



# Contents

## Editorial policy

This report is compiled and published annually as a communication tool for customers, business partners, and employees of Panasonic Energy, Panasonic Holdings shareholders, and other stakeholders to help them understand the full scope of our corporate activities and our approach to improving corporate value over the medium to long term.

## Period covered by the report

Fiscal year 2023 (April 1, 2022 to March 31, 2023)

The report includes some activities before and after this period as well as future goals.

## Organizations covered by the report

Panasonic Energy Co., Ltd. and its consolidated subsidiaries in Japan and overseas

(company names are current as of April 2023)

## Guidelines used as reference

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

## Disclaimer regarding forward-looking statements

Forward-looking statements in this report, such as forecasts of performance (of Panasonic Energy or the Panasonic Energy Group), growth strategies, and perceptions and evaluations of facts, include future prospects based on the judgments of Panasonic Energy in light of the information currently available to it. Please note that actual results may differ materially from these statements due to a variety of factors. Furthermore, we undertake no obligation to update or announce future prospects to reflect new events, situations, or circumstances.

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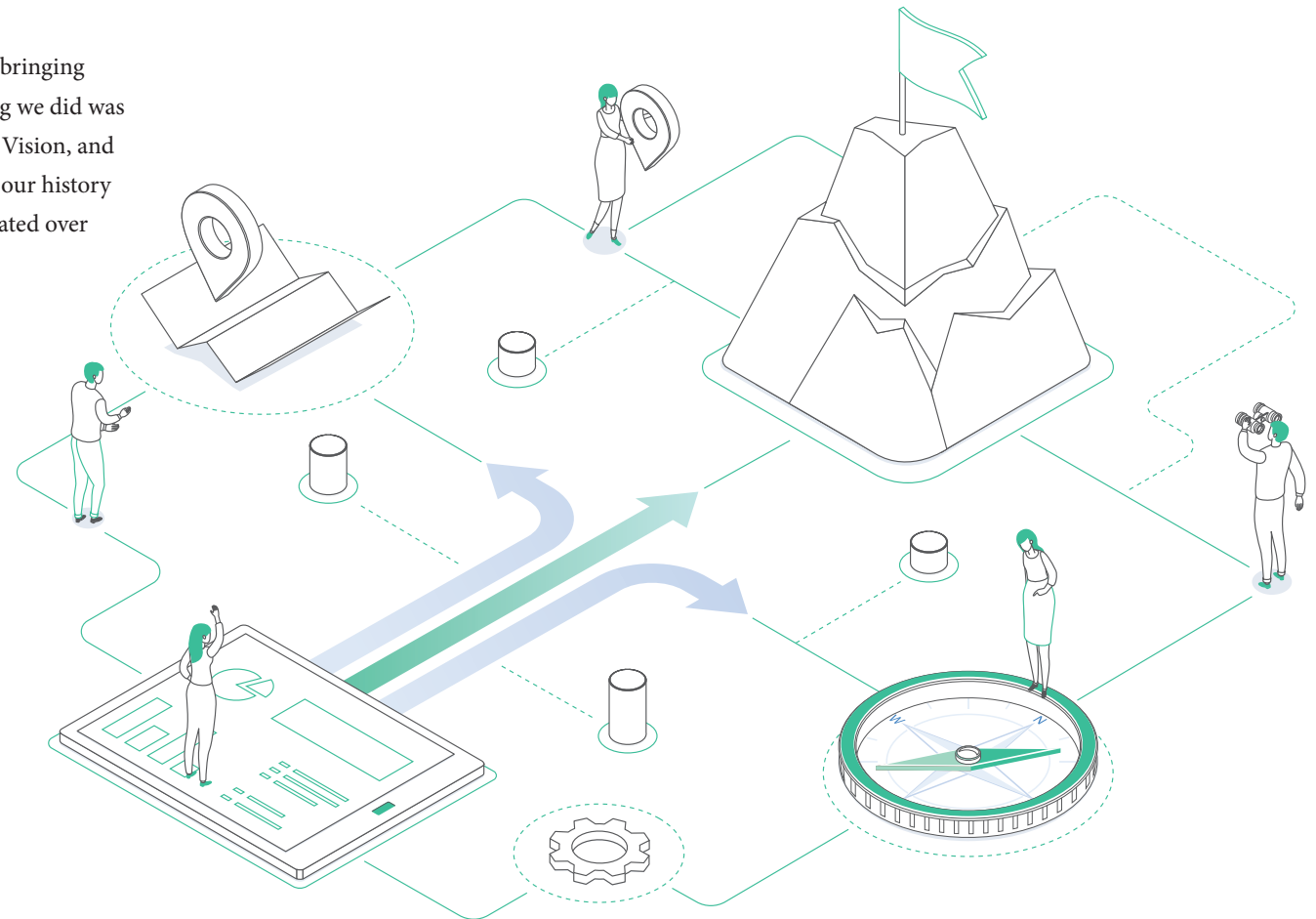
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# What We Aim for

When Panasonic Energy Co., Ltd. was established in April 2022 by bringing together the battery divisions of the Panasonic Group, the first thing we did was to reflect on our reason for existence and put forward our Mission, Vision, and Will. In this part of the report, we explain our reason for existence, our history of about 100 years, the three competitive advantages we have cultivated over that history, and what we are aiming for in the future.

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## Q. What do we exist for?

To realize a sustainable society in which enriched lives and the environment are harmonized free of conflict

### Our Mission

Achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict

### Our Vision

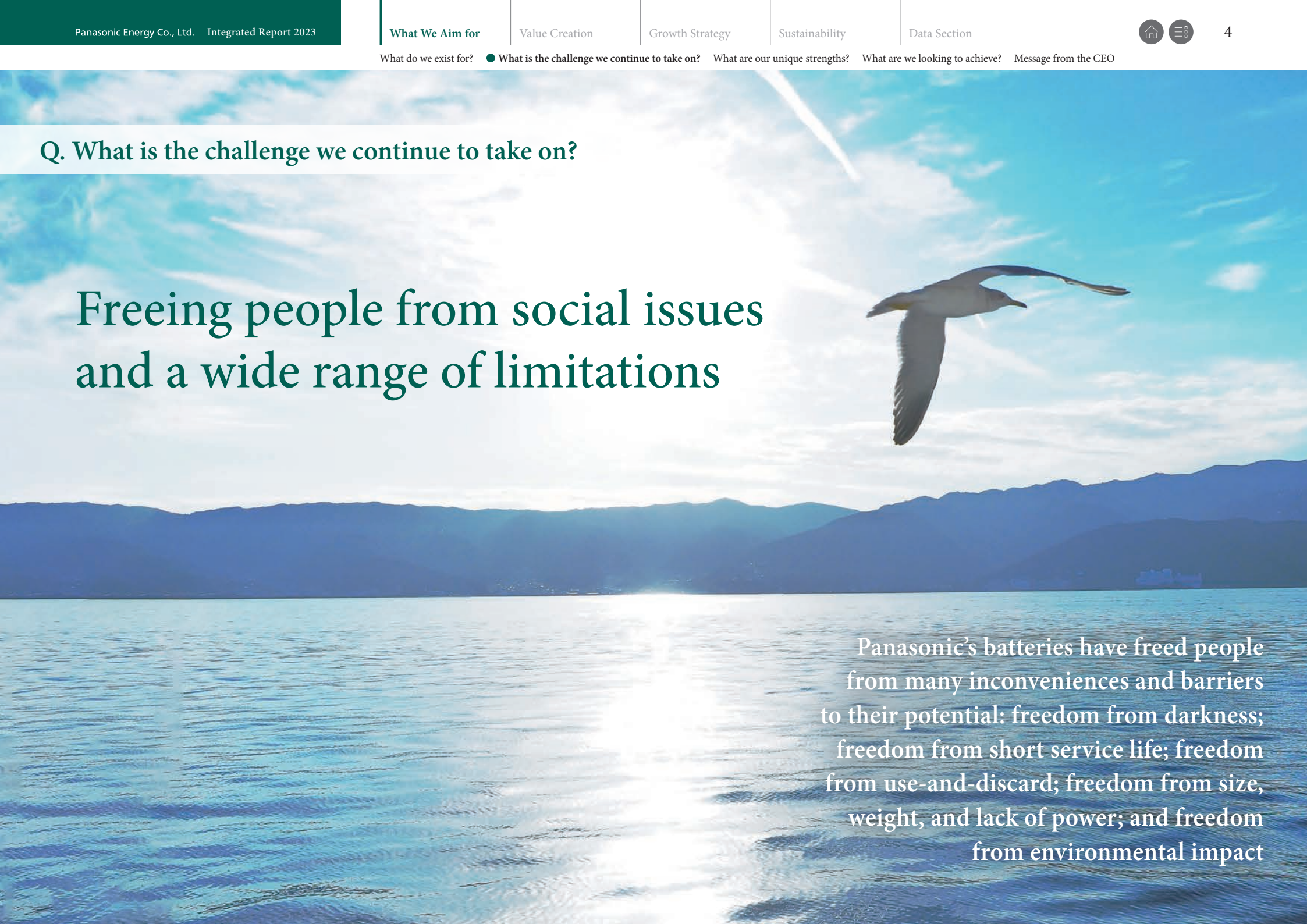
Energy that changes the future

### Our Will

Doing what humankind requires

## Q. What is the challenge we continue to take on?

# Freeing people from social issues and a wide range of limitations



Panasonic's batteries have freed people from many inconveniences and barriers to their potential: freedom from darkness; freedom from short service life; freedom from use-and-discard; freedom from size, weight, and lack of power; and freedom from environmental impact

What do we exist for? ● What is the challenge we continue to take on? What are our unique strengths? What are we looking to achieve? Message from the CEO

# History of Freedom

Beginning with freedom from darkness, the evolution of Panasonic's batteries has freed people from many inconveniences and barriers to their potential.

Newly relaunched as Panasonic Energy Co., Ltd., we aim to expand the potential of batteries and delivering energy to achieve the next level of freedom to solve social issues.

**Freedom from darkness**  
(1923-)

**Freedom from short service life**  
(1963-, 1969-)

**Freedom from use-and-discard**  
(1964-)

**Freedom from size, weight, and lack of power**  
(1994-)

**Freedom from environmental impact**  
(1997-, 2008-)

Bullet-shaped bicycle lamps marketed under the name "Excel" are developed, freeing users from the darkness

National Hi-Top and National Neo-Hi-Top, which last longer than conventional batteries and have a longer shelf life, free society from short-life batteries

The development of rechargeable batteries such as Cadnica batteries and eneloop free batteries from their previous use-and-discard nature

With high-capacity Li-ion batteries, people are freed from the size, weight, and lack of power that limited conventional batteries, enabling the widespread use of electronic devices such as laptop computers

Batteries for environmentally friendly vehicles (HEVs) begin to be provided, freeing people from the environmental impact associated with transportation



**Battery business founded**

**SANYO**

**1923**

- Invented and released bullet-shaped battery-powered lamp
- Released Excel dry batteries for bullet-shaped battery-powered lamps

**1954**

- Released National Hyper, the first full-metal-jacket dry battery in Japan

**1963**

- Released National Hi-Top manganese dry batteries

**1969**

- Released National NEO Hi-Top manganese dry batteries

**1964**

- Started production of Cadnica nickel-cadmium batteries

**1971**

- Developed graphite-fluoride lithium primary batteries

**1979**

- Developed nickel-metal hydride batteries

**1989**

- Developed nickel-metal hydride batteries

**1990**

- Developed nickel-metal hydride batteries

**1991**

- Introduced mercury-free manganese batteries

**1992**

- Released mercury-free ALKALINE batteries

**1994**

- Developed Li-ion rechargeable batteries

**1994**

- Developed Li-ion rechargeable batteries

**1997**

- Developed 1954-size nickel-metal hydride battery pack for use in HEVs

**2005**

- Released eneloop nickel-metal hydride batteries

**2006**

- Started mass production of high-capacity cylindrical Li-ion batteries using nickel-based cathode materials

**2008**

- Released EVOLTA alkaline dry batteries
- Released Rechargeable EVOLTA nickel-metal hydride batteries
- Started mass production of automotive Li-ion batteries(1865 size)

**2017**

- Started mass production of automotive Li-ion batteries(2170 size)
- Released EVOLTA NEO alkaline dry batteries

**Company history**

**1918**

- Konosuke Matsushita found Matsushita Electric Housewares Manufacturing Works

**1931**

- Acquired the Komori Dry Battery's factory and starts in-house production of dry batteries

**1935**

- Reorganized as Matsushita Electric Industrial Co., Ltd.; established National Storage Battery Co., Ltd.; established Matsushita Dry Battery Co., Ltd.

**1947**

- Sanyo Electric Works was established and began production of bicycle generators under the National trademark.

**1950**

- Established Sanyo Electric Co., Ltd.

**1979**

- Established Matsushita Battery Industrial Co., Ltd.

**2008**

- Established Panasonic Corporation Energy Company

**2011**

- SANYO Electric Co., Ltd. became a wholly owned subsidiary

**2013**

- Established Panasonic Corporation Automotive & Industrial Systems Company

**2014**

- Established Panasonic Energy Corporation of North America(PENA) Factory starts operation in 2017

**2019**

- Established Panasonic Corporation Industrial Solutions Company and US Company

**2021**

- Established Panasonic Corporation Energy Company based on the energy business area of the Industrial Solutions Company; the Tesla Energy business of the US Company; and the Energy Technology Division under the Panasonic head office

**2022**

- Established Panasonic Energy Co., Ltd. following transformation into an operating company system

Note: Company names are written using the names at that time only on this page.

## Q. What are our unique strengths?

### Technological capabilities

- Material development and manufacturing
- Intellectual property

7,600 patents

### Market creation

- Strategic relationships with customers
- Ability to solve customer problems

Contribution to the evolution of lifestyles



### Reliability and track record

- Reliable market performance
- Brand

Zero recalls of automotive Li-ion batteries\*

\*Battery-attributed

Technology, market creation, reliability and track record cultivated in the 100 years since our founding



# Three Strengths

For nearly 100 years, Panasonic has contributed to enriching people's lifestyles and making society more convenient by creating various industry-first technologies as a leading battery manufacturer.

The three sources of our competitiveness are our technological capabilities in materials development, manufacturing, and intellectual property; our market creation capabilities attributed to open up new markets in collaboration with our customers; and our reliability and track record.

## 1

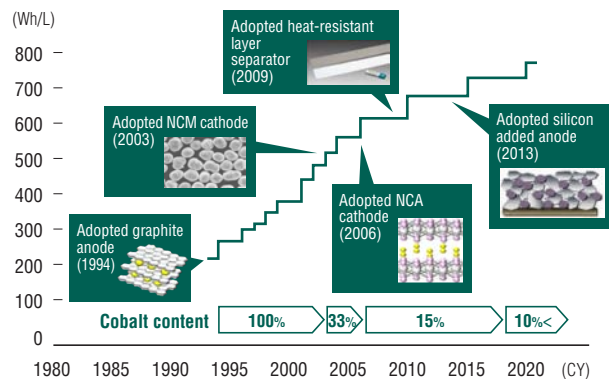
### Technological capabilities

Leading the world in boosting battery capacity and reducing the use of rare metals

Panasonic Energy continues to drive higher capacity and higher energy density of batteries while maintaining a high level of safety under thorough quality control in each process, including raw material procurement. In the process, we have obtained more than 7,600 patents.

We also lead the world in environmentally friendly material technologies, having completed the development of cobalt-free technology ahead of the industry and taken on the challenge of going less-nickel.

Volumetric energy density of cylindrical Li-ion batteries



## 2

### Market creation

Pioneering new battery applications through technological innovation

By supplying high-performance batteries to the market, we have contributed to the transition to wireless devices. We also pioneered the rechargeable battery market for home use by creating batteries that can be used repeatedly by recharging at home. And through technological innovation, we have created a market for powering environmentally friendly vehicles (HEVs and BEVs). Going forward, we will continue to work on electrifying new areas such as construction machinery and agricultural machinery through continuous technological advancement.

2005

Launched eneloop nickel-metal hydride batteries



Pioneered the rechargeable battery market for home use

2008

Cylindrical automotive Li-ion batteries



Pioneered the battery market for automotive power

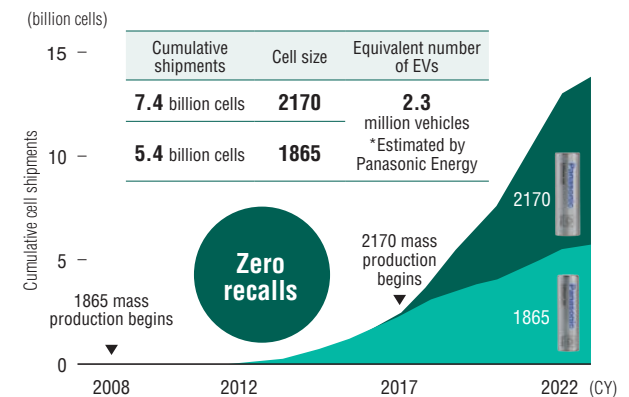
## 3

### Reliability and track record

Reliable market performance and brands

We have supplied a cumulative total of over 13 billion cylindrical automotive Li-ion battery cells to date. In the manufacture of batteries, product safety and high quality are important factors that indicate the strength of the Panasonic Energy brand, and we have worked tirelessly to reform our quality assurance system with product safety as our top priority. In the case of automotive Li-ion batteries, this effort has resulted in zero recalls due to battery-attributed problems.

Cumulative shipments of automotive Li-ion batteries





## Q. What are we looking to achieve?

# Providing energy with low impact on the global environment

While humankind seeks happiness, we believe the excessive burden on the global environment should be completely eliminated. We will continue our efforts to realize a carbon neutral society in 2050.

Carbon neutrality

Increase avoided CO<sub>2</sub> emissions

Reduce carbon footprint

Promote resource circulation



## Message from the CEO

“Becoming the *energy* that changes the future and achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict”

Kazuo  
Tadanobu

President, CEO

## Message from the CEO

### Inspiring each other and improving problem-solving skills

Panasonic Energy was established in April 2022 by bringing together all of the Panasonic Group's battery divisions.

Panasonic Energy is built upon a history of 100 years in the battery business. Starting with dry batteries for bicycle headlamps in 1923, we have continuously come up with industry-leading technologies to drive the evolution of batteries, including nickel-cadmium, nickel-metal hydride, and consumer Li-ion batteries. In 2008, we commenced the mass production of cylindrical Li-ion batteries for electric vehicles (EVs), which

greatly contribute to a smaller environmental footprint, and to date, we have supplied a total of approximately 13 billion cells. We take pride in the fact that the technology we have cultivated over the course of our history to deliver higher capacity, quality, and safety is superior to other companies. Even today, we continue to lead the global battery industry by drawing on our strengths: the technological capabilities honed over a century, the market creation capabilities for solving the issues of customers and society from the ground up, and the trust and track record built up day after day.

As the world focuses on the “energy” we provide, we intend to further enhance our appeal and engage many different stakeholders to ramp up our ability to provide solutions with energy. At the same time, we will turn Panasonic Energy into a monolith and drive our business forward at an unprecedented speed.



### Formulated our Mission, Vision, and Will to turn Panasonic Energy into a monolithic company

When Panasonic Energy was established, the first thing we did was to unify the approximately 20,000 employees under a banner that resonates with everyone. We therefore set ourselves a “Mission” to fulfill and a future “Vision,” and shared a strong “Will” to link these aspirations to actions.

Our Mission is to “achieve a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict.” People have long sought joy in everyday life and pursued happiness through economic development. However, this pursuit has placed a significant burden on the earth's environment, mainly in the form of global warming and resource depletion, and if things continue as they are, the earth may no longer be able to sustain humanity. The pursuit of happiness in our lives now is coming at the expense of the well-being of future generations. This is the trade-off that we hope to overcome by using the energy that we provide. The energy we deliver is potentially powerful enough to end this contradiction because it can do more than just power objects or keep the lights on, and we therefore believe the purpose of our energy lies in that potential.

