for the Prime Market, we must aim for an even higher level of governance. From the perspective of the diversity of the Board of Directors, at present there is only one female director, an outside director. Going forward, I want to see the Company take steps toward the appointment of female internal directors by further promoting the activities of women. In addition, regarding the issue of Group governance, including overseas subsidiaries, which I alluded to last year, outside corporate auditors have become able to participate in overseas site report meetings since fiscal 2022, making it easier for us to understand the situation. governance. I will continue watching closely to see how issues are grasped and improvements tackled in a planned manner.





# Directors and Auditors (As of June 29, 2023)



#### Directors President and Representative Director

#### Osamu Murao

- Apr. 1982 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.)
- Apr. 2010 General Manager, Industrial Battery Production Division, Industrial Batteries & Power Supplies Business Unit, GS Yuasa International Ltd.
- Jun. 2011 Officer of GS Yuasa International Ltd. Jun. 2012 Director of the Company Director, GS Yuasa International Ltd.
- Jun. 2015 President of the Company (current position) Chief Executive Officer (CEO) of the Company (current position) President, GS Yuasa International Ltd. (current position)

#### Vice President and Representative Director Masahiro Shibutani

- Apr. 1984 Joined Yuasa Battery Co., Ltd.
- (currently GS Yuasa International Ltd.) Jan. 2006 General Manager,
- Finance and Accounting Division of the Company Apr. 2007 Director, GS Yuasa Accounting Service Ltd. (currently GS Yuasa International Ltd.)
- Apr. 2010 President and Director of Yuasa (Tianjin) Technoloav Ltd.
- Apr. 2012 General Manager, Corporate Office of the Company General Manager, Internal Control Office of
- the Company Jun. 2014 Officer, GS Yuasa International Ltd. Corporate Auditor, GS Yuasa Battery Ltd.
- Jun. 2016 Corporate Officer, GS Yuasa International Ltd. President, GS Yuasa Battery Ltd.
- Jun 2019 Senior Officer GS Yuasa International Ltd
- Apr. 2020 Director, GS Yuasa International Ltd. Apr. 2021 Managing Director, GS Yuasa International Ltd.
- Jun. 2021 Managing Director of the Company Jun. 2022 Senior Managing Director of the Company Senior Managing Director, GS Yuasa International Ltd
- Jun. 2023 Vice President of the Company (current position) Vice President, GS Yuasa International Ltd. (current position)

#### Director Kazuhiro Fukuoka

- Apr. 1982 Joined Japan Storage Battery Co., Ltd (currently GS Yuasa International Ltd.)
- Apr. 2004 General Manager, Corporate Strategy Management Division (Information Systems) of the Company
- Oct. 2005 Director, GS Yuasa Business Support Ltd. (currently GS Yuasa International Ltd.) Aug. 2008 Executive Vice President and Representative
- Director, Siam GS Battery Co., Ltd. Jun. 2015 Officer, GS Yuasa International Ltd.
- Jun. 2017 General Manager, Human Resources Division GS Yuasa International Ltd. (current position)
- Jun. 2019 Senior Officer, GS Yuasa International Ltd. Apr. 2020 Director, GS Yuasa International Ltd.
- (current position) Jun. 2020 Director of the Company (current position) Jun. 2023 External Audit and Supervisory Board Member. Mitsubishi Logisnext Co., Ltd. (current position)

- Director Hiroaki Matsushima Apr. 1989 Joined Yuasa Battery Co., Ltd. (currently GS Yuasa International Ltd.)
- Apr. 2015 General Manager, Corporate Office of the Company
- Jun. 2016 General Manager, Finance and Accounting Division, GS Yuasa International Ltd. (current position) Director, GS Yuasa Accounting Service Ltd.
- (currently GS Yuasa International Ltd.) Corporate Auditor, GS Yuasa Fieldings Ltd.
- Jun. 2017 Officer, GS Yuasa International Ltd. Jun. 2018 President, GS Yuasa Accounting Service Ltd. (currently GS Yuasa International Ltd.)
- Apr. 2020 Head of Corporate Office of the Company (current position)
- Apr. 2021 Director, GS Yuasa International Ltd. (current position)
- Jun. 2022 Director of the Company (current position) Chief Financial Officer (CFO) of the Company (current position)

#### Outside Director Ikuo Otani

- Mar 1976 Joined Wacoal Corp
- (currently Wacoal Holdings Corp.)
- Jun. 2004 Corporate Officer and Manager of Business Management Division, Wacoal Corp.
- Jun. 2006 Director, Corporate Officer and Supervisor of

## Business Management of Wacoal Corp.

- Apr. 2008 Director, Corporate Officer and General Manage of General Planning Department, Wacoal Corp
- Apr. 2010 Director, Corporate Officer and Supervisor of
- Accounting, Wacoal Corp. General Manager of Management Planning
- Department of Wacoal Holdings Corp. Jun. 2010 Director, Supervisor of Group Business Management and General Manager of
- Management Planning Department, Wacoa Holdings Corp. Jun. 2011 Managing Director, Wacoal Holdings Corp.
- Jun. 2012 Senior Managing Director, Wacoal Holdings Corp Jun. 2017 Outside Director of the Company
- (current position)

#### Outside Director Takayoshi Matsunaga

- Apr. 1975 Joined Sekisui Chemical Co., Ltd. Jun. 2002 Director and Senior Vice President of High Performance Plastics Company, Sekisui Chemical
- Co., Ltd. Apr. 2004 Director, person in charge of IT-Related Business Unit of High Performance Plastics Company,
- Sekisui Chemical Co., Ltd. Jun. 2004 Managing Director, person in charge of IT Business Unit of High Performance Plastics Company, Sekisui Chemical Co., Ltd.
- Apr. 2005 Executive Managing Director and President of High Performance Plastics Company, Sekisui Chemical Co., Ltd.
- Apr. 2008 Executive Managing Director, Senior Managing Executive Officer and President of High Performance Plastics Company, Sekisui Chemical Co., Ltd.
- Jun. 2008 Director, Senior Managing Executive Officer and President of High Performance Plastics Company. Sekisui Chemical Co., Ltd.
- Mar. 2014 Director and CEO's Special mission, Sekisu Chemical Co., Ltd. Jun. 2014 Audit & Supervisory Board Member, Sekisui
- Chemical Co., Ltd. Outside Audit & Supervisory Board Member Sekisui Jushi Corporation
- Jun. 2018 Outside Director of the Company (current position)

# Outside Director Yoshiko Nonogaki

- Apr. 1980 Joined Sony Corporation (currently Sony Group Corporation) Sep. 1992 President and Representative Director, Sony Poland Jul. 1994 General Manager of Sales and Marketing
- Department, Recording Media and Energy Company, Sony Corporation
- Apr. 1999 General Manager of Planning and Marketing Department, Personal IT Network Company, Sony Corporation Apr. 2006 General Manager of Business Planning
- Department, Business and Professional Solution Group, Sony Corporation Apr. 2009 Senior General Manager of Planning and
- Marketing Division, Business and Professional
- Solution Group, Sony Corporation Apr. 2013 Director of Global Diversity, Personnel HO.
- Sony Corporation Jun. 2015 Outside Director, Jolly-Pasta Co., Ltd.
- Jun. 2019 Outside Director, Nifco Inc. (current position)
- Jun. 2020 Outside Director of the Company (current position)
- Jun. 2021 Outside Director, SATO Holdings Corporation (current position)

#### Corporate Auditors

#### Corporate Auditor (Full-time) Akio Furukawa

Apr. 1981 Joined Yuasa Battery Co., Ltd. (currently GS Yuasa International Ltd.) Aug. 2003 General Manager, International Sales Department, Company Sales Unit, Power Supply System Sales Division, Yuasa Corporation (currently GS Yuasa International Ltd.) Apr. 2010 General Manager, Industrial Battery Business Promotion Division, International Business Unit, GS Yuasa International Ltd. lun 2011 Officer GS Yuasa International Ltd Apr. 2012 Deputy General Manager, International Business Unit, GS Yuasa International Ltd. Jun. 2014 Corporate Officer, GS Yuasa International Ltd. Jun. 2017 Executive Officer of the Company Jun. 2018 Director of the Company Director, GS Yuasa International Ltd

- Jun. 2023 Full-time Corporate Auditor of the Company

Aug. 2015 Division Manager of Planning Division International Business Unit, GS Yuasa International Ltd. General Manager of Strategy Planning

International Ltd.

(current position)

Systems Co., Ltd.

(current position)

(current position)

(current position)

- Department, Planning Division, International Business Unit, GS Yuasa International Ltd Jun. 2016 Officer, GS Yuasa International Ltd.
  - General Manager of Quality Management Department, Business Development Division, International Business Unit, GS Yuasa
- International I td. Apr. 2017 Division Manager of Planning Division Automotive Battery Business Unit, GS Yuasa
  - International Ltd. General Manager of Strategy Planning
  - Department, Planning Division, Automotive
- Apr. 2018 General Manager of Technical Strategic Planning Office, Global Technical Center, GS Yuasa International Ltd.
- Jun. 2021 Full-time Corporate Auditor of the Company



2 Management Strategies



Full-time Corporate Auditor, GS Yuasa International Ltd. (current position) Corporate Auditor, Lithium Energy Japan Corporate Auditor, Blue Energy Co., Ltd. Corporate Auditor, GS Yuasa Fieldings Ltd. Corporate Auditor, GS Yuasa Infrastructure

(currently GS Yuasa International Ltd.) Jun. 2023 Corporate Auditor, GS Yuasa Technology Ltd.

Corporate Auditor, GS Yuasa Battery Ltd.

Corporate Auditor, GS Yuasa Energy Co., Ltd.

#### Corporate Auditor (Full-time) Masaya Nakagawa

Apr. 1987 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.) Jul. 2008 President of GS Battery Vietnam Co., Ltd. Apr. 2015 Deputy Division Manager of Planning Division, International Business Unit of GS Yuasa

> General Manager of Technical Strategic Planning Office, Global Technical Headquarters, GS Yuasa International Ltd.

Battery Business Unit, GS Yuasa International Ltd.

Jun. 2019 Director, GS Yuasa International Ltd. Deputy Business Unit Manager of Automotive Battery Business Unit, GS Yuasa International Ltd.

(current position) Full-time Corporate Auditor, GS Yuasa International Ltd.	
(current position)	
Corporate Auditor, Lithium Energy Japan	
(current position)	
Corporate Auditor, Blue Energy Co., Ltd.	
(current position)	
Corporate Auditor, GS Yuasa Fieldings Ltd	١.
(current position)	

#### Outside Corporate Auditor (Part-time) Tsukasa Fujii

Apr. 1986	Registered as an attorney at law; Joined Keiichi Uehara Law Office
Apr. 1991	Established Tatsuno, Ozaki & Fujii Law Office, Partner Attorney of the office (current position)
Apr. 2007	Part-time lecturer of Kwansei Gakuin University Law School
Sep. 2014	Chairman of Hirakata City Building Examination Committee (current position)
Jan. 2017	Member of Committee of Experts of Osaka District Court (related to non-contentious landlord-tenant matters; current position)
Jun. 2017	Corporate Auditor of the Company (current position)
	Director, Osaka Bar Association Outside Corporate Auditor, Teijin Frontier Co., Ltd. (current position)

#### Outside Corporate Auditor (Part-time) Akira Tsujiuchi

Feb. 1978	Joined Tohmatsu Aoki & Co.(currently Deloitte Touche Tohmatsu LLC)
Mar. 1982	Registered as a certified public accountant
	Partner, Tohmatsu & Co. (currently Deloitte
	Touche Tohmatsu LLC)
Jun. 2019	Outside Director (Audit & Supervisory Committee
	Member), Estic Corporation
Jul. 2019	Head of Tsujiuchi Accounting Office
	(current position)
Jan. 2020	Outside Director, Gakujo Co., Ltd.
	(current position)
Jun. 2020	Outside Corporate Auditor, Sekisui Jushi
	Corporation (current position)
Jun. 2021	Corporate Auditor of the Company
	(current position)
Jun. 2022	Director, The Japanese Institute of Certified
	Public Accountants Kinki Chapter
	(current position)

# **Business Overview**

Business segment	Net sales / Composition of net sales (FY2022)	Main products	Main applications		Sales areas	Main custo	mers	Characteristics of the business
Automotive Batteries (Japan)	<b>¥87,802</b> million	Lead-acid batteries	Automobiles	For starting Internal combustion engines (ICE) / Vehicles with start-stop systems (ISS: idling stop systems)		For new automobiles	Japanese automakers	<ul> <li>Consistent earnings can be secured through replacement batteries</li> <li>High profit margin for lead-acid batteries for ISS</li> </ul>
	17%		00-	For auxiliary equipment Hybrid electric vehicles (HEVs) / Plug-in hybrid electric vehicles (PHEVs) / Electric vehicles (EVs)	Japan	For replacement	Distributors (electrical device shops, etc.) / Automobile accessory mass retailers / Automobile dealers / Oil refiners and sellers, etc.	<ul> <li>Figure 101 read-action bacteries for 155 vehicles</li> <li>Earnings affected by fluctuations in lead prices</li> <li>The demand period for replacements is winter</li> </ul>
			otorcycles	For starting		For new automobiles For	Japanese motorcycle makers	<ul> <li>The volume ratio of batteries for new automobiles to replacement is approximately 1:1 (the ratio varies from year to year)</li> </ul>
						replacement	Distributors, etc.	
Automotive Batteries (Overseas)	<b>¥247,329</b> million	Lead-acid batteries	Automobiles	For starting ICE / ISS vehicles		For new automobiles	Japanese automakers, etc.	<ul> <li>Earnings affected by fluctuations in lead prices</li> <li>As the foundation is local production for local consumption, the impact on foreign exchange earnings will be minimal</li> <li>Industrial lead-acid batteries are also included</li> </ul>
	48%			For auxiliary equipment HEVs / PHEVs / EVs	Overseas	For replacement	Distributors, etc. (varies by country)	<ul> <li>(Backup batteries in Europe account for the majority)</li> <li>The sales ratio from batteries for automobiles, motorcycles, and industrial applications is approximately 6:2:2 (the ratio varies from year to year)</li> </ul>
	40%	s s s s s s s s s s s s s s s s s s s	Motorcycles	For starting		For new automobiles	Japanese motorcycle makers	<ul> <li>The Company's market share and profitability in Southeast Asia are high</li> <li>Replacement batteries accounts for a large portion of</li> </ul>
				- To Statting		For replacement	Distributors, etc.	sales in Europe
Industrial Batteries and Power Supplies	<b>¥99,204</b> million	Various power supply devices (including DC power supply and UPS, etc.)	Office building	/ Power plants Emergency use field	Japan Overseas	agencies / Co Office buildir (sales are also c construction co	ectric power / Government mmunications carriers / Plants / ogs / Data centers, etc. onducted via distributors, electrical mpanies, electrical machinery and s device makers, and others)	<ul> <li>Profit margins are high as we offer a one-stop service from design to manufacturing, construction and maintenance</li> <li>Projects with high profit margin for national and local government offices are concentrated at the end of the fiscal year</li> </ul>
CALLET T	19%			e System (ESS) / nd wind power Regular use field stems			nission and distribution PC* operators / Plants /	• Expansion of business can be expected in the future
			Forklifts	For drive force	Japan Overseas (Asia)	Forklift make	ers / Maker distributors, etc.	<ul> <li>Consistent revenue can be secured through replacement batteries</li> </ul>
Automotive Lithium-ion Batteries	¥65,355 million	Lithium-ion batteries Battery type: Lithium	Automobiles	For drive force HEVs / PHEVs / Battery electric vehicles (BEVs) For starting & auxiliary equipment (12V lithium) HEVs / PHEVs / BEVs / ICE	Japan Overseas	Japanese aut	omakers, etc.	<ul> <li>In principle, it is for new automobiles only as product lifespan is long</li> <li>R&amp;D expenses are included in the segment</li> <li>Lithium-ion batteries for ESS manufacturing is also included</li> <li>Expansion of business can be expected in the future</li> </ul>
Specialized Batteries and Others	¥18,043 million	<ul> <li>Lead-acid batteries</li> <li>Lithium-ion batteries</li> <li>Specialized batteries</li> <li>Battery type: Lead-acid Lithium</li> </ul>	Submarines  Submarines  Aircrafts  Satellites	Manned research submersibles Rockets	Japan Overseas	machinery m	rernment / Electrical akers / Aircraft makers / al corporations, etc.	<ul> <li>Lithium-ion batteries for submarines are posted on a progress basis, and stable sales and profits can be acquired</li> <li>Company-wide expenses are included in the segment</li> </ul>
Battery applications       For starting       For auxiliary equipment       For starting systems for electric vehicles and backup for electrical devices       For drive force       For driving motors         Emergency use field       For backup use in case of emergencies in locations such as data centers and communication base stations       Regular use field       For daily, uninterrupted charging and discharging in renewable energy, energy management, etc.								

\* A contract format whereby engineering, procurement, and construction are contracted out as a project.







# **Financial Analysis**

#### **Financial summary for FY2022**

Both net sales and operating profit increased, mainly as a result of a higher sales volume of lithium-ion battery for HEVs, the conversion of the Group's site in Turkey into a consolidated subsidiary, and yen depreciation in foreign exchange rates. Ordinary profit was flat from the previous fiscal year due to deterioration of the share of loss of entities accounted for using equity method, primarily sites in China, increased interest expenses, and other factors. Profit attributable to owners of the parent increased due mainly to gains on sale of non-current assets and gains on sale of investment securities.

	FY2022 Actual	ΥοΥ
Net sales	¥517.7 billion	Up <b>19.8</b> % 🔶
Operating profit	¥31.5 billion	Up <b>39.0</b> % 🕇
Operating profit before amortization of goodwill	¥32.1 billion	Up <b>34.5%</b> 🔶
Ordinary profit	¥24.2 billion	Down <b>1.9</b> % 🖊
Profit attributable to owners of parent	¥13.9 billion	Up <b>64.5</b> % 🕇
Profit attributable to owners of parent before amortization of goodwill	¥14.4 billion	Up <b>52.0</b> % 🕇

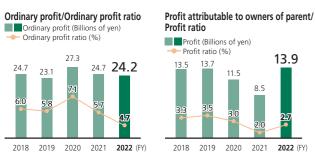
Net sales/Net sales growth rate



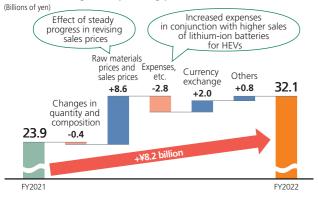


2018 2019 2020 2021 2022 (FY)

2018 2019 2020 2021 2022 (FY)



Factors in changes in operating profit (year-on-year)



Note: Operating profit is operating profit before amortization of goodwill

#### Operating results by business segment

#### Automotive batteries (Japan)

As a result of progress in revising sales prices and other factors, net sales total ¥87.8 billion (a year-on-year increase of 7.7%) and operating profit was ¥6.5 billion (a year-on-year increase of 11.4%).

#### Automotive batteries (Overseas)

As a result of the conversion of our site in Turkey into a consolidated subsidiary, sales price revisions, effects from yen depreciation, and other factors, net sales totaled ¥247.3 billion (a year-on-year increase of 32.4%) and operating profit was ¥13.3 billion (a year-on-year increase of 33.9%).

#### Industrial batteries and power supplies

Despite effects from the completion of deliveries of lithium-ion storage battery facilities for wind power generation in Hokkaido in fiscal 2021, net sales totaled ¥99.2 billion (a year-on-year decrease of 0.3%) and operating profit was ¥8.8 billion (a year-on-year increase of 52.5%) as a result of progress in revising sales prices and other factors.

#### Automotive lithium-ion batteries

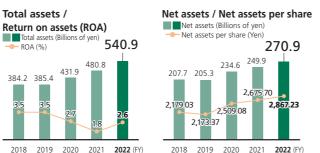
As a result of the higher sales volumes of lithium-ion batteries for HEVs and other factors, net sales totaled ¥65.4 billion (a year-on-year increase of 37.2%) and operating profit was ¥2.0 billion (a year-on-year increase of 20.1%).

#### Specialized batteries and others

As a result of higher sales volumes of lithium-ion batteries for aircraft and other factors, net sales total ¥18.0 billion (a year-on-year increase of 7.5%) and operating profit was ¥1.4 billion (a year-on-year increase of 139.3%).

#### **Financial condition**

Total assets increased as a result of increases in inventories. trade receivables, cash and deposit, and the new consolidation of the Group's business site in Turkey. Liabilities increased due to an increase in borrowings and the new consolidation of the Group's business site in Turkey. Despite the payment of dividends, net assets increased mainly as a result of higher profit attributable to owners of parent and an increase in foreign currency translation adjustments due to forex rate fluctuations.



#### Cash flow condition

Cash and cash equivalents as of March 31, 2023, amounted to ¥36.0 billion, an increase of ¥10.2 billion from the end of the previous fiscal year.

Net cash provided by operating activities amounted to ¥28.3 billion. There were main contributions from profit before income taxes and depreciation, partially offset by increases in trade receivables and inventories and the payment of income taxes.

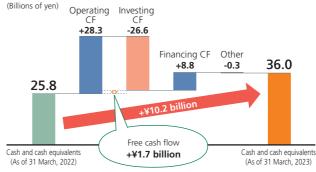
Net cash used in investing activities totaled ¥26.6 billion. The main cash outflow from investments was purchase of property, plant and equipment.