Guided by this Mission, the Vision we have envisaged for ourselves is one in which we become the “energy that changes the future.” In our company name too, we deliberately chose “energy” instead of “battery.” Our purpose is to supply energy essential to humankind with a view to the future and our goal extends beyond merely making batteries—it is about solving the challenges up ahead. In extreme terms, we might even consider the possibility of ceasing battery production, if such option is imperative for solving the challenges. To express our Vision in another way, it is challenging ourselves to create a future in which children born today are smiling and laughing with each other, surrounded by the splendor of nature. More specifically, our Vision involves driving the transition to EVs to bring about a decarbonized society, enabling reliable and safe infrastructure that keeps functioning even during times of emergency, and supplying power to areas beyond the reach of electricity. In doing so, we can contribute to people's happiness, becoming the energy that guides society towards a sound future that is in sync with a sustainable world.

#### *yarushika* — our future symbol

The “*yarushika*” symbol represents the future we want to create, based on our Mission, Vision, and Will. Within the deer's antlers lies a green forest and the glowing yellow lights of a city. It represents a world where a sustainable environment and people's happiness are in harmony. The round sphere signifies the earth. The deer is an entity that purposefully nurtures and supports the sphere, as is its destiny. In other words, this deer is each and every employee of Panasonic Energy. What it carries on its head is extremely large and very heavy and therefore this symbol embodies our desire to shoulder such a lofty and heavy responsibility with ease.



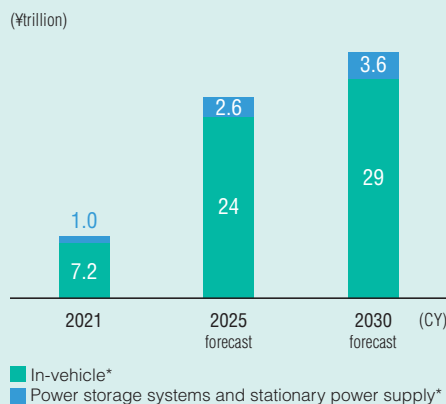
# Message from the CEO

In order to put this Mission and Vision into action, we have also expressed our Will of “doing what human-kind requires.” It serves as our very own motto for persevering through even the most challenging tasks as we go about solving the problems shared by the entire human race. In addition, we want not only our employees, but all stakeholders to get a sense of our Mission, Vision, and Will, not just through the words they convey, but also through images. That is why we have embarked on a branding campaign with the use of a forest as our company symbol. The forest represents a harmonious world in which living things and nature coexist in perfect balance with each other. Panasonic Energy itself aspires to be like a forest where we coexist with colleagues and partners from all walks of life in the best way possible, perpetually rejuvenating ourselves, resiliently surviving without ever perishing, and continuing to be of valuable service.

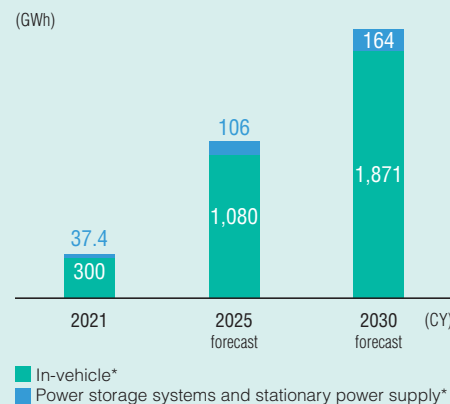
## At the cutting edge of a burgeoning market

The areas of significant growth in the industry include Li-ion batteries for in-vehicle use and Li-ion batteries for power storage systems and stationary power supply applications. The size of the market for in-vehicle applications is expected to increase from 2021 by ¥16.8 trillion and reach ¥24.0 trillion by 2025. Similarly, the market for power storage systems and stationary power supply applications is projected to grow by ¥1.6 trillion to ¥2.6 trillion by 2025. Also, the market overall is expected to grow to roughly ¥33.0 trillion by 2030.

Li-ion batteries: Market size



Li-ion batteries: Demand



Source: \*FUJII KEIZAI GROUP CO.,LTD., “2022 Global secondary battery market report: major applications, market size, share, trends” (in Japanese).

In terms of scale, the market for in-vehicle applications is driving the overall business, but demand from the adoption of renewable energy and emergency/disaster response needs is growing rapidly, so the industrial and consumer application markets are also poised for strong growth up ahead. In recent years, Chinese and South Korean battery manufacturers have rapidly expanded their share of the market. However, it is not so much about competing for growing market demand as it is about collectively tapping demand that greatly exceeds existing production capacity—a situation that is seen as a collaborative effort to shape the market together.

Particularly when it comes to high-performance batteries used in EVs, the designs vary based on the product models of the customer, which means we must be meticulous in the way we coordinate with customers and establish production techniques. Accordingly, we need to establish a value chain with customers and suppliers who share the same set of values for the market several years ahead. Ultimately, we think a division of markets will naturally occur in the industry. In this context, we intend to lead the way with our technological capabilities and steadily discover value in fields where our technology can be utilized.



## Firm grip on top position in North America

In 2017 we built the world’s largest-class factory for Li-ion batteries for EVs in Nevada and commenced the mass production of 2170-size cells. The size denotes the dimensions of the cylindrical battery in millimeters, with the first two digits representing the diameter and the last two representing the height. Combined with the 1865-size cells that we manufactured up until now, to date we have supplied enough batteries for 2.3 million EVs, earning us the number one share of the North American market.

We recently broke ground on our new factory in Kansas, where we plan to start volume production by the end of March 2025. At this new facility we will mass produce the 2170-size cells in a bid to further expand supply in North America. Also, in the first half of fiscal year ending March 31, 2025 (fiscal 2025), we have plans to start mass producing the 4680-size cells that hold a dramatically larger capacity in our Wakayama Factory. We are eyeing the rollout of this size in North America as well, which would raise our production capacity of Li-ion batteries for EVs to 200GWh by fiscal 2031, roughly four times the capacity in fiscal 2023.

## Message from the CEO

Tighter environmental regulations in the North American market—a mature motorized society—are accelerating the uptake of EVs. Moreover, given the vast expanses of the region and the strong demand for long-distance travel, the North American market is probably where our strength in higher-capacity technology can be most effectively utilized. In addition, we can locally procure raw materials that have been mined and processed through making use of renewable energy. Having pioneered this market early on, we now intend to execute some bold investments in quick succession in order to shore up our top position in North America as the leading company driving the adoption of EVs.

### Providing a wide range of batteries for different applications

In industrial and consumer applications, particularly telecommunications infrastructure like data centers, there is growing demand for 24/7 operations and stronger data integrity. We boast a high share of this market too by providing highly reliable, safe, and long-lasting backup power supply systems. We are also partnering with customers to advance the development of products for mainly construction and agricultural machinery, given the likelihood of future electrification in this sector.

Furthermore, we supply high-quality primary batteries for use in smart meters, medical equipment, and other IoT devices that require durability and long-term reliability to withstand harsh environments and conditions. Even though the secondary batteries that can be charged over and over again tend to attract attention, primary batteries serve a useful purpose as an indispensable power source in places where electricity is not readily available. Beyond that, the ultimate lifeline in an emergency situation is not the rechargeable battery, but a primary battery that can generate its own energy. As one of the few Japanese manufacturers capable of continually evolving batteries from primary to secondary cells, we will continue to offer a broad lineup of batteries suitable for various applications.

### Making significant contributions to carbon neutrality

Natural disasters said to be caused by climate change are seriously impacting economic activity and destabilizing people's livelihoods in all parts of the world. In these circumstances, in 2022 the Panasonic Group announced a long-term environmental vision called "Panasonic GREEN IMPACT," aiming to contribute to more than 300 million tons in CO<sub>2</sub> emission reductions by 2050. We will play a pivotal role in reducing CO<sub>2</sub> emissions in our own value chain, as well as in society.

To reduce CO<sub>2</sub> emissions in our own value chain, we have set ourselves a target of making all of our factories carbon neutral by fiscal 2029. It should be noted, however, that a predominantly high proportion of our CO<sub>2</sub> emissions comes from the extraction of resources and the processing of raw materials, rather than our own factories. As such, we are taking stronger measures to address upstream processes; for example, procuring materials from local sources, procuring environmentally friendly materials, using recycled materials, and minimizing the use of rare metals. We also aim to halve our carbon footprint (CFP) by fiscal 2031 compared to the fiscal 2022 level. As for contributing to CO<sub>2</sub> emission reductions in society, we are targeting avoided CO<sub>2</sub> emissions of roughly 60 million tons by fiscal 2031 through the use of our products, particularly Li-ion batteries for in-vehicle use. This represents approximately two thirds of the Panasonic Group's fiscal 2031 avoided CO<sub>2</sub> emissions target of 93 million tons.

### Doing what humankind requires

Amidst the unprecedented expansion of energy usage, there are countless issues that only we can lead the way in solving in order to address the challenges faced by all of humanity. The pride of becoming the energy that changes the future and the determination to do what humankind requires: these are the ideas that will motivate us to create new value with a view to achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict—something the whole world longs for.

For the benefit of generations to come, we invite our customers, suppliers, equipment manufacturers, employees, future employees, and all other stakeholders, to join us in creating a better society and ensuring a healthier global environment.

#### Our future

Lush forests, electric flying cars in the sky, robots and humans, and various animals playing with each other. This is the kind of future we envision.



# Value Creation

We are working to achieve our mission by providing value proposition to our stakeholders through our corporate activities.

This part explains our value creation process, starting from the six capitals that are the source of our value creation up to the generation of value proposition by contributing to society through our operations.

We also explain our approach to maximizing corporate value from both financial and non-financial perspectives.

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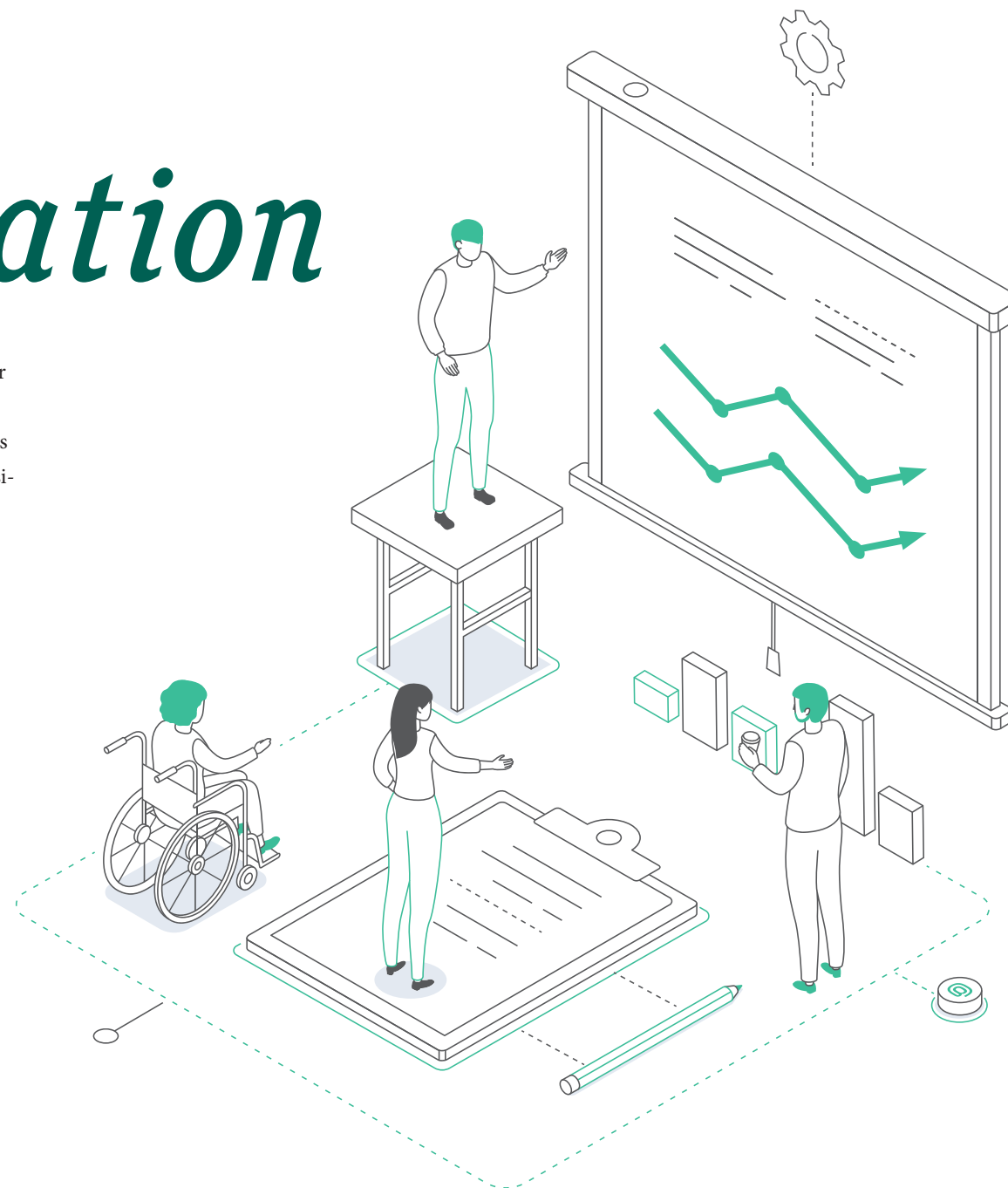
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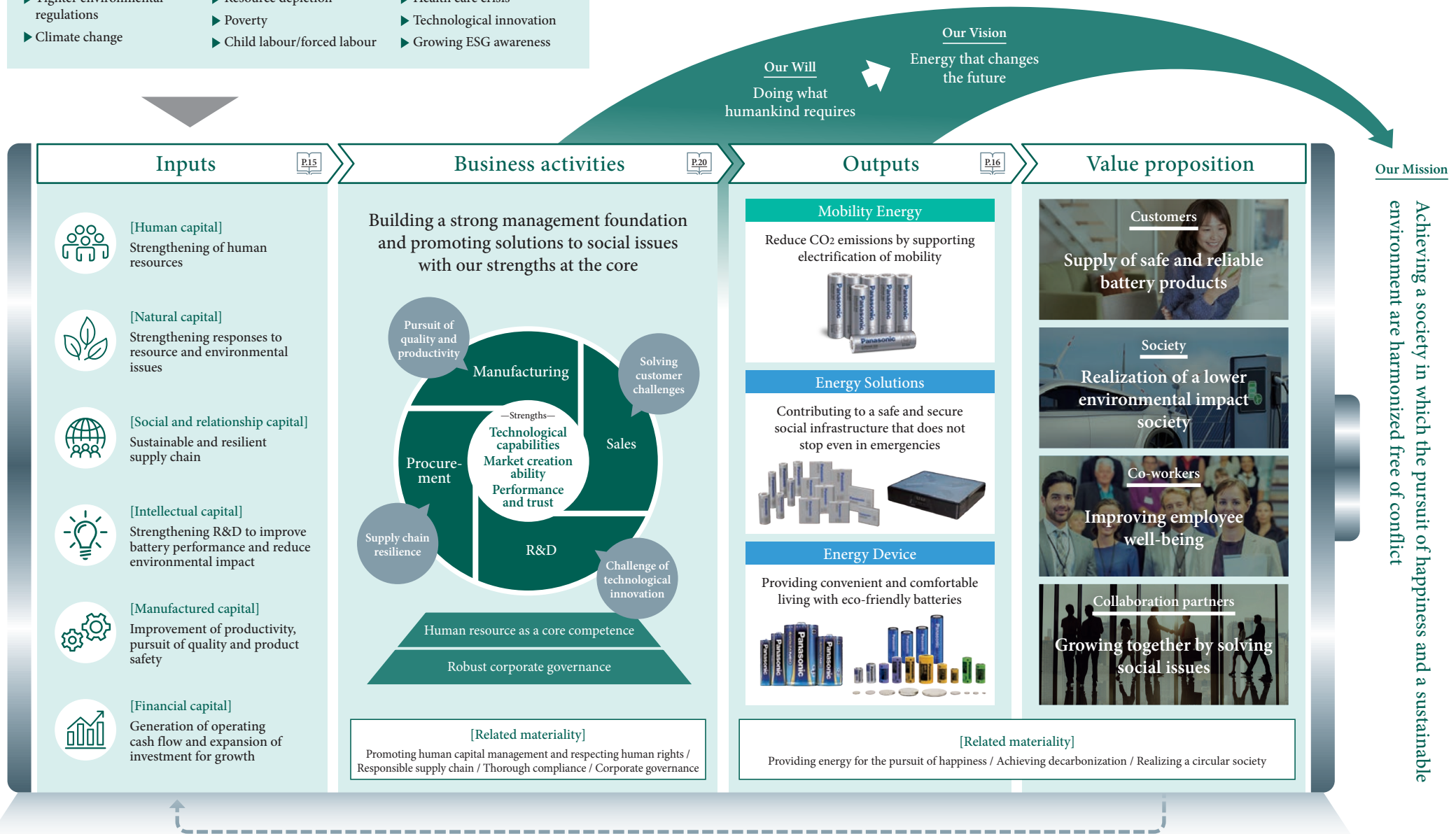


# Value Creation Process

### External environment

- ▶ Tighter environmental regulations
- ▶ Resource depletion
- ▶ Health care crisis
- ▶ Climate change
- ▶ Poverty
- ▶ Technological innovation
- ▶ Child labour/forced labour
- ▶ Growing ESG awareness

Panasonic Energy will utilize its diverse capital, including its human resources and technology, to promote solutions to social issues with our strengths at the core and achieve sustainable enhancement of corporate value.



# Source of Value Creation: the six capitals (inputs)

We regard human capital, natural capital, social and relationship capital, intellectual capital, manufactured capital, and financial capital as the six critical components of corporate value, which we are always working to improve.

## Enhancing human resources



[Human capital]

To expand our business, we aim to increase the number of employees to 25,000 by fiscal year ending March 31, 2026 (fiscal 2026), focusing on technical and manufacturing talent. In addition, we will enhance our business competitiveness and improve wellbeing by developing systems and environments and fostering an organizational culture in which each and every employee can thrive.

Consolidated Group employees	Overseas personnel	Work-related fatalities
Approx. <b>20,000</b>	<b>73%</b>	<b>0</b>

## Strengthening R&D to improve battery performance and reduce environmental impact



[Intellectual capital]

In order to minimize the use of rare metals, we are accelerating the transition to cobalt-free and less-nickel materials, contributing to a reduction in environmental impact. We will also focus on the development of light-weight batteries for the electrification of future aircraft.

Number of patents held  
**7,600**

## Strengthening responses to resource and environmental issues



[Natural capital]

By fiscal 2029, we are committed to achieving carbon neutrality at all our sites, and by fiscal 2031, we aim to halve the carbon footprint per unit of battery capacity across the entire supply chain (compared to fiscal 2022). Furthermore, we will accelerate the construction of a resources recycling system for primary and secondary batteries.

Zero-CO <sub>2</sub> factories	CO <sub>2</sub> avoided emissions	Factory recycling rate* <sup>1</sup>
<b>10</b> sites worldwide	<b>14.93</b> million tons	<b>99%</b>

\*<sup>1</sup> Factory waste

## Improvement of productivity, pursuit of quality and product safety



[Manufactured capital]

While working to improve productivity at each site, we promote quality reforms with product safety as the top priority. In addition, we will expand global annual production of automotive batteries to 200 GWh by fiscal 2031, approximately four times the annual production volume in fiscal 2023.

Manufacturing sites worldwide	Number of serious product accidents	Automotive batteries production capacity
<b>20</b> sites	<b>0</b>	Approx. <b>50</b> GWh

## Sustainable and resilient supply chain



[Social and relationship capital]

We will work with various stakeholders to fulfill our social responsibilities with regard to human rights, labour, health, and safety, and establish a sustainable supply chain with lower environmental impact by promoting recycling and local procurement of battery materials.

Rate of implementation of self-assessments related to human rights and labour* <sup>2</sup>
<b>100%</b>

\*<sup>2</sup> At our overseas manufacturing subsidiaries

## Generation of operating cash flow and expansion of investment for growth



[Financial capital]

The ROIC target for fiscal 2025 is 12%\*<sup>3</sup>, and we aim to generate ¥330 billion\*<sup>4</sup> in cumulative operating cash flow from fiscal 2023 to fiscal 2025. In addition, we will increase our ability to generate future operating cash flows by improving capital efficiency and increasing production capacity for automotive batteries.

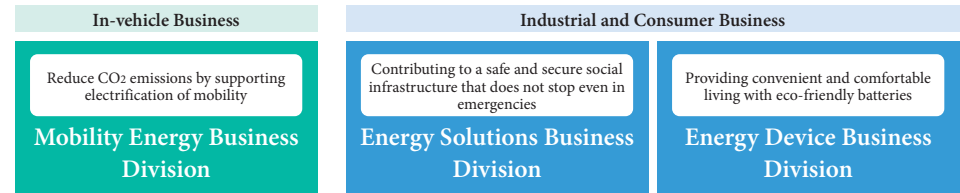
Capital investment	Total assets	Adjusted operating profit
¥ <b>90.6</b> billion	¥ <b>821.8</b> billion	¥ <b>39.6</b> billion
EBITDA	Operating cash flow	ROIC
¥ <b>98.5</b> billion	¥ <b>70.6</b> billion	<b>5.0%</b>

\*<sup>3</sup> Excludes new investments such as those in Kansas. \*<sup>4</sup> Excludes the impact of the U.S. Inflation Reduction Act (IRA)



# Panasonic Energy's Contributions (outputs)

Panasonic Energy contributes to society every day through our cutting-edge technologies and diverse products, which are used in various scenes of life.



**Space**  
 The recovery capsule of the asteroid probe Hayabusa 2 uses a lithium primary battery that is resistant to environmental changes.  
 Illustrations: Akihiro Ikeshita

**Data centers**  
 Safe, long-lasting, and highly reliable storage battery systems based on Li-ion batteries are used as a backup power source.

**Commercial buildings**  
 Nickel-metal hydride batteries, which are characterized by their long life, are used in guide lights and emergency lights.

**Houses**  
 Dry batteries are used in familiar products such as remote controls and clocks. In addition, long-term, reliable lithium primary batteries are used in state-of-the-art gas and water smart meters. Furthermore, Li-ion batteries are used for household storage batteries.



**Cars**  
 Li-ion batteries, which are characterized by their high capacity and safety, are used as a power source for electric vehicles. Also, nickel-metal hydride batteries are used for the TCU, which is the system that communicates between the car and the external network, and e-call, which is an emergency reporting system for vehicles.

**Hospitals**  
 A variety of batteries, such as nickel-metal hydride batteries and lithium primary batteries, are used in medical devices that require high safety and reliability.

**Solar cell systems**  
 Nickel-metal hydride batteries are used as rechargeable batteries for solar-powered ocean buoys, which can be used in harsh environments with large temperature differences.

**Bicycles**  
 Electric-assist bicycles use Li-ion batteries, which are characterized by their high capacity, small size, and light weight.

# Material Issues for Value Creation (Materiality)

We have identified material issues (materiality) that we must address from an environmental, social, and governance (ESG) perspective in order to contribute to a sustainable society.

## Materiality identification process

Panasonic Energy identified seven material issues using the following four steps.

### Step 1 List social issues

We listed 71 social issues that are candidates for materiality.

### Step 2 Evaluate their importance from the perspective of Panasonic Energy

For each item on the list of social issues, we evaluated its impact on our business and relevance to our policies from Panasonic Energy's perspective.

### Step 3 Evaluate their importance from a stakeholder perspective

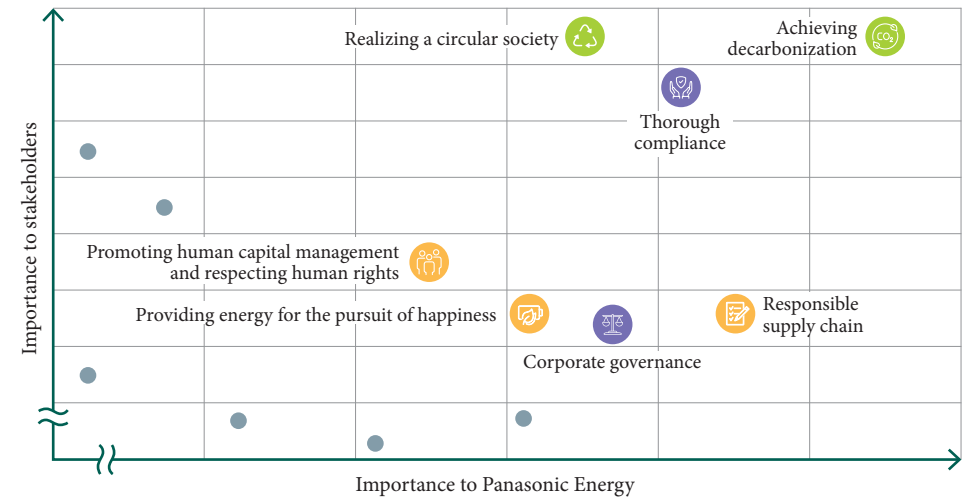
For each item on the list of social issues, we evaluated its importance from the perspective of all stakeholders, based on the opinions we have obtained through dialogue with stakeholders to date and the interest of investors and certifying organizations.

### Step 4 Deliberate and identify

After sorting out our thoughts on ESG management and what we aim to achieve, we identified seven material issues through multiple rounds of deliberations between the officers, including the Representative Director, and staffs of the relevant departments.

## Materiality matrix

We evaluated social issues from two perspectives: their importance to Panasonic Energy and their importance to our stakeholders, and plotted the most important of these issues in the materiality matrix below.



## Seven identified material issues and specific examples of initiatives

- Materiality relating to the environment (E)
- Materiality relating to society (S)
- Materiality relating to governance (G)

**Realizing a circular society** (S)

- Building a recycling-oriented supply chain
- Development of recycling-oriented products
- Waste reduction
- Promotion of recycling

P40

**Promoting human capital management and respecting human rights** (G)

- Ensuring occupational safety and health
- Promotion of human resource development
- Promotion of Diversity, Equity & Inclusion (DEI)
- Prevention of discrimination and child/forced labour

P49

**Corporate governance** (G)

- Strengthening the functions of the Board of Directors and management team
- Ensuring transparency

P61

**Achieving decarbonization** (E)

- Reduction of greenhouse gas (GHG) emissions
- Contribution to reducing CO<sub>2</sub> emissions in society
- Effective use of renewable energy
- Local procurement

P37

**Providing energy for the pursuit of happiness** (S)

- Contributing to a safe and secure society
- Eradication of poverty and hunger
- Contributing to local communities

P44

**Responsible supply chain** (S)

- Responsible procurement of minerals
- Respect for human rights in the supply chain
- Supply chain management

P58

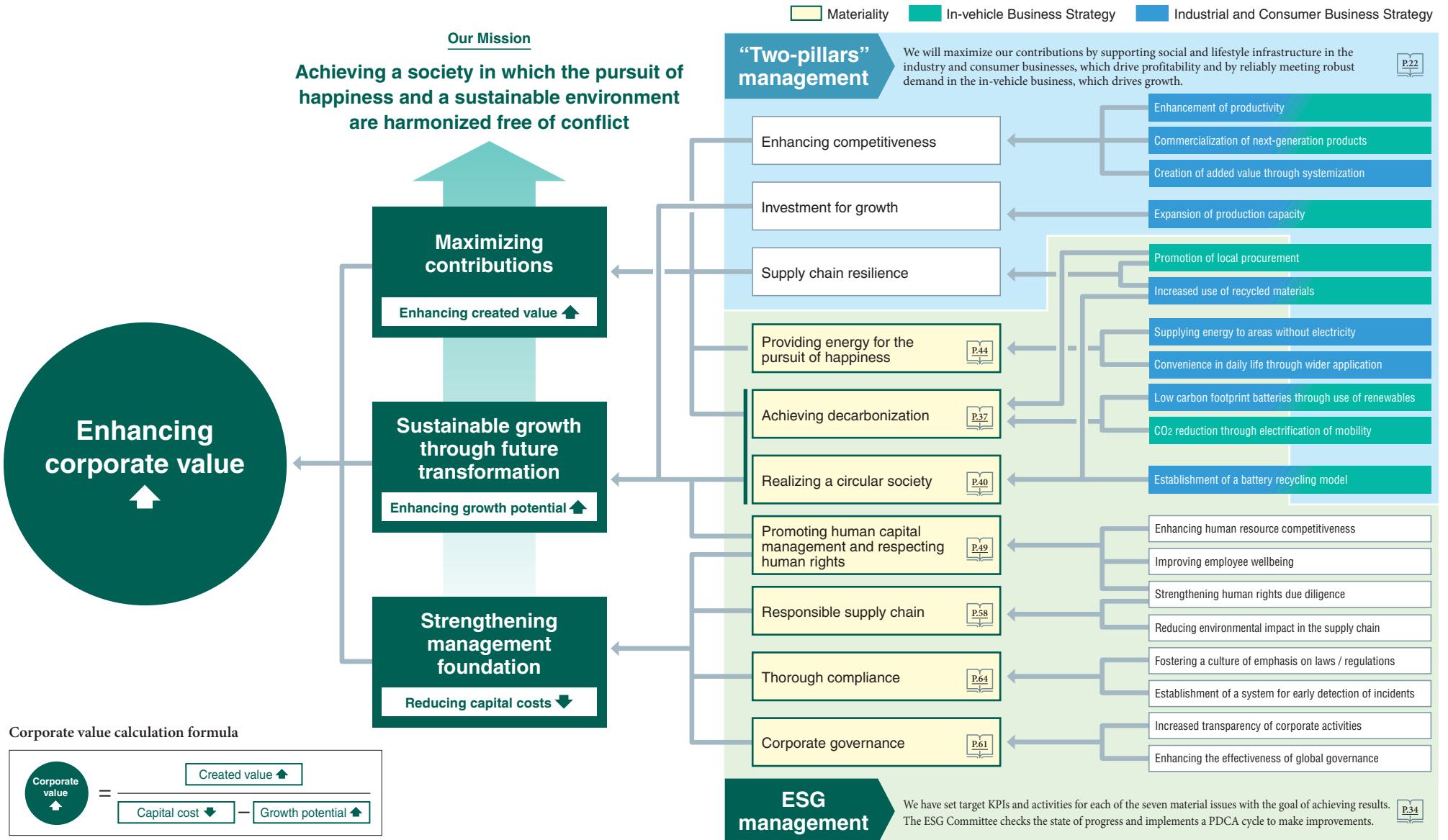
**Thorough compliance** (G)

- Pursuit of quality and product safety
- Compliance with laws and regulations
- Ensuring information security

P64

# Process for Enhancing Corporate Value

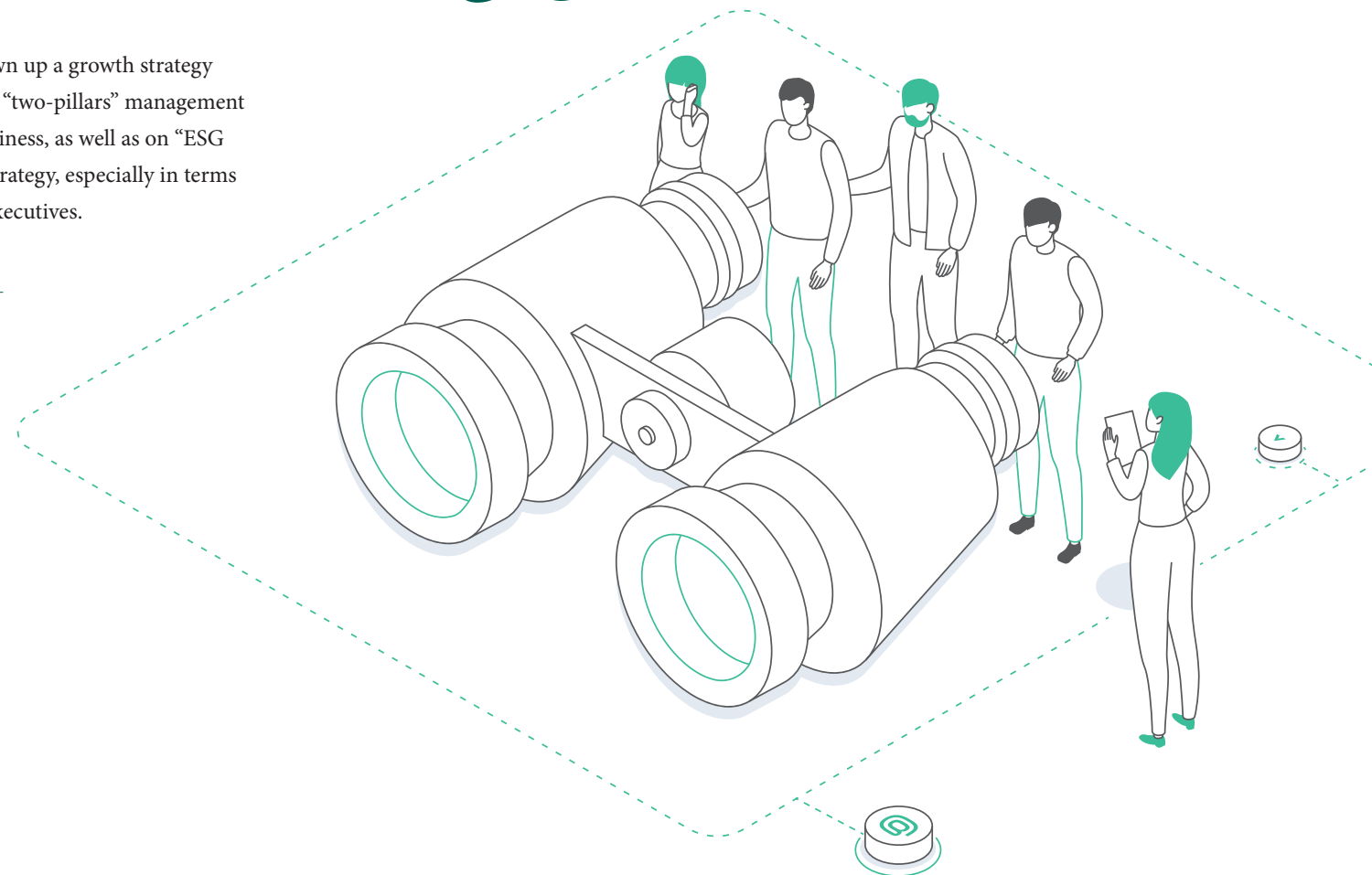
In the world of finance, it is known that under certain conditions, corporate value can be expressed as “free cash flow/(cost of capital - growth rate)”. Plugging our own terms into this formula, we organize and promote our initiatives, both financial and non-financial, from the three perspectives of “created value,” “growth potential,” and “cost of capital.” Building on this framework, we are promoting initiatives to ensure that all measures based on “two-pillars” management to enhance financial performance and ESG management to support non-financial performance will lead to an increase in corporate value.



# Growth Strategy

As a leading company in the battery industry, we have drawn up a growth strategy that aims for net sales of ¥3 trillion in fiscal 2031, based on “two-pillars” management of the in-vehicle business and industrial and consumer business, as well as on “ESG management.” Here, we take a deep dive into our growth strategy, especially in terms of finance and technology, featuring messages from each executives.

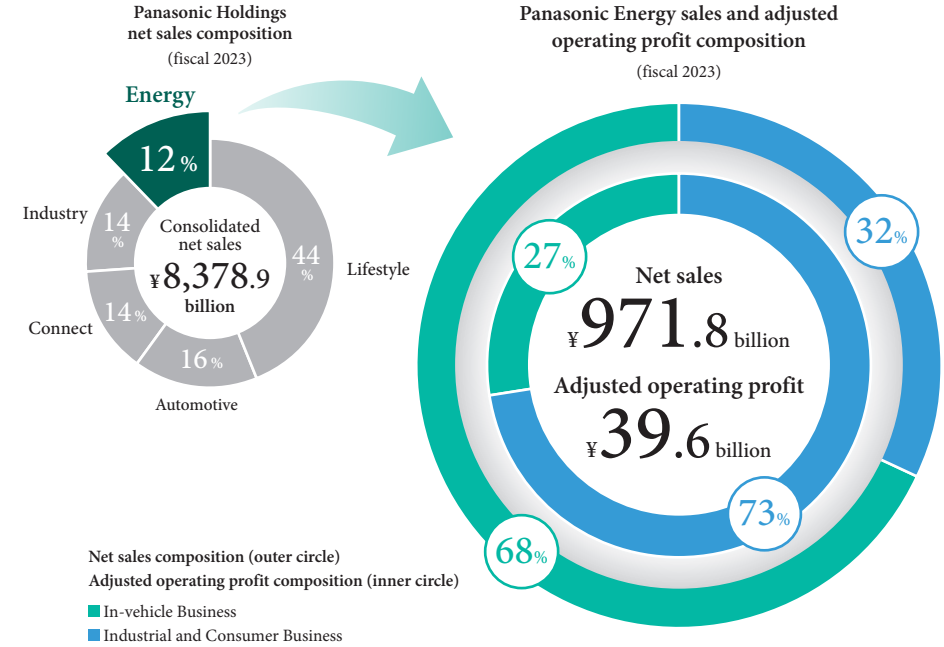
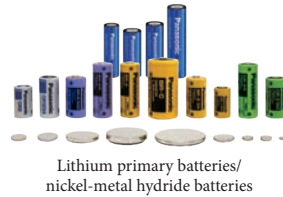
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# At a Glance

## Business Overview

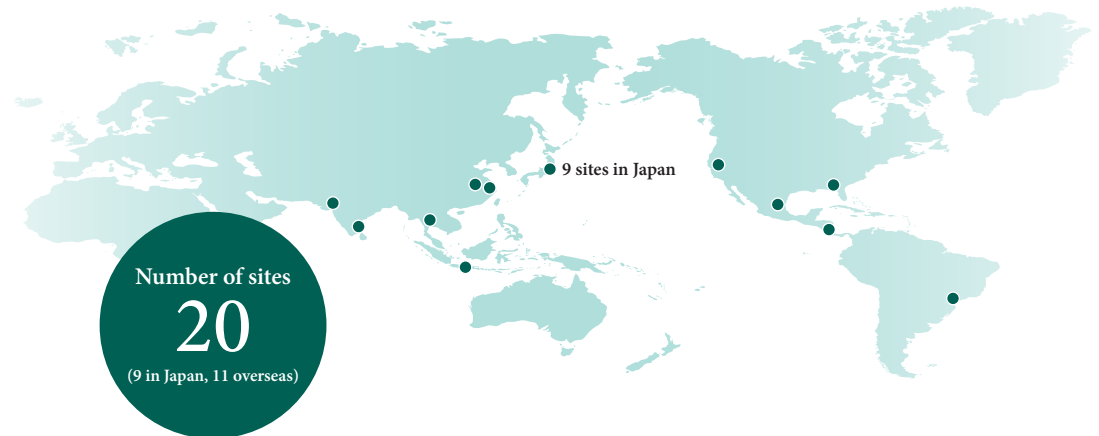
Our global businesses include automotive batteries that support mobility electrification, industrial batteries that support safe and secure social infrastructure such as data centers, home-use storage battery systems, medical equipment, and meters, and dry batteries that supports convenient and comfortable day-to-day living. On the environmental front, we aim to contribute to the environment by reducing CO<sub>2</sub> emissions not only through our business activities, but also through the electrification of society (transition to electric power), particularly in the automotive sector. By maximizing the value provided by “peace of mind,” “safety,” and “low environmental impact,” we will contribute to the realization of a society in which enriched lifestyles and a sustainable global environment are compatible and harmonized without contradiction.



## Snapshot (as of March 2023)

In the battery business <b>100</b> years	Employees Approx. <b>20,000</b> <sup>*1</sup> <small>*1 Global consolidated</small>	Automotive Li-ion batteries <b>No.1</b> market share in North America
Zero-CO <sub>2</sub> factories <b>10</b> sites	Number of patents Approx. <b>7,600</b>	Automotive Li-ion batteries <b>Zero recalls</b> <sup>*2</sup> <small>*2 Recall attributable to batteries</small>

## Global reach (as of March 2023)



# Business Situation

## Latest business status

(Performance in fiscal 2023 and forecast for fiscal 2024)

### Business performance in fiscal 2023

Net sales increased 26% year-on-year to ¥971.8 billion. The increase was due to strong sales of automotive batteries for the North American market as well as the impact of currency conversions. In the in-vehicle business, the demand for electric vehicles (EVs) continued to expand globally due to the increasing demand for decarbonization through national policies. In addition, productivity improvements at our U.S. factory also contributed to the increase in sales of automotive Li-ion batteries, resulting in higher sales. In the industrial and consumer business, demand for Li-ion batteries for ICT and consumer devices declined sharply, especially in the second half of the fiscal year, due to the worsening market conditions caused by China's measures against COVID-19 and global inflation in progress. Lithium primary batteries for the B-to-B market were also affected by the global decline in demand, but the impact of currency conversions ensured an increase in sales. Adjusted operating profit, which indicates the strength of the core business, decreased ¥31.2 billion from the previous year to ¥39.6 billion<sup>\*1</sup>. The decrease in profit was due to the inability to offset the sharp rise in raw material prices, mainly in the in-vehicle business, through price pass-through and rationalization, as well as the loss from lower sales in the industrial and consumer business and higher fixed costs such as development costs for the future.