Net cash provided by financing activities amounted to ¥8.8 billion. The main cash outflow was dividends paid. An increase in borrowings was the main source of inflows. Free cash flow was positive ¥1.7 billion, which was used for shareholder returns and other purposes, together with borrowings.

#### Cash flows from operating activities, investing activities, and financing activities Operating activities I Investing activities Financing activities — Free cash flow



#### Cash flow statement



## Financial forecast for FY2023

In fiscal 2023, the initial year of the Sixth Mid-Term Management Plan, we will seek net sales of ¥580.0 billion, operating profit of ¥33.0 billion, and operating profit before amortization of goodwill of ¥34.0 billion. We will seek to secure profits by increasing sales of lithium-ion batteries for HEVs and sales in regular field including ESS, revising sales prices in response to various cost increases, and taking action to reduce costs.

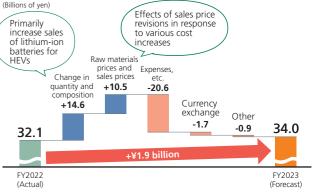




4

	FY2023 forecast	ΥοΥ
Net sales	¥580.0 billion	Up <b>12.0</b> % 🔶
Operating profit	¥33.0 billion	Up <b>4.8</b> % 🕇
Operating profit before amortization of goodwill	¥34.0 billion	Up <b>6.0%</b> 🕇
Ordinary profit	¥27.0 billion	up 11.5 % 🔶
Profit attributable to owners of parent	¥14.0 billion	Up 0.5 % 🔶
Profit attributable to owners of parent before amortization of goodwill	¥15.0 billion	Up <b>3.9</b> % 🕇

Factors in changes in operating profit (comparison of results with forecasts)



Note: Operating profit is operating profit before amortization of goodwil

## Shareholder returns

The company considers the return of profits to shareholders to be a priority management issue, and maintain growth into the future and securing stable shareholder returns over the long term is a fundamental policy. To achieve this, in principle, we decide the level of dividends based on a comprehensive analysis of earnings results, financial condition, the dividend payout ratio, and other factors. Internal reserves are used to improve future earnings by maintaining and enhancing investments and competitiveness. In fiscal 2022, we achieved our initial target for profit attributable to owners of parent and accordingly, the Company paid an annual dividend of ¥50 per share. In fiscal 2023, assuming that the forecast profits are achieved, the Company plans to pay an interim dividend per share of ¥15 and a year-end dividend per share of ¥35 to provide an annual dividend per share of ¥50.

#### Dividend per share/Total payout ratio



Note: The total payout ratio is before goodwill amortization

#### **Financial information**

**Preparation of consolidated financial statements** The accompanying consolidated financial statements of GS Yuasa Corporation (the "Company") have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in accordance with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements from International Financial Reporting Standards. The Company's consolidated financial statements are prepared in line with "Regulation on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements" (Ministry of Finance Order No. 28 of 1976).

# **Consolidated Balance Sheets**

		(Million	(Thousands of U.S. dollars)			
		As of h 31, 2023		As of h 31, 2022		As of h 31, 2023
	A	mount	Д	mount	A	mount
Assets						
Current assets						
Cash and deposits	*4	36,272	*4	25,855	*4	271,700
Notes and accounts receivable - trade, and contract assets	*2, *4	97,591	*2, *4	85,399	*2, *4	731,019
Electronically recorded monetary claims - operating		6,855		7,163		51,348
Merchandise and finished goods	*4	60,127	*4	54,986	*4	450,390
Work in process		21,848	*4	19,236		163,655
Raw materials and supplies	*4	28,094	*4	18,828	*4	210,442
Other		15,722		15,249		117,768
Allowance for doubtful accounts		(387)		(418)		(2,899)
Total current assets		266,125		226,300		1,993,446
Non-current assets						
Property, plant and equipment						
Buildings and structures, net	*4, *9	60,135	*4, *9	56,279	*4, *9	450,449
Machinery, equipment and vehicles, net	*4, *9	51,036	*4, *9	37,108	*4, *9	382,292
Land	*8	28,390	*8	23,335	*8	212,659
Leased assets, net		222		284		1,663
Right-of-use assets, net		7,946		5,398		59,521
Construction in progress		10,985		15,315		82,285
Other, net	*4, *9	6,326	*9	5,284	*4, *9	47,386
Total property, plant and equipment	*1	165,043	*1	143,007	*1	1,236,277
Intangible assets						
Goodwill		1,233		-		9,236
Leased assets		673		825		5,041
Other		3,333	*4	2,069		24,966
Total intangible assets		5,240		2,894		39,251
Investments and other assets						
Investment securities	*5	63,254	*5	66,319	*5	473,813
Investments in capital	*5	839	*5	940	*5	6,285
Long-term loans receivable		1,076		1,116		8,060
Retirement benefit asset		31,894		32,954		238,906
Deferred tax assets		2,077		2,338		15,558
Lease receivables		2,694		2,635		20,180
Other		2,977		2,538		22,300
Allowance for doubtful accounts		(344)		(322)		(2,577)
Total investments and other assets		104,470		108,520		782,547
Total non-current assets		274,754		254,423		2,058,082
Deferred assets						
Bond issuance costs		26		39		195
Total deferred assets		26		39		195
Total assets		540,906		480,763		4,051,730

Liabilities	_
Current liabilities	
Notes and accounts payable - trade	
Electronically recorded obligations - operating	
Short-term borrowings	
Commercial papers	
Current portion of bonds payable	
Accounts payable - other	
Income taxes payable	
Notes payable - facilities	
Electronically recorded obligations - facilities	
Provision for bonuses for directors (and other officers)	
Other	
Total current liabilities	
Non-current liabilities	
Bonds payable	
Long-term borrowings	
Lease liabilities	
Deferred tax liabilities	
Deferred tax liabilities for land revaluation	
Provision for retirement benefits for directors (and other officers)	
Retirement benefit liability	
Other	
Total non-current liabilities	
Total liabilities	
Net assets	
Shareholders' equity	
Share capital	
Capital surplus	
Retained earnings	
Treasury shares	
Total shareholders' equity	
Accumulated other comprehensive income	
Valuation difference on available-for-sale securities	
Deferred gains or losses on hedges	
Revaluation reserve for land	
Foreign currency translation adjustment	
Remeasurements of defined benefit plans	
Total accumulated other comprehensive income	
Non-controlling interests	
Total net assets	
Total liabilities and net assets	

(Millions of yen)



(Thousands of U.S. dollars)

As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Amount	Amount	Amount
51,691	44,174	387,199
25,327	19,861	189,715
*4 42,318	*4 18,782	*4 316,989
-	2,000	-
10,000	-	74,906
14,225	12,041	106,554
4,081	2,857	30,569
192	274	1,438
3,539	6,821	26,509
120	120	899
*3 23,816	*3 22,444	* <sup>3</sup> 178,397
175,312	129,376	1,313,199
10,000	20,000	74,906
41,357	41,696	309,790
8,510	6,100	63,745
20,474	19,910	153,363
*8 777	*8 928	*8 <b>5,820</b>
78	67	584
5,372	4,892	40,240
8,133	7,852	60,921
94,704	101,447	709,393
270,016	230,824	2,022,592
33,021	33,021	247,348
53,201	55,292	398,509
103,503	93,661	775,303
(321)	(351)	(2,404)
189,404	181,623	1,418,757
14,173	16,180	106,165
(450)	(794)	(3,371)
*8 1,794	*8 2,137	<sup>*8</sup> <b>13,438</b>
18,727	7,163	140,277
7,026	8,922	52,629
41,272	33,609	309,154
40,213	34,705	301,221
270,890	249,938	2,029,139
540,906	480,763	4,051,730

# **Consolidated Statements of Income**

	(Million	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
	Amount	Amount	Amount
Net sales	*1 <b>517,735</b>	*1 432,133	*1 <b>3,878,165</b>
Cost of sales	*3 404,506	*3 335,359	*3 3,030,007
Gross profit	113,228	96,773	848,150
Selling, general and administrative expenses	*2, *3 <b>81,728</b>	*2, *3 74,108	*2, *3 <b>612,195</b>
Operating profit	31,500	22,664	235,955
Non-operating income			
Interest income	390	198	2,921
Dividend income	634	483	4,749
Share of profit of entities accounted for using equity method	-	2,590	-
Gain on net monetary position	585	-	4,382
Other	746	722	5,588
Total non-operating income	2,357	3,995	17,655
Non-operating expenses			
Interest expenses	3,295	946	24,682
Share of loss of entities accounted for using equity method	2,832	-	21,213
Foreign exchange losses	1,677	103	12,562
Equipment relocation expenses	-	227	-
Other	1,837	698	13,760
Total non-operating expenses	9,643	1,976	72,232
Ordinary profit	24,213	24,684	181,371
Extraordinary income			
Gain on sale of non-current assets	*4 <b>2,876</b>	*4 668	*4 21,543
Gain on sale of investment securities	2,185	116	16,367
Insurance claim income	43	-	322
Gain on receipt of national subsidies	352	-	2,637
Gain on step acquisitions	1,010	-	7,566
Gain on liquidation of subsidiaries	473	-	3,543
Gain on bargain purchase	-	710	-
Gain on sale of investments in capital of subsidiaries	-	547	-
Gain on reversal of loss on liquidation of subsidiaries and associates	-	325	-
Other	-	5	-
Total extraordinary income	6,941	2,372	51,993
Extraordinary losses			
Loss on retirement of non-current assets	*5 <b>576</b>	*5 715	*5 <b>4,315</b>
Loss on sale of non-current assets	*6 <b>14</b>	*6 47	*6 <b>105</b>
Loss on tax purpose reduction entry of non-current assets	384	-	2,876
Impairment losses	*7 <b>2,912</b>	*7 5,779	*7 <b>21,813</b>
Loss on business liquidation of subsidiaries and associates	113	-	846
Loss on valuation of investment securities	-	28	-
Factory relocation expenses	-	1,239	-
Other	18	-	135
Total extraordinary losses	4,018	7,810	30,097
Profit before income taxes	27,137	19,246	203,273
Income taxes - current	7,571	5,583	56,712
Income taxes - deferred	1,027	1,066	7,693
Total income taxes	8,599	6,650	64,412
Profit	18,537	12,595	138,854
Profit attributable to non-controlling interests	4,611	4,127	34,539
Profit attributable to owners of parent	13,925	8,468	104,307

# **Consolidated Statements of Comprehensive Income**

	(Million	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
	Amount	Amount	Amount
Profit	18,537	12,595	138,854
Other comprehensive income			
Valuation difference on available-for-sale securities	(2,009)	(1,016)	(15,049)
Deferred gains or losses on hedges	3	22	22
Foreign currency translation adjustment	8,547	6,825	64,022
Remeasurements of defined benefit plans, net of tax	(1,901)	5,822	(14,240)
Share of other comprehensive income of entities accounted for using equity method	2,412	796	18,067
Total other comprehensive income	* 7,052	* 12,451	* 52,824
Comprehensive income	25,590	25,047	191,685
Comprehensive income attributable to			
Comprehensive income attributable to owners of parent	19,912	19,369	149,154
Comprehensive income attributable to non-controlling interests	5,678	5,678	42,532

# **Consolidated Statements of Changes in Net Assets**

Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

rear ended March 31, 2023 (April 1, 2022 to March 31, 2023)													
	(Millions of yen)					(Millions of yen)							
	Shareholders' equity Accumulated other comprehensive income												
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehen- sive income	Non-controlling interests	Total net assets
Balance at beginning of period	33,021	55,292	93,661	(351)	181,623	16,180	(794)	2,137	7,163	8,922	33,609	34,705	249,938
Hyperinflation adjustment			(401)		(401)				2,019		2,019		1,617
Beginning balance reflecting hyperinflation adjustments	33,021	55,292	93,259	(351)	181,222	16,180	(794)	2,137	9,182	8,922	35,628	34,705	251,556
Changes during period													
Dividends of surplus			(4,025)		(4,025)								(4,025)
Profit attributable to owners of parent			13,925		13,925								13,925
Purchase of treasury shares				(2)	(2)								(2)
Disposal of treasury shares		(0)		32	32								32
Transfer from retained earnings to capital surplus		0	(0)		-								-
Purchase of investments in capital of consolidated subsidiaries		(2,091)			(2,091)								(2,091)
Reversal of revaluation reserve for land			342		342								342
Net changes in items other than shareholders' equity					-	(2,006)	343	(342)	9,544	(1,895)	5,643	5,507	11,151
Total changes during period	-	(2,091)	10,243	30	8,182	(2,006)	343	(342)	9,544	(1,895)	5,643	5,507	19,333
Balance at end of period	33,021	53,201	103,503	(321)	189,404	14,173	(450)	1,794	18,727	7,026	41,272	40,213	270,890

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

	(Millions of yen)				(Millions of yen)								
		Shareholders' equity					Accumulated other	er comprehensive inc	ome				
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities		Revaluation reserve for land	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehen- sive income	Non-controlling interests	Total net assets
Balance at beginning of period	33,021	55,301	95,869	(4,654)	179,537	17,171	(115)	2,137	417	3,098	22,708	32,324	234,570
Cumulative effects of changes in accounting policies			(643)		(643)						-		(643)
Restated balance at beginning of period	33,021	55,301	95,225	(4,654)	178,893	17,171	(115)	2,137	417	3,098	22,708	32,324	233,927
Changes during period													
Dividends of surplus			(5,241)		(5,241)								(5,241)
Profit attributable to owners of parent			8,468		8,468								8,468
Purchase of treasury shares				(503)	(503)								(503)
Disposal of treasury shares		0		6	6								6
Cancellation of treasury shares		(4,799)		4,799	-								-
Transfer from retained earnings to capital surplus		4,791	(4,791)		-								-
Net changes in items other than shareholders' equity					-	(990)	(678)		6,746	5,823	10,901	2,380	13,281
Total changes during period	-	(8)	(1,564)	4,302	2,729	(990)	(678)	-	6,746	5,823	10,901	2,380	16,011
Balance at end of period	33,021	55,292	93,661	(351)	181,623	16,180	(794)	2,137	7,163	8,922	33,609	34,705	249,938

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

·	(Thousands of U.S. dollars)					(Thousands of U.S. dollars)							
		Shareholders' equity			Accumulated other comprehensive income								
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehen- sive income	Non-controlling interests	Total net assets
Balance at beginning of period	247,348	414,172	701,581	(2,629)	1,360,472	121,199	(5,948)	16,007	53,655	66,831	251,753	259,963	1,872,195
Hyperinflation adjustment			(3,004)		(3,004)				15,124		15,124		12,112
Beginning balance reflecting hyperinflation adjustments	247,348	414,172	698,569	(2,629)	1,357,468	121,199	(5,948)	16,007	68,779	66,831	266,876	259,963	1,884,315
Changes during period													
Dividends of surplus			(30,150)		(30,150)								(30,150)
Profit attributable to owners of parent			104,307		104,307								104,307
Purchase of treasury shares				(15)	(15)								(15)
Disposal of treasury shares		(0)		240	240								240
Transfer from retained earnings to capital surplus		0	(0)		-								-
Purchase of investments in capital of consolidated subsidiaries		(15,663)			(15,663)								(15,663)
Reversal of revaluation reserve for land			2,562		2,562								2,562
Net changes in items other than shareholders' equity					-	(15,026)	2,569	(2,562)	71,491	(14,195)	42,270	41,251	83,528
Total changes during period	-	(15,663)	76,727	225	61,288	(15,026)	2,569	(2,562)	71,491	(14,195)	42,270	41,251	144,816
Balance at end of period	247,348	398,509	775,303	(2,404)	1,418,757	106,165	(3,371)	13,438	140,277	52,629	309,154	301,221	2,029,139

# **Consolidated Statements of Cash Flows**

	(Millions	(Thousands of U.S. dolla	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
	Amount	Amount	Amount
Cash flows from operating activities			
Profit before income taxes	27,137	19,246	203,273
Depreciation	20,954	18,207	156,959
Impairment losses	2,912	5,779	21,813
Amortization of goodwill	308	659	2,307
Loss (gain) on valuation of investment securities	-	28	-
Loss (gain) on sale of investment securities	(2,185)	(116)	(16,367
Gain on sale of investments in capital of subsidiaries	-	(547)	-
Loss (gain) on liquidation of subsidiaries	(473)	-	(3,543
Increase (decrease) in allowance for doubtful accounts	(16)	40	(120
Increase (decrease) in retirement benefit liability	(1,477)	(86)	(11,064
Interest and dividend income	(1,024)	(681)	(7,670
Interest expenses	3,295	946	24,682
Foreign exchange losses (gains)	433	(956)	3,243
Loss (gain) on sale of non-current assets	(2,862)	(621)	(21,438
Loss on retirement of non-current assets	576	715	4,315
Gain on bargain purchase	-	(710)	
Factory relocation expenses	-	1,239	
Loss on tax purpose reduction entry of non-current assets	384	-	2,870
Gain on receipt of national subsidies	(352)	-	(2,637
Share of loss (profit) of entities accounted for using equity method	2,832	(2,590)	21,213
Gain on net monetary position	(585)	-	(4,382
Loss (gain) on step acquisitions	(1,010)	-	(7,566
Decrease (increase) in trade receivables and contract assets	(5,378)	(5,579)	(40,285
Increase (decrease) in contract liabilities	73	740	547
Decrease (increase) in inventories	(10,857)	(18,794)	(81,326
Increase (decrease) in trade payables	2,934	7,597	21,978
Other, net	(139)	(2,658)	(1,041
Subtotal	35,478	21,856	265,753
Interest and dividends received	1,912	1,524	14,322
Interest paid	(3,295)	(946)	(24,682
Factory relocation expenses paid	-	(237)	-
Income taxes paid	(5,764)	(9,318)	(43,176
Net cash provided by (used in) operating activities	28,330	12,879	212,210

	(Millions	(Thousands of U.S. dollars)		
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023	
	Amount	Amount	Amount	
Cash flows from investing activities				
Purchase of property, plant and equipment	(30,928)	(27,024)	(231,670)	
Proceeds from sale of property, plant and equipment	4,050	706	30,337	
Purchase of intangible assets	(623)	(143)	(4,667)	
Purchase of investment securities	(2)	(2)	(15)	
Proceeds from sale of investment securities	2,926	149	21,918	
Purchase of shares of subsidiaries resulting in change in scope of consolidation	*2 (447)	*2 (2,819)	*2 (3,348)	
Payments for investments in capital of subsidiaries and associates	(1,560)	-	(11,685)	
Purchase of shares of subsidiaries and associates	-	(150)	-	
Subsidies received	352	-	2,637	
Loan advances	(5)	(480)	(37)	
Proceeds from collection of loans receivable	77	185	577	
Other, net	(405)	(624)	(3,034)	
Net cash provided by (used in) investing activities	(26,567)	(30,204)	(199,004)	
Cash flows from financing activities				
Increase (decrease) in short-term borrowings and commercial papers	13,516	10,657	101,243	
Proceeds from long-term borrowings	10,774	12,365	80,704	
Repayments of long-term borrowings	(3,857)	(7,481)	(28,891)	
Purchase of treasury shares	(2)	(503)	(15)	
Proceeds from disposal of treasury shares	32	6	240	
Dividends paid	(4,025)	(5,241)	(30,150)	
Dividends paid to non-controlling interests	(4,366)	(3,271)	(32,704)	
Purchase of investments in capital of subsidiaries not resulting in change in scope of consolidation	(2,230)	-	(16,704)	
Other, net	(1,014)	(1,328)	(7,596)	
Net cash provided by (used in) financing activities	8,826	5,203	66,112	
Effect of exchange rate change on cash and cash equivalents	692	2,159	5,184	
Adjustment for hyperinflation	(1,099)	-	(8,232)	
Net increase (decrease) in cash and cash equivalents	10,182	(9,962)	76,270	
Cash and cash equivalents at beginning of period	25,845	35,807	193,596	
Cash and cash equivalents at end of period	*1 36,027	*1 25,845	*1 269,865	



#### Basis of preparation of consolidated financial statements

#### 1. Scope of consolidation

#### (1) Number of consolidated subsidiaries: Fifty-three (53) companies

In the fiscal year ended March 31, 2023, following the additional acquisition of shares in Inci GS Yuasa Akü Sanayi ve Ticaret Anonim Sirketi and the company's subsequent consolidation as a subsidiary, it was included in the scope of consolidation. In addition, YTTL International Holding Ltd., which was a consolidated subsidiary, was liquidated, and was therefore excluded from the scope of consolidation.

#### (2) Number of non-consolidated subsidiaries: Five (5) companies

The main non-consolidated subsidiary is GS Yuasa Chuo Sales Ltd.

These non-consolidated subsidiaries are small in scale and their operations have no material impact on the consolidated financial statements in terms of total assets, net sales, profit/loss (amounts attributable to the equity) and retained earnings (amounts attributable to the equity) and are therefore excluded from the scope of consolidation.

#### 2. Application of the equity method

- (1) Number of non-consolidated subsidiaries and associates accounted for using the equity method: Twelve (12) companies Following the acquisition of additional shares in Inci GS Yuasa Akü Sanayi ve Ticaret Anonim Sirketi and the company's subsequent consolidation as a subsidiary, it was excluded from the scope of application of the equity method.
- (2) Five (5) non-consolidated subsidiaries and five (5) associates are not accounted for under the equity method because they are insignificant in terms of their impact on the Company's consolidated profit/loss (amounts attributable to the equity) and consolidated retained earnings (amounts attributable to the equity), as well as in terms of their importance to the Group.
- (3) For companies accounted for by the equity method with fiscal year-end dates that differ from the consolidated fiscal year-end date, the financial statements that were closed at their fiscal year-end dates or provisionally closed at the consolidated fiscal year-end date were used for consolidation.