On the other hand, we made steady progress in strengthening our competitiveness in the market. In the in-vehicle business, by establishing a production system at the Nevada Factory that does not depend on the skill proficiency level of individual employees, improvements in productivity and quality loss were achieved, exceeding the initial productivity improvement target by more than 10%. Furthermore, in the industrial and consumer business, by proposing battery solutions in the form of modules and systems, applications are expanding to include storage battery systems for environmental applications. As an initiative for future growth, in the in-vehicle business, we started construction of a new factory for automotive Li-ion batteries in Kansas, USA, where mass production of the existing 2170<sup>\*2</sup> size is

scheduled to start by the end of fiscal year ending March 31, 2025 (fiscal 2025). In addition, new sales/supply agreements were signed with the automakers, Lucid Group Inc. and Hexagon Purus ASA. With regard to the 4680<sup>\*2</sup> size currently under development, since there are forthcoming new technologies to adopt for higher energy density, the start of mass production at the Wakayama Factory in Japan has been revised and is now scheduled to begin in the first half of fiscal 2025. In the industrial and consumer business, construction of a new building for lithium primary batteries at the Wuxi Factory in China and the installation of a new production line for industrial Li-ion batteries at the Tokushima Factory in Japan are underway. Moreover, in order to establish a stable supply system, we will relocate the dry battery factory from our Moriguchi site (Osaka prefecture) to our Nishiki-no-hama site (Osaka prefecture) and start production in fiscal 2024.

<sup>\*1</sup> Excludes the impact of the U.S. Inflation Reduction Act

<sup>\*2</sup> Cylindrical battery sizes: The first two digits indicate diameter (mm) and the second two digits indicate height (mm).

### Business forecast for fiscal 2024

In fiscal 2024, we aim to increase sales and profits by ¥1.03 trillion (106% year-on-year) and adjusted operating profit by ¥55 billion<sup>\*1</sup> (+¥15.4 billion year-on-year). In terms of net sales, the in-vehicle business is expected to grow thanks to continued expansion of demand for EVs and further improvements in productivity, while in the industrial and consumer business, although market conditions were sluggish in the first half of the fiscal year, recovery is expected in the second half. In terms of adjusted operating profit, in addition to increasing sales, we intend to normalize the balance between material prices and price pass-through and promote rationalization and other measures to cover increased fixed costs associated with investment for growth, aiming to increase profit at the actual level excluding the impact of the Inflation Reduction Act (IRA) in the U.S. The purpose of the IRA is to control excessive inflation and promote energy policy in the U.S. In addition to investing in the in-vehicle business in the U.S., we plan to make effective use of IRA subsidies with our customers in order to strengthen and expand our North American business. As a result, we expect adjusted operating profit of ¥80 billion, or about half of the total subsidy amount, in fiscal 2024.

### Business performance in fiscal 2023

	Fiscal 2023 results (billions of yen)	
		YoY /difference
Net sales	971.8	126%
In-vehicle Business	654.1	140%
Industrial and Consumer Business	310.7	102%
Adjusted operating profit	39.6	-31.2
In-vehicle Business	10.7	-18.6
Industrial and Consumer Business	28.5	-12.6
EBITDA	98.5	-24.5
(EBITDA margin)	10.1%	-5.8%

### Forecast for fiscal 2024

	Fiscal 2024 target (billions of yen)	
		YoY /difference
Net sales	1,030	106%
In-vehicle Business	706	108%
Industrial and Consumer Business	334	107%
Adjusted operating profit	(135) <sup>*4</sup> 55	+15.4
In-vehicle Business	(101) <sup>*4</sup> 21	+10.3
Industrial and Consumer Business	30	+1.5
EBITDA <sup>*3</sup>	(204) <sup>*4</sup> 124	+105.5
(EBITDA margin)	(19.8%) <sup>*4</sup> 12.0%	+1.9%

<sup>\*3</sup> Additional adjustment for depreciation of the underlying asset to which the lessor's lease accounting treatment is applied

<sup>\*4</sup> Figures in parentheses include impact of IRA



Kansas (2nd site in North America)



Tokushima  
(Li-ion battery for industrial use: 2170 size)

# Business Situation

## Medium- to long-term strategy

For fiscal 2025, we aim to achieve the medium-term management goals of operating profit of ¥87 billion, EBITDA of ¥150 billion, cumulative operating cash flow of ¥330 billion, and ROIC of 12%, which we set in fiscal 2023, excluding IRA impact.

Therefore, in order to achieve sustainable growth in the medium to long term, we will continue to practice “two-pillars” management, seeking sales growth in the in-vehicle business and profitability in the industrial and consumer business. In addition, we will promote ESG management that emphasizes environmental contributions and

human capital and increase our contributions to society.

In the in-vehicle business, we will continue to develop our proven cylindrical platform and commercialize next-generation products to drive Company-wide sales growth. In the industrial and consumer business, while maximizing our value proposition with advanced solutions based on battery application systems, we are also working to improve and strengthen our supply system, positioning it as a driving force for Company-wide profitability.

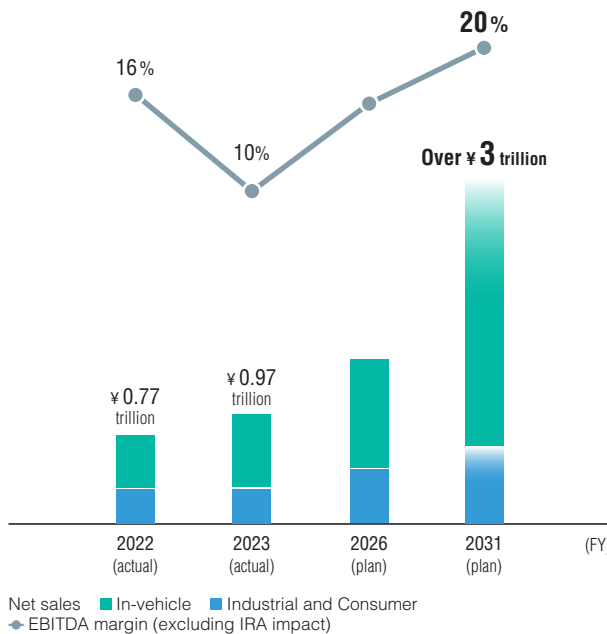
In order to implement this “two-pillars” management, we have set EBITDA, which measures profitability, as our Key Goal Indicator (KGI), and as medium- to long-term management goals, we aim to

triple our current sales to ¥3 trillion or more by fiscal 2031 and achieve an EBITDA margin of 20% excluding IRA impact.

With the expansion of our business scale, our social responsibility also grows, which is why we also regard ESG management as an important element of our business strategy. In particular, in terms of environmental contributions, we have set our carbon footprint (CFP) as a KGI, and we are committed to reducing CO<sub>2</sub> emissions in our business activities and supply chains. By fiscal 2031, we aim to halve our CFP per battery capacity (compared to fiscal 2022).

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## Management goals



## “Two-pillars” management

In-vehicle	KGI	EBITDA
<b>Drive sales growth</b> <ul style="list-style-type: none"> <li>Deploy proven cylindrical platform</li> <li>Commercialize next-generation products</li> </ul>		
Industrial and Consumer	KGI	EBITDA
<b>Drive profitability</b> <ul style="list-style-type: none"> <li>Maximize value proposition by battery application systems</li> <li>Improve supply system</li> </ul>		

## ESG management

	KGI	CFP
<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> emissions and address resource issues</li> <li>Promote human capital management and human rights due diligence</li> </ul>		

## Medium-term management goals for fiscal 2025

(excluding IRA impact)

<b>Operating profit (FY25)</b> ¥ <b>87</b> billion (up ¥20 billion from FY22) <b>9%</b>	
<b>EBITDA (FY25)</b> ¥ <b>150</b> billion (up ¥30 billion from FY22) <b>16%</b>	KGI
<b>Cumulative operating cash flow (FY23-25)</b> ¥ <b>330</b> billion	
<b>ROIC (FY25)</b> <b>12%</b> *	

\* Excludes new investments in Kansas

## Message from the CFO



“We aim to achieve ¥3 trillion in sales and 20% EBITDA by fiscal 2031 by strengthening earnings power through both sales growth and improvement of profitability”

Director and Managing  
Executive Officer  
Chief Financial Officer  
(CFO)

Masaaki  
Mizoguchi

### Strengthen earnings power through both sales growth and improvement of profitability

The key point of the Panasonic Group's transition to an operating company system was to become “specialized and sharpened.” Under the autonomous management system, each operating company aims to maximize business value by making quick decisions while increasing its competitiveness in specific areas. As a result, each company is required to enhance its management structure on two axes: “accumulated operating cash flow,” which measures the scale of its cash-generating capacity, and “return on invested capital (ROIC),” which

measures the profitability of capital. However, since our business growth involves large capital investments, we use “EBITDA (operating income + depreciation)” as a KGI to measure earnings power, in addition to ROIC.

Under the themes of “Green” and “Digital,” we aim to achieve medium- to long-term business growth by strengthening our earnings power through both the “sales growth” of the in-vehicle business and the “improvement of profitability” of the industrial and consumer business. In the in-vehicle business, we will enhance our ability to generate future cash flow by significantly increasing production capacity and strengthening our operational capability. As the shift from gasoline-powered vehicles to more eco-friendly electric vehicles (EVs) gains momentum, our automotive Li-ion batteries are highly

rated for their safety as well as their performance.

In the industrial and consumer business, which is our other business pillar, in order to ride the wave of digitalization and electrification of society, we intend to expand applications and accelerate the shift from the business of single cells to a business model based on battery packs and modules to increase profitability. As for sales anticipated for fiscal 2025, business negotiations are progressing for 90% of them and we expect them to produce steady results going forward. At the same time, we intend to increase the sales ratio of modules and packs to 80% (from approximately 60% in fiscal 2023).

### Aiming for sales of ¥3 trillion in fiscal 2031

Looking at our results for fiscal 2023, in addition to strong sales in the in-vehicle business thanks to strong demand for EVs in North America, the depreciation of the yen also boosted sales. However, in the in-vehicle business, which has a long supply chain, soaring raw material prices and the lag in incorporating them into sales prices were factors that pushed down operating profit, while fixed costs such as development costs for future growth increased. In the industrial and consumer business, sales of storage battery systems for data centers increased, but sales of Li-ion batteries for the ICT and consumer sector and lithium primary batteries for the B-to-B sector declined due to weakening consumer sentiment stemming from inflation and other factors. As a result, sales in fiscal 2023 were ¥971.8 billion (up 26% from the previous year), operating profit was ¥33.2 billion (down 50% from the previous year), EBITDA was ¥98.5 billion (down 20% from the previous year), and ROIC was 5.0%.

Looking ahead to results for fiscal 2024, in the in-vehicle business, sales prices are catching up to soaring raw material prices, and demand from the consumer market is expected to recover in the second half of the fiscal year, so we anticipate an increase in sales and profit as a whole.



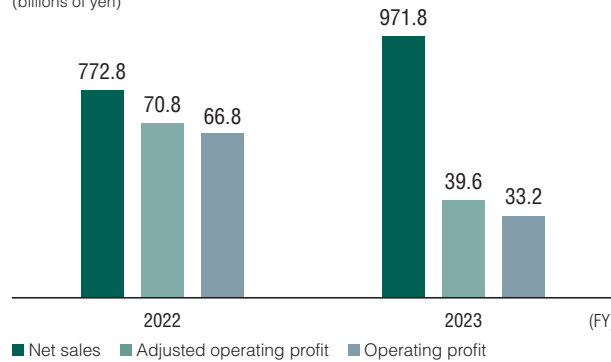
# Message from the CFO

Furthermore, in order to maintain a constant presence in the global battery market, our strategy is to increase the production capacity of automotive Li-ion batteries to 200 GWh by fiscal 2031 (approximately four times the production capacity in fiscal 2023). On this foundation, in fiscal 2031 we aim to achieve sales of ¥3 trillion and an EBITDA margin of 20%, not including the impact of the IRA.

Of course, given the momentum of global battery demand, this is just another milestone on the road to the next stage of growth.

## Business results (fiscal 2022, 2023)

(billions of yen)



## Improve our ability to generate future cash flows for sustainable growth by increasing production capacity and strengthening our operational capability

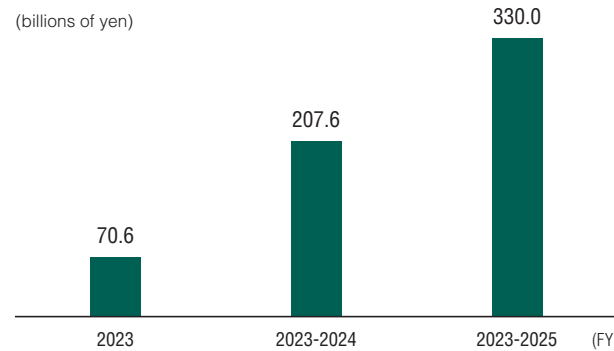
As we seek to grow our business at an unprecedented scale and speed, significant investments lie ahead for the foreseeable future. The construction of a new factory in Kansas, USA, which will produce EV batteries, has obtained approval for state investment subsidies. We

made the decision to build the Kansas Factory based on the expectation that, taking advantage of our experience and know-how at the Nevada Factory that is currently in operation, we would be able to secure world-class competitiveness by improving all aspects, including building design, production line automation, material procurement, labour productivity, and equipment efficiency.

We currently produce approximately 50 GWh of EV batteries per year at our Nevada and Japanese mother factories. Production at the Kansas Factory, which is expected to be added to our existing output in fiscal 2025, still leaves room for further expansion. In order to sustainably expand the business in the future with our own funds and to keep the business cycle going, we will need an EBITDA of around 20% and approximately ¥400 billion per year in operating cash flow. This is well beyond our current cash flow generation capacity. Furthermore, inventories, including parts and materials, that had been built up in preparation for the COVID-19 pandemic and geopolitical risks, are now restraining cash flow. To achieve further growth, we aim to increase cash flow by thoroughly reducing inventories through a review of our supply chain and by launching the Kansas Factory as soon as possible.

## Cumulative operating cash flow

(billions of yen)

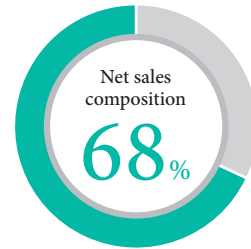


## Enhancing corporate value both financially and non-financially

Panasonic Energy’s mission is “Achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict,” and we aim to expand our business with a determination to change the future. In particular, we are deeply involved in the E (environment) part of ESG management. As we enter an era in which all other forms of energy are being replaced by electricity in order to realize a decarbonized society, the impact of contributing to avoided CO<sub>2</sub> emissions through our products such as EV batteries is in fact rapidly increasing. Under such circumstances, I believe that businesses that can meet society’s expectations and improve their earnings power will be more highly valued by the capital market, attract more funds for long-term investment, and be more likely to receive subsidies and other policy support. This will result in a lower cost of capital and provide opportunities for innovation and growth. While also focusing on non-financial value, we will promote financial strategies to continuously increase corporate value.



# In-vehicle Business



## Business overview

The in-vehicle business is engaged in the development, manufacture, and sale of Li-ion batteries for automotive use, providing power energy with performance and safety features that are compatible with the evolution and adoption of electric vehicles.

Looking back on our history of technological evolution as a pioneer in automotive Li-ion batteries, we have always led the industry in

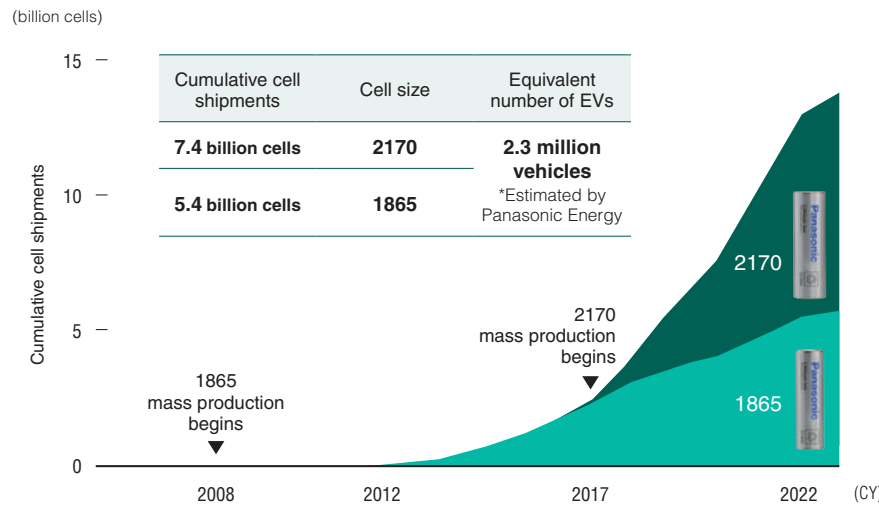
the development of cylindrical battery platforms and higher capacity. To date, we have supplied a cumulative total of approximately 13 billion cells\*1 of automotive Li-ion batteries, enough for 2.3 million electric vehicles (EVs), thereby maintaining the No. 1 market share in North America. We started mass production of the 1865\*2 size in 2008 and the 2170\*2 size in 2017, and during this period, we have worked with our customers as a manufacturer to create highly safe products as a matter of course. As a result, no recalls attributable to our batteries

have occurred to date. Through this business activity, we support the electrification of all forms of mobility, thereby contributing to avoided CO2 emissions and expanding our contribution to society.

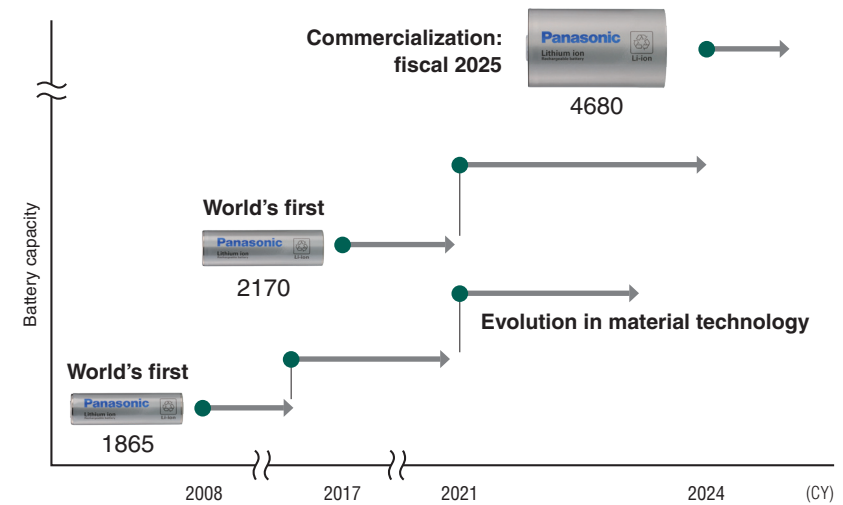
\*1 The smallest structural unit of a Li-ion battery

\*2 Cylindrical battery sizes: The first two digits indicate diameter (mm) and the second two digits indicate height (mm).