#### 3. Fiscal year-end date of consolidated subsidiaries and related matters

The fiscal year-end date for Yuasa Battery (Thailand) Pub. Co., Ltd. is December 31. Consolidated financial statements were prepared using its financial statements as of its fiscal year-end date instead of using its financial statements provisionally closed at the consolidated fiscal year-end date. However, for important transactions that took place between the fiscal year-end date of this company and the consolidated year-end date, adjustments necessary for consolidation were performed.

#### 4. Accounting policies

#### (1) Valuation standards and methods for principal assets

#### (i) Securities

- a Subsidiaries' and associates' shares
- The moving-average method is used.
- b Available-for-sale securities
- Marketable securities:

Marketable securities are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported as a separate component of net assets. The cost of securities sold is determined based on the moving average method. Non-marketable securities:

The moving-average method is used.

#### (ii) Derivatives

Derivatives are measured at fair value.

#### (iii) Inventories

Merchandise and finished goods, work in process, raw materials and supplies: Inventories are principally stated at the lower of cost, determined by the average method, or net realizable value.

#### (2) Depreciation/amortization of principal non-current assets

#### (i) Property, plant and equipment (except for leased assets)

The straight-line method is used.

Assets held by the Company or its domestic consolidated subsidiaries with an acquisition price of ¥100 thousand or more and less than ¥200 thousand are depreciated using the straight-line method over three years. The principal useful lives are as follows.

#### Buildings and structures : 5 to 50 years

Machinery, equipment and vehicles : 2 to 18 years

#### (ii) Intangible assets (except for leased assets)

#### The straight-line method is used.

#### (iii) Leased assets

Finance leases for which ownership of the leased assets does not transfer to the lessees, these assets are depreciated using the straight-line method with the lease term as the useful life and assuming no residual value.

#### (iv) Right-of-use assets

The straight-line method is used based on the lease term.

#### (3) Amortization method for deferred assets

Bond issuance costs are amortized with the straight-line method over the bond redemption period (5 and 10 years) in accordance with ASBJ PITF No. 19, Tentative Solution on Accounting for Deferred Assets, which was issued by the ASBJ in August 2006.

#### (4) Accounting standards for principal provisions and allowances (i) Allowance for doubtful accounts

The Company and its domestic consolidated subsidiaries provide allowances for the amount not expected to be recovered from doubtful receivables based on the historical loan-loss ratio. For loans and receivables requiring special attention, an allowance is provided for the estimated uncollectible amounts after reviewing the collectability of receivables individually. Foreign consolidated subsidiaries provide allowances for doubtful accounts estimated mainly through the analysis of individual receivables.

#### (ii) Provision for bonuses for directors (and other officers)

To prepare for the payment of bonuses to directors, a provision is recorded based on the amount expected to be paid. (iii) Provision for retirement benefits for directors (and other officers)

To prepare for the payment of retirement benefits for directors and executive officers, the necessary amount at the end of the fiscal year is recorded in accordance with internal regulations of certain consolidated subsidiaries.

#### (5) Accounting treatment for retirement benefits

To prepare for the payment of employee retirement benefits, retirement benefit liability was recorded in the amount calculated by subtracting the value of plan assets from the amount of retirement benefit obligations estimated on March 31, 2023.

## (i) The method for attributing expected pension benefits to periods of employee service

For the calculation of retirement benefit obligations, a benefit formula is applied to attribute expected pension benefits for the period up to the end of the fiscal year under review (March 31, 2023).

#### (ii) Actuarial gains or losses and past service cost

The amounts of retirement benefit plans of some subsidiaries with an established retirement benefits trust are recorded to expenses

the average remaining service periods of employees at the time when the service cost was incurred. Actuarial gains or losses are amortized from the fiscal year that starts after the accrual of the gains or losses using the straight-line method over a certain number of years (mainly 9 to 14 years) within the average remaining service periods of the employees who will receive the benefits.

Unrecognized actuarial gains or losses and unrecognized past service cost are recorded in accumulated other comprehensive income of the net assets under the account "remeasurements of defined benefit plans" after being adjusted with tax effects.

#### (6) Standards for recognition of principal revenues and expenses

The details of the main performance obligations related to revenues from contracts with customers of the Company and its consolidated subsidiaries and the timing when the Company typically satisfies its performance obligations (typical timing of revenue recognition), etc., are as follows.

Consideration for these performance obligations is received within approximately one year after they are satisfied, and does not include any significant financial component.

#### (i) Sale of goods and products

The main business of the Company and its consolidated subsidiaries is the manufacture and sale of batteries, power supplies, lighting equipment and other battery and electrical equipment. The Company recognizes revenue from the sale of such merchandise and finished goods once its obligations have been satisfied and control has been transferred to the customer. As



- Past service cost is amortized using mainly the straight-line method over a certain number of years (14 years), which is within

a rule, this is at the point in time at which the merchandise and finished goods have been delivered or at the point in time as specified in International Commercial Terms. The Company recognizes revenue upon shipment for domestic transactions when control over the finished goods is transferred to customers in a typical period after the shipment, in line with Paragraph 98 of the Implementation Guidance on Accounting Standard for Revenue Recognition.

Sales contracts for batteries and other items include variable consideration because they are sold with discounts based on the sales volume. When selling with a discount, the transaction price is calculated by deducting the estimated amount of the discount, etc., from the consideration promised with the customer in the contract.

#### (ii) Provision of services

The Company and its consolidated subsidiaries provide services, such as work related to the installation of batteries and power supplies. With regard to such installation work, etc., the performance obligation is considered to be satisfied when the provision of services is completed, and revenue is recognized at that time.

Batteries, equipment, etc., and contract work, etc., are usually sold together. For transactions in which delivery and installation work are identified as separate performance obligations, transaction prices are allocated to each performance obligation by using the observable prices such as the contractually stated price or the stand-alone selling price estimated by the sum of the expected cost of the finished goods plus an appropriate margin.

#### (7) Standards for translating principal assets or liabilities denominated in foreign currencies into Japanese yen

Foreign currency denominated receivables and payables are translated into Japanese yen at the spot rate prevailing on the consolidated balance sheet date. Foreign exchange gains or losses are recorded on the statement of income. The assets and liabilities of foreign consolidated subsidiaries are also translated into Japanese yen at the spot rate prevailing on the balance sheet date, while their revenues and expenses are translated into Japanese yen at the average rate for the period. Any translation gains or losses are recorded in the net assets under the account "foreign currency translation adjustment" and "non-controlling interests."

However, revenues and expenses of subsidiaries operating in hyperinflationary economies are translated into Japanese yen at the spot rate prevailing on the consolidated balance sheet date, as hyperinflationary accounting will be applied.

#### (8) Significant hedge accounting

#### (i) Hedge accounting method

If derivatives used for hedging purposes qualify for hedge accounting because of the high correlation and effectiveness between the hedging instruments and the hedged items, gains or losses on those derivatives are deferred until the maturity of the hedged transactions. When a foreign exchange forward contract meets certain conditions, the hedged item is stated at the forward exchange contract rate. Interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not remeasured at market value, but the differential paid or received under the swap agreements is recognized and included in interest expense (a specific accounting method).

#### (ii) Hedging instruments and hedged items

Hedging instruments : Interest rate swaps, foreign exchange forward contracts, commodity price swaps, and foreign currency swaps

Hedged items : Interest on borrowings, foreign currency denominated receivables and payables, and trade payables

#### (iii) Hedging policy

a In accordance with internal rules, the Company utilizes interest rate swaps whose notional amounts, conditions for receiving and paying interests, and contract terms, etc. match those of the hedged items, as hedging instruments in order to reduce the risk of interest rate fluctuations.

b The Company utilizes foreign exchange forward contracts and foreign currency swap contracts with an aim to reduce the risks associated with future foreign exchange rate fluctuations against import/export transactions and foreign currency denominated debt that are conducted or incurred in the ordinary course of business.

c The Company utilizes commodity price swaps to reduce price fluctuation risks for lead, etc., the principal raw material for its business.

#### (iv) Method for evaluating hedge effectiveness

The Company evaluates hedge effectiveness by comparing the accumulated change in market values of the hedging instrument and of the hedged item over the period from the inception of the hedging relationship to the time for evaluation. For interest rate swaps which adopt a specific accounting method, evaluation of hedge effectiveness is omitted.

#### (9) Amortization method and period for goodwill

Goodwill is amortized on a straight-line basis over a period of five years.

#### (10) Scope of cash and cash equivalents in the consolidated statements of cash flows

Cash and cash equivalents in the consolidated statements of cash flows are composed of cash on hand, bank deposits able to be withdrawn on demand, and short-term investments with maturities of three months or less at the date of acquisition that represent a minor risk of fluctuation in value.

#### (11) Research and Development Expenses

Research and development expenses are charged to income as incurred.

#### (12) Increases/Decreases and Transfer of Common Stock, Reserve, and Surplus

Under Japanese laws and regulations, the entire amount paid for new shares is required to be designated as capital stock. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one half of the price of the new shares as additional paid-in capital, which is included in capital surplus. The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus) depending on the equity account charged upon the payment of such dividends until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts within equity under certain conditions upon resolution of the shareholders.

#### (13) Other important information on preparation of the Consolidated Financial Statements

Accounting procedures in hyperinflationary economies During the fiscal year ended March 31, 2023, since the cumulative three-year inflation rate in Turkey exceeded 100%, the GS Yuasa Group determined that its subsidiary in Turkey, whose functional currency is the Turkish lira, is operating in a hyperinflationary economy. Therefore, the GS Yuasa Group has made accounting adjustments to the financial statements of its Turkish subsidiary in accordance with the requirements set forth in IAS 29 "Financial Reporting in Hyperinflationary Economies." IAS 29 requires that the financial statements of subsidiaries in a hyperinflationary economy be restated by applying the unit of measurement as of the end of the reporting period before inclusion in the consolidated financial statements. The Group uses conversion factors calculated from the Consumer Price Index (CPI) of Turkey published by the Turkish Statistical Institute (TURKSTAT) for the purpose of adjusting the financial statements of its subsidiary in Turkey. For the subsidiary in Turkey, non-monetary items such as property, plant, and equipment presented at cost are adjusted using conversion factors based on the acquisition date or the reevaluation date. Monetary and non-monetary items presented at current cost are not adjusted, since they are considered to be presented in the unit of measurement as of the end of the reporting period. The effect of inflation on net monetary items is presented in non-operating income/expense in the consolidated statements of income. The financial statements of the Turkish subsidiary are translated into Japanese yen at the spot rate prevailing on the consolidated balance sheet date and reflected in the consolidated financial statements of the GS Yuasa Group. In line with this, the cumulative effect of retrospective application of this accounting standard was a decrease of ¥401 million (US\$3,004 thousand) in the beginning balance of retained earnings and an increase of ¥2,019 million (US\$15,124 thousand) in the beginning balance of foreign currency translation adjustments for the fiscal year ended March 31, 2023.







#### Significant accounting estimates

#### Valuation of non-current assets

(1) Amount recorded on consolidated financial statements for the current fiscal year

	(Millions	(Thousands of U.S. dollars)		
	Current fiscal year	Current fiscal year		
Property, plant and equipment	165,043	143,007	1,236,277	
Intangible assets	5,240	39,251		
Impairment losses	2,912	21,813		

#### (2) Information on the nature of significant accounting estimates for identified items

#### (i) Method in making the accounting estimates

The Group applies Japanese accounting standards for Japanese bases and International Financial Reporting Standards, etc., for overseas bases in line with Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries, etc., for Consolidated Financial Statements (PITF No. 18).

When considering impairment losses on non-current assets, for assets used for business, the assets are grouped based on a unit such as a business category used for managerial accounting, the smallest unit that generates an independent cash flow. Real estate for rent and idle assets are grouped individually.

The Company assesses whether there is any indication that non-current assets may be impaired at the end of the current fiscal year. An indication of impairment is determined if operating profit or loss will result in continued loss, there is a prominent deterioration in the business environment, and there is a prominent decline in the market value of non-current assets, etc. However, when new businesses are launched, if a rational business plan is formulated, and from the beginning, it is projected that sales activities will result in sustained losses, this is not an indication of impairment unless actual losses are dramatically greater than the projected losses in the business plan.

Asset groups are tested for impairment when there is an indication that an asset may be impaired. If the recoverable amount of the asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable amount. The recoverable amount is the higher of the asset's value in use and net realizable value (for Japanese accounting standards) or the asset's fair value less costs of disposal (for International Financial Reporting Standards). When calculating the value in use, there are certain assumptions regarding future cash flows, discount rate, etc.

#### (ii) Key assumptions used in accounting estimates

The business plan and other items used to determine indications of impairment and calculate the value in use are based on forecasts of sales and sales expense, etc., that take into consideration sales volume and unit selling price projections and other items. The discount rate used to calculate value in use is based on the weighted average cost of capital.

Furthermore, the net realizable value or the asset's fair value less costs of disposal used to recognize and measure impairment losses is based on the roadside price, appraisal value obtained from an external asset appraisal expert, and other items.

#### (iii) Impact on the consolidated financial statements for the following fiscal year

Indications of impairment of non-current assets and recognition and measurements of impairment losses are based on management's best estimates, but there is the uncertainty in management's assumptions and judgments. If future stricter environmental regulations, the impact on the market environment of fiercer price competition with rivals in the same industry, or other developments result in significant changes in the assumptions and conditions incorporated into business plans, appraisal values, and other items that are part of the assumptions used for estimates, this could have a significant impact on the valuation of non-current assets in the following fiscal year.

#### Changes in accounting policies

#### Application of Implementation Guidance on Accounting Standard for Fair Value Measurement

The Company has applied the Implementation Guidance on Accounting Standard for Fair Value Measurement (ASBJ Guidance No. 31, June 17, 2021; hereinafter "Implementation Guidance No. 31") from the beginning of the fiscal year ended March 31, 2023, and in accordance with the transitional measures set forth in paragraph 27-2 of Implementation Guidance No. 31, the new accounting policy stipulated in Implementation Guidance No. 31 shall be applied going forward.

The application of the above policy has no material impact on the consolidated financial statements.

#### Accounting standards issued but not yet applied

#### Accounting Standard for Current Income Taxes, etc.

- Accounting Standard for Current Income Taxes (ASBJ Statement No. 27, October 28, 2022)
- Accounting Standard for Presentation of Comprehensive Income (ASBJ Statement No. 25, October 28, 2022)

• Guidance on Accounting Standard for Tax Effect Accounting (ASBJ Guidance No. 28, October 28, 2022) (1) Overview

The Accounting Standard for Current Income Taxes and relevant ASBJ regulations stipulate the categories for calculation of income taxes when levied on other comprehensive income and the treatment of tax effects related to the sale of shares of subsidiaries, etc. when the group income tax system is applied.

#### (2) Scheduled date of application

These accounting standards and relevant ASBJ regulations will be applied from the beginning of the fiscal year ending March 31, 2025.

#### (3) Effects of application of the accounting standards, etc.

The effects of applying the Accounting Standard for Current Income Taxes and relevant ASBJ regulations on the consolidated financial statements are currently under evaluation.

#### Additional information

#### Accounting estimates related to COVID-19

The Group conducts impairment accounting for fixed assets based on the information available at the time the financial statements are prepared. It is difficult to reasonably predict the future impact of COVID-19 on our business at this time. However, with the progress made in reconciling measures to counter COVID-19 with social and economic activities, economic activities are gradually recovering. Therefore, we are considering accounting estimates etc., on the assumption that the impact on sales of new cars, including electric vehicles in Japan and overseas, will be limited. Since there are many uncertainties regarding the impact of COVID-19, future changes in the situation may affect the financial position and operating results of the Group.

#### **Consolidated balance sheet**

#### \*1. Accumulated depreciation of property, plant and equipment was as follows:

	(Millions	(Thousands of U.S. dollars)	
	As of March 31, 2023	As of March 31, 2023	
Accumulated depreciation of property, plant and equipment	261,327	242,531	1,957,506

\*2. Notes and accounts receivable - trade and contract assets that are receivables or contract assets arising from contracts with customers were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Notes receivable - trade	4,287	4,385	32,112
Accounts receivable - trade	87,393	74,638	654,629
Contract assets	5,911	6,375	44,277

\*3. Other current liabilities that are contract liabilities were as follows:

	As of March 31, 2
Contract liabilities	2







(Millions	of yen)	(Thousands of U.S. dollars)
, 2023	As of March 31, 2022	As of March 31, 2023
2,176	2,181	16,300

#### \*4. Assets pledged as collateral and secured liabilities

Assets pledged as collateral were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Cash and deposits	69	305	517
Accounts receivable - trade	847	989	6,345
Merchandise and finished goods	681	730	5,101
Work in process	-	43	-
Raw materials and supplies	9	184	67
Buildings and structures	70	70	524
Machinery, equipment and vehicles	15	85	112
Other property, plant and equipment	47	-	352
Other intangible assets	-	3	-
Total	1,740	2,413	13,034

Secured liabilities were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Short-term borrowings	727	1,006	5,446
Total	727	1,006	5,446

#### \*5. Items related to unconsolidated subsidiaries and associates were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Investment securities (stocks)	38,125	37,704	285,581
[of which is investment in jointly controlled entities]	[233]	[3,630]	[1,745]
Investments in capital	693	770	5,191

#### \*6. Guarantee obligations

Guarantee obligations for affiliates' borrowings from banks, etc., were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Tianjin Toho Lead Recycling Co., Ltd.	706	1,014	5,288
Total	706	1,014	5,288

#### \*7. Trade notes receivable endorsed

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Trade notes receivable endorsed	1,841	1,845	13,790

#### \*8. Land revaluation

Di la DC

Land used for business by some consolidated subsidiaries was revaluated, and the difference in land revaluation was recorded under net assets based on the Act on Revaluation of Land (Act No. 34 of 1998). (1) Date of revaluation : March 31, 2002

#### (2) Revaluation method

Revaluation is calculated by making rational adjustments to the "price recorded in the land tax ledger of Article 341, Item 10 of the Local Tax Act or Item 11 of the supplementary land tax ledger of the same article," stipulated in Article 2, Paragraph 3 of the Order for Enforcement of the Act on Revaluation of Land (Cabinet Order No. 119 of 1998).

**ch 3**1

	As of Mar
ifference between the fair value of revalued	
nd at the end of the fiscal year and the	
ost-revaluation carrying amount	

#### \*9. Tax purpose reduction entry deducted from the purchase price because national subsidies were received

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Buildings and structures	1,077	1,018	8,067
Machinery, equipment and vehicles	7,659	7,374	57,371
Other	42	35	315

#### **Consolidated statements of income**

#### \*1. Revenue from contracts with customers

The revenue from contracts with customers and other revenue are not separately presented at the net sales. The amount of revenue from contracts with customers is provided in Note "Revenue Recognition 1. Disaggregation of revenue from contracts with customers."

#### \*2. Main selling, general and administrative expense items were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Packing and freight expenses	12,280	11,502	91,985
Employee salaries and bonuses	24,433	22,068	183,019
Welfare expenses	4,007	3,608	30,015
Retirement benefit expenses	521	1,049	3,903
Rent expenses on real estate	1,072	974	8,030
Depreciation	3,252	2,963	24,360
Research and development expenses	10,526	9,299	78,846

#### \*3. Total research and development expenses included in general and administrative expenses and manufacturing costs for the period

(Millions	of yen)	(Thousands of U.S. dollars)
Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
12,622	12,383	94,547

(Millions	s of yen)	(Thousands of U.S. dollars)
1, 2023	As of March 31, 2022	As of March 31, 2023
(249)	(1,130)	(1,865)

#### \*4. Breakdown of gain on sale of non-current assets is as follows:

	(Millions	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Buildings and structures	1,249	608	9,356
Machinery, equipment and vehicles	18	43	135
Land	1,602	-	12,000
Other	7	16	52
Total	2,876	668	21,543

#### \*5. Breakdown of loss on retirement of non-current assets is as follows:

	(Millions	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Buildings and structures	306	195	2,292
Machinery, equipment and vehicles	53	201	397
Other	216	318	1,618
Total	576	715	4,315

#### \*6. Breakdown of loss on sale of non-current assets is as follows:

	(Millions	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Buildings and structures	3	0	22
Machinery, equipment and vehicles	4	17	30
Other	6	29	45
Total	14	47	105

#### \*7. Impairment losses

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

The Group recorded impairment losses on the following asset groups.

			(Millions of yen)	(Thousands of U.S. dollars)
Location	Use	Туре	Impairment losses	Impairment losses
		Buildings and structures	272	2,037
Ritto, Shiga, Japan		Machinery, equipment and vehicles	1,264	9,468
	Tools, furniture and fixtures	1	7	
Kitto, Shiga, Japan	facilities, etc.	Construction in progress	80	599
	Intangible assets	0	0	
		Total	1,619	12,127
		Buildings and structures	689	5,161
		Machinery, equipment and vehicles	351	2,629
		Tools, furniture and fixtures	20	150
Miskolc, Hungary Froduction facilities, etc.		Land	10	75
		Construction in progress	84	629
		Intangible assets	136	1,019
		Total	1,293	9,685

#### Grouping method

Assets used for business are grouped based on a unit, such as business category, used for managerial accounting, the smallest unit that generates an independent cash flow.

Real estate for rent and idle assets are grouped individually.

Recognizing impairment losses and methods used to calculate recoverable value The 12V lithium-ion batteries business (hereinafter referred to as the "12VLIB business") under the Automotive Lithium-ion Batteries segment comprised the two asset groups of the 12VLIB business under the lithium-ion batteries division of consolidated subsidiary GS Yuasa International Ltd. and GS Yuasa Hungary Ltd. As both asset groups have consistently recorded operating losses and have deviated significantly downward from the business plan formulated at the time of business launch, the Group judged there were indications of impairment, and decided to recognize and measure impairment losses. Therefore, the impairment test was performed and the carrying amount was reduced to the recoverable amount, and the resulting decrease in the carrying amount was recognized as an impairment loss under extraordinary losses. The recoverable amount was measured as the asset's net realizable value (for Japanese accounting standards) or the asset's fair value less costs of disposal (for International Financial Reporting Standards) and was calculated using valuation expert.

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022) The Group recorded impairment losses on the following asset group

			(Millions of yen)
Location	Use	Туре	Impairment losses
		Buildings and structures	2,767
Tianjin, China	Production	Machinery, equipment and vehicles	1,977
Note 1	facilities, etc.	Other	197
		Total	4,943
		Buildings and structures	484
Odawara,	Production	Land	29
Kanagawa, Japan Note 2	facilities, etc.	Other	4
		Total	518
Fukuchiyama,	Production	Construction in progress	318
Kyoto, Japan Note 3	facilities, etc.	Total	318

#### Grouping method

Assets used for business are grouped based on a unit, such as business category, used for managerial accounting, the smallest unit that generates an independent cash flow.

Real estate for rent and idle assets are grouped individually.

#### Recognizing impairment losses and methods used to calculate recoverable value

Note 1. The consolidated subsidiary Tianjin GS Battery Co., Ltd. under the Automotive Batteries-Overseas segment is expected to recognize recurring operating losses because its performance deteriorates due to intensification of competition with competitors, and such conditions would constitute an impairment indicator. Therefore, the impairment test was performed and the carrying amount was reduced to the recoverable amount, and the resulting decrease in the carrying amount was recognized as an impairment loss under extraordinary losses.

The recoverable amount was calculated using the fair value less cost of disposal in accordance with International Financial Reporting Standards (IFRS), and the fair value was calculated using valuation expert.

- Note 2. When it was decided to withdraw from the Odawara Plant, the carrying amount of non-current assets owned by consolidated subsidiaries that are part of the automotive batteries-Japan, industrial batteries and power supplies, and other segments was lowered to the recoverable value, and that decline was recorded as an impairment loss under extraordinary losses. The recoverable value was calculated using net selling price, and the net selling price was calculated by deducting expected disposals costs from the valuation amount based on roadside value and other factors.
- Note 3. When it was no longer expected that some non-current assets under development would be commercialized in the future, the carrying amount of those non-current assets owned by consolidated subsidiaries that are part of the Other segment was lowered to the recoverable value, and that decline was recorded as an impairment loss under extraordinary losses. The recoverable value was calculated using net selling price, and the net selling price was valued to be zero because it would be difficult to sell or make other use of those assets.



١	ς	
	2	

#### Consolidated statements of comprehensive income

Reclassification adjustments and tax effects related to other comprehensive income

	(Millions o	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Valuation difference on available-for-sale securities:		March 51, 2022	Warch 51, 2025
Amount for the current fiscal year	(561)	(1,420)	(4,202)
Reclassification adjustments	(2,185)	(87)	(16,367)
Before tax effect adjustments	(2,746)	(1,508)	(20,569)
Tax effect	737	492	5,521
Valuation difference on available-for-sale securities	(2,009)	(1,016)	(15,049)
Deferred gains or losses on hedges:			
Amount for the current fiscal year	(988)	6	(7,401)
Reclassification adjustments	794	15	5,948
Before tax effect adjustments	(194)	22	(1,453)
Tax effect	197	-	1,476
Deferred gains or losses on hedges	3	22	22
Foreign currency translation adjustment:			
Amount for the current fiscal year	7,182	6,311	53,798
Reclassification adjustments	1,365	514	10,225
Before tax effect adjustments	8,547	6,825	64,022
Tax effect	-	-	-
Foreign currency translation adjustment	8,547	6,825	64,022
Remeasurements of defined benefit plans, net of tax:			
Amount for the current fiscal year	(1,950)	7,849	(14,607)
Reclassification adjustments	(734)	616	(5,498)
Before tax effect adjustments	(2,685)	8,465	(20,112)
Tax effect	783	(2,642)	5,865
Remeasurements of defined benefit plans, net of tax	(1,901)	5,822	(14,240)
Share of other comprehensive income of entities accounted for using equity method:			
Amount for the current fiscal year	2,412	796	18,067
Share of other comprehensive income of entities accounted for using equity method	2,412	796	18,067
Total other comprehensive income	7,052	12,451	52,824

#### Consolidated statements of changes in net assets

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023) 1. Class and total number of issued shares and class and number of treasury shares

	Number of shares at the beginning of the current fiscal year (thousand)	Current fiscal year Increase in number of shares (thousand)	Current fiscal year Decrease in number of shares (thousand)	Number of shares at the end of the current fiscal year (thousand)
Issued shares				
Common stock	80,599	-	-	80,599
Total	80,599	-	-	80,599
Treasury shares				
Common stock Notes 1, 2, and 3	159	1	13	146
Total	159	1	13	146

Notes 1. The increase in the number of treasury shares (common stock) of one thousand shares was from the purchase of shares less than one share unit. 2. The decrease in the number of treasury shares (common stock) of 13 thousand shares was because of the provision of shares for performance-linked share-based payment system.

3. The number of treasury shares (common stock) at the beginning and end of the current fiscal year includes treasury shares held in trust (67 thousand shares at the beginning and 53 thousand shares at the end of the current fiscal year).

#### 2. Dividends

(1)	Div	ida	nde	paid
(1)		lue	iius	paiu

	Class of	Total dividends		Dividend per share			
Resolution	shares	(Millions of yen)	(Thousands of U.S. dollars)	(Yen)	(U.S. dollars)	Record date	Effective date
June 29, 2022, annual general meeting of shareholders	Common stock	2,817	21,101	35	0.26	March 31, 2022	June 30, 2022
November 8, 2022, Board of Directors meeting	Common stock	1,207	9,041	15	0.11	September 30, 2022	December 1, 2022

Note The total amount of dividends of ¥2,817 million (US\$21,101 thousand) and ¥1,207 million (US\$9,041 thousand) includes ¥2 million (US\$15 thousand) and ¥0 million (US\$0 thousand) in dividends for treasury shares held in trust.

#### (2) Those with a record date in the current fiscal year but effective date in the following fiscal year

Class of		Total dividends		Dividend	Dividend per share			
Resolution	shares	( <u>Millions of</u> yen)	(Thousands of U.S. dollars)	source	(Yen)	(U.S. dollars)	Record date	Effective date
June 29, 2023, annual general meeting of shareholders	Common stock	2,817	21,101	Retained earnings	35	0.26	March 31, 2023	June 30, 2023

Note The total amount of dividends includes ¥1 million (US\$7 thousand) in dividends for treasury shares held in trust.



#### Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

1. Class and total number of issued shares and class and number of treasury shares

	Number of shares at the beginning of the current fiscal year (thousand)	Current fiscal year Increase in number of shares (thousand)	Current fiscal year Decrease in number of shares (thousand)	Number of shares at the end of the current fiscal year (thousand)
Issued shares				
Common stock Note 1	82,714	-	2,115	80,599
Total	82,714	-	2,115	80,599
Treasury shares				
Common stock Notes 2, 3, and 4	2,109	168	2,118	159
Total	2,109	168	2,118	159

Notes 1.The decrease in the number of issued common shares was because of the cancellation of treasury shares based on a Board of Directors' resolution. 2. The increase in the number of treasury shares (common stock) of 168 thousand shares was because of the purchase of 167 thousand treasury shares based on a Board of Directors' resolution and one thousand shares from the purchase of shares less than one share unit.

3.The decrease in the number of treasury shares (common stock) of 2,118 thousand shares was because of the cancellation of 2,115 thousand treasury shares based on a Board of Directors' resolution and the provision of two thousand shares for performance-linked share-based payment system.

4. The number of treasury shares (common stock) at the beginning and end of the current fiscal year includes treasury shares held in trust (69 thousand shares at the beginning and 67 thousand shares at the end of the current fiscal year).

#### 2. Dividends

(1) Dividends paid

Resolution	Class of shares	Total dividends	Dividend per share	Record date	Effective date	
Resolution	cluss of shares	(Millions of yen)	(Yen)	necora date		
June 29, 2021, annual general meeting of shareholders	Common stock	4,033	50	March 31, 2021	June 30, 2021	
November 5, 2021, Board of Directors meeting	Common stock	1,207	15	September 30, 2021	December 1, 2021	

Note The total amount of dividends of ¥4,033 million and ¥1,207 million includes ¥3 million and ¥1 million in dividends for treasury shares held in trust.

#### (2) Those with a record date in the current fiscal year but effective date in the following fiscal year

Resolution	Class of shares	<b>Total dividends</b> (Millions of yen)	Dividend source	Dividend per share (Yen)	Record date	Effective date
June 29, 2022, annual general meeting of shareholders	Common stock	2,817	Retained earnings	35	March 31, 2022	June 30, 2022

Note The total amount of dividends includes ¥2 million in dividends for treasury shares held in trust

#### **Consolidated statements of cash flows**

\*1. Relationship between cash and cash equivalents at end of period and amounts stated on the consolidated balance sheet

	(Millions	(Thousands of U.S. dollars)	
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Cash and deposits	36,272	25,855	271,700
Time deposits (term exceeds three months)	(244)	(10)	(1,828)
Cash and cash equivalents	36,027	25,845	269,865

\*2. Major breakdown of assets and liabilities of the company that became a newly consolidated subsidiary due to the acquisition of shares

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

The breakdown of assets and liabilities of Inci GS Yuasa Akü Sanayi ve Ticaret Anonim Sirketi (hereinafter referred to as "IGYA") at the time of its consolidation due to the acquisition of additional shares, and the relationship between the acquisition cost of IGYA shares and the expenditure for the acquisition of IGYA (net amount) are as follows:

· ·	•	,
	(Millions of yen)	(Thousands of U.S. dollars)
Current assets	12,544	93,963
Non-current assets	13,763	103,094
Goodwill	1,280	9,588
Current liabilities	(12,873)	(96,427)
Non-current liabilities	(3,580)	(26,816)
Non-controlling interests	(3,941)	(29,521)
Acquisition cost of IGYA shares	7,192	53,873
Equity method valuation of IGYA up to acquisition of control	(4,983)	(37,326)
Gain on step acquisitions	(1,010)	(7,566)
Acquisition cost of additional IGYA shares	1,198	8,974
IGYA cash and cash equivalents	(750)	(5,618)
Balance: Expenditures for the acquisition of IGYA	447	3,348

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022) The breakdown of assets and liabilities of GS Yuasa Infrastructure Systems Co., Ltd. (hereinafter referred to as "GYIS") at the time of its consolidation due to the acquisition of shares, and the relationship between the acquisition cost of GYIS shares and the expenditure for the acquisition of GYIS (net amount) are as follows:

	(Millions of yen)
Current assets	8,016
Non-current assets	518
Negative goodwill	(710)
Current liabilities	(4,149)
Non-current liabilities	(440)
Acquisition cost of GYIS shares	3,235
GYIS cash and cash equivalents	(416)
Balance: Expenditures for the acquisition of GYIS	2,819

#### Leases

1. Finance lease transactions (as lessee)

Finance leases for which ownership of the leased assets does not transfer to the lessees (i) Description of leased assets

a Property, plant and equipment

Mainly production facility (machinery, equipment and vehicles) b Intangible assets

Software

#### (ii) Depreciation/amortization of leased assets

See: Basis of preparation of consolidated financial statements; 4. Accounting policies; (2) Depreciation/amortization of principal non-current assets.



4

#### 2. Operating lease transactions (as lessee)

Future minimum lease payments under non-cancelable operating leases

	(Millions	(Thousands of U.S. dollars)	
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Within one year	33	68	247
Exceeding one year	20	240	150
Total	54	309	404

#### 3. Lease transactions under International Financial Reporting Standards

#### (i) Right-of-use assets

Mainly office leasing, vehicles and transportation equipment

#### (ii) Depreciation/amortization of right-of-use assets

See: Basis of preparation of consolidated financial statements; 4. Accounting policies; (2) Depreciation/amortization of principal non-current assets.

#### **Financial instruments**

#### 1. Matters concerning the status of financial instruments

#### (1) Policy for financial instruments

The Group's funds are invested in highly secure financial assets. Funding is procured mainly through borrowings from banks and other financial institutions, bonds, and commercial papers, based on demand in capital investment, investment and financing plans and other capital needs. Derivatives are used to avoid the risks described below, and speculative transactions are prohibited.

#### (2) Financial instruments, their risks and risk management

Notes and accounts receivable - trade and electronically recorded monetary claims - operating are exposed to customer credit risk. The Company manages the risk by, among other things, monitoring due dates and outstanding balances for each customer and periodically evaluating the status of major customers in order to identify and mitigate collection concerns at an early stage.

Investment securities are mainly stocks of companies with which the Company has business relationships and are exposed to market price fluctuations and other risks. However, the Company regularly monitor market conditions, market prices, and the financial status and business relationships of the issuing companies and review its holdings on an ongoing basis. Most notes and accounts payable - trade and electronically recorded obligations are due within five months, and the Company manages liquidity risk by preparing monthly funding plans for each group company and division. Of borrowings, short-term borrowings and commercial papers are used mainly for working capital, while long-term

borrowings and bonds payable are mainly for capital investment. Some long-term borrowings are vulnerable to interest rate fluctuations because they are procured at floating interest rates. However, the Company uses interest rate swaps and currency swap transactions to limit the risk of fluctuations in interest rates payable and foreign currency exchange rate fluctuations. Receivables and payables denominated in foreign currencies related to operating transactions are vulnerable to exchange rate fluctuations, against which foreign exchange forward contracts are used to hedge the risk of exchange rate fluctuations, except for receivables and payables denominated in the same foreign currencies within the balance of the receivables and payables.

These derivative transactions are executed and managed by the department in charge in accordance with internal rules, and the Auditing Office conducts audits to determine whether they are executed and managed in accordance with the rules. Hedging instruments and hedged items, hedging policy, and methods for evaluating the effectiveness of hedging with respect to hedge accounting are described in "Basis of preparation of consolidated financial statements; 4. Accounting policies; (8) Significant hedge accounting."

Consolidated subsidiaries operate under the principle of self-management and self-responsibility based on their own rules and regulations, and the Company is aware of such rules and regulations. In addition, the Company receives regular risk management reports and conducts monitoring and control

#### (3) Supplementary explanation on fair value of financial instruments and related matters

Since variable factors are incorporated in the measurement of the fair value of financial instruments, such values may change due to the adoption of different assumptions and other factors. In addition, the contract amounts of derivative transactions, set forth in these Notes do not indicate the market risk involved in derivative transactions themselves.

#### 2. Fair value of financial instruments and related matters

Consolidated balance sheet amounts, fair values and their differences are as follows:

#### As of March 31, 2023

	(Millions of yen				
	Consolidated balance sheet amount	Fair value	Difference		
(1) Investment securities	45,837	37,779	(8,058)		
Total assets	45,837	37,779	(8,058)		
(2)Bonds payable (including current portion)	20,000	19,976	(24)		
(3)Long-term borrowings (including current portion)	52,941	53,039	98		
(4)Lease liabilities (including current portion)	10,355	9,988	(367)		
Total liabilities	83,297	83,005	(292)		
Derivatives (*2)	(114)	(114)	-		

(\*1) "Cash and deposits," "notes and accounts receivable - trade, and contract assets," "electronically recorded monetary claims - operating," "notes and accounts payable - trade," "electronically recorded obligations - operating," "short-term borrowings," "accounts payable - other," "income taxes payable," "notes payable - facilities," and "electronically recorded obligations - facilities" are omitted because they are in cash or their fair value approximates their book value due to their short maturities

(\*2) Net receivables and payables arising from derivative transactions are shown as net amounts, and items that are net liabilities in total are shown in parentheses. \*3) Unlisted shares, etc., (consolidated balance sheet amount; ¥17,417 million) and investments in capital (¥839 million) are not included in (1) Investment securities in the table above because they are stocks and other securities without market prices.

#### As of March 31, 2022

	(Millions of y				
	Consolidated balance sheet amount	Fair value	Difference		
(1)Investment securities	46,832	44,025	(2,806)		
Total assets	46,832	44,025	(2,806)		
(2)Bonds payable	20,000	19,959	(41)		
(3)Long-term borrowings (including current portion)	45,018	44,346	(672)		
(4)Lease liabilities (including current portion)	7,801	7,394	(407)		
Total liabilities	72,820	71,699	(1,120)		
Derivatives <sup>(*2)</sup>	71	71	-		

(\*1) "Cash and deposits," "notes and accounts receivable - trade, and contract assets," "electronically recorded monetary claims - operating," "notes and accounts payable - trade," "electronically recorded obligations - operating," "short-term borrowings," "commercial papers," "accounts payable - other," "income taxes payable," "notes payable - facilities," and "electronically recorded obligations - facilities" are omitted because they are in cash or their fair value approximates their book value due to their short maturities.

(\*2) Net receivables and pavables arising from derivative transactions are shown as net amounts, and items that are net liabilities in total are shown in parentheses. (\*3) Unlisted shares, etc., (consolidated balance sheet amount: ¥19,486 million) and investments in capital (¥940 million) are not included in (1) Investment securities in the table above because they are stocks and other securities without market prices.



#### As of March 31, 2023

	(Thousands of U.S. dol				
	Consolidated balance sheet amount	Fair value	Difference		
(1)Investment securities	343,348	282,989	(60,360)		
Total assets	343,348	282,989	(60,360)		
(2)Bonds payable (including current portion)	149,813	149,633	(180)		
(3)Long-term borrowings (including current portion)	396,562	397,296	734		
(4)Lease liabilities (including current portion)	77,566	74,816	(2,749)		
Total liabilities	623,948	621,760	(2,187)		
Derivatives <sup>(*2)</sup>	(854)	(854)	-		

(\*1) "Cash and deposits," "notes and accounts receivable - trade, and contract assets," "electronically recorded monetary claims - operating," "notes and accounts payable - trade," "electronically recorded obligations - operating," "short-term borrowings," "accounts payable - other," "income taxes payable," "notes payable - facilities," and "electronically recorded obligations - facilities" are omitted because they are in cash or their fair value approximates their book value due to their short maturities.

(\*2) Net receivables and payables arising from derivative transactions are shown as net amounts, and items that are net liabilities in total are shown in parentheses. (\*3) Unlisted shares, etc., (consolidated balance sheet amount: US\$130,464 thousand) and investments in capital (US\$6,285 thousand) are not included in (1) Investment securities in the table above because they are stocks and other securities without market prices.

Note 1. Scheduled redemptions for monetary claims after the consolidated fiscal year-end date

#### As of March 31, 2023

	(Millions of y			(Millions of yen)
	One year or less	One to five years	Five to ten years	Over ten years
Cash and deposits	36,272	-	-	-
Notes and accounts receivable - trade, and contract assets	97,591	-	-	-
Electronically recorded monetary claims - operating	6,855	-	-	-
Total	140,719	-	-	-

#### As of March 31, 2022

	One year or less	One to five years	Five to ten years	(Millions of yen) Over ten years
Cash and deposits	25,855	-	-	-
Notes and accounts receivable - trade, and contract assets	85,399	-	-	-
Electronically recorded monetary claims - operating	7,163	-	-	-
Total	118,418	-	-	-

#### As of March 31, 2023

	One year or less	One to five years	Five to ten years	Over ten years
Cash and deposits	271,700	-	-	-
Notes and accounts receivable - trade, and contract assets	731,019	-	-	-
Electronically recorded monetary claims - operating	51,348	-	-	-
Total	1,054,075	-	-	-

Note 2. Scheduled repayments of bonds payable, long-term borrowings, lease liabilities and other interest-bearing liabilities after the consolidated fiscal year-end date

#### As of March 31, 2023

	One year or less	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Short-term borrowings	30,733	-	-	-	-	-
Bonds payable	10,000	-	-	-	10,000	-
Long-term borrowings	11,584	9,949	8,332	9,824	166	13,083
Lease liabilities	1,844	1,020	992	865	632	5,000
Total	54,162	10,969	9,325	10,689	10,799	18,083

#### As of March 31, 2022

(Millions of						
	One year or less	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Short-term borrowings	15,459	-	-	-	-	-
Commercial papers	2,000	-	-	-	-	-
Bonds payable	-	10,000	-	-	-	10,000
Long-term borrowings	3,322	11,556	9,697	8,098	9,111	3,231
Lease liabilities	1,701	745	680	785	471	3,417
Total	22,483	22,302	10,378	8,883	9,583	16,649

#### As of March 31, 2023

	One year or less	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Short-term borrowings	230,210	-	-	-	-	-
Bonds payable	74,906	-	-	-	74,906	-
Long-term borrowings	86,772	74,524	62,412	73,588	1,243	98,000
Lease liabilities	13,813	7,640	7,431	6,479	4,734	37,453
Total	405,708	82,165	69,850	80,067	80,891	135,453

#### (Thousands of U.S. dollars)

3 ESG 4 Financial / Corporate Data

#### (Millions of yen)

#### (Thousands of U.S. dollars)

#### 3. Fair value hierarchy of financial instruments

The fair value of financial instruments is classified into the following three levels based on the observability and materiality of the inputs used to calculate fair value.