## Cumulative shipments (as of March 2023)



## Evolution of automotive Li-ion battery technology



# In-vehicle Business

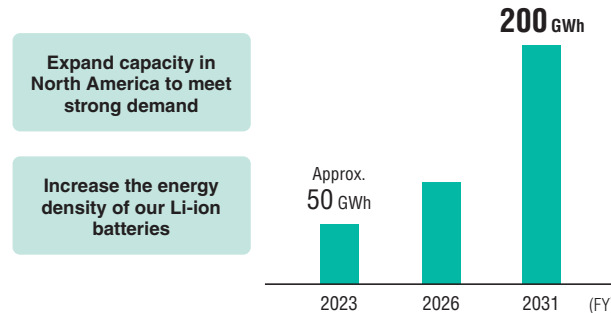
## Business strategy

Electrification of mobility is one of the areas that will make the greatest contribution toward a carbon-neutral society, and the electric vehicle market will continue to expand globally in the future. The automotive battery market is expanding at an unprecedented rate and is expected to reach ¥24 trillion by 2025.

Source: FUJI KEIZAI GROUP CO.,LTD., “2022 Global secondary battery market report: major applications, market size, share, trends” (in Japanese).

With significant market growth expected, our strategy is to focus on the North American market, where we can leverage our strength in higher capacity and where we already have a strong business foundation. Furthermore, our cylindrical automotive Li-ion batteries, which boast the top market share, are suitable for cooling during fast charging, which is important for the convenience of electric vehicles, and have a high level of safety, which is favored by the market. We aim to expand global annual production capacity to 200 GWh by fiscal 2031 by expanding production capacity of the 2170 size, which has a proven track record in safe, high-quality cylindrical Li-ion batteries for automotive use, while gradually introducing the newly developed 4680 size.

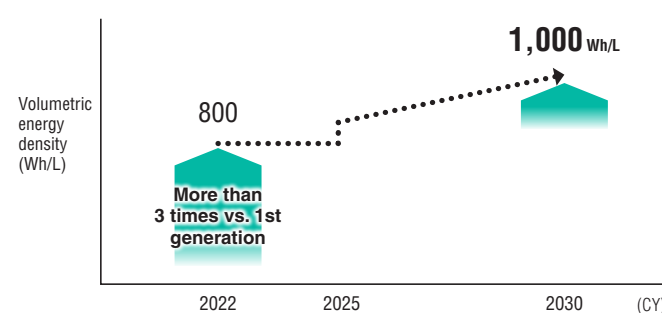
## Production capacity expansion plan



To expand production capacity, we are working to strengthen the supply chain that supports battery manufacturing. We will secure long-term supplies of key materials through local procurement in North America and strategic offtake agreements\*. We will also promote the use of recycled materials and low carbon footprint materials that contribute to reducing environmental impact.

The volumetric energy density of our automotive Li-ion batteries has more than tripled since the first generation, which was developed for PCs. By 2030 we will increase our volumetric energy density to 1,000 Wh/L, a 25% increase over the current level, which will make us the industry leader in higher capacity technology. This will not only strengthen our product line, but also enhance our production capabilities per battery capacity. For the 2170 cells, we will launch next-generation cells with 5% higher energy capacity than conventional cells, with the aim of achieving still higher capacity and longer life by adopting new materials. The 4680 cells will be mass produced at the Wakayama Factory using new technology for higher energy capacity. Going forward, amid the ongoing adoption of electric vehicles (EVs) with a lower environmental impact, we will support the evolution and adoption of EVs and contribute to avoided CO<sub>2</sub> emissions by leveraging our technological capabilities and safety features.

\*Contracts for future provision of goods and services



## Message from Division Director



**Not afraid to ride the huge wave of electrification**

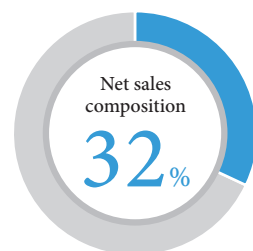
Representative Director and Executive Vice President, Director of Mobility Energy Business Division

**Yasuaki Takamoto**

With the aim of decarbonizing, all modes of transportation are starting to move toward electrification, i.e., from internal combustion engines to electric motors. This movement will be larger than any previous industrial change and will bring about the largest social transformation in history. We are not afraid to take on this huge business opportunity that is right in front of us. That is our mission in the Mobility Energy Business Division.

We have evolved Li-ion batteries from consumer use, traditionally in personal computers, to automotive use, enabling the widespread adoption of electric vehicles (EVs) since their inception over a decade ago. As a result, EVs have become a necessity of the times, and it is no exaggeration to say that we have etched our name on a page of industrial history. I am convinced that in the future this trend will become an even greater wave of electrification of mobility in all its forms, including ships and airplanes. First, we will target North America, where we already have a solid business foundation, and concentrate our management resources there. Then, starting in fiscal 2025, we will introduce the 4680 size, which incorporates new technologies, to make EVs more affordable.

# Industrial and Consumer Business



## Business overview

The industrial and consumer business provides energy to support modern life with an extensive lineup of Li-ion batteries, primary lithium batteries, nickel-metal hydride batteries, and dry batteries. As society progresses, we have developed products for a wide range of applications with various partners, and have accumulated technological capabilities and proposal capabilities. Our business began with lights to illuminate the darkness, and since then we have improved the

convenience of daily life by contributing to the miniaturization and wireless operation of PCs, telephones, and other devices. Going forward, we will continue to promote social transformation towards digitalization and electrification with our highly safe and reliable technologies and develop application systems that integrate cells\* with the mechanisms, circuits, and control software programs that use them. Furthermore, armed with the ability to pioneer new markets that we have cultivated over time, we will co-create solutions with business partners for new areas such as construction machinery and

agricultural machinery to expand our areas of contribution.

In the medium to long term, we will focus on the social and lifestyle infrastructure field, which is expected to grow, and expand the advanced system business based on high reliability while strengthening our earnings structure with the goal of doubling net sales to ¥600 billion in fiscal 2031 compared to fiscal 2023.

\* The smallest structural unit of a Li-ion battery

## Overview of Industrial and Consumer Business

### Energy Solutions Business Division



Data centers



Laptops



Electric-assisted bicycles

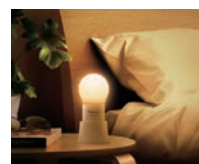


Storage battery modules/systems



Li-ion batteries

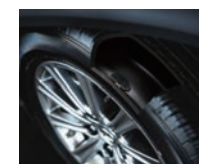
### Energy Device Business Division



Electric lights



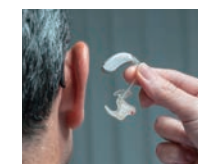
Water and gas meters



TPMS  
(tire pressure monitoring system)



In-vehicle e-call



IoT devices



Dry batteries



Lithium primary batteries



Nickel-metal hydride batteries



Pin type Li-ion batteries

# Industrial and Consumer Business

## Energy Solutions Business Division

### Business strategy

By 2025, the market for Li-ion batteries for industrial and consumer use, which is the business domain of the Energy Solutions Business Division, is expected to reach ¥2.6 trillion \*1 for power storage systems and stationary power supplies, and ¥2.0 trillion \*2 for power tools, electric motorcycles, laptops, wearable devices, and similar consumer products.

Sources:

\*1 FUJI KEIZAI GROUP CO.,LTD., “2022 Global secondary battery market report: major applications, market size, share, trends” (in Japanese)

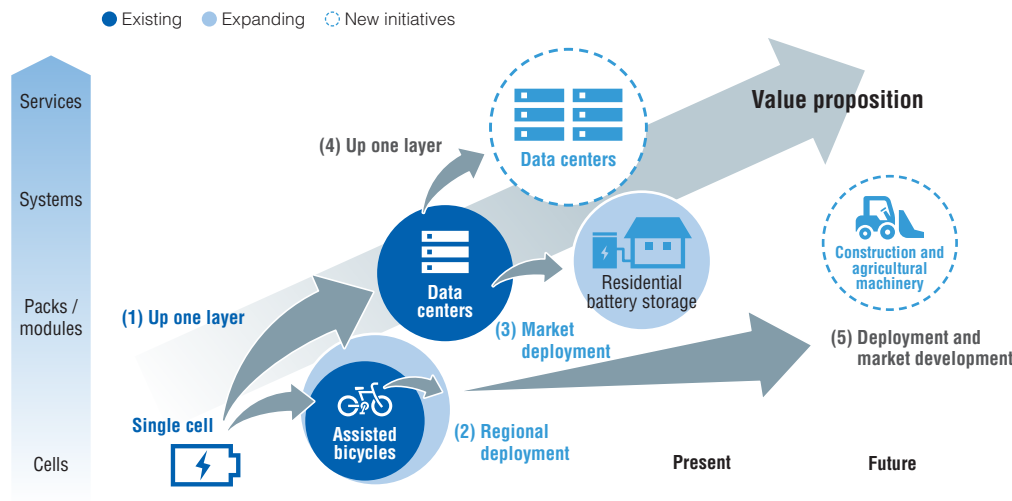
\*2 “2022 Comprehensive study on the status of battery-related markets” (in Japanese)

For storage battery modules and systems for information and communication infrastructure such as data centers, we provide a highly reliable, safe, and long-life backup power supply system with Li-ion batteries as the core device, which has earned us our large market share. With the need for 24-hour/365-day operation and data

protection expected to continue to grow and the market size expected to reach ¥210 billion by 2026, we will aggressively invest management resources to expand sales in this area. Furthermore, we will horizontally expand the technology we have accumulated for data centers to home-use storage battery systems.

We will also work with customers to develop and provide optimal Li-ion battery packs and systems for electric-assisted bicycles, medical equipment and new markets such as construction and agricultural equipment, which are expected to be electrically powered in the future.

In terms of site strategy, we will produce optimized battery cells for infrastructure and power equipment at the Tokushima Factory, which is designated as the mother factory, and increase the assembly capacity of battery packs and modules at the Mexico Factory. In terms of product strategy, we will lead the market with battery application systems, building on our shift from the business of single cells to battery packs and modules.



### Message from Division Director



**Become a driving force for the evolution of society**

Managing Executive Officer  
Director of Energy Solutions  
Business Division

**Isamu Yamagiwa**

The Energy Solutions Business Division, which inherited the historic rechargeable battery business that originated with nickel-cadmium batteries, develops, manufactures, and sells battery packs and energy storage modules that integrate high-quality, high-capacity Li-ion cells with the system technologies that use them, including mechanisms, circuits, and control software.

By leveraging our strengths in “lower environmental impact” and “safety and security,” we will work with customers to create new markets and expand our contributions to society beyond our current business areas of data centers, residential and commercial energy storage, mobility, medical device, and consumer products. At the same time, we aim to be a business entity that flexibly supports the evolution of society. The Energy Solutions Business Division is a group of professionals obsessed with batteries; our work culture combines the latest digital transformation with a frank and honest *kaizen* (improvement) tradition that has been passed down in the battery business over many years. We are proud to be a driving force for the evolution of society by accurately grasping the accelerating trends in the electrification market, such as the increase in data volume and the use of renewable energy in the context of a digital society. Going forward, we will continue to put into practice the slogan of our business division: “Go forward. Go forward. Go forward!”

# Industrial and Consumer Business

## Energy Device Business Division

### Business strategy

The Energy Device Business Division has two business areas: B-to-C (for consumers) and B-to-B (for businesses). Our products include dry batteries, lithium primary batteries, and nickel-metal hydride batteries. The market for these products is expected to reach ¥1.4 trillion by 2025 due to the stable market for dry batteries and the expansion of batteries for sensors such as IoT devices.

Source: FUJI KEIZAI GROUP CO.,LTD., "2022 Comprehensive study on the status of battery-related markets" (in Japanese)

Dry batteries are essential for everyday life, and they also have a mission to support lifelines in the event of a disaster. We will continue to maintain our market leadership in Japan and expand sales in key regions around the world, including those with weak energy

infrastructure. Aiming to further improve product competitiveness, we will work on the development of long life products that can be stored for a longer time.

We supply lithium primary batteries, which can be used in a wide range of environments and have long-term reliability, for smart meters, medical equipment, and tire pressure monitoring system, which require long-term operation. Nickel-metal hydride batteries, which offer a wide operating temperature range, are used as an independent power source for emergency communications, mainly in automobiles. These B-to-B businesses are focused on markets where long-term reliability is important.

In terms of site strategy, we will build a new facility at our Wuxi Factory in China to increase production of primary lithium batteries, and move our dry battery site to Nishiki-no-hama, Osaka, to continue to fulfill our long-term responsibility for supply.

### Message from Division Director



### Creating a primary battery business in harmony with the environment

Managing Executive Officer  
Director of Energy Device  
Business Division

Hideyuki Okunaga

The Energy Device Business Division produces approximately 4 billion batteries annually, including dry batteries, micro batteries, and nickel-metal hydride batteries, and delivers them worldwide through both B-to-C and B-to-B channels. Our batteries can be found in homes, cars, buildings, and social infrastructure, providing convenience, comfort, security, and safety.

We have redefined the mission of our division as "Creating happiness and harmony with the environment." This is starting to change everything we do. We are accelerating our transition to decarbonized factories and rolling out paper packaging. The major challenge for the future is the resource circulation. How do we move away from "disposable" primary batteries? We always believe that if we fail to create a primary battery business in harmony with the environment, there will be no future for the business. With this in mind, I am determined to create a new circular model no matter what it takes. If we can transform our business, which permeates the lives of people around the world, we can create new value with the pride and spirit of being able to make a significant impact on society.

Core devices	Business opportunities	Focus areas
<p>Dry batteries</p> <p>Nickel-metal hydride batteries</p> <p>Lithium primary batteries</p> <p>Nickel-metal hydride batteries</p> <p>Various operating environment Long-term reliability</p>	<p><b>B-to-C</b></p> <p>More natural disasters due to climate change</p> <p>Increased demand for equipment in emerging countries</p> <p><b>B-to-B</b></p> <p>IoT for infrastructure for daily life</p> <p>Independent power supply for greater system stability</p>	<p>Japan + regions with high profitability and growth potential</p> <p>Area of circle = market size</p> <p>Profitability</p> <p>Growth potential</p> <p>0.0% 5.0% 10.0%</p> <p>Focus on markets where long-term reliability is important</p> <p>Power source for emergency communication</p> <p>Power supply for tire pressure monitoring system</p> <p>Power supply for meters</p>

# Message from the CTO



“Leading the industry in technology and contributing to a decarbonized, circular society”

Executive Vice President  
Chief Technology Officer  
(CTO)

Shoichiro  
Watanabe

## Transforming the future of the battery industry

I have two main missions. First, within the Company, in order to ensure our sustainable growth, we must identify short-term and medium- to long-term market trends, strategically set technological themes to respond to them, and lead the development departments with a sense of urgency. The second mission is outside the Company: to serve as a starting point for disseminating information, increase our presence, and bring about changes in the future of the battery industry by involving various external stakeholders.

## Building a seamless development system for nonstop improvement in battery performance

Our predecessors are the former Matsushita Electric Group and the former Sanyo Electric. Traditionally, these two companies led the evolution of batteries while repeatedly competing for the top spot in the battery industry. We inherited the DNA of both companies, which continues to drive us to take on the challenge of creating something unbeatable. In fact, the automotive Li-ion batteries that are making such remarkable strides today are based on technology developed through competition in the laptop computer market.

To remain competitive in battery performance, we need to increase capacity nearly every two years. Battery performance, to put it simply, is about how much active material (material that can extract electrical energy through chemical reaction) can be packed into a limited space. The most difficult and time-consuming part of the process is to balance the evolution of various elemental technologies to achieve the right mix of longevity, storage characteristics, and safety. To keep up with this cycle of increasing capacity, Panasonic Energy has as many as 400 researchers working on about 30 elemental technologies. This is the core strength of our technology development system. Also, since these are all tough technical research topics that require repeated trial and error, you have to be a researcher who can grasp the vital points of development and keep your focus there. We have researchers who are able to do this, and who are genuinely motivated by the fact that the batteries they have been involved in researching are being used in the world, and are tenacious in their efforts to develop them.

In addition, the fact that we have never had an automotive Li-ion battery recall since we started supplying them in 2008 is a major strength. I believe that if you cannot commit to safety, you are not qualified to make batteries. Our modules using cylindrical Li-ion batteries are constructed to provide high safety while maintaining high energy density, and we incorporate safety technology into every design.

# Message from the CTO

## Developing next-gen batteries with an eye on the future

The transition from gasoline-powered vehicles to electric vehicles (EVs) is expected to significantly reduce CO<sub>2</sub> emissions from driving. I believe that production costs and battery performance are key to further advancing this transition to EVs. Panasonic Energy is focusing on the North American market, where we can demonstrate our technological superiority in terms of high capacity and high reliability. Our decision to build a new factory in Kansas was motivated by the tightening of regulations that will spur the transition to EVs as well as a series of large-scale public subsidies. Through these efforts, we aim to supply automotive Li-ion batteries that can outperform gasoline-powered vehicles in terms of production cost.

Looking ahead to the next generation, we have already developed a 4680 size battery (in battery sizes, the first two digits indicate diameter in mm and the second two digits indicate height in mm), and we plan to establish mass production technology at the mother factory in Wakayama during the first half of fiscal 2025. The energy capacity of EV batteries has increased 1.5 times from the 1865 size to the current



2170 size, and now 7.5 times to the 4680 size. This next-generation battery will significantly reduce the number of battery cells used in a single vehicle, contributing significantly to the cost performance of EVs. The larger the size, the more difficult it is to ensure safety, but this is also one of our technological advantages.

Beyond automotive applications, in the future, we are considering expanding into markets such as construction machinery, ships, and even aerospace. The aerospace field poses a significant hurdle since it requires an order of magnitude higher electric current in a lightweight package. Still, I would like to take on this challenge with the help of strong partners so that we can seize the initiative in the market creation stage.

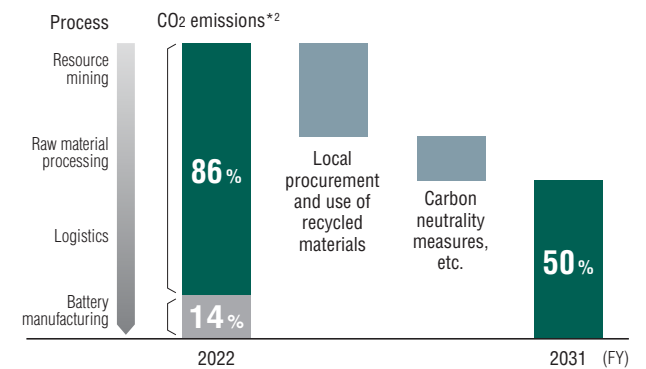
## Accelerate carbon neutrality based on our mission

After Panasonic's transformation into an operating company system, when we were able to define our own unique mission, we positioned "a sustainable environment" at the absolute center of all our business activities. We are a company that plays a major role in solving global environmental problems through the popularization of EVs that reduce CO<sub>2</sub> emissions from driving. However, because the manufacture of automotive Li-ion batteries poses environmental issues in terms of material procurement and manufacturing processes, we have set a goal of halving our carbon footprint by fiscal 2031 (compared to fiscal 2022). In fact, only 14%\* of our carbon footprint is emitted by our own manufacturing processes. We have already achieved carbon neutrality at factories in 10 of our 20 sites, and looking to the future, will expand our adoption of off-site solar power purchase agreements (PPAs) and hydrogen power generation with the goal of achieving carbon neutrality at all of our sites in Japan by fiscal 2026 and at all global sites by fiscal 2029.

The other 86%\*<sup>1</sup> of the carbon footprint of EV batteries is emitted during upstream operations such as resource extraction, raw material processing, and logistics, so this is where we should focus our attention next. To this end, in North America, we signed a memorandum of understanding (MOU) with Nouveau Monde Graphite Inc., based in Canada, a country with a high percentage of hydroelectric power generation, with a view to procuring graphite, an anode material for Li-ion batteries. Local procurement in Canada, which is close to our North American factories, will also reduce CO<sub>2</sub> emissions during transportation. We also signed a purchase agreement with Redwood Materials, a U.S. battery recycling company, for cathode materials and copper foil from recycled materials for automotive Li-ion batteries. Another problem is that rare metals such as cobalt, which are found only in small amounts in minerals, emit large amounts of CO<sub>2</sub> during refining. To address this, we are working to establish cobalt-free technology and develop cathode materials with a much lower nickel ratio.