Level 1: Calculated based on quoted market prices in an active market for the assets or liabilities for which the observable fair value is calculated.

Level 2: Calculated using inputs with observable fair values other than Level 1 inputs.

Level 3: Calculated using inputs with unobservable fair value measurements.

When multiple inputs that have a significant impact on the measurement of fair value are used, the fair value is classified at the Level from which the lowest levels of inputs were used.

#### (1) Financial instruments carried on the consolidated balance sheet at fair value As of March 31, 2023

				(Millions of yen)
		Fair	value	
	Level 1	Level 2	Level 3	Total
Securities and investment securities				
Available-for-sale securities				
Equity securities	24,538	-	-	24,538
Total assets	24,538	-	-	24,538
Derivatives				
Currency related	-	114	-	114
Total liabilities	-	114	-	114

As of March 31, 2022

	(Millions of yen) Fair value						
	Level 1						
Securities and investment securities							
Available-for-sale securities							
Equity securities	28,022	-	-	28,022			
Derivatives							
Currency related	-	71	-	71			
Total assets	28,022	71	-	28,093			

#### As of March 31, 2023

			,	(Thousands of U.S. dollars)
		Fair	value	_
	Level 1	Level 2	Level 3	Total
Securities and investment securities				
Available-for-sale securities				
Equity securities	183,805	-	-	183,805
Total assets	183,805	-	-	183,805
Derivatives				
Currency related	-	854	-	854
Total liabilities	-	854	-	854

(2) Financial instruments not carried on the consolidated balance sheet at fair value As of March 31, 2023

				(Millions of yen)
		Fair	value	
	Level 1	Level 2	Level 3	Total
Securities and investment securities				
Available-for-sale securities				
Equity securities	13,241	-	-	13,241
Total assets	13,241	-	-	13,241
Bonds payable (including current portion)	-	19,976	-	19,976
Long-term borrowings (including current portion)	-	53,039	-	53,039
Lease liabilities (including current portion)	-	9,988	-	9,988
Total liabilities	-	83,005	-	83,005

#### As of March 31, 2022

	Fair value					
	Level 1	Level 2	Level 3	Total		
Securities and investment securities						
Available-for-sale securities						
Equity securities	16,003	-	-	16,003		
Total assets	16,003	-	-	16,003		
Bonds payable	-	19,959	-	19,959		
Long-term borrowings (including current portion)	-	44,346	-	44,346		
Lease liabilities (including current portion)	-	7,394	-	7,394		
Total liabilities	-	71,699	-	71,699		







(Millions	of	yen)

#### As of March 31, 2023

				(Thousands of U.S. dollars)
		Fair	/alue	
	Level 1	Level 2	Level 3	Total
Securities and investment securities				
Available-for-sale securities				
Equity securities	99,184	-	-	99,184
Total assets	99,184	-	-	99,184
Bonds payable (including current portion)	-	149,633	-	149,633
Long-term borrowings (including current portion)	-	397,296	-	397,296
Lease liabilities (including current portion)	-	74,816	-	74,816
Total liabilities	-	621,760	-	621,760

Note Valuation techniques and inputs used in the measurement of fair value

#### (1) Investment securities

The fair value of listed equity securities is estimated using quoted market prices. Since listed equity securities are traded in active markets, their fair value is classified as Level 1.

#### (2) Derivatives

The fair value of foreign exchange forward contracts is determined using the discounted present value method with observable inputs such as exchange rates and is classified as Level 2.

#### (3) Bonds payable

The fair value of bonds payable is calculated by discounting the total amount of principal and interest at the interest rate that would be applicable if similar new financing were procured, and is classified as Level 2.

#### (4) Long-term borrowings

The fair value of long-term borrowings is calculated by discounting the total amount of principal and interest at the interest rate that would be applicable if similar new borrowings were arranged and is classified as Level 2. The fair value of long-term borrowings that qualify for specific treatment in interest rate swaps is calculated by discounting the total amount of principal and interest accounted for together with the interest rate swaps by the reasonably estimated interest rate that would be applicable to similar borrowings and is classified as Level 2.

#### (5) Lease liabilities

The fair value of lease liabilities is calculated by discounting the total amount of principal and interest using the interest rate that would apply to a new lease contract with the same remaining term and conditions, and is classified as Level 2.

#### **Securities**

#### 1. Available-for-sale securities

As of March 31, 2023

				(Millions of yen)
	Class	Consolidated balance sheet amount	Acquisition cost	Difference
Securities whose consolidated balance sheet amount exceeds acquisition cost	Equity securities	24,417	4,065	20,351
Securities whose consolidated balance sheet amount does not exceed acquisition cost	Equity securities	121	198	(77)
Total		24,538	4,264	20,273

Note Unlisted shares, etc., (consolidated balance sheet amount: ¥590 million) are not included in available-for-sale securities in the table above because they are stocks and other securities without market prices.

#### As of March 31, 2022

	(Millions of yen			
	Class	Consolidated balance sheet amount	Acquisition cost	Difference
Securities whose consolidated balance sheet amount exceeds acquisition cost	Equity securities	27,918	4,802	23,116
Securities whose consolidated balance sheet amount does not exceed acquisition cost	Equity securities	103	198	(95)
Total		28,022	5,001	23,020

Note Unlisted shares, etc., (consolidated balance sheet amount: ¥591 million) are not included in available-for-sale securities in the table above because they are stocks and other securities without market prices.

#### As of March 31, 2023

				(Thousands of U.S. dollars)
	Class	Consolidated balance sheet amount	Acquisition cost	Difference
Securities whose consolidated balance sheet amount exceeds acquisition cost	Equity securities	182,899	30,449	152,442
Securities whose consolidated balance sheet amount does not exceed acquisition cost	Equity securities	906	1,483	(577)
Total		183,805	31,940	151,858

Note Unlisted shares, etc., (consolidated balance sheet amount: US\$4,419 thousand) are not included in available-for-sale securities in the table above because they are stocks and other securities without market prices.

#### 2. Available-for-sale securities sold

## Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

(Millions of						
Class	Sale amount	Total gain on sale	Total loss on sale			
Equity securities	2,926	2,185	-			
Total	2,926	2,185	-			

#### Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

(Millions of yen)					
Class	Total loss on sale				
Equity securities	149	116	0		
Total	149	116	0		

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

Class	Sale amount
Equity securities	21,918
Total	21,918

4

	(Thousands of U.S. dollars)
Total gain on sale	Total loss on sale
16,367	-
16,367	-

#### 3. Securities for which impairment losses were recognized

In the previous fiscal year, an impairment loss of ¥28 million (¥28 million on bonds of available-for-sale securities) was recognized on securities.

In the current fiscal year, there were no securities on which an impairment loss was recognized.

If the fair value at the end of the fiscal year has declined by 50% or more compared to the acquisition cost, the securities are recognized as impaired. If the fair value has declined by 30-50%, an impairment loss is recognized for the amount deemed necessary in consideration of the possibility of recovery and other factors.

#### Derivatives

#### 1. Derivative transactions for which hedge accounting is not applied

(1) Currency related

## As of March 31, 2023

(Millions of y					(Millions of yen)
Categories	Class of transaction	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value	Valuation gains/losses
	Foreign exchange forward contracts				
	Short (sale)				
	GBP	1,863	-	16	16
Non-market	AUD	579	-	0	0
transactions	NZD	130	-	1	1
	USD	78	-	(0)	(0)
	Long (buy)				
	TRY	3,405	-	(131)	(131)
	Total	6,056	-	(114)	(114)

#### As of March 31, 2022

	(Millions of yen)				
Categories	Class of transaction	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value	Valuation gains/losses
	Foreign exchange forward contracts				
	Short (sale)				
Non-market	GBP	5,201	-	51	51
transactions	AUD	493	-	16	16
	NZD	144	-	6	6
	USD	46	-	(2)	(2)
	Total	5,886	-	71	71

#### As of March 31, 2023

					(Thousands of U.S. dollars)
Categories	Class of transaction	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value	Valuation gains/losses
	Foreign exchange forward contracts				
	Short (sale)				
	GBP	13,955	-	120	120
Non-market	AUD	4,337	-	0	0
transactions	NZD	974	-	7	7
	USD	584	-	(0)	(0)
	Long (buy)				
	TRY	25,506	-	(981)	(981)
	Total	45,363	-	(854)	(854)

#### (2) Interest rate related As of March 31, 2023 Not applicable

As of March 31, 2022 Not applicable

#### 2. Derivative transactions for which hedge accounting is applied (1) Currency related As of March 31, 2023

					(Millions of yen)
Method of hedge accounting	Class of transaction	Main hedged item(s)	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value
Appropriation treatment for foreign exchange forward contracts	Currency swap(s) Received in JPY - paid in USD	Long-term loans receivable	627	572	(117) (Note)
Total			627	572	(117)

Note The fair value of currency swap transactions is treated as appropriation for foreign exchange forward contracts to long-term loans receivable and is not included in "Financial instruments, 2. Fair value of financial instruments and related matters."

#### As of March 31, 2022

					(Millions of yen)
Method of hedge accounting	Class of transaction	Main hedged item(s)	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value
Appropriation treatment for foreign exchange forward contracts	Currency swap(s) Received in JPY - paid in USD	Long-term loans receivable	683	627	(82) (Note)
Total			683	627	(82)

Note The fair value of currency swap transactions is treated as appropriation for foreign exchange forward contracts to long-term loans receivable and is not included in "Financial instruments, 2. Fair value of financial instruments and related matters."



3

#### As of March 31, 2023

					(Thousands of U.S. dollars)
Method of hedge accounting	Class of transaction	Main hedged item(s)	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value
Appropriation treatment for foreign exchange	Currency swap(s) Received in JPY - paid	Long-term loans receivable	4.697	4,285	(876)
forward contracts	in USD		4,097	4,205	(Note)
Total			4,697	4,285	(876)

Note The fair value of currency swap transactions is treated as appropriation for foreign exchange forward contracts to long-term loans receivable and is not included in "Financial instruments, 2. Fair value of financial instruments and related matters."

# (2) Interest rate related

As of March 31, 2023

					(Millions of yen)
Method of hedge accounting	Class of transaction	Main hedged item(s)	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value
	Interest rate				
Interest rate and	and currency				
currency swap(s)	swap(s)				
accounted for as	Variable	Short-term			
a single unit	receipt / fixed	borrowings			
Specific treatment	payment	borrowings	1,852		(Note)
/ appropriation	Received in		1,052	-	(NOLE)
treatment	USD / paid				
	in JPY				

Note The fair value of interest rate and currency swaps accounted for as a single unit (specific treatment / appropriation treatment) is included in the fair value of the relevant short-term borrowings because they are accounted for as a single unit with the short-term borrowings that are the hedged items. The Practical Solution on the Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR (ASBJ Practical Solution No. 40, March 17, 2022) is applied to these hedging relationships.

#### As of March 31, 2022

					(Millions of yen)
Method of hedge accounting	Class of transaction	Main hedged item(s)	Contract amount, etc.	Contract amount, etc., exceeding one year	Fair value
Interest rate and currency swap(s) accounted for as a single unit Specific treatment / appropriation treatment	Interest rate and currency swap(s) Variable receipt / fixed payment Received in USD / paid in JPY	Long-term borrowings	1,852	1,852	(Note)

Note The fair value of interest rate and currency swaps accounted for as a single unit (specific treatment / appropriation treatment) is included in the fair value of the relevant long-term borrowings because they are accounted for as a single unit with the long-term borrowings that are the hedged items. The Practical Solution on the Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR (ASBJ Practical Solution No. 40, March 17, 2022) is applied to these hedging relationships.

				1 Vision 2035 (Long-Term Vision)	2 Management Strategies 3	ESG 4 Financial / Corporate Data
I	As of March 31, Method of hedge		Main kodurad itawa(a)	Contract our of the	Contract amount, etc.,	(Thousands of U.S. dollars)
	accounting	Class of transaction	Main hedged item(s)	Contract amount, etc.	exceeding one year	Fair value
	Interest rate and currency swap(s) accounted for as a single unit Specific treatment / appropriation treatment	Interest rate and currency swap(s) Variable receipt / fixed payment Received in	Short-term borrowings	13,873	_	(Note)

Note The fair value of interest rate and currency swaps accounted for as a single unit (specific treatment / appropriation treatment) is included in the fair value of the relevant short-term borrowings because they are accounted for as a single unit with the short-term borrowings that are the hedged items. The Practical Solution on the Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR (ASBJ Practical Solution No. 40, March 17, 2022) is applied to these hedging relationships.

#### (3) Commodities As of March 31, 2023 Not applicable

As of March 31, 2022 Not applicable

#### **Retirement benefit Plans**

#### 1. Outline of current retirement benefit plans

Certain domestic consolidated subsidiaries have defined benefit plans, such as corporate pension fund plans and lump-sum retirement benefit plans, and have established retirement benefit trusts. Certain overseas consolidated subsidiaries also have defined benefit plans.

In addition, certain consolidated subsidiaries have adopted defined contribution pension plans.

#### 2. Defined benefit plans

(1) Reconciliation of the beginning and ending balance of the retirement benefit obligations

	(Millions of yen)		(Thousands of U.S. dollars)
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Retirement benefit obligations balance at beginning of period	49,371	48,646	369,820
Service cost	2,036	2,014	15,251
Interest cost	111	103	831
Actuarial gains (losses) accrued	(413)	(1,873)	(3,094)
Retirement benefits paid	(3,604)	(2,950)	(26,996)
Increase due to new consolidation	245	3,382	1,835
Other	(35)	48	(262)
Retirement benefit obligations balance at end of period	47,711	49,371	357,386

(2) Reconciliation of the beginning and ending balance of plan assets

	(Millions of yen)		(Thousands of U.S. dollars)
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Plan assets at beginning of period	77,433	68,003	580,022
Expected return on assets	1,152	1,097	8,629
Actuarial gains (losses) accrued	(2,363)	5,976	(17,700)
Employer contribution	1,125	1,407	8,427
Retirement benefits paid	(3,073)	(2,713)	(23,019)
Increase due to new consolidation	-	3,605	-
Other	(41)	55	(307)
Plan assets at end of period	74,233	77,433	556,052

# (3) Reconciliation of retirement benefit obligations and plan assets at the end of the period to retirement benefit liability and retirement benefit asset recognized in the consolidated balance sheet

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Retirement benefit obligations of funded plans	43,102	45,248	322,861
Plan assets	(74,233)	(77,433)	(556,052)
	(31,130)	(32,185)	(233,184)
Retirement benefit obligations of unfunded plans	4,608	4,122	34,517
Net liabilities and assets recognized in the consolidated balance sheet	(26,522)	(28,062)	(198,667)
Retirement benefit liability	5,372	4,892	40,240
Retirement benefit asset	(31,894)	(32,954)	(238,906)
Net liabilities and assets recognized in the consolidated balance sheet	(26,522)	(28,062)	(198,667)

Note Certain consolidated subsidiaries use the simplified method to calculate retirement benefit obligations.

#### (4) Amount of retirement benefit expenses and their breakdown

	(Millions of yen)		(Thousands of U.S. dollars)
	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Service cost (Note)	2,036	2,014	15,251
Interest cost	111	103	831
Expected return on assets	(1,152)	(1,097)	(8,629)
Amortization of past service cost	(109)	(112)	(816)
Amortization of actuarial gains (losses)	(625)	729	(4,682)
Retirement benefit expenses related to defined benefit plan	260	1,636	1,948

Note Retirement benefit expenses of the consolidated subsidiaries using the simplified method are included in "service cost."

# (5) Amounts recognized in other comprehensive income (before tax effect adjustments) for the years ended March 31, 2023 and 2022 were as follows:

	(Million	(Thousands of U.S. dollars)	
	Year ended Year ended March 31, 2023 March 31, 2022		Year ended March 31, 2023
Past service cost	(109)	(112)	(816)
Actuarial gains (losses)	(2,576)	8,578	(19,296)
Total	(2,685)	8,465	(20,112)

# (6) Amounts recognized in accumulated other comprehensive income (before tax effect adjustments) for the years ended March 31, 2023 and 2022 were as follows:

	(Millions of yen)		(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Unrecognized past service cost	197	306	1,476
Unrecognized actuarial gains (losses)	10,034	12,610	75,161
Total	10,231	12,916	76,637

#### (7) Matters related to plan assets

#### (i) Breakdown of plan assets

The following table shows the main categories of plan assets by ratio of total plan assets.

	As of March 31, 2023	As of March 31, 2022
Equity securities	44%	46%
General account	25	24
Bonds	13	13
Investment trust(s)	12	10
Cash and deposits	4	5
Short-term assets	1	1
Other	1	1
Total	100	100

Note Total plan assets include 37% of the retirement benefit trusts established in corporate pension plans for the previous fiscal year and 35% of that for the current fiscal year.

## (ii) Method used to determine the expected long-term rate of return on plan assets

To determine the expected long-term rate of return on plan assets, the Company considers the current and projected allocation of plan assets and the current and expected long-term rate of return from the various assets comprising the plan assets.

#### (8) Actuarial basis of accounting

Principal actuarial basis

	As of March 31, 2023	As of March 31, 2022
Discount rate	(0.0)-0.1%	(0.0)-0.1%
Expected long-term rate of return on assets	0.7-2.0%	0.7-2.0%

The projected rate of salary increase is based on the salary increase index of service points and qualification points calculated on the last day of the fiscal year.

#### 3. Defined contribution plan

Required contributions to the defined contribution plan by the Company and its consolidated subsidiaries were ¥572 million in the previous fiscal year and ¥580 million (US\$4,345 thousand) in the current fiscal year.

#### Stock options, etc.

Year ended March 31, 2023 (April 1, 2022 to March 31, 2023) Not applicable

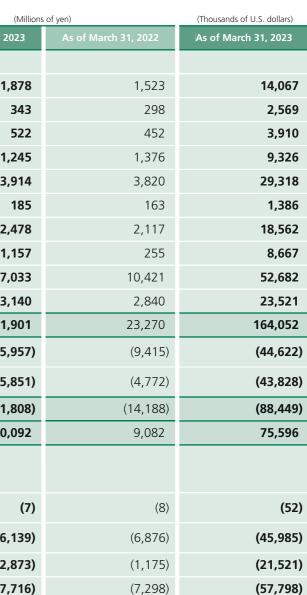
Year ended March 31, 2022 (April 1, 2021 to March 31, 2022) Not applicable

#### **Income taxes**

#### 1. Significant components of deferred tax assets and liabilities

	(Millions
	As of March 31, 2023
Deferred tax assets	
Accrued bonuses	1,878
Enterprise tax payable	343
Unrealized gain	522
Loss on valuation of inventories	1,245
Retirement benefit liability	3,914
Allowance for doubtful accounts	185
Impairment losses	2,478
Investment securities	1,157
Tax loss carryforwards (Note 2)	7,033
Other	3,140
Subtotal of deferred tax assets	21,901
Valuation allowance for tax loss carryforwards (Note 2)	(5,957)
Valuation allowance for total deductible temporary differences, etc.	(5,851)
Subtotal of valuation allowance (Note 1)	(11,808)
Total deferred tax assets	10,092
Deferred tax liabilities	
Reserve for tax purpose reduction entry of non-current assets	(7)
Valuation difference on available-for-sale securities	(6,139)
Valuation excess of property	(2,873)
Undistributed earnings of foreign affiliates	(7,716)
Retirement benefit asset	(9,970)
Other	(1,781)
Total deferred tax liabilities	(28,489)
Net deferred tax assets (liabilities)	(18,397)

Notes 1.The amount of valuation allowance decreased by ¥2,379 million (US\$17,820 thousand). The main factors were a ¥3,663 million (US\$27,438 thousand) decrease in valuation allowance for loss carryforwards at a consolidated subsidiary due to the partial expiration of loss carryforwards, a ¥304 million (US\$2,277 thousand) increase in valuation allowance for loss carryforwards at a consolidated subsidiary in the current fiscal year, and an additional recognition of ¥1,416 million (US\$10,607 thousand) in valuation allowance related to loss on valuation of shares of subsidiaries and associates. 2.Tax loss carryforwards and deferred tax assets by carryforward period



(10,091)

(1,204)

(26,654)

(17,572)

(74,682)

(13,341)

(213,401)

(137,805)

2 Management Strategies

3 ESG

#### As of March 31, 2023

							(Millions of yen)
	One year or less	One to two years	Two to three years	Three to four years	Four to five years	Over five years	Total
Tax loss carryforwards (a)	2,284	865	108	817	290	2,667	7,033
Valuation allowance	(2,284)	(865)	(108)	(817)	(275)	(1,606)	(5,957)
Deferred tax assets	-	-	-	-	14	1,061	(b) 1,076

(a) Tax loss carryforwards are multiplied by the statutory tax rate.

(b) Deferred tax assets of ¥1,076 million were recognized for tax loss carryforwards of ¥7,033 million (multiplied by the statutory tax rate). No valuation allowance is recognized for the portion of such tax loss carryforwards that are deemed recoverable based on expected future taxable income and other factors.

#### As of March 31, 2022

							(Millions of yen)
	One year or less	One to two years	Two to three years	Three to four years	Four to five years	Over five years	Total
Tax loss carryforwards (a)	3,754	2,284	871	121	801	2,588	10,421
Valuation allowance	(3,754)	(2,284)	(871)	(121)	(801)	(1,581)	(9,415)
Deferred tax assets	-	-	-	-	-	1,006	(b) 1,006

(a) Tax loss carryforwards are multiplied by the statutory tax rate.
(b) Deferred tax assets of ¥1,006 million were recognized for tax loss carryforwards of ¥10,421 million (multiplied by the statutory tax rate). No valuation allowance is recognized for the portion of such tax loss carryforwards that are deemed recoverable based on expected future taxable income and other factors.