\*1 Panasonic Energy estimate for fiscal 2022

### Initiative to halve our carbon footprint



\*2 Per unit capacity of automotive Li-ion batteries produced at the North American factory



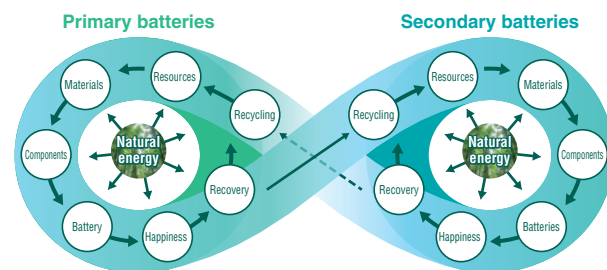
# Message from the CTO

## Achieving the “Yarushika Circular Concept”

In parallel with our carbon neutrality measures, we have launched the “Yarushika Circular Concept” and are focusing on technological development to achieve this. Under the Yarushika Circular Concept, from resources we make materials, from materials we make components, and from components we make batteries; the batteries are used for electricity, and then once they have served their function, they are collected and recycled. It is a grand concept to connect this loop beyond the boundaries of primary batteries and secondary batteries, and to involve all manufacturers in the loop to realize a resource circulation society.

By the way, people tend to think that single-use primary batteries are inferior to secondary batteries (rechargeable storage batteries) and are bad for the environment, but this is a big misconception. A primary battery can be compared to a pre-packed lunch box, and a secondary battery can be compared to a refillable lunch box, but it’s not a question of good vs. evil. For one thing, a primary battery is your last lifeline when you find yourself in trouble with no electricity. Also, manufacturing primary batteries requires much lower CO<sub>2</sub> emissions than secondary batteries, so as long as they can be recovered and recycled properly, they have a lower environmental impact. Recycling a primary battery into another primary battery does not make sense from the perspective of economic rationality. However, by connecting the life cycle loops of the two products, for example by

### Yarushika Circular Concept



taking manganese out of a dry battery, a typical primary battery, and reusing it in a secondary battery, it would be possible to create a system that recycles resources across all batteries. This is something we can do because we make both types of batteries, and that is what we aim to do under the Yarushika Circular Concept.

## The urgent need to develop battery talent

As we continue to expand our business rapidly, we are focusing on securing talent, but the burden of on-site training has increased in proportion to that. It is against the purpose to reduce the utilization rate at the work site by new hiring. We therefore opened a “Technology Manufacturing Academy” for employees up to their second year with the Company, including mid-career hires. I also serve as the principal of the academy. The academy teaches basic knowledge and trains people so that they can hit the ground running on-site in a short period of time.

We also actively contribute to human resource development outside the Company. As the importance of batteries in supporting green and digital technologies grows around the world, the development of battery talent is now a matter of energy security. Japan’s Ministry of Economy, Trade and Industry (METI) has set a goal of finding and training 30,000 workers by 2030 to strengthen the competitiveness of Japan’s storage battery industry. As part of this effort, we will take a leading role in a consortium for the development of storage battery human resources in the Kansai region in Japan, where the battery industry is concentrated, through industry-academia-government collaboration.


In addition to human resource development, we also aim to improve development efficiency and increase resources in order to strengthen our technological and manufacturing capabilities. To accelerate the development of next-generation cells, we are establishing a new development center in Kadoma city, Osaka prefecture, where we will consolidate and expand the people and equipment involved in product development of cells (the smallest structural unit



of a battery). The Kadoma facility will serve as a one-stop base covering all stages from the development of next-generation materials and processes to the production of new products. Furthermore, to concentrate and increase the human resources and equipment involved in the production equipment and process development functions, we will construct a new building at our Suminoe Factory in Osaka city, which will enable prompt on-site feedback and problem solving, and smoothly link new technologies to mass production. To enhance these core human resources in technology and manufacturing, we plan to increase our workforce in Japan by 1,000 by fiscal 2026.


**New building in Suminoe (planned for 2024)**

- Concentrate production equipment and process development functions in one location
- Mother development base providing support, from development of next-generation manufacturing to productivity improvement of existing equipment




**New development center in Kadoma (planned for 2025)**

- Concentrate functions of cell technology development in one location
- Centralized development base that performs everything from development of next-generation materials and processes to new product development



# Sustainability

To help realize a sustainable society and enhance its corporate value over the medium and long terms, Panasonic Energy has identified material issues (materiality)  that it must address from an environmental, social, and governance (ESG) perspective. In this section, we explain each policy and specific initiatives with a focus on materiality.

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# Promoting Sustainability(ESG) Management

The Panasonic Group has established its Basic Business Philosophy, which outlines its approach to management practices and the way employees carry out their work, and conducts its business based on this policy.

Unraveling the Basic Business Philosophy (BBP) from an ESG perspective, it stipulates from the perspective of the environment and society that we make unparalleled contributions to solving global environmental problems, including climate change, and to the physical and spiritual health and well-being of people. Additionally, we will return the profits we obtain to the society and invest in further contributions. From the perspective of governance that sustains such contribution to the environment and society, the BBP also stipulates autonomous responsible management, the practice of each employee's entrepreneurship, maximizing human resources and management based on collective wisdom, and the principle of "Fairness and Honesty" including the compliance.

As one of the operating companies in the Panasonic Group, Panasonic Energy will help resolve environmental and social issues through its corporate activities in accordance with the above ideas. At the same time, we are committed to promoting ESG-focused management in order to establish a transparent and fair management foundation, realize a sustainable society, and enhance medium- to long-term corporate value. This is in line with our Mission, which is to "achieve a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict," and represents an essential initiative for us.

**The Basic Business Philosophy of the Panasonic Group**  
<https://holdings.panasonic/global/corporate/about/philosophy.html>

**The Promotion of Sustainability Management of the Panasonic Group**  
<https://holdings.panasonic/global/corporate/sustainability/management/structure.html#management>

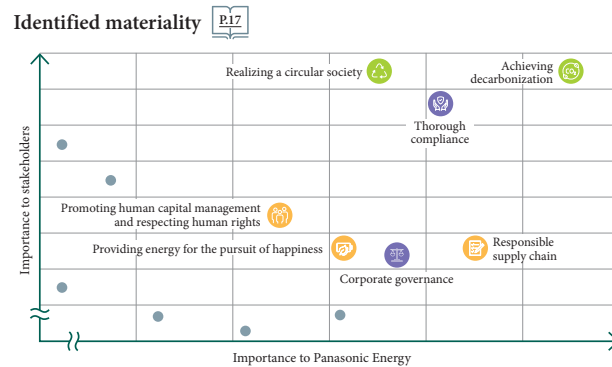
## ESG promotion structure

In fiscal year ending March 31, 2024 (fiscal 2024), Panasonic Energy established its ESG Committee, chaired by the President, to formulate an overall ESG plan, monitor its progress, and evaluate its achieve-

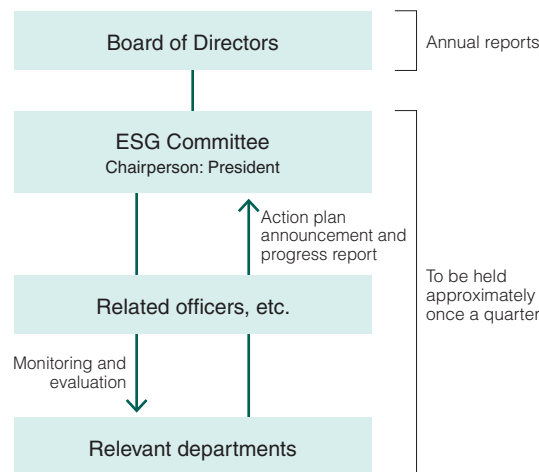
ment status.

Based on the outcomes of its deliberations, the Committee makes annual reports and recommendations to the Board of Directors to ensure that ESG considerations are integrated into the management decision-making process.

In promoting specific ESG-related measures, we designate a relevant officers, or other person to take charge of addressing each of the



## Our ESG management promotion structure



seven material issues, set medium- to long-term visions and key performance indicators (KPIs) for each material issue, and formulate action plans to achieve them. Based on progress reports on the action plans from the aforementioned persons in charge, the ESG Committee monitors and evaluates activities, estimates the effectiveness of measures, and encourages their improvements. In these ways, we will strive to steadily implement measures through the PDCA cycle throughout the year.

## Dialogue with stakeholders

We place great importance on dialogue with a wide range of stakeholders around the world, including customers, investors, suppliers, governments, industry associations, NPOs and NGOs, local communities, and employees, and engage in dialogue at various stages of our operations. We also provide information on our activities to our stakeholders, and at the same time receive feedback from them regarding their expectations and concerns about us. We will incorporate such feedback into our business, product development, and ESG management activities to further enhance our corporate value.

### Major stakeholders





## Achieving Decarbonization

P.37

FY2031 Targets and KPIs



Environmental contribution index

15



Avoided CO<sub>2</sub> emissions

60 million t-CO<sub>2</sub>



Become carbon neutral at our own factories\*<sup>1</sup>

All sites (FY2029)



Renewable energy ratio\*<sup>2</sup>

100%



Carbon footprint (per unit of battery capacity)

-50% (vs FY2022)



\*1. Factories that have achieved virtually zero CO<sub>2</sub> emissions by conserving energy, introducing renewable energy, and using credits.

\*2. Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items)



## Realizing a Circular Society

P.40

FY2031 Targets and KPIs



Recycled material utilization rate (cathode materials, copper foil)

Compliance with local regulations in each country



Recycling rate (in-house waste)

99% or more (less than 1% going to landfill)

## Environmental Management System

P.42

# Contribution to the Environment

## Approach to environmental initiatives

-Two material issues for realizing our Mission-

Our Mission is to “achieve a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict.” With this in mind, we believe that our fundamental value is to play a leading role in transforming society into a sustainable one. At the same time, we have a responsibility to reduce our own environmental impact as we fulfill this role.

Based on our approaches and the expectations of our stakeholders, we have identified two material issues related to the environment: “Achieving decarbonization” and “Realizing a recycling-oriented society.” To maximize the positive impact and minimize the negative impact on each of these, we have set seven KPIs and their targets for fiscal 2031 as shown in the figure on the right.

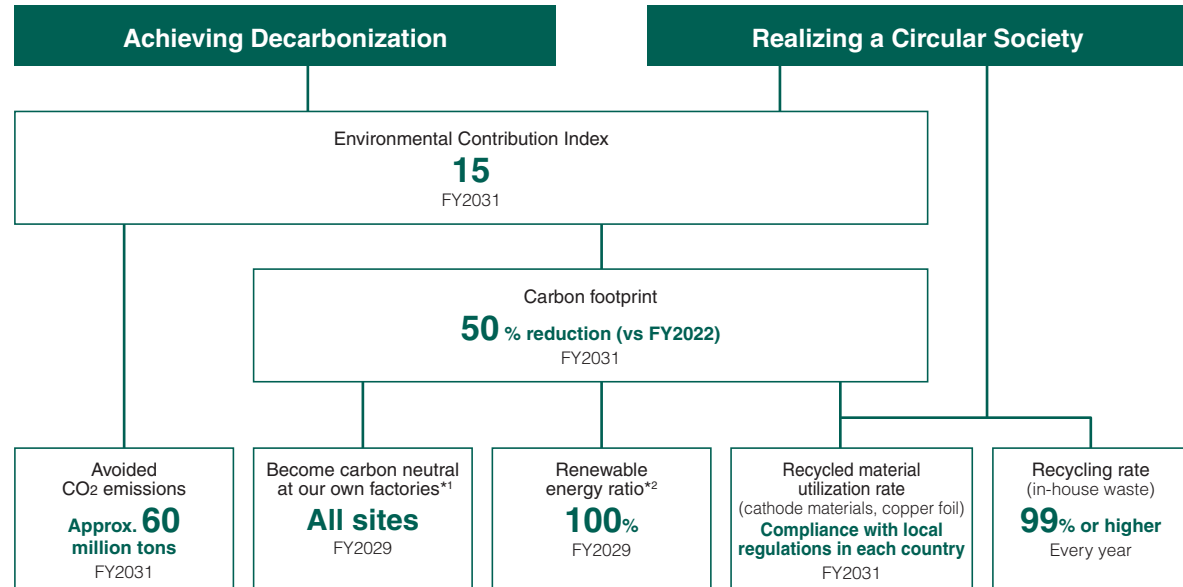
The Panasonic Group announced its long-term vision, “Panasonic GREEN IMPACT,” which aims to reduce its own CO<sub>2</sub> emissions and contribute to CO<sub>2</sub> emission reduction in society. Its goal is to reduce CO<sub>2</sub> emissions by more than 300 million tons by 2050 for the entire Panasonic Group. Prior to that, the Group aims to achieve a reduction of 93 million tons by fiscal 2031. To this end, Panasonic Energy has set an avoided CO<sub>2</sub> emissions target of around 60 million tons, or about two-thirds of that number, toward the material issue of “Achieving decarbonization.”

We also established our own Environmental Contribution Index, which indicates the avoided CO<sub>2</sub> emissions in society through use of our batteries divided by net CO<sub>2</sub> emissions from our battery production. Our target for fiscal 2031 is 15 times.

### Our Mission

“Achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict”

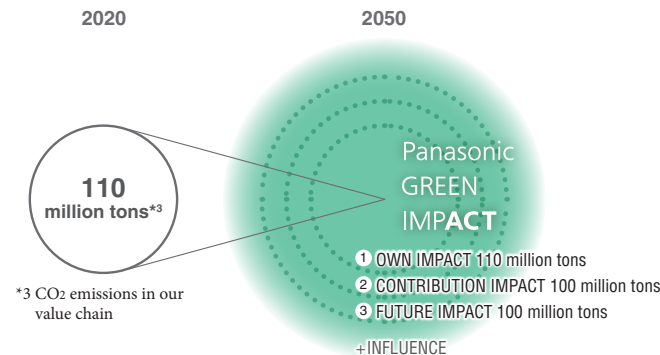
### Two material issues



\*1. Factories that have achieved virtually zero CO<sub>2</sub> emissions by conserving energy, introducing renewable energy, and using credits.

\*2. Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items)

### Panasonic GREEN IMPACT

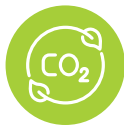


\*3 CO<sub>2</sub> emissions in our value chain

### Environmental Contribution Index calculation formula

$$\frac{\text{Environmental contribution amount} \\ \text{Avoided CO}_2 \text{ emissions in society} \\ \text{through use of our batteries}}{\text{Environmental impact} \\ \text{Net CO}_2 \text{ emissions from our battery} \\ \text{production}} = \text{FY2031} \\ = 15$$

# Contribution to the Environment



## Achieving Decarbonization

KPI	FY2023	FY2031
Environmental Contribution Index	4.5	15
Avoided CO2 emissions (10,000 t-CO2)	1,493	6,000
Achieving carbon neutrality at our own factories*1	10 sites	All sites (FY2029)
Renewable energy ratio*2	23%	100%
Carbon footprint (per unit of battery capacity)	100% (FY2022)	Vs FY2022: -50%

\*1. Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.  
 \*2. Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items)

### Policy

Our Mission is to “Achieve a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict,” and therefore, responding to climate change, an urgent issue common to all humankind, is our most important challenge. To address this challenge, we will work to increase avoided CO2 emissions (when our products are used by end-users, mainly in the in-vehicle business) and reduce CO2 emissions during battery production (from raw material procurement to product completion at our factories). By increasing our contribution and reducing our impact, we are working together as a Group and in collaboration with our stakeholders to maximize the value we provide.

### Increasing avoided CO2 emissions

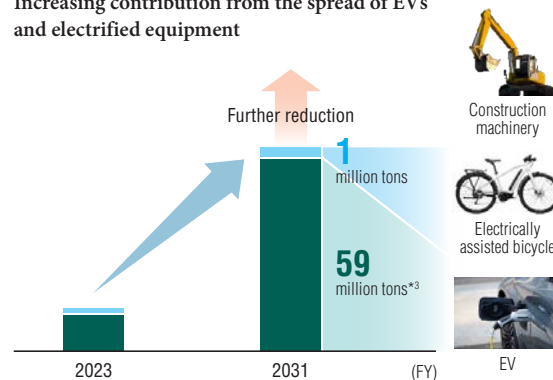
#### Contribution to mobility electrification

Since the introduction of lithium-ion batteries for in-vehicle use into the market in 2008, we have supported the shift from gasoline-powered vehicles to electric vehicles (EVs) by greatly extending the driving range per charge through tireless technological innovation. To date, we have supplied batteries for a cumulative total of 2.3 million EVs. In addition to the proliferation of electrically assisted bicycles powered by our battery packs, the replacement of gasoline-powered vehicles with EVs powered by our batteries avoided CO2 emissions of approximately 15 million tons in fiscal 2023.

By stepping up our support for mobility electrification, we are targeting avoided CO2 emissions of around 60 million tons in fiscal 2031 (approximately four times the fiscal 2023 level).

To achieve this target, we will increase our annual production capacity of automotive batteries to 200GWh by fiscal 2031. We will also expand the scope of our products and services to fields such as construction machinery, where electrification has not progressed due to higher output and longer operation time requirements compared with automotive batteries. Furthermore, our efforts will be extended to the aerospace sector, where both high output power and weight reduction are required.

#### Increasing contribution from the spread of EVs and electrified equipment



\*3. Avoided CO2 emissions due to EVs equipped with our batteries (our own calculation assuming 140,000km of travel over 10 years)

### Reducing CO2 emissions during battery production

#### Initiatives to reduce CO2 emissions at Panasonic Energy

In addition to helping reduce CO2 emissions in society through our business, we are working to reduce our own environmental impact by both introducing renewable energy and conserving energy.

Regarding the introduction of renewable energy, in Japan we have introduced photovoltaic power generation at each of our sites. At the same time, we are converting around 10% of the electricity we use domestically to renewable energy through a photovoltaic off-site power purchase agreement (PPA)\*4.

By also procuring environmental value, such as credits and non-fossil certificates, on a global basis, we have achieved virtually zero CO2 emissions at 10 sites in Japan and overseas as of September 2023, which has been verified by a third-party organization. In addition, our renewable energy ratio has reached around 20%.

In another initiative, we started demonstration tests of a power and heat supply system using small-scale pure hydrogen fuel cells at the factory of Panasonic Energy Wuxi (China) in February 2023. We will expand the scale of these tests in stages with the aim of actively using the next-generation energy sources in the future.

\*4. Arrangement in which an electric utility company installs power generation facilities at a location separate from the demand location and supplies the user with the power generated.

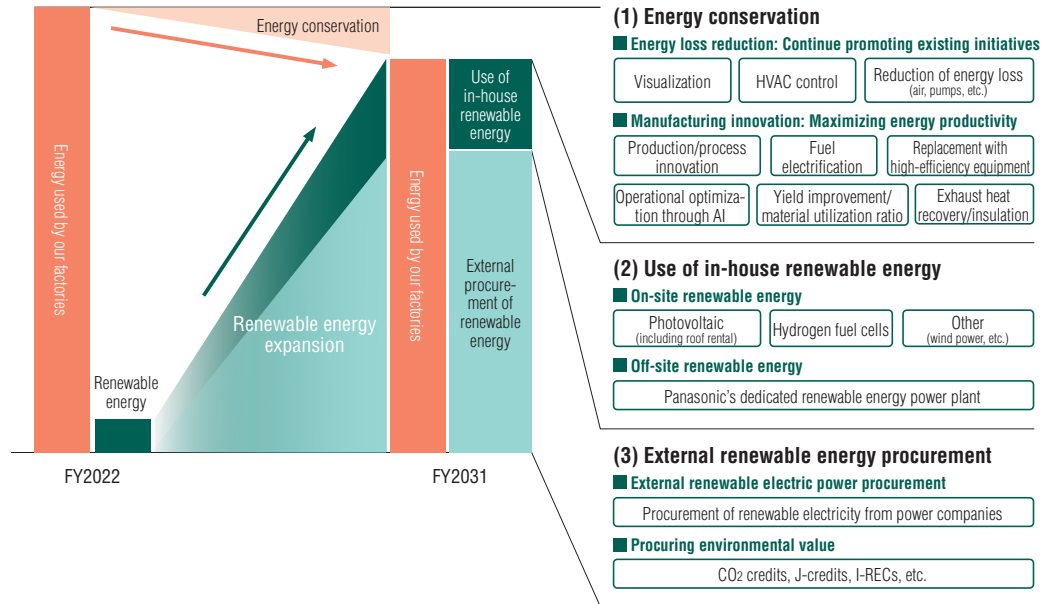


Demonstration tests using hydrogen fuel cells

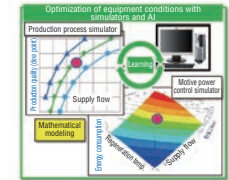
# Contribution to the Environment

We also engage in various activities to conserve energy. These include visualization of energy consumption, reduction of losses in HVAC systems and heating equipment in the battery manufacturing process, electrification of heating equipment and factory transport vehicles, replacement of existing equipment with high-efficiency equipment, and introduction of AI-based control systems to save electricity throughout our factories. To horizontally deploy our know-how globally and standardize our activities at a high level, we share information about our energy conservation efforts and issues at each manufacturing site through our “Environmental Commendation System” and at our “Energy Saving Network Events.”

We will continue focusing on the above efforts and achieve carbon neutrality at all our domestic manufacturing sites by fiscal 2026 and all sites globally by fiscal 2029.



Installation of high-efficiency equipment

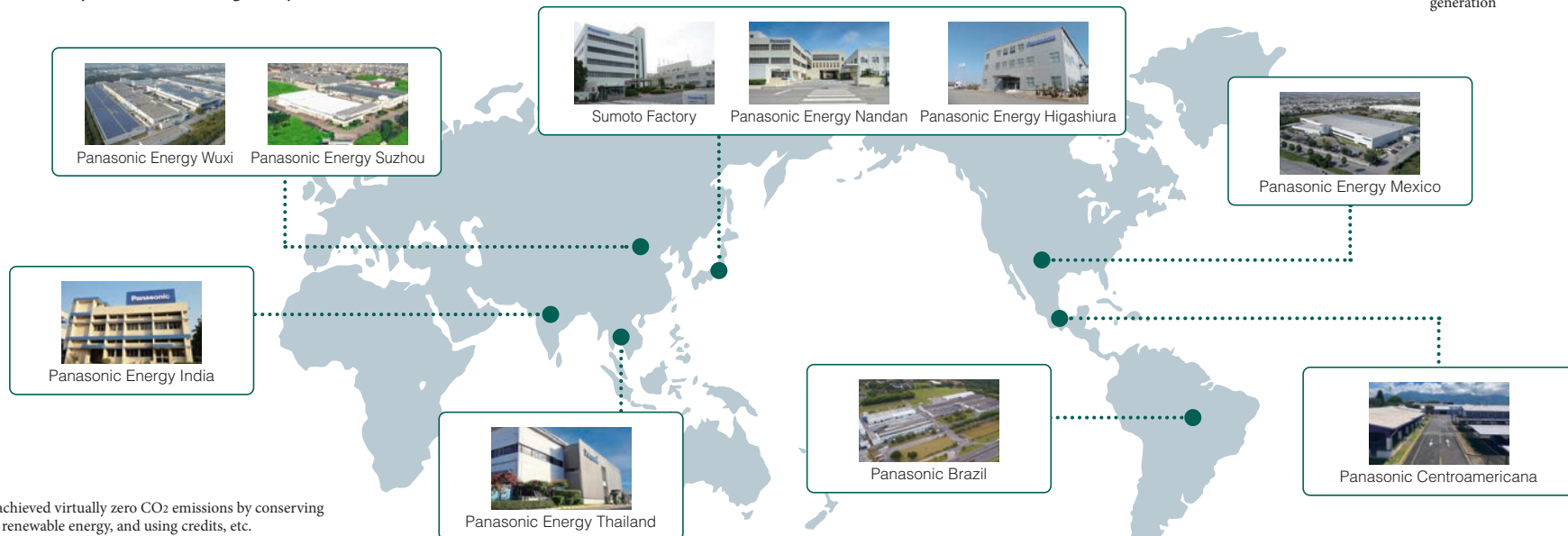


Operational optimization through AI



Introduction of photovoltaic power generation

Achieved zero-CO<sub>2</sub> factory\* status at 10 sites globally (as of March 2023)



\* Zero-CO<sub>2</sub> factory  
Factories that have achieved virtually zero CO<sub>2</sub> emissions by conserving energy, introducing renewable energy, and using credits, etc.

# Contribution to the Environment

## Initiatives to reduce CO2 emissions upstream in the supply chain

Nearly 90% of our CO2 emissions (carbon footprint) from the production of batteries comes from resource extraction, raw material processing, and logistics prior to the manufacturing process at our company. To achieve our target of halving the carbon footprint of our battery production by fiscal 2031 (vs fiscal 2022), we are collaborating with a wide range of stakeholders, including suppliers, partner companies from other industries, and research institutes, leveraging their knowledge and experience.

### 1. Initiatives with suppliers

We are working to reduce CO2 emissions in cooperation with suppliers across all processes involving the materials used in our company, including resource mining, raw material processing, and distribution.

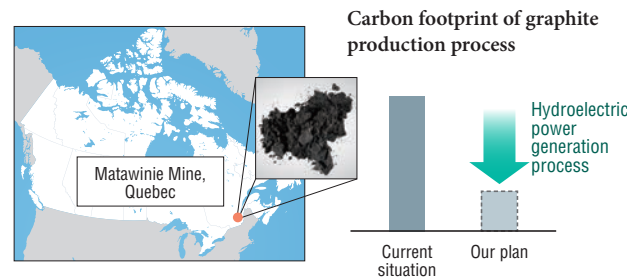
Specifically, we are building a system to reduce CO2 emissions in cooperation with our suppliers, who have gained an accurate understanding of our policy toward fiscal 2031 through annual partners' meetings and other forums. In fiscal 2023, we collected and analyzed carbon footprint information about specific products, identified parts/materials with high impact, and shared the results with suppliers for use in CO2 reduction efforts.



First Partners' Meeting

We are also working to establish new alliances with suppliers that will help reduce our carbon footprint. In fiscal 2023, we signed a memorandum of understanding with Nouveau Monde Graphite, a Canadian graphite producer, to enter a long-term supply agreement. Under the agreement, we will procure anode materials with significantly lower carbon footprint than those made by other companies. This will be achieved through integrated production covering all stages, from resource mining to final product, in Canada, which has a high ratio of electricity derived from hydroelectric power and other renewable energy sources. It will also enable us to procure materials used for our U.S. battery production from Canada, which will shorten the supply chain and lead to a significant reduction in CO2 emissions at the logistics stage.

In other efforts to reduce our carbon footprint going forward, we are looking at resource mining and raw material processing, especially nickel and lithium, which are important minerals. Here, we will identify suppliers with low CO2 emissions, such as those that employ a high percentage of renewable energy, and position them as strategic procurement partners over the medium and long terms. We will also work together with those suppliers to promote the introduction of renewable energy sources, such as photovoltaic and wind power, the use of EV trucks in mines, the use of recycled materials, the development of low-CO2-emission processes, the reduction of energy use, and tree planting activities. At the same time, we will encourage the governments of the countries concerned to offer incentives.



## 2. Reducing CO2 emissions through technological innovation

We are also working to improve our production processes and the materials we use to reduce the carbon footprint of battery production.

In 2022, we began a joint research project with the Institute of Industrial Science of the University of Tokyo, Toyota Tsusho Corporation, and Prime Planet Energy & Solutions, Inc., with the aim of creating a new production process. Under the project, we are reviewing all stages of battery manufacturing, from the metal resource mining and refining processes to the production of battery materials.

Specifically, we are conducting research with two objectives. The first is to develop a new integrated process covering everything from resource development to battery material development and manufacturing, with the aims of reducing CO2 emissions, production costs, and material development lead times. The second is to develop a new process for recycling battery waste materials and waste batteries, with the aims of significantly reducing CO2 emissions and costs incurred in the recycling process.

Cobalt and other rare metals, which are scarce and expensive to mine and refine, emit large amounts of CO2 during refining, so reducing their content in batteries will help us reduce our carbon footprint. We were the first company in the world to develop and mass-produce a lithium-ion battery with a high nickel content, allowing us to reduce the cobalt content of our cathode active materials to less than 5%. In addition to already established cobalt-free technology, we are working to develop cathode materials with a significantly lower nickel ratio in order to meet the expected increase in battery demand and reduce our carbon footprint.



# Contribution to the Environment

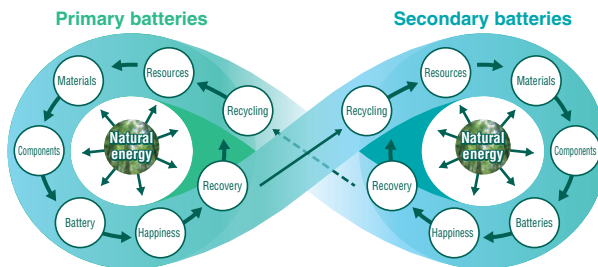


## Realizing a Circular Society

KPI	FY2023	FY2031
Recycled material utilization rate (cathode materials, copper foil)	0%	Compliance with local regulations in each country
Recycling rate (in-house waste)	98.7%	99% or more (less than 1% going to landfill)

### Policy

As a company that uses large amounts of natural resources in its business, we believe that using the earth's limited resources in a sustainable manner and passing them on to the next generation is crucial. For the future of children born today, we are increasing recycling to reduce the consumption of new natural resources while reducing waste to lower our environmental impact. We are also working to reduce CO<sub>2</sub> emissions related to the production of materials and disposal of products. We will advance these efforts in tandem with our commitment to achieving decarbonization.



### Increasing recycling

#### Promoting use of recycled materials

In our battery production, we have been using recycled materials, mainly recycled PET and other plastics, because using such materials instead of newly manufactured materials leads to lower consumption of natural resources and lower CO<sub>2</sub> emissions. Committed to realizing a recycling-oriented society and reducing CO<sub>2</sub> emissions, we are also stepping up efforts to extend the use of recycled materials to electrode materials and other components.

In fiscal 2023, we signed an agreement with Redwood Materials Inc., a U.S. battery recycling company, to purchase recycled cathode materials and copper foil for EV lithium-ion batteries. Under the agreement, we will establish a system to recycle process waste and used batteries into lithium-ion battery materials, such as cathode materials and copper foil. Recycled cathode materials derived from waste generated at our US factories will be used at our new factory in Kansas, while recycled copper foil will be used at our factory in Nevada. By also increasing the local procurement rate, this initiative will also lead to lower CO<sub>2</sub> emissions in the resource extraction and logistics processes.

In addition to the United States, we will verify the use of material recycling<sup>\*1</sup> for cobalt, nickel, and lithium cathode materials with material suppliers and gradually start using cathode materials containing recycled materials in some of our products. In addition, we aim to start utilizing process waste and other materials as battery materials. To this end, we will establish a recycling system for reusing black mass<sup>\*2</sup> generated from process waste materials and used lithium-ion batteries, as a cathode material.

\*1. Reuse of waste as materials or raw materials for products

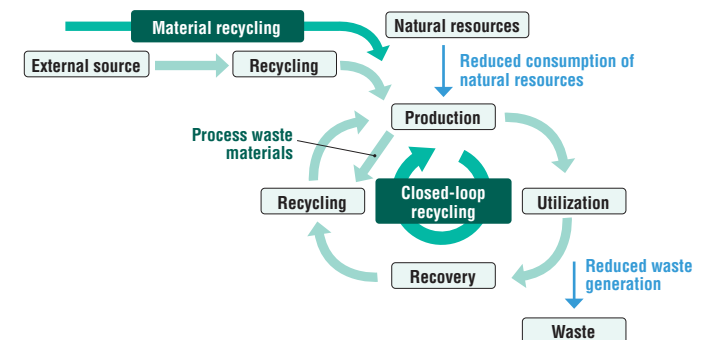
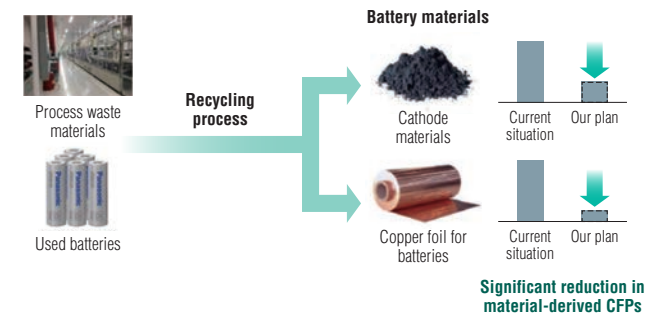
\*2. Black powder containing cobalt, nickel, lithium, etc., obtained by heat-treating batteries

#### Redwood Materials Inc. Message from J.B. Straubel, Founder and CEO

We have been working with Panasonic Energy for many years to build a sustainable supply chain.

I am convinced that promoting the spread of EVs will have a great deal of impact on sustainability worldwide. Our collaboration with Panasonic Energy will reduce the carbon footprint of battery production, enabling us to establish a better supply chain and increase local procurement in North America.

We are very honored to work with a company that is innovative, cares deeply about environmental issues, and is committed to solving them. I expect Panasonic Energy will have a tremendous impact on us in the future.



# Contribution to the Environment

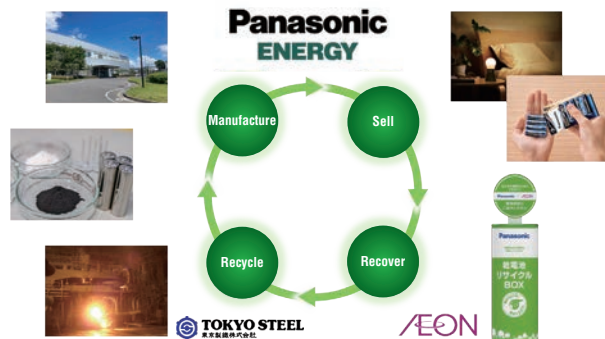
## Establishing a battery recycling scheme in collaboration with stakeholders

### 1. New initiatives for primary batteries: Moving away from “disposable batteries”

For dry batteries, which are primary batteries that cannot be used repeatedly, we are conducting demonstration tests for collecting used dry batteries in Thailand, where the battery collection system is still underdeveloped. In fiscal 2023, in cooperation with CP All Public Company Limited, a local convenience store operator in Thailand, we started demonstration tests for collection and recycling of waste dry batteries at 31 stores. In fiscal 2024, we began similar demonstration tests in Japan in collaboration with AEON RETAIL Co., Ltd. and Tokyo Steel Manufacturing Co., Ltd. In addition to broadening coverage regions and promoting full-scale collecting and recycling in Thailand and Japan, we will expand the know-how we have gained to other regions as well.

In our effort to recycle collected dry batteries, we will first perform recycling to create new materials, such as steel. At the same time, we will conduct R&D aimed at using recycled materials in dry battery components with the aim of realizing “battery-to-battery” recycling.

### Primary battery recovery model in Japan



### 2. Initiatives related to secondary batteries

For secondary batteries, countries around the world are developing legal systems and mechanisms for recycling aimed at using resources more effectively and preventing environmental pollution. In Japan, we are a member of Japan Portable Rechargeable Battery Recycling Center (JBRC), a recycling promotion organization established mainly by Matsushita Battery Industrial Co., Ltd. and SANYO Electric Co., Ltd. (our predecessors). In this role, we engage in collection and recycling of secondary batteries from cooperating stores, municipalities, and businesses nationwide. In fiscal 2023, the industry as a whole collected and recycled 1,700 tons of secondary batteries (around 50% of which were made by our company).

In North America, we collaborated with other battery manufacturers to launch the Call2Recycle program, which offers recycling schemes for secondary batteries in the United States and Canada. We are also helping various other countries create the most efficient systems that match the actual recycling infrastructure situation in each country.

## Waste reduction initiatives

### Reducing dry battery packaging materials

In response to the growing demand among people for ethical consumption (consumption that considers the ethical value of products and services in addition to their functional value), we began selling dry batteries in Japan in fiscal 2022 and Thailand in fiscal 2023 with “ethical packaging” containing minimal materials and less plastics. The introduction of ethical packaging has enabled us to reduce the volume of packaging materials, including plastics, by 38–70% compared with conventional packaging. It also helps reduce total CO<sub>2</sub> emissions throughout the lifecycle of packaging materials, including procurement of raw materials, production, use, and disposal.

In 2023, we will expand our use of ethical packaging by adopting it for our “eneloop” rechargeable nickel-metal hydride batteries. We will also promote global adoption of ethical packaging, starting with the Asia–Pacific region.

### ● Conventional packaging

Mount (cardboard)



Plastic cover



Shrink-film packaging



### ● Ethical packaging

Paper bag



Shrink film not used



### Reduced waste from the factory

We work continuously to reduce waste generated by our factories and increase the volume of valuable materials and resources recycled. Our aim is to reduce the final disposal amount (amount of waste ending up in landfill) to as close to zero as possible.

We have set the factory recycling rate (Amount recycled ÷ [Amount recycled + Final disposal amount]) as a KPI, with a target of 99% or higher. In fiscal 2023, we achieved a factory recycling rate of 98.7% globally.

# Contribution to the Environment

## Environmental Management System

**Implementation of environmental sustainability management based on our environmental management system (EMS)**

As the foundation of our environmental sustainability management, we established environmental management systems at all of our production bases, obtained ISO 14001 certification, and created the environment promotion system shown on the right. Under our Mission, Vision, and Will, we clarify the roles of employees in our environmental activities. All employees in all departments are dedicated to promoting environmental sustainability management as they perform their activities.

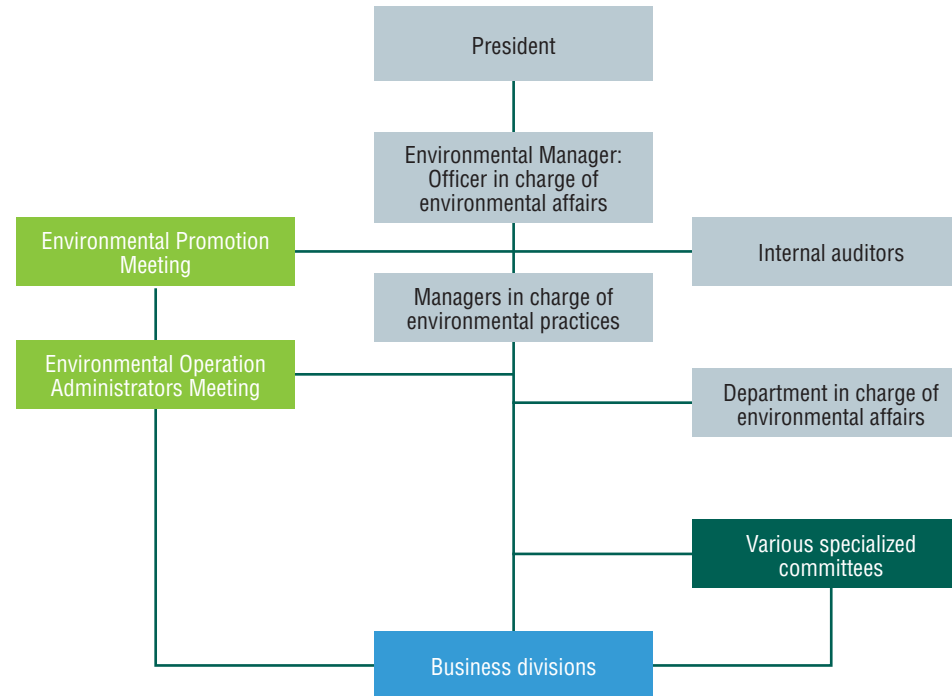
To stimulate the environmental activities of our employees, we provide education on environmental activities to all employees and specialized education for those engaged in environment-related work on a global basis. Examples of our specialized education include factory emissions seminar, chemical substance management seminar, and energy saving network event. In addition, we hold an Environmental Commendation to present awards for outstanding initiatives at our domestic and overseas sites to stimulate environmental activities, raise awareness, and encourage successful cases of improvement to be deployed across the entire company.

We also conduct environmental mutual audits on a regular basis to confirm the reliable operation of our environmental management systems and ensure compliance with laws, regulations, and other requirements.

To prevent environmental problems from materializing in advance, we examine and identify environmental risks\* and formulate and implement measures to mitigate them. In the unlikely event that a risk does materialize, we have a system to promptly implement emergency measures and prevent recurrence in accordance with the flow of our environmental management systems.