#### As of March 31, 2023

							(Thousa	ands of U.S. dollars)
		One year or less	One to two years	Two to three years	Three to four years	Four to five years	Over five years	Total
	Tax loss carryforwards (a)	17,109	6,479	809	6,120	2,172	19,978	52,682
١	Valuation allowance	(17,109)	(6,479)	(809)	(6,120)	(2,060)	(12,030)	(44,622)
I	Deferred tax assets	-	-	-	-	105	7,948	(b) 8,060

(a) Tax loss carryforwards are multiplied by the statutory tax rate.
 (b) Deferred tax assets of US\$8,060 thousand were recognized for tax loss carryforwards of US\$52,682 thousand (multiplied by the statutory tax rate). No valuation allowance is recognized for the portion of such tax loss carryforwards that are deemed recoverable based on expected future taxable income and other factors.

#### 2. Significant components of the difference between the statutory tax rate and the effective tax rate

	-				
	As of March 31, 2023	As of March 31, 2022			
Statutory tax rate	As the difference between	30.5%			
(Adjustments)	the statutory tax rate and				
Expenses not deductible for income tax purposes, such as entertainment expenses	the effective tax rate is less than 5% of the statutory tax	0.4			
Inhabitant per capita taxes	rate, it is not disclosed.	0.4			
Increase/decrease in valuation allowance		(11.4)			
Lower income tax rates applicable to income in certain foreign countries		(2.4)			
Increase/decrease in undistributed earnings of foreign affiliates		4.0			
Amortization of goodwill		1.1			
Gain on bargain purchase		(1.1)			
Share of profit/loss of entities accounted for using equity method		(4.4)			
Expiration of tax loss carryforwards		18.1			
Expiration of foreign tax credit carryforwards		1.7			
Unrecognized tax effects on eliminated intercompany unrealized profit		(0.8)			
Foreign withholding taxes, etc.		3.7			
Tax credit for R&D, etc.		(2.9)			
Consolidation adjustments for loss/gain on sales of investments in subsidiaries		(0.9)			
Other		(1.4)			
Effective tax rate		34.6			

## 3. Accounting procedures of income taxes and local income taxes and the related tax effect accounting

From the fiscal year ended March 31, 2023, the Company and some of its domestic consolidated subsidiaries have transitioned from the consolidated tax return filing system to the group tax sharing system. In accordance with this, the accounting procedures and disclosure of income taxes and local income taxes and tax effect accounting are based on the "Practical Solution on the Accounting and Disclosure Under the Group Tax Sharing System" (ASBJ Practical Solution No. 42, August 12, 2021).



2 Management Strategies



#### **Business combinations**

#### **Business combination through acquisition**

#### 1. Outline of business combination

#### (1) Name and business of acquired company

Name of acquired company: Inci GS Yuasa Akü Sanayi ve Ticaret Anonim Şirketi (hereinafter referred to as "IGYA") Manufacture and sale of lead-acid batteries for automobiles and forklifts Description of business:

#### (2) Reason for business combination

GS Yuasa International Ltd. (hereinafter referred to as "GS Yuasa"), a consolidated subsidiary of the Company, and Inci Holding A.S., the Company's joint venture partner, launched IGYA, a joint venture company, in 2015. A new plant manufacturing lead-acid batteries for automobiles started operations in January 2019, and manufacturing and sales were expanded mainly for high-performance lead-acid batteries targeting environmentally-friendly applications such as idling stop systems and fuel-efficient vehicles, for which demand was expected to increase sharply in Europe.

By making IGYA a consolidated subsidiary, we aim to expand sales of lead-acid batteries for automobiles by positioning IGYA as a production and supply base for Europe and the Middle East. Along with this, in the forklift battery business centered on Europe, we plan to strengthen the business in the future by selling lithium-ion batteries in addition to existing lead-acid batteries.

#### (3) Date of business combination

April 1, 2022 (Deemed acquisition date) May 24, 2022 (Share acquisition date)

(4) Legal structure of the business combination

#### Purchase of shares with cash

(5) Name of company after the business combination Unchanged.

#### (6) Share of voting rights acquired

Share of voting rights owned immediately before the acquisition: 50% Share of voting rights acquired on the business combination date: 10% Share of voting rights owned after the acquisition: 60%

#### (7) Main grounds for determining the acquiring company

Cash acquisition of shares by the Company's consolidated subsidiary GS Yuasa.

#### 2. Period of the acquired company's results included in the consolidated financial statements

April 1, 2022 to March 31, 2023

#### 3. Acquisition costs of the acquired company and consideration by class

	(Millions of yen)	(Thousands of U.S. dollars)
Fair value of IGYA ordinary shares owned immediately before the business combination	5,993	44,891
Cash paid for acquisition of additional shares	1,198	8,974
Acquisition cost	7,192	53,873

#### 4. Description and amounts of major relevant costs for the acquisition

¥40 million (US\$300 thousand) Advisory fees, etc.:

#### 5. Difference between the acquisition cost of the acquired company and the total amount of acquisition cost of each

#### transaction

Gain on step acquisitions ¥1,010 million (US\$7,566 thousand)

#### 6. Amount of goodwill recognized, reason for recognition, amortization method and period (1) Amount of goodwill

# ¥1,280 million (US\$9,588 thousand)

#### (2) Reason for recognition

The goodwill arises from a reasonable estimate of the future excess earning power that is expected from future business development.

#### (3) Amortization method and period

Goodwill is amortized over five years on a straight-line basis.

## 7. Amount of assets acquired and liabilities assumed on the date of the business combination

	(Millions of yen)	(Thousands of U.S. dollars)
Current assets	12,544	93,963
Non-current assets	13,763	103,094
Total assets	26,308	197,064
Current liabilities	12,873	96,427
Non-current liabilities	3,580	26,816
Total liabilities	16,453	123,243

#### 8. Amounts allocated to intangible assets other than goodwill, breakdown by principal type and amortization period by principal type

Breakdown by principal type	(Millions of yen)	(Thousands of U.S. dollars)	Amortization period
Marketing related assets	1,173	8,787	Ten years

9. Estimated amount and method used to calculate the effect of the business combination on the consolidated statements of income for the current fiscal year as if the business combination had been completed at the beginning of the fiscal year Not applicable as the deemed acquisition date is the beginning of the current fiscal year.







#### **Revenue recognition**

#### 1. Disaggregation of revenue from contracts with customers

Net sales of the Company and its consolidated subsidiaries consist primarily of revenue recognized from contracts with customers, broken down by geographic region of the Company and its consolidated subsidiaries as follows:

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

								(Millions of yen)
		Reportable segment						
	Aut	omotive Batte	ries	Industrial Battorios	Automotive		Other	Total
	Japan	Overseas	Subtotal	Batteries and Power Supplies	Lithium-ion Batteries	Total		
Major regional markets								
Japan	87,418	160	87,578	81,614	59,872	229,065	15,804	244,869
Asia	384	134,989	135,373	7,968	-	143,342	93	143,436
Europe	-	61,359	61,359	911	5,483	67,755	1,357	69,113
North America	-	12,349	12,349	7,898	-	20,248	531	20,779
Other	-	38,469	38,469	810	-	39,280	-	39,280
Revenue from contracts with customers	87,802	247,329	335,131	99,204	65,355	499,691	17,786	517,478
Other revenues	-	-	-	-	-	-	256	256
Revenues from external customers	87,802	247,329	335,131	99,204	65,355	499,691	18,043	517,735

Note "Other" comprises operating segments that are not included in any other reportable segments. Operating segments that are not included in reportable segments include the special batteries business among others.

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

								(Millions of yen)
	Aut	omotive Batte	ries	Industrial	Automotive		Other	Total
	Japan	Overseas	Subtotal	Batteries and Power Supplies	Lithium-ion Batteries	Total		
Major regional markets								
Japan	80,979	76	81,055	85,348	45,765	212,169	15,068	227,237
Asia	488	97,879	98,368	6,770	-	105,138	253	105,392
Europe	27	48,135	48,162	257	1,872	50,293	888	51,181
North America	-	9,621	9,621	5,635	-	15,257	314	15,571
Other	_	31,030	31,030	1,452	_	32,483	17	32,500
Revenue from contracts with customers	81,494	186,743	268,237	99,465	47,637	415,341	16,542	431,883
Other revenues	-	-	-	-	-	-	249	249
Revenues from external customers	81,494	186,743	268,237	99,465	47,637	415,341	16,791	432,133

Note "Other" comprises operating segments that are not included in any other reportable segments. Operating segments that are not included in reportable segments include the special batteries business among others.

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

		(Thousan	ds of U.S. dollars)					
			Reportabl	e segment				
	Aut	omotive Batte	eries	Industrial Batteries and Power Supplies			Other	Total
	Japan	Overseas	Subtotal		Lithium-ion Batteries	Total		
Major regional markets								
Japan	654,816	1,199	656,015	611,341	448,479	1,715,843	118,382	1,834,225
Asia	2,876	1,011,154	1,014,030	59,685	-	1,073,723	697	1,074,427
Europe	-	459,618	459,618	6,824	41,071	507,528	10,165	517,700
North America	-	92,502	92,502	59,161	-	151,670	3,978	155,648
Other	-	288,157	288,157	6,067	-	294,232	-	294,232
Revenue from contracts with customers	657,693	1,852,652	2,510,345	743,101	489,551	3,743,004	133,228	3,876,240
Other revenues	-	-	-	-	-	-	1,918	1,918
Revenues from external customers	657,693	1,852,652	2,510,345	743,101	489,551	3,743,004	135,154	3,878,165

Note "Other" comprises operating segments that are not included in any other reportable segments. Operating segments that are not included in reportable segments include the special batteries business among others.

#### 2. Understanding revenue from contracts with customers

For a fundamental understanding of revenue, see: "Basis of preparation of consolidated financial statements, 4. Accounting policies, (6) Standards for recognition of principal revenues and expenses."

#### 3. Understanding the amount of revenue in the current and subsequent fiscal years

#### (1) Remaining balance, etc., of contract assets and liabilities

The balances of receivables, contract assets and contract liabilities arising from contracts with customers were as follows:

	(Millions	of yen)	(Thousands of U.S. dollars)
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
Receivables from contracts with customers (balance at beginning of period)	86,187	73,347	645,596
Receivables from contracts with customers (balance at end of period)	98,536	86,187	738,097
Contract assets (balance at beginning of period)	6,375	5,962	47,753
Contract assets (balance at end of period)	5,911	6,375	44,277
Contract liabilities (balance at beginning of period)	2,181	1,780	16,337
Contract liabilities (balance at end of period)	2,176	2,181	16,300

Contract assets are rights to consideration received in exchange for satisfaction of a portion of the performance obligations at the balance sheet date for the sale and installation of batteries and power supply equipment, excluding receivables. Upon completion of installation, etc., conditions other than the passage of time are resolved and the assets are transferred to receivables. Contract assets are transferred to receivables arising from contracts with customers when the rights of the Company and its consolidated subsidiaries become unconditional. Consideration for such installation work, etc., is invoiced at the time of fulfillment of the performance obligations in accordance with the terms of the contract and is generally received within one year.

Contract liabilities primarily relate to advances received from customers under the terms of contracts for the sale of batteries and power supplies, lighting fixtures, and other battery and electrical equipment to customers for which revenue is recognized upon the satisfaction of performance obligations. Contract liabilities are reversed upon the recognition of revenue. The amount of revenue recognized in the previous fiscal year that was included in the contract liability balance at the beginning of the period was ¥1,148 million. Changes in contract assets resulted primarily from revenue recognition and transfers to receivables. Changes in contract liabilities resulted primarily from receipt of advances received and recognition of revenue.

The amount of revenue recognized in the previous fiscal year from performance obligations that were satisfied (or partially satisfied) in prior periods was not material.

The amount of revenue recognized in the current fiscal year that was included in the contract liability balance at the beginning of the period was ¥1,095 million (US\$8,202 thousand). Changes in contract assets resulted primarily from revenue recognition and transfers to receivables. Changes in contract liabilities resulted primarily from receipt of advances received and recognition of revenue.

The amount of revenue recognized in the current fiscal year from performance obligations that were satisfied (or partially satisfied) in prior periods was not material.

#### (2) Transaction price allocated to remaining performance obligations

The Company and its consolidated subsidiaries apply the practical expedient method in noting the transaction price allocated to the remaining performance obligations and do not include contracts with an initial expected contract term of one year or less in notes. The aggregate transaction price allocated to unsatisfied performance obligations as of the end of the previous fiscal year and the end of the current fiscal year, and the period over which revenue is expected to be recognized were as follows. The maximum period over which revenue is expected to be recognized is 20 years or less.

	(Millions	(Thousands of U.S. dollars)	
	As of March 31, 2023	As of March 31, 2022	As of March 31, 2023
One year or less	13,263	13,096	99,348
Exceeding one year	17,111	16,853	128,172
Total	30,375	29,949	227,528

#### Segment and other information

#### [Segment information]

#### 1. Overview of reportable segments

The Company's reportable segments are components of the Company about which separate financial information is available. These segments are subject to periodic examinations to enable the Company's Board of Directors to decide how to allocate resources and assess performance.

The GS Yuasa Group consists of segments based on business units. The reportable segments comprised Automotive Batteries-Japan, Automotive Batteries-Overseas, Industrial Batteries and Power Supplies, and Automotive Lithium-ion Batteries. The Automotive Batteries-Japan segment consists of the manufacturing and marketing of lead-acid batteries for automobiles. The Automotive Batteries-Overseas segment consists of the manufacturing and marketing of batteries overseas. The Industrial Batteries and Power Supplies segment consists of the manufacturing and marketing of industrial batteries and power supplies. The Automotive Lithium-ion Batteries segment consists of the manufacturing and marketing of lithium-ion batteries for automobiles.

#### 2. Measurement of net sales, profit/loss, assets, and other amounts by reportable segment

Accounting methods applied in the reportable segments are largely consistent with those presented in the Notes under "Basis of preparation of consolidated financial statements." Reportable segment profit is based on operating profit before goodwill amortization. Intersegment sales and transfers are based mainly on market price and cost of goods manufactured.







3. Net sales, profit/loss, assets, and other amounts by reportable segment Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

			(Millions of yen)					
	Automotive Batteries			Industrial Batteries	Automotive		Other (Note)	Total
	Japan	Overseas	Subtotal	and Power Supplies Lithium-ion Batteries	Total	(NOLE)		
Net sales								
Revenues from external customers	87,802	247,329	335,131	99,204	65,355	499,691	18,043	517,735
Transactions with other segments	1,271	4,412	5,684	15,931	2,842	24,458	(24,458)	-
Total	89,073	251,741	340,815	115,136	68,197	524,149	(6,414)	517,735
Segment profit	6,547	13,345	19,892	8,808	1,986	30,687	1,387	32,074
Segment assets	63,687	214,772	278,459	75,731	70,280	424,472	116,434	540,906
Other items								
Depreciation/ amortization	2,646	6,725	9,372	1,750	4,103	15,226	5,728	20,954
Investments in entities accounted for using equity method	1,364	36,741	38,106	509	-	38,616	233	38,849
Increase in property, plant and equipment, and intangible assets	2,764	10,952	13,717	4,262	7,166	25,146	7,654	32,800

Notes 1. "Other" comprises operating segments that are not included in any other reportable segments and adjustment for segment profit. Operating segments that are not included in reportable segments include the special batteries business among others.

2. Adjustments were as follows:

(1) Adjustment for segment profit was ¥(1,229) million, which included ¥(158) million elimination of intersegment transactions and ¥(1,070) million of unallocated corporate expenses. The main component of these unallocated corporate expenses was general and administrative expenses not attributable to reportable segments.

(2) Adjustment for segment assets was ¥105,407 million, which included ¥(106,179) million elimination of intersegment receivables and payables, and ¥211,587 million of unallocated corporate assets. The main components of these unallocated corporate assets were working funds, long-term investment funds, assets allocated to administrative departments and some laboratory facilities.

(3) Adjustment for depreciation/amortization was ¥4,396 million, consisting of depreciation and amortization charges for corporate assets.
 (4) Adjustment for increase in property, plant and equipment, and intangible assets was ¥7,291 million, consisting of the acquisition price of property, plant and equipment, and intangible assets classified as corporate assets.

3. The difference between the total segment profit in the table above and the operating profit of ¥31,500 million on the consolidated statements of income represents amortization of goodwill and other intangible assets of ¥(574) million. These goodwill and other intangible assets included identifiable assets acquired on the effective date of the business combination.

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

								(Millions of yen)
	Automotive Batteries			Industrial Batteries	Automotive		Other	Total
	Japan	Overseas	Subtotal	and Power Supplies	Lithium-ion Batteries	Total	(Note)	
Net sales								
Revenues from external customers	81,494	186,743	268,237	99,465	47,637	415,341	16,791	432,133
Transactions with other segments	1,349	3,929	5,278	16,741	8,956	30,976	(30,976)	-
Total	82,844	190,672	273,516	116,206	56,594	446,318	(14,184)	432,133
Segment profit	5,878	9,965	15,843	5,775	1,654	23,273	579	23,853
Segment assets	61,202	186,413	247,616	72,920	62,938	383,474	97,288	480,763
Other items								
Depreciation/ amortization	2,862	4,908	7,770	1,624	3,280	12,675	5,531	18,207
Investments in entities accounted for using equity method	1,286	34,003	35,290	456	-	35,746	3,630	39,377
Increase in property, plant and equipment, and intangible assets	3,796	5,279	9,076	1,347	10,972	21,395	7,180	28,575

Notes 1. "Other" comprises operating segments that are not included in any other reportable segments and adjustment for segment profit. Operating segments that are not included in reportable segments include the special batteries business among others. 2. Adjustments were as follows:

(1) Adjustment for segment profit was ¥(857) million, which included ¥37 million elimination of intersegment transactions and ¥(894) million of unallocated corporate expenses. The main component of these unallocated corporate expenses was general and administrative expenses not attributable to reportable segments.

(2) Adjustment for segment assets was ¥83,569 million, which included ¥(117,095) million elimination of intersegment receivables and payables, and ¥200,664 million of unallocated corporate assets. The main components of these unallocated corporate assets were working funds, long-term investment funds, assets allocated to administrative departments and some laboratory facilities.
 (3) Adjustment for depreciation/amortization was ¥4,143 million, consisting of depreciation and amortization charges for corporate assets.

(4) Adjustment for increase in property, plant and equipment, and intangible assets was ¥6,766 million, consisting of the acquisition price of property, plant and equipment, and intangible assets classified as corporate assets.

3. The difference between the total segment profit in the table above and the operating profit of ¥22,664 million on the consolidated statements of income represents amortization of goodwill and other intangible assets of ¥(1,188) million. These goodwill and other intangible assets included identifiable assets acquired on the effective date of the business combination.

ESG

Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

	Aut	Automotive Batteries			Automotive		Other (Note)	Total
	Japan	Overseas	Subtotal	Batteries and Power Supplies	er Lithium-ion	Total	(Note)	
Net sales								
Revenues from external customers	657,693	1,852,652	2,510,345	743,101	489,551	3,743,004	135,154	3,878,165
Transactions with other segments	9,521	33,049	42,577	119,333	21,288	183,206	(183,206)	-
Total	667,213	1,885,700	2,552,921	862,442	510,839	3,926,210	(48,045)	3,878,165
Segment profit	49,041	99,963	149,004	65,978	14,876	229,865	10,390	240,255
Segment assets	477,056	1,608,779	2,085,835	567,273	526,442	3,179,566	872,165	4,051,730
Other items								
Depreciation/ amortization	19,820	50,375	70,202	13,109	30,734	114,052	42,906	156,959
Investments in entities accounted for using equity method	10,217	275,213	285,438	3,813	-	289,258	1,745	291,004
Increase in property, plant and equipment, and intangible assets	20,704	82,037	102,749	31,925	53,678	188,360	57,333	245,693

Notes 1. "Other" comprises operating segments that are not included in any other reportable segments and adjustment for segment profit. Operating segments that are not included in reportable segments include the special batteries business among others.

2. Adjustments were as follows:

(1) Adjustment for segment profit was US\$(9,206) thousand, which included US\$(1,184) thousand elimination of intersegment transactions and US\$(8,015) thousand of unallocated corporate expenses. The main component of these unallocated corporate expenses was general and administrative expenses not attributable to reportable segments.

(2) Adjustment for segment assets was US\$789,566 thousand, which included US\$(795,348) thousand elimination of intersegment receivables and payables, and US\$1,584,921 thousand of unallocated corporate assets. The main components of these unallocated corporate assets were working

(3) Adjustment for depreciation/amortization was US\$32,929 thousand, consisting of depreciation and amortization charges for corporate assets.
(4) Adjustment for increase in property, plant and equipment, and intangible assets was US\$54,614 thousand, consisting of the acquisition price of property, plant and equipment, and intangible assets classified as corporate assets.

3. The difference between the total segment profit in the table above and the operating profit of US\$235,955 thousand on the consolidated statements of income represents amortization of goodwill and other intangible assets of US\$(4,300) thousand. These goodwill and other intangible assets included identifiable assets acquired on the effective date of the business combination.

#### [Information associated with reportable segments] Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

#### 1. Information for each product and service

A description is omitted because the product and service categories are the same as the reportable segment categories.

#### 2. Information for each region

#### (1) Net sales

				(Millions of yen)
Japan	Asia	Europe and North America	Other	Total
245,126	143,436	89,892	39,280	517,735

Note Net sales are based on the location of customers and are classified by country or region.

				(Thousands of U.S. dollars)
Japan	Asia	Europe and North America	Other	Total
1,836,150	1,074,427	673,348	294,232	3,878,165

Note Net sales are based on the location of customers and are classified by country or region.

#### (2) Property, plant and equipment

					(Millions of yen)			
Japan	China	Asia (other)	Europe and North America	Other	Total			
103,572	9,023	25,231	23,182	4,032	165,043			
	(Thousands of U.S. dollars)							
Japan	China	Asia (other)	Europe and North America	Other	Total			
775,820	67,588	188,996	173,648	30,202	1,236,277			

#### 3. Information for each main customer

Revenues from external customers are omitted because no specific customer accounted for 10% or more of the net sales in the consolidated statements of income.

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

#### 1. Information for each product and service

A description is omitted because the product and service categories are the same as the reportable segment categories.

#### 2. Information for each region

#### (1) Net sales

(Millions of yen)								
Japan	Asia	Europe and North America	Other	Total				
227,486	105,392	66,753	32,500	432,133				

Note Net sales are based on the location of customers and are classified by country or region.

#### (2) Property, plant and equipment

					(Millions of yen)
Japan	China	Asia (other)	Europe and North America	Other	Total
99,023	10,058	22,737	7,025	4,162	143,007



#### 3. Information for each main customer

Revenues from external customers are omitted because no specific customer accounted for 10% or more of the net sales in the consolidated statements of income.

#### [Information about impairment losses of non-current assets for each reportable segment]

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)



#### Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

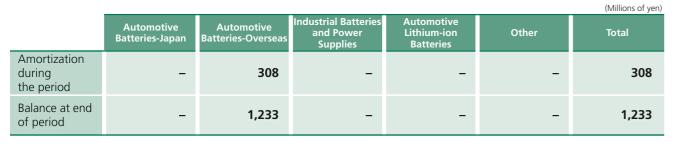
						(Millions of yen)
	Automotive Batteries-Japan	Automotive Batteries-Overseas	Industrial Batteries and Power Supplies	lithium-ion	Other	Total
Impairment losses	104	4,943	10	-	721	5,779

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)

					(	Thousands of U.S. dollars)
	Automotive Batteries-Japan	Automotive Batteries-Overseas	Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	Other	Total
Impairment losses	-	-	-	21,813	-	21,813

#### [Amortization and unamortized balance of goodwill for each reportable segment]

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)



#### Year ended March 31, 2022 (April 1, 2021 to March 31, 2022)

	Automotive Batteries-Japan	Automotive Batteries-Overseas	Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	Other	(Millions of yen) Total
Amortization during the period	659	-	-	-	-	659
Balance at end of period	-	-	-	-	-	-

#### Υ

Year ended March 31, 2023 (April 1, 2022 to March 31, 2023)							
	Automotive Batteries-Japan	Automotive Batteries-Overseas	Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	(T Other	housands of U.S. dollars) Total	
Amortization during the period	-	2,307	-	-	-	2,307	
Balance at end of period	-	9,236	-	-	-	9,236	

#### [Information about gain on bargain purchase for each reportable segment]

#### Year ended March 31, 2023 (April 1, 2022 to March 31, 2023) Not applicable

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022) In the Industrial Batteries and Power Supplies segment, a material gain on bargain purchase was recognized through the acquisition of all the shares of Sanken Densetsu Co., Ltd. (company name changed to GS Yuasa Infrastructure Systems Co., Ltd. on May 1, 2021) and the company's subsequent consolidation as a subsidiary. The total gain on bargain purchase recorded due to this transaction was ¥710 million.

#### Related party(ies) information

Year ended March 31, 2023 (April 1, 2022 to March 31, 2023) 1. Related party transactions Not applicable

#### 2. Notes on parent company and significant affiliates (1) Information on parent company Not applicable

#### (2) Summary financial information of significant affiliates

From the current fiscal year, equity-method affiliate PG Holdings Co., Ltd. became a significant affiliate due to an increase in materiality, and the company's summary financial statement is as below.

	(Millions of yen)	(Thousands of U.S. dollars)
Total current assets	15,873	118,899
Total non-current assets	3,175	23,783
Total current liabilities	15,947	119,453
Total non-current liabilities	-	-
Total net assets	3,101	23,228
Net sales	4,354	32,614
Loss before income taxes	(5,833)	(43,693)
Loss attributable to owners of parent	(5,816)	(43,566)

Year ended March 31, 2022 (April 1, 2021 to March 31, 2022) 1. Related party transactions

Not applicable

- 2. Notes on parent company and significant affiliates (1) Information on parent company Not applicable
- (2) Summary financial information of significant affiliates Not applicable

Vision 2035

4 Financial / Corporate Data

ESG

#### Per share information

	(Ye	en)	(U.S. dollars)
Item	Year ended March 31, 2023	Year ended March 31, 2022	Year ended March 31, 2023
Net assets per share	2,867.23	2,675.70	21.48
Basic earnings per share	173.11	105.23	1.30

Notes 1. Diluted earnings per share is not provided here, as there are no residual securities.

2. Calculation of basic earnings per share was as follows:

	(Millions	of yen)	(Thousands of U.S. dollars)
	Year ended <u>March 31, 2023</u>	Year ended <u>March 31, 2022</u>	Year ended <u>March 31, 2023</u>
Basic earnings per share			
Profit attributable to owners of parent	13,925	8,468	104,307
Amount not attributable to common stockholders	-	-	-
Profit attributable to common stockholders of parent	13,925	8,468	104,307
Average number of common stock shares during term (thousands of shares)	80,448	80,475	

Note The Company has introduced a performance-linked share-based payment system for its directors (excluding outside directors) and has set up an Officer Stock Grant Trust. The Company's own shares held by the trust are included in the number of treasury shares presented in the consolidated financial statements. In line with this, for the calculation of basic earnings per share, the number of the Company's own shares held by the trust was included in the number of treasury shares that is subtracted from the average number of common stock shares during the term. In addition, for the calculation of net assets per share, the number of the Company's own shares held by the trust was included in the number of treasury shares that is deducted from the total number of shares issued at the end of the period.

The average number of treasury shares during the term deducted in the calculation of basic earnings per share was 68,247 shares in the previous fiscal year and 58,723 shares in the current fiscal year. For the calculation of net assets per share, the number of treasury shares deducted at the end of the period was 67,200 shares in the previous fiscal year and 53,300 shares in the current fiscal year.

#### Significant subsequent events

#### Basic agreement toward establishment of a joint venture company

GS Yuasa International Ltd. (hereinafter referred to as "GS Yuasa"), a consolidated subsidiary of the Company, has reached a basic agreement with Honda Motor Co., Ltd. (hereinafter referred to as "Honda") toward collaboration for a high-capacity, high-output lithium-ion battery, and progress has been made in putting this collaboration into practice.

GS Yuasa passed its resolution on the establishment of the joint venture company of both parties at its meeting of the Board of Directors held on April 24, 2023, and concluded the joint venture basic agreement.

#### (1) Purpose of the establishment of the joint venture company

The new joint venture company will research and develop lithium-ion batteries and battery production methods that will be highly competitive at a global level. Moreover, the new company will strive to establish a supply chain for key raw materials and a highly-efficient battery production system in order to address the rapidly growing demand for batteries.

#### (2) Overview of the joint venture company

(i) Company name	Honda GS Yuasa EV Battery R&D Co., Ltd.
(ii) Head office	1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku, Kyoto, Japan
(iii) Title and name of the representative	Koichi Yamamoto, Representative Director and President
(iv) Capital and legal capital surplus at establishment	Capital: ¥2.0 billion Legal capital surplus: ¥2.0 billion
(v) Description of business	<ol> <li>Research and development of a high-capacity, high-output lithium-ion battery, primarily for EV use, and the required production methods</li> <li>To construct and manage and intellectual property portfolio comprising patents, etc. relating to the research and development</li> <li>Planning for products that utilize technologies resulting from the research and development, and planning for the required sales channels</li> <li>Designing of an efficient production operation including the supply chain for key raw materials, etc.</li> </ol>
(vi) Date of establishment	Dates for the establishment and commencement of business operations are scheduled during 2023.
(vii) Ownership (%)	Honda 50%, GS Yuasa 50%

### **Consolidated supplemental schedules**

#### [Schedule of bonds payable]

							(Millions of yen)
Company name	Issue	Date of issue	Balance at beginning of period	Balance at end of period	Interest rate (%)	Secured/ unsecured	Maturity
GS Yuasa Corporation	1st unsecured bonds	September 13, 2017	10,000	10,000	0.44	Unsecured	September 13, 2027
GS Yuasa Corporation	2nd unsecured bonds	December 10, 2018	10,000	10,000 (10,000)	0.20	Unsecured	December 8, 2023
Total	-	-	20,000	20,000 (10,000)	-	-	-

	(Thousands of U.S. dollars)							
Company name	Issue	Date of issue	Balance at beginning of period	Balance at end of period	Interest rate (%)	Secured/ unsecured	Maturity	
GS Yuasa Corporation	1st unsecured bonds	September 13, 2017	74,906	74,906	0.44	Unsecured	September 13, 2027	
GS Yuasa Corporation	2nd unsecured bonds	December 10, 2018	74,906	74,906 (74,906)	0.20	Unsecured	December 8, 2023	
Total	-	-	149,813	149,813 (74,906)	-	-	-	

Notes 1. Amounts in parentheses indicate the current portion of bonds payable 2. The redemption schedule for the five years following the consolidated fiscal year-end date is as follows.

				(Millions of yen)
One year or less	One to two years	Two to three years	Three to four years	Four to five years
10,000	-	-	-	10,000
				(Thousands of U.S. dollars)
One year or less	One to two years	Two to three years	Three to four years	Four to five years
74,906	-	-	-	74,906



#### [Schedule of borrowings]

				(Millions of yen)
Categories	Balance at beginning of period	Balance at end of period	Average interest rate(%)	Repayment deadline
Short-term borrowings	15,459	30,733	7.60	-
Commercial papers	2,000	-	-	-
Current portion of long-term borrowings	3,322	11,584	1.11	-
Current portion of lease liabilities	1,701	1,844	2.15	-
Long-term borrowings (excluding current portion)	41,696	41,357	0.77	2024 to 2030
Lease liabilities (excluding current portion)	6,100	8,510	2.19	2024 to 2042
Total	70,280	94,030	-	-

		(Thousands of U.S. dollars)
Categories	Balance at beginning of period	Balance at end of period
Short-term borrowings	115,798	230,210
Commercial papers	14,981	-
Current portion of long-term borrowings	24,884	86,772
Current portion of lease liabilities	12,742	13,813
Long-term borrowings (excluding current portion)	312,330	309,790
Lease liabilities (excluding current portion)	45,693	63,745
Total	526,442	704,345

Notes 1. The "average interest rate" is the weighted average interest rate on the balance at the end of the period.

2. The aggregate annual maturities of long-term borrowings and lease liabilities (excluding the current portion) within five years of the consolidated fiscal vear-end date are as follows

				(Millions of yen)
	One to two years	Two to three years	Three to four years	Four to five years
Long-term borrowings	9,949	8,332	9,824	166
Lease liabilities	1,020	992	865	632

				(Thousands of U.S. dollars)
	One to two years	Two to three years	Three to four years	Four to five years
Long-term borrowings	74,524	62,412	73,588	1,243
Lease liabilities	7,640	7,431	6,479	4,734

#### [Schedule of asset retirement obligations]

Since the amount of asset retirement obligations at the beginning and end of the current fiscal year was 1/100 or less of the total liabilities and net assets at the beginning and end of the current fiscal year, the description is omitted pursuant to Article 92-2 of the Regulations for Consolidated Financial Statements.

# KPMG

# Independent auditor's report

#### To the Board of Directors of GS Yuasa Corporation:

**Report on the Audit of the Consoliadted Financial Statements** 

#### Opinion

We have audited the accompanying consolidated financial statements of GS Yuasa Corporation ("the Company") and its consolidated subsidiaries (collectively referred to as "the Group") provided in the "Financial Information" section in the GS Yuasa Report 2023, which comprise the consolidated balance sheets as at March 31, 2023 and the consolidated statements of income and comprehensive income, statements of changes in net assets and statements of cash flows for the year then ended, and a basis of preparation of consolidated financial statements, other explanatory information and supplemental schedules, in accordance with Article 193-2(1) of the Financial Instruments and Exchange Act of Japan.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2023, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

#### **Basis for Opinion**

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Key Audit Matters**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### Appropriateness of the amount of impairment loss recognized on long-lived assets used in the 12V lithium-ion batteries business

#### The key audit matter

As described in the Notes on "Consolidated Statement of Income, \*7. Impairment Losses" to consolidated financial statements, the Company recognized in the consolidated statement of income an impairment loss of ¥2,912 million on long-lived assets of the 12V lithium-ion batteries business (hereinafter the "12VLIB business") within the Automotive Lithium-ion batteries segment.

Long-lived assets are tested for impairment



4

#### How the matter was addressed in our audit

The primary procedures we performed to assess the appropriateness of the amount of impairment loss recognized on long-lived assets used in the 12VLIB business included the following audit procedures:

#### (1) Internal control testing

Test of the design and operating effectiveness of certain internal controls relevant to the recognition of an impairment loss on long-lived

whenever there is an impairment indicator. In the impairment testing, when the recoverable amount of an asset or group of assets is less than its carrying amount, the carrying amount is reduced to the recoverable amount, and the resulting decrease in carrying amount is recognized as an impairment loss. The recoverable amount is the higher of either the value in use or the net realizable value (or the fair value less costs of disposal under International Financial Reporting Standards, as applicable).

The 12VLIB business is composed of two asset groups: the 12VLIB business in the Lithium-ion Batteries Business Unit at GS Yuasa International Ltd., a consolidated subsidiary (hereinafter "GYLI-12VLIB"), and GS Yuasa Hungary Ltd. (hereinafter "GYHU"). The 12VLIB business had recognized recurring operating losses with a significant downward trend when compared to the business plan formulated at the time the business was originally launched. Accordingly, it was determined that such conditions would constitute an impairment indicator for both of the asset groups. Therefore, an impairment test was performed based on the net realizable value as the recoverable amount.

In estimating the net realizable value, selecting the appropriate valuation models and applying applicable valuation techniques to measure the net realizable value required a high degree of expertise in valuation.

We, therefore, determined that our assessment of the appropriateness of the amount of impairment loss recognized on long-lived assets used in the 12VLIB business was of most significance in our audit of the consolidated financial statements for the current fiscal year, and accordingly, a key audit matter.

#### assets

(2) Assessment of the reasonableness of estimated net realizable value

(i) Long-lived assets used in GYLI-12VLIB We primarily performed the following procedures with the assistance of valuation specialists within our network firms:

- Assessed the competency, capabilities, and objectivity of the external experts engaged by the Company based on information about their experience and qualifications, membership status with professional organizations, and whether any conflicts of interest exist with the Company; and
- Assessed whether the valuation models selected, the valuation techniques applied and the measurement of the net realizable value by the external experts engaged by the Company were appropriate by inquiring of the experts, inspecting the valuation results prepared by them and comparing the results with external data

(ii) Long-lived assets used in GYHU We requested the component auditor of GYHU to perform an audit. We then evaluated the report received from the component auditor to conclude on whether sufficient and appropriate audit evidence was obtained from their audit procedures, including those listed in (i) above, performed with the assistance of valuation specialists within the network firms of the component auditor.

#### **Other Information**

The other information comprises the information included in the GS Yuasa Report 2023, but does not include the consolidated financial statements, the financial statements, and our auditor's reports thereon. Management is responsible for the preparation and presentation of the other information. Corporate auditors and the board of corporate auditors are responsible for overseeing the directors' performance of their duties with regard to the design, implementation and maintenance of the reporting process for the other information

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

#### Responsibilities of Management and Corporate Auditors and the Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern in accordance with accounting principles generally accepted in Japan.

Corporate auditors and the board of corporate auditors are responsible for overseeing the directors' performance of their duties including the design, implementation and maintenance of the Group's financial reporting process.

#### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of our audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- · Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the objective of the audit is not to express an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the presentation and disclosures in the consolidated financial statements are in accordance with accounting standards generally accepted in Japan, the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide corporate auditors and the board of corporate auditors with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.





From the matters communicated with corporate auditors and the board of corporate auditors, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

#### **Report on the Audit of the Internal Control Report**

#### Opinion

We also have audited the accompanying internal control report of GS Yuasa Corporation as at March 31, 2023, in accordance with Article 193-2(2) of the Financial Instruments and Exchange Act of Japan.

In our opinion, the accompanying internal control report, which states that the internal control over financial reporting was effective as at March 31, 2023, presents fairly, in all material respects, the results of the assessments of internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

#### **Basis for Opinion**

We conducted our audit of the internal control report in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Internal Control Report section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the internal control report in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Responsibilities of Management and Corporate Auditors and the Board of Corporate Auditors for the Internal Control Report

Management is responsible for the design and operation of internal control over financial reporting and the preparation and fair presentation of the internal control report in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

Corporate auditors and the board of corporate auditors are responsible for overseeing and examining the design and operation of internal control over financial reporting.

Internal control over financial reporting may not completely prevent or detect financial statement misstatements.

#### Auditor's Responsibilities for the Audit of the Internal Control Report

Our objectives are to obtain reasonable assurance about whether the internal control report is free from material misstatement based on our audit of the internal control report and to issue an auditor's report that includes our opinion

As part of our audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Perform procedures to obtain audit evidence about the results of the assessments of internal control over financial reporting in the internal control report. The procedures for the audit of the internal control report are selected and performed, depending on the auditor's judgment, based on significance of effect on the reliability of financial reporting.
- Evaluate the overall presentation of the internal control report, including the appropriateness of the scope, procedures and results of the assessments that management presents.

· Obtain sufficient appropriate audit evidence about the results of the assessments of internal control over financial reporting in the internal control report. We are responsible for the direction, supervision and performance of the audit of the internal control report. We remain solely responsible for our audit opinion

We communicate with corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of our audit of the internal control report, the results thereof, material weaknesses in internal control identified during our audit of internal control report, and those that were remediated.

We also provide corporate auditors and the board of corporate auditors with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

#### Interest required to be disclosed by the Certified Public Accountants Act of Japan

We do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Motohiro Tanaka Designated Limited Liability Partner **Engagement Partner** Certified Public Accountant

Tetsuo Yamada Designated Limited Liability Partner **Engagement Partner** Certified Public Accountant

KPMG AZSA LLC Kyoto Office, Japan June 29, 2023

#### Notes to the Reader of Audit Report:

The Independent Auditor's Report herein is the English translation of the Independent Auditor's Report as required by the Financial Instruments and Exchange Act of Japan.





4

Financial / Corporate Data

# **11-Year Key Consolidated Financial Data**

42.9

44.4

33.1

48.5

Notes: 1. Operating profit ratio, ROE and total payout ratio refer to profit before amortization of goodwill (operating profit and profit) after fiscal 2016. 2. The Company implemented a five-to-one consolidation of ordinary shares on October 1, 2018, and consequently, per-share indicators from prior to the consolidation have been calculated as if the share consolidation were implemented. The "automotive batteries (overseas)" segment previously included a portion of transaction amounts for industrial batteries handled overseas, but as of fiscal 2018, the segment was changed to "industrial batteries and power supplies." Net sales and operating profit for fiscal 2017 are indicated for the reporting segments after the change.
 Some consolidated subsidiaries in the "automotive batteries (overseas)" segment were transferred to the "industrial batteries and power supplies." Net sales and operating profit for fiscal 2017 are indicated for the reporting segments after the change.

of amount at beginning and end of term FY2015 FY2014 FY2016 FY2018 FY2012 FY2013 FY2017 FY2019 (Millions of yen) For the fiscal year information ¥ 274.509 ¥ 359.605 Net sales ¥ 347.995 ¥ 369,760 ¥ 365.610 ¥ 410.951 ¥ 413.089 ¥ 395.553 55,648 56,905 51,747 50,986 67,598 89,240 91,460 88,059 Automotive batteries (Japan) 119.885 164,252 183.759 191,402 170.613 185,574 177.052 162,138 Automotive batteries (Overseas) Industrial batteries and power supplies 72.427 79,242 79.822 74.804 72,765 74.237 80.042 84.566 10,597 32,501 45,181 38,312 39,305 44,784 45,585 Automotive lithium-ion batteries 42,264 Specialized batteries and others 15,951 15,094 9.248 10,104 9.323 17,113 18,947 18,525 Operating profit 21,909 9,775 18,197 20,914 23,106 21,920 22,654 21,676 Operating profit before amortization of goodwill 24,185 24,076 25,066 23,935 Automotive batteries (Japan) 3,931 3,310 2,397 3,291 5,676 6,143 7,766 6,976 8,996 Automotive batteries (Overseas) 6,380 10,786 11,358 10,460 8,960 9,926 9,187 9,157 10,813 12,199 8,657 8,061 8,701 7,364 7,827 Industrial batteries and power supplies Automotive lithium-ion batteries (11, 249)(7, 243)(2,626) (565)45 1,320 300 (1,708)(754) Specialized batteries and others (100) 936 1,698 (235)(699) 287 322 12,258 20,333 21,416 22,545 21,387 24,728 23,109 22,357 Ordinary profit 9,030 11,449 13,524 13,674 Profit attributable to owners of parent 5,767 9,982 10,043 12,229 13,699 13,894 15,974 15,925 Profit attributable to owners of parent before amortization of goodwill 12,955 19,909 15,223 18,220 33,159 18,570 11,008 21,461 Capital investment 12,939 15,979 Depreciation expenses 13,264 15,715 15,309 15,241 16,506 16,115 6,495 6,996 9,533 9,868 Research and development expenses 6,227 6,725 11,170 9,517 19,704 19,729 30,215 34,846 21,934 33,119 19,069 31,493 Cash flows from operating activities (9,786) (17, 311)(32,912) (20, 810)(17, 570)(20, 690)Cash flows from investing activities (29,249) (14, 519)(10, 180)9,918 12,904 1,934 1,124 13,923 12,429 Free cash flow 5.210 3,839 589 (5,798) (9,685) (3,715)(6,702) (11,706) (10,245) Cash flows from financing activities At year-end information ¥ 290,368 ¥ 340,462 ¥ 359,522 ¥ 346,523 ¥ 370,508 ¥ 389,216 ¥ 384,243 ¥ 385,416 Total assets 23,392 27,788 24,673 19,776 23,408 24,748 Cash and cash equivalents 11,210 25,708 141,189 182,187 177,790 188,155 205,638 207,708 205,318 154,702 Total net assets 71,674 80,134 82,166 73,608 74,257 75,153 66,940 64,548 Total debt 125.352 139,454 161,386 153,723 161,722 175,775 178,320 176,336 Total equity before noncontrolling interests Number of employees 12,599 13,609 14,415 14,710 14,585 14,217 13,542 14,506 Per share data Basic earnings per share (yen) ¥ 69.85 ¥ 120.91 ¥ 121.66 ¥ 109.39 ¥ 148.14 ¥ 138.90 ¥ 164.74 ¥ 168.23 1,518.25 1,689.12 1,954.89 1,862.16 1,959.14 2,179.03 2,173.37 2,138.45 Net assets per share (yen) 50 50 Cash dividends per share applicable to the year (yen) 30 40 50 50 50 50 Financial indices 5.2 5.7 6.0 6.7 5.9 6.1 Operating income ratio (%) 3.6 6.1 5.7 ROE (Return on Equity) (%) 4.8 7.5 6.7 8.7 8.2 9.0 9.0 ROIC (Return on Invested Capital) (%) 5.3 8.7 9.3 9.8 11.1 10.9 11.3 10.9 43.2 41.0 44.9 44.4 43.6 45.2 46.4 45.8 Equity ratio (%) Ratio of interest-bearing debt to cash flow (years) 4.0 4.2 4.3 2.5 2.2 3.5 2.2 2.2 Treasury shares purchase amount (purchase amount for next fiscal year) (100 million yen) 10.0 9.2 13.8 15.0 45.7 37.4 36.3 34.3 34.9

41.1

52.4

55.5

51.1

49.9

49.4

46.2

Total payout ratio (%) Overseas sales ratio (%)









this change, figures for fiscal 2018 were restated according to the modified segments. 5. ROIC is calculated as follows: Operating income before amortization of goodwill / Invested capital (fixed assets [excl. goodwill amortization] + working capital) . Invested capital is the average

FY2020	FY2021	FY2022
¥ 386,511	¥ 432,133	¥ 517,735
83,639	81,494	87,802
165,296	186,743	247,329
84,037	99,465	99,204
35,950	47,637	65,355
17,587	16,791	18,043
24,810	22,664	31,500
27,069	23,853	32,074
8,669	5,878	6,547
12,225	9,965	13,345
6,890	5,775	8,808
(852)	1,654	1,986
136	579	1,387
27,279	24,684	24,213
11,455	8,468	13,925
13,538	9,498	14,435
23,159	28,575	32,800
16,210	16,775	20,954
11,201	12,383	12,622
35,817	12,879	28,330
(19,327)	(30,204)	(26,567)
16,490	(17,325)	1,763
(7,018)	5,203	8,826
¥ 431,913	¥ 480,763	¥ 540,906
35,807	25,845	36,027
234,570	249,938	270,890
65,420	82,478	103,675
202,245	215,233	230,677
13,305	13,571	14,317
¥ 141.91	¥ 105.23	¥ 173.11
2,509.08	2,675.70	2,867.23
50	50	50
7.0	5.5	6.1
7.2	4.6	6.5
12.0	9.7	11.4
46.8	44.8	42.6
2.0	7.0	4.0
—	—	—
29.8	42.4	27.9
46.9	47.4	52.7

## **Key Financial Indices by Business Segment**

Notes: 1. Operating profit is operating profit before amortization of goodwill and the operating profit ratio is the operating profit ratio before amortization of goodwill.

2. In fiscal 2019, some consolidated subsidiaries in the "automotive batteries (overseas)" segment were shifted to the "industrial batteries and power supplies" segment. Accordingly, the figures for fiscal 2018 have been reclassified to reflect the revised segment categories.

3. ROA has been calculated by dividing operating profit before amortization of goodwill by segment assets.

4. Depreciation expenses include depreciation of intangible assets. 5. Research and development expenses are calculated as total for the "automotive batteries (Japan)" and the "automotive batteries (verseas)" segments











# Targets and Results Concerning Material Issues (FY2022)

E Environment S Social G Governance						D Domestic	O Overseas G Globa	
Materiality	Activity outline	Scope of	FY202	FY2022 results	Impact on Society	Impact on Business		
		application	KPI(key performance indicator)	Target value/ Reference value	Result	pace on occcety		
Thoroughly	ur CSR and nsuring ompliance raining of compliance training	D	Number of times compliance education information disseminated annually	16 times	16 times			
fulfilling our CSR and			Number of significant compliance violations	None	None	Maintenance	A	
compliance			Achievement ratio of compliance training plan	100%	100%	of a sound and well-ordered society	Avoidance of financial losses from compliance violations	
G		0	Achievement ratio of significant compliance violation risk response plan	100%	100%			
Respect and protection for intellectual property	Promotion of the use of company intellectual property rights	G	Achievement ratio of patent acquisition plan in ASEAN region and China	100%	100%	Maintenance of a fair competitive order	Avoidance of financial losses from infringement of other companies' patents Prevention of lost sales in the	
G G	Elimination of infringing products	0	Achievement ratio of response plan to intellectual property infringement (imitation products)	100%	100%		future due to sales of counterfeit products	
Strict management	Promotion of security measures and strengthening of illegal /	G	Cyberattack response ratio at time of detecting high security alerts	100%	100%			
of confidential nformation G	inappropriate access monitoring	D	Information leak confirmation and response ratio at time of large data output	100%	100%	Achieve a safe and secure information society	Avoidance of financial losses from leaks of confidential information	
	Promotion of information security training	D	Ratio of employees passing information security proficiency test	95% or more	96%			
De en e et fe u		D	Achievement ratio of human rights training plan	100%	100%	Raise awareness		
Respect for Individuality	Promoting human rights education, thorough management of human rights risks	0	Achievement ratio of harassment education plan	100%	68%	concerning respect for human rights •Promotion of safe work environments that	Avoidance of financial losses from human rights violations	
		0	Introduction ratio of harassment whistleblower system	100%	100%	provide peace of mind		
Respect for	Women's		Ratio of women in management positions	4.0% or more	3.9%	Promotion of	<ul> <li>Acquisition of shareholders' equity in conjunction with higher externa assessment of measures regarding</li> </ul>	
S	empowerment	D	Ratio of women among new graduates recruited for career-track positions	30% or more	21%	participation by women in decision-making	•Securing labor capacity by increasing the retention rate for female employees	
	Promotion of the employment of persons with disabilities	D	Employment ratio of persons with disabilities	2.65% or more	2.59%	Promotion of full employment	Avoidance of financial losses in conjunction with failing to satisfy the statutory standard for the employmen ratio of persons with disabilities	
Human resources development	Promotion of human resource	D	Achievement ratio of training plan for development of autonomous-minded human resources	100%	100%	Promotion of skill development for young	Reinforcement of organizational capabilities through the utilization of the diverse individuality of employees	
5	development programs	0	Achievement ratio of global human resources education plan	100%	100%	people	Avoidance of human resource losses through separation Enhancement of human resource performance	
			Response ratio to prevent the recurrence of long working hours	100%	100%			
Enhancement of work environments and occupational	Promotion of the thorough management of employees' working	D	Annual frequency of labor-management consultations relating to working hours	12 times	12 times	Realization of rewarding workplaces     Prevention of health	Avoidance of financial losses from occupational accidents     Avoidance of financial losses from	
S S	hours and prevention of the recurrence of long working hours		Operational achievement ratio of standard for number of days of paid leave taken annually	100%	99.7%	damage •Promotion of safe and secure working environment	Avoidance of financial losses from work in excess of statutory workin hours and failure to use paid leave	
		0	Achievement ratio of working hours management standards	100%	45%			

Materiality	Activity outline	Scope FY2022 results			Impact on Society	Impact on Business		
Waterlaity	Activity outline	application	KPI(key performance indicator)	Target value/ Reference value	Result	impact on Society		
			Number of serious occupational accidents	None	None			
Enhancement of work environments and occupational promotion of occupational health and	G	Number of workers not meeting internal blood lead concentration management standards	None	285	<ul> <li>Prevention of health damage</li> <li>Promotion of safe and</li> </ul>	Avoidance of financial losses fron		
health and safety S	safety risk management	D	Missed work frequency ratio	0.3 or less	0.6	secure working environment	occupational accidents	
		0	Missed work frequency ratio	1.8 or less	1.8			
Provision of high-quality	Promotion of quality improvement and strengthening of quality communication	G	Achievement ratio of targets for claims and in-process defects	100%	69%	Improvement in energy efficiency •Responses to natural resource depletion	Reduction of financial losses fr     quality defects	
products	Reinforcement of product safety management	G	Number of serious product accidents	None	None	PReduce waste generation Creation of highly reliable and robust infrastructure •Development of a safe and secure society	Expansion of profits in conjuncti with promotion of services Avoidance of financial losses fro the occurrence of product a cafe	
	Reinforcement of service provision	D	Achievement ratio of operational management standards for product maintenance service systems	100%	100%			
	Promotion of effective use of water resources	G	Ratio of reduction of water use (compared with FY 2018)	8.0% or more	15.6%	•Elimination of water shortage problems		
Promoting environmental protection	Contribution to realization of low-carbon society	G	Ratio of reduction of CO <sub>2</sub> emissions (compared with FY 2018)	6.0% or more	14.8%	<ul> <li>Improvement in energy efficiency and resource efficiency</li> <li>Climate change mitigation</li> </ul>	<ul> <li>Avoidance of loss of sales opportunities due to delayed responses to issues concerning water security, carbon neutral</li> </ul>	
E	Prevention of environmental pollution	G	Number of major environmental accidents	None	None	Prevention of water pollution and air pollution     Reduction of natural	<ul> <li>and a recycling-oriented socie</li> <li>Avoidance of financial losses the occurrence of environmer accidents</li> </ul>	
	Improvement in ratio of use of recycled materials in products provided to markets	G	Ratio of recycled lead used as lead raw materials in lead-acid batteries	35% or more	52.9%	resource consumption •Reducing waste generation		
Developing and popularizing environmentally considered products	Expansion of market for GS Yuasa products contained in products contributing to the curbing of global warming	G	Percentage of environmentally considered products in total sales of all products	35% or more	36.4%	•Improvement in energy efficiency •Reduction of natural resource consumption •Climate change mitigation	<ul> <li>Avoidance of loss of sales opportunities due to delayed responses to carbon neutrality</li> <li>Increased profits from expand sales of environmentally considered products</li> </ul>	
Responsible procurement promotion	Responses to responsible mineral procurement	G	Achievement ratio of responsible mineral survey plan	100%	100%	<ul> <li>Realization of sustainable supply chain</li> <li>Abolition of forced labor and child labor</li> <li>Reduction of deaths due</li> </ul>	Avoidance of financial losses fr	
S	Management of supply chain CSR risks	G	Achievement ratio of supplier CSR issues improvement plan	100%	100%	• Reduction of dearts due to violence     • Eradication of all forms of violence and torture against children	risks	

Note: The scope of application may not cover all Group companies. This plan is periodically reviewed, and as a result, there may be differences from the details of the plan disclosed last time.
 A summary of Materiality Response Plans (fiscal 2023–2025) is provided on pages 57–58.





### **Corporate Information**

Functions 
Manufacturing & Sales 
Sales 
to Development

Products 🚛 For automobiles 💏 For motorcycles 🔬 For forklifts 🏢 For industrial applications

Corporate Overview (As of March 31, 2023)

Corporate Name	<b>GS Yuasa Corporation</b> Head Office 1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku, Kyoto 601-8520, Japan Tel: +81-75-312-12					
	Head Office 1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku, Kyoto 601-8520, Japan Tokyo Office 1-7-13, Shiba-koen, Minato-ku, Tokyo 105-0011, Japan	Tel: +81-3-5402-5800				
Business	GS Yuasa Corporation devises and coordinates management strategy for all companies in its Group to maximize their corporate value.					
Establishment	April 1, 2004					
Capital Stock	¥33.0 billion					

#### Group companies

🕺 For satellites 🛛 🚀 For rockets GERMANY CHINA GS Yuasa Battery Germany GmbH. 🚗 🕉 🏢 Tianjin GS Battery Co., Ltd. 🚗 Yuasa Battery (Shunde) Co., Ltd. 🚗 💑 HUNGARY Yuasa Battery (Guangdong) Co., Ltd. 🛄 GS Yuasa Hungary Ltd. 🕽 GS Battery (China) Co., Ltd. C\* TURKEY Shanghai GS Toptiger Motive Power Co., Ltd. Inci GS Yuasa Akü Sanayi ve Ticaret Anonim Şirketi 000 ITALY TAIWAN Siam GS Battery GS Yuasa Battery Italy S.R.L. GS Battery Taiwan Co., Ltd. 🚗 💏 🏢 🔊 Myanmar Taiwan Yuasa Battery Co., Ltd. 🚗 💏 🏢 Limited SPAIN GS Yuasa Battery Iberia SA 🕋 🕉 🏢 **VIETNAM** INDONESIA 🕒 GS Battery Vietnam Co., Ltd. 🛛 🖚 💏 FRANCE PT. Yuasa Battery Indonesia 🖚 💏 🏢 GS Yuasa Battery France SAS 🔬 💏 🎟 PT. Trimitra Baterai Prakasa 🚛 🛡 GS Yuasa Battery Malaysia Sdn. Bhd. 🛛 📾 💏 PT. GS Battery Yuasa Power Systems (Malaysia) Sdn. Bhd. 🏢 PT. Yuasa Industrial Battery Indonesia ИК 🛛 GS Yuasa Battery Manufacturing UK Ltd. 💵 GS Yuasa Battery Sales UK Limited 🚗 💏 🏢 JAPAN GS Yuasa Corporation **AUSTRALIA** GS Yuasa International Ltd. Century Yuasa Batteries Pty Ltd. 🕋 💏 🎟 🔬 GS Yuasa Battery Ltd. 🗮 🔆 NEW ZEALAND GS Yuasa Energy Co., Ltd. C PAKISTAN Century Yuasa Batteries (NZ) Ltd. GS Yuasa Technology Ltd. Atlas Battery Ltd. 🕋 💏 Lithium Energy Japan THAILAND Blue Energy Co., Ltd. GS Yuasa Asia Technical Center Ltd. Siam GS Battery Co., Ltd. GS Yuasa Fieldings Ltd. Tata AutoComp GY Batteries Private Limited Siam GS Sales Co., Ltd. 🚗 💏 Hokkaido GS Yuasa Service Co., Ltd. 60 C Yuasa Battery (Thailand) Pub. Co., Ltd. 🚗 💏 🏢 GS Yuasa Innovation Co., Ltd. Yuasa Sales and Distribution Co., Ltd. 🕋 💏 GS Yuasa Siam Industry Ltd. 🏢 🔊

GS Yuasa Siam Sales Ltd. 🔢 🔊



Number of overseas sites (As of March 2023)

37 sites in 19 countries 14,317







Number of Group employees (As of March 2023)

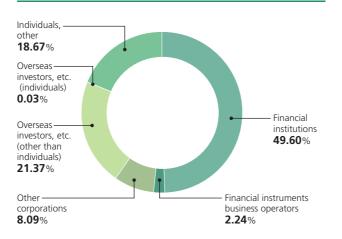


## Stock and Investor Information (As of March 31, 2023)

#### **Stock Information**

Fiscal Year-End	March 31
Number of Shares Authorized	280,000,000
Number of Shares Issued	80,599,442
Shares per Trading Unit	100
Number of Shareholders	35,231 (including shareholders holding fractional units of shares)
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited
Listed Securities Exchange	Tokyo Stock Exchange Prime Market
Method of Public Notice	Notification is given electronically on the Company's website. However, if a public announcement cannot be made electronically, it will be placed in the Nihon Keizai Shimbun newspaper.

#### Shareholdings by Type of Shareholder

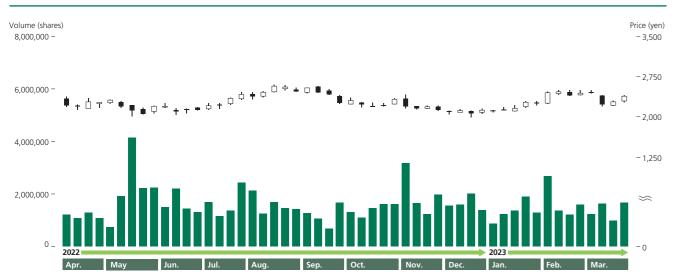


#### **Principal Shareholders**

Name	Number of Shares Held (thousands)	Ratio of shares held to total number of shares issued (excluding treasury shares) * (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	14,077	17.49
Custody Bank of Japan, Ltd. (Trust Account)	5,714	7.10
Meiji Yasuda Life Insurance Company	2,800	3.48
Toyota Motor Corporation	2,236	2.78
MUFG Bank, Ltd.	1,865	2.32
Nippon Life Insurance Company	1,789	2.22
The Bank of Kyoto, Ltd.	1,548	1.92
Sumitomo Mitsui Trust Bank, Limited	1,470	1.83
Sumitomo Mitsui Banking Corporation	1,421	1.77
STATE STREET BANK WEST CLIENT-TREATY 505234	1,220	1.52

\*Calculated based on the number of shares (80,506,203) after deducting treasury shares from the number of shares issued.

#### Stock Price and Trading Volume



### **External Evaluation**

#### Inclusion in ESG investment constituents



#### CSR & sustainability evaluations, etc.

Toyo Keizai CSR Ranking Utilization of human resources Environment Governance Sociability					
AAA	ΑΑΑ	AΑ	ΑΑΑ		
	,,,,,,	,.,,			

(As of July 2023)

#### EcoVadis Business Sustainability Ratings Silver rank (Four ranks: platinum, gold, silver, and bronze)

(As of July 2023)

#### Sustainalytics ESG Risk Ratings Low Risk

(As of July 2023)

DBJ (Development Bank of Japan) Employees Health Management Rated The highest rank

"particularly excellent in terms of initiatives for employees' health' (2018)

#### IR evaluations





DBJ健康格作

Nikko Investor Relations Co., Ltd. FY2022 All Japanese Listed Companies' Website Ranking Overall ranking: Two consecutive year for AAA Website



#### (December 2022) **Product Evaluations**

- Presented by Minister of Education, Culture, Sports, Science and Technology The 2021 Commendation for Science and Technology presented by the Minister of Education, Culture, Sports, Science and Technology Award for Science and Technology (Development Category) The development of lithium-ion batteries for use in space and technologies to facilitate operation of those batteries
- National Research and Development Agency Japan Aerospace Exploration Agency (JAXA) Meritorious Service Award for Safety and Mission Assurance in Aerospace\*3
- \*1 FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that GS Yuasa Corporation has been independently assessed according to the index criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series, FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index. Created by the global index provider FTSE Russell, the FTSE4Good Index Series and FTSE Blossom Japan Index Series, FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index. Created by the demonstrating strong Environmental, Social, and Governance (ESG) practices. The FTSE4Good Index Series, FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index are

used by a wide variety of market participants to create and assess responsible investment funds and other products. \*2 The inclusion of GS Yuasa Corporation in any MSCI Index, and the use of MSCI logos, trademarks, service marks, or index names herein, do not constitute support, endorsement, or promotion of GS Yuasa Corporation by MSCI or any of its affiliates. The MSCI Indexes are the exclusive property of MSCI. The MSCI Index names and logos are trademarks or service marks of MSCI and / or its affiliates. \*3 Received by GS Yuasa Technology Ltd. \*4 Received jointly by GS Yuasa International Ltd. and Blue Energy Co., Ltd. \*5 Received by Blue Energy Co., Ltd.



4

#### S&P/JPX CARBON EFFICIENT INDEX



- MSCI Japan 2023 CONSTITUENT MSCI JAPAN Empowering EMPOWERING WOMEN INDEX (WIN) Women (WIN) Select Index\*2
- Kurumin Mark (Ministry of Health, Labour and Welfare) Platinum Kurumin "high-level initiatives undertaken to support childcare" (June 2020)





A-(A minus) (climate change program) (Eight ratings: A, A-, B, B-, C, C-, D, D-) (As of July 2023)

Broadband Security, Inc. Gomez ESG Site Ranking 2022 **Outstanding Company** (August 2022)



++CDP

2022



Daiwa Investor Relations Co., Ltd. The 2022 Internet IR Award Commendation Award for three consecutive years (December 2022)



Toyota Motor Corporation Technology & Development Award\*4 (2021) Lithium-ion battery for hybrid vehicles "EHW4S"

Honda Motor Co., Ltd. Excellent Appreciation Award, Cost Category and Delivery Category\*5 (2023)