\* The potential for various environmental factors to have adverse effects on human health, plants and animals.

Environment Promotion System



Environmental education (China)



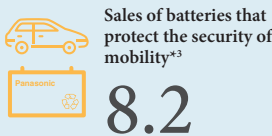
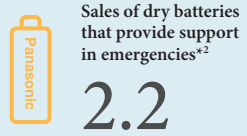
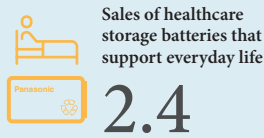
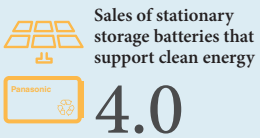
Environmental mutual audit (Thailand)



## Providing Energy for the Pursuit of Happiness\*1

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### FY2031 Targets and KPIs



\*1 Sales volume with fiscal 2022 set as 1

\*2 Sales in the three key regions

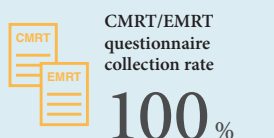
\*3 Automotive batteries excluding those for drive applications



## Responsible Supply Chain

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### FY2031 Targets and KPIs



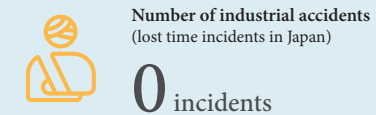
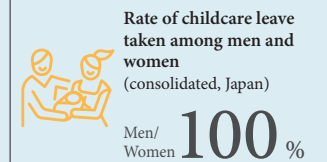
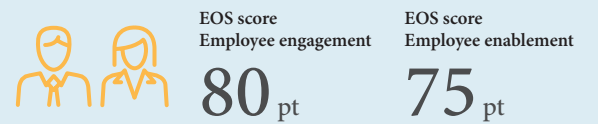
# Working to Solve Social Issues



## Promoting Human Capital Management and Respecting Human Rights

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### FY2031 Targets and KPIs



# Working to Solve Social Issues



## Providing Energy for the Pursuit of Happiness

KPI	FY2023*1	FY2031*1
Sales of stationary storage batteries that support clean energy	1.3	4.0
Sales of healthcare storage batteries that support everyday life	1.3	2.4
Sales of dry batteries that provide support in emergencies*2	1.1	2.2
Sales of batteries that protect the security of mobility*3	1.0	8.2

\*1 Sales volume with fiscal 2022 set as 1

\*2 Sales in the three key regions

\*3 Automotive batteries excluding those for drive applications

will continue to undertake the challenge of developing world-first and one-of-a-kind technologies, and to encourage innovation.

### Social contribution through business activities

We also contribute to the happiness of people's lives in a wide range of fields.

The Energy Solutions Business Division provides high-quality, high-capacity Li-ion batteries and storage battery systems for stationary power sources, which are used as data center power sources that enable stable operations 24 hours a day, 365 days a year, and as home storage batteries that support the efficient use of electric power. In addition, these batteries have also been adopted for various healthcare devices that assist in aspects of medicine and everyday life requiring stable operations. In this way, these products support social infrastructure, and contribute to the expansion of clean energy and to lasting health for people.

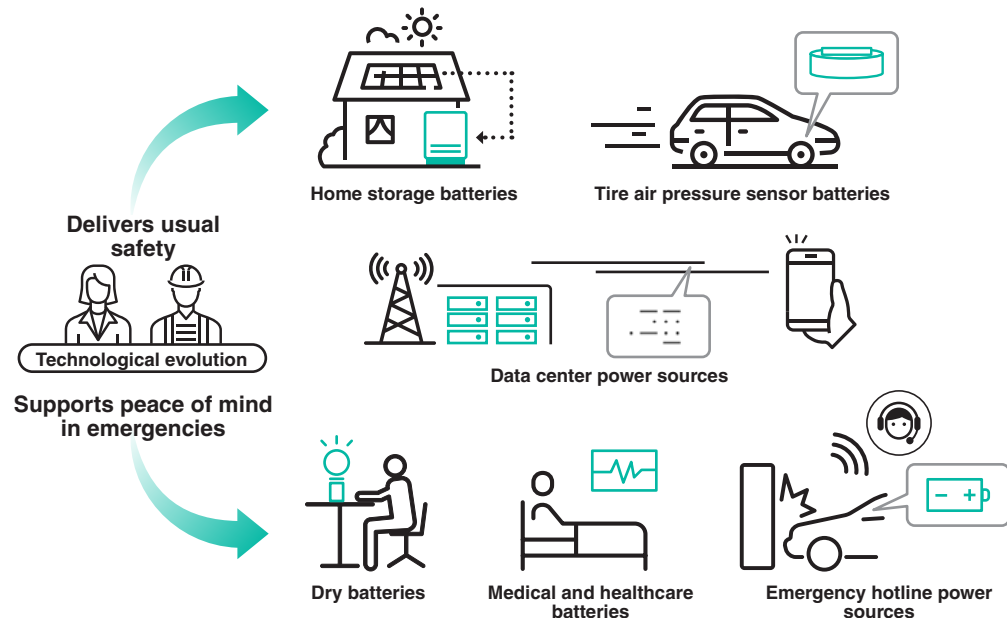
The Energy Device Business Division provides high durability, high reliability batteries as power sources for automobile tire air pressure sensors and emergency hotlines, which help deliver peace-of-mind for mobility. Moreover, the Division's dry batteries go beyond serving as more than common daily necessities as they play an important role in supporting lifelines as reserve stocks in the event of an emergency.

Social contributions made through these businesses are supported by technological developments that pursue safety and security. For example, we achieve high-quality for our Li-ion batteries by employing safety technologies that rely on separators with high heat resistance, as well as by implementing uncompromising control of manufacturing processes through the establishment of strict design control standards. In addition, we enable long storage lives for our dry batteries using our proprietary "battery leakage preventing manufacturing process Ag+," which utilizes a silver compound for the cathode materials.

We will continue to provide the driving force for the advancement of society through tireless technological evolution.

### Policy

Electrical supply and power sources serve as the foundation for convenient, comfortable, safe, and secure lifestyles, which is why securing these has become an indispensable part of contemporary society. With a focus on building a better world through electricity, Panasonic Energy genuinely confronts the environmental issues being faced throughout the world, and continues to undertake the further challenge of engaging in businesses centered on batteries to realize a society in which enriched lifestyles and a sustainable environment are harmonized free of conflict. As an example of these efforts, we support safe, secure social infrastructure that remains active even in the event of disasters and other emergencies, and contribute to sustainable urban development with the inclusion of disaster prevention. In addition, we contribute to solutions for hunger and poverty by supplying energy to regions without electricity. To enable these efforts, we



# Working to Solve Social Issues

## Social contribution activities

We engage in a wide range of social contribution activities for the varying challenges and demands of each region and country. In the following pages, we will introduce several examples of our initiatives.

### Contributing to safe and secure lifestyles

#### 1. Improving the educational environment of India

We provide learning materials to schools and help improve educational facilities in regions where our sites are located with the goal of bettering educational environments. We conduct this activity on an annual basis, and in fiscal 2023 provided assistance to six schools. Specifically, we installed and extended external walls, repaired classrooms, and donated school desks and playground equipment in order to provide safe and secure learning environments for children. In addition, we installed new water tanks and toilets, and made donations to improve conditions where children had to return home just to use the restroom because the restroom facilities were insufficient. And we will continue to engage in efforts to create environments in which children can learn with peace of mind.



Restrooms and playground equipment donated to an elementary school in India



#### 2. Assistance for Ukraine

Concerning the situation in Ukraine, the Panasonic Group donated a total of around 20 million yen in March 2022 to the Polish Red Cross as assistance to those sheltering there, as well as to Peace Winds Japan, an NGO that conducts assistance activities within Ukraine itself.

In November 2022, we also donated around 20 million yen collected from employees of the Panasonic Group and Panasonic Holdings Corporation to Peace Winds Japan as assistance for power outage countermeasures and surviving the winter at shelters and hospitals. We also donated nearly 2,000 LED lanterns made by Panasonic Energy and 8,000 EVOLTA NEO replacement dry batteries to this NGO. Peace Winds Japan used the donated funds to deliver generators to hospitals in Ukraine facing chronic blackouts, and to supply hot meals and warm winter clothing to shelters in the neighboring country of Moldavia. Similarly, our LED lanterns have broadly benefited local populations as lights for supporting everyday life during the constant power outages that occur at shelters and other locations in Ukraine. Along with praying for the fastest possible return to a safe, peaceful world, we will continue to provide the necessary assistance to build a better world through electricity.



LED lanterns distributed to shelters in Ukraine

#### 3. LIGHT UP THE FUTURE

The Panasonic Group is working as a unified entity on the LIGHT UP THE FUTURE project to illuminate the future of regions without electricity. In collaboration with NGOs, NPOs, international organizations, and various other partners, this project delivers light using renewable energy to local regions, and contributes to the building of a sustainable society free from poverty through support programs.

Through this project and its predecessors, we delivered a total of nearly 120,000 solar lanterns made by Panasonic Energy to regions in Asia, Africa, and elsewhere without electricity from fiscal 2010 to fiscal 2023.

By replacing kerosene lamps with solar lanterns, we are reducing CO<sub>2</sub> emissions as we help to prevent fires and mitigate the health impacts of smoke.

The light from these solar lanterns also enables learning, medical activities, and manual labour at night, thereby helping to create opportunities for education, health, and higher incomes. Moreover, these reliable light sources also help invigorate family time and community.



Utilization of solar lanterns

# Working to Solve Social Issues

The funds for providing these solar lanterns came from donations collected through the AKARI Action Project, which calls for support among employees and citizens, as well as from funds collected through the donation of used books and recycled items.

In order to support and transform society through the provision of energy, we will continue to contribute to regions without electricity.

**AKARI Action Project**  
<https://holdings.panasonic/global/corporate/sustainability/citizenship/uttf/akari.html>

## Contributing to learning among children

### 1. Battery and Necklight School, Factory Tours

Panasonic Energy has contributed to local communities through educational activities on the types, history, and proper ways of using batteries. Since 1966, we have organized battery workshops and factory tours as educational programs to extend classroom learning covering science, social studies, environmental studies, and other subjects. Following the Great East Japan Earthquake, we also planned and organized Necklight School in support of recovery efforts, and have continued to engage in activities around Japan that convey the value and importance of batteries and light during the many earthquakes, typhoons, and other disasters.

Since 1995, we have expanded the region covered by our Visit Battery School first held at elementary schools in Osaka prefecture. And to enable as many children as possible to participate in the Company's Battery School, in 2002 we began holding Remote Battery School (renamed Online Battery School in July 2022) using teleconferencing systems. These later workshops entered their 20th year in September 2022.

Since 2007, we have also held these workshops globally in Thailand, Iran, Australia, Myanmar, Tanzania, and elsewhere a total of 153 times. (Held 40 times on-site and 113 times online as of September 2023)

We have also undertaken the role of delivering the light of hearts to bring smiles to children. Currently, we are incorporating a broader range of course content that includes the environment, the Sustainable Development Goals (SDGs), and disaster prevention. And we will continue to engage in this project as an activity that embodies energy in the pursuit of happiness.

**Factory tours and hands-on learning intended to teach about and provide experience on batteries**  
<https://www.panasonic.com/jp/energy/study.html>



An early factory tour in the 1960s

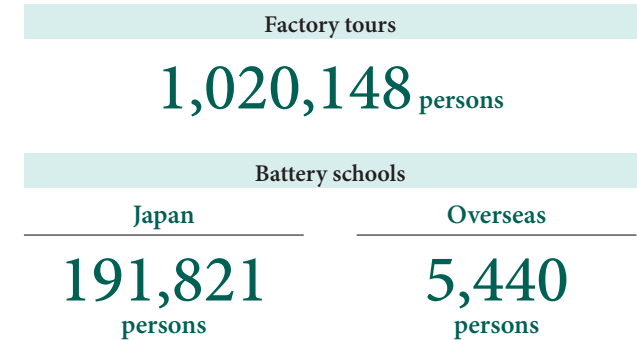


Online Battery School



Global Battery School for regions without electricity (Myanmar)

Cumulative number of participants at factory tours and battery schools (as of March 31, 2023)



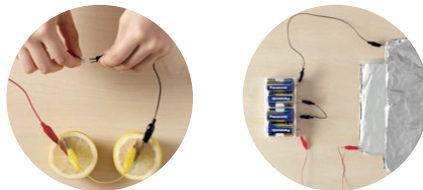
### Participant feedback

- Teachers**
  - "I became familiar with Japan and batteries through the workshop. And I really enjoyed the class."
  - "This program was my only opportunity to make a dry battery. And it was a great hands-on opportunity to learn about science and the environment."
- Children**
  - "I want to make life better and the environment more beautiful using batteries."
  - "I didn't really like science before, but now I want to study more and become a battery scientist."
  - "We were so overjoyed by the opportunity given by Panasonic and we are very grateful for them giving us a chance."

# Working to Solve Social Issues

## 2. Battery Education Academy

Through our website, we have made our Battery Education Academy publicly available for all to learn about batteries and their close connections with everyday life. The site provides easy-to-understand explanations regarding experiment methods for making batteries from everyday objects, as well as knowledge on using batteries safely. Along with videos on making batteries from fruit and capacitors from aluminum foil, the site is full of text-based content explaining the detailed mechanisms behind these.



We will continue to communicate these activities in a way that fosters the desire among children to ask why and to learn more with a sense of wonder.



 Battery Education Academy  
<https://www.panasonic.com/global/energy/study/academy.html>

## 3. Work Experience & Career Education

As an activity intended to help foster work ethics and professionalism through work experience, since February 2022 we have offered the Work Experience & Career Education program for elementary school students. As part of this program, Panasonic Energy employees in various occupations act as lecturers and hold classes to convey the fun and satisfaction of work. In light of today's situation where the use of ICT is becoming a normal part of every corner of society, this activity is primarily held online as part of the GIGA School Program administered by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to ensure one device for each student. In this way, we actively engage in efforts while collaborating with the government and local authorities to teach about society and foster the capability of children to remain relevant in the society of the future.



Work Experience & Career Education

## 4. Quest Education

In July 2022, Panasonic Energy began offering Quest Education career education supporting program activities organized by Educa & Quest Inc. Quest Education is an industry-academia collaborative program that plans new projects unlike anything else in the world through which 62,000 junior and high school students from 320 schools in 37 prefectures undertake missions designed by companies. The students participated as interns for us as they experienced field work and group discussions together with employees of Panasonic Energy. This program also holds the Quest Cup national competition every February as the culmination of the year-long activities. In fiscal 2023, the Konodai Girls' Senior High School team, which represented Panasonic Energy, achieved the overall top score among the representative teams chosen from 11 sponsoring corporations, and was honored with the grand prize. We will continue to engage in activities together with future generations in a way that creates new opportunities for learning.



Career education supporting program



## Working to Solve Social Issues

### Message from the CHRO

“Enhancing employee engagement and supporting unprecedented growth through management that enables each employee to reach their full potential”



Managing Executive  
Officer  
Chief Human Resources  
Officer (CHRO)

Masaru Miki

#### Promoting human capital management from the three aspects of people, systems and organizations, and organizational culture

For companies, people are not a cost, but a well-spring for generating new value. Although I have spent nearly 30 years in the field of human resources, I do not think there has ever been a time before that has placed so much focus on the importance of this fact. In recently becoming an operating company, Panasonic Energy established our Mission, Vision, and Will, which brought to light the types of human resources that we must secure and develop. This move also served as an opportunity for us to once again return to the commitment held by

our founder, Konosuke Matsushita, of “Making people before products.” And under this commitment, we will promote management that enables each employee to reach their full potential from the three facets of people, systems and organizations, and organizational culture. In this respect, we have laid out three core themes for our medium-term human resources strategy, namely Thoroughly Strengthen the Competitiveness of Human Resources, Transition to a Human Resources System and Establish an Environment for Maximizing the Value of Human Resources, and Create an Organizational Culture in which Independent Individuals Can Reach Their Full Potential. Under these themes, we will strengthen human capital in terms of both quality and quantity.

#### The urgent challenge of securing and developing human resources

In aims of achieving dramatic business expansion, Panasonic Energy plans to recruit nearly 1,000 new employees in Japan and nearly 4,000 new employees overseas over the coming three years. This goal therefore makes securing and developing human resources an urgent challenge. In regard to the new factory that we will build in Kansas, USA, in particular, we are striving to secure human resources locally while actively inviting employees to Japan for training, as well as dispatching veteran instructors to the US, with the intention of launching operations at the earliest possible time. These efforts are also being taken as part of a policy to ensure the new factory achieves outstanding productivity. Meanwhile, in Japan we opened the Technology Manufacturing Academy to strengthen the training system. Similarly, we also established a new core site in Tokyo as a means of expanding recruitment outside of the Kansai region, where our domestic manufacturing sites are clustered.

#### Transitioning to job-based human resource management

Panasonic Energy is home to an increasing ratio of mid-career hires

with specialized skills and knowledge who have entered the Company looking for a new sense of meaning, yet our conventional membership-based employment system is approaching its limits. Therefore, we will shift to a job-based human resource management approach that encourages the independent growth of each employee, rewards them for taking on challenges and producing outcomes, and enables them to fully demonstrate their individual potential. At the same time, we are approaching an historic growth stage that will require an ever-greater number of human resources to play an active role in increasingly advanced positions, which is why we are transitioning to a training advancement-based promotion system that supports employees as they take on challenges.

#### Toward an organization with greater employee engagement

In terms of diversity, Panasonic Energy aspires to an approach to Diversity, Equity & Inclusion in which every human right, regardless of nationality, gender, religion, age, or any other attribute, is respected, and in which each employee can play an active role and achieve well-being. Moreover, as a work style reform that allows human resources possessing diverse value sets to reach their full potential, we will introduce a full-time remote work system in order to enable more flexible working locations and working hours.

One feature of our human capital is our numerous employees who strongly aspire to our Mission and Vision. The Employee Opinion Survey also backs up this claim as it has shown that our employees fully recognize the extent of society’s expectations for our business, that the passion the management team holds for the Mission and Vision is conveyed to our employees in a way that increases trust in management, and that our employees experience first-hand the growth potential of our businesses in a way that bolsters their desire to contribute and that raises their motivation. I see my most important mission as continuously fostering an organizational culture with this kind of high-level engagement.

# Working to Solve Social Issues

## Promoting Human Capital Management and Respecting Human Rights

KPI	FY2023	FY2031
EOS Score: Employee engagement	70pt	80pt
EOS Score: Employee enablement	63pt	75pt
Percentage of women in managerial positions (non-consolidated)	5.8%	15%
Rate of childcare leave taken among men and women (consolidated, Japan)	Men 56.2% Women 100%	Men/Women 100%
Health management index (Japan: Ministry of Economy, Trade and Industry)	52.5 pt	White 500
Number of fatalities due to industrial accidents (global)	0 incidents	0 incidents
Number of industrial accidents (lost time incidents in Japan)	4 incidents	0 incidents
Percentage of implementation of self-assessments related to human rights and labour (overseas manufacturing subsidiaries) and percentage of executed corrective plans	100%	100%
Percentage of suppliers covered by on-site human rights risk audits	Not implemented	100%

### —Promoting Human Capital Management—

#### Policy

For Panasonic Energy, there is no greater management asset than Human Resources. In an effort to realize our Mission and Vision, we therefore aspire to a company in which a diverse range of colleagues

gather, coexist, and pursue their individual well-being and job satisfaction. As embodied by our symbol of the forest, we promote DEI (Diversity, Equity & Inclusion) as a means of fostering a culture in which each employee can fully express their individuality and reach their full potential. Moreover, we establish systems and environments that allow individuals to take the initiative in developing their own careers and in undertaking challenges. Likewise, we will advance initiatives for improving the mental and physical health of our employees, for enabling them to experience joy through the act of undertaking challenges, and for enhancing the well-being of all who gather at Panasonic Energy.

#### Promoting the Mission, Vision, and Will (MVW)

As an approach to promoting MVW throughout the entire company, Panasonic Energy conducts Forest Conference primarily for those in the middle management tier. Forest Conference serve as a unique Panasonic Energy forum for learning, where participants immerse themselves in a forest as a world in which plants and animals coexist in harmony as they experience the MVW of Panasonic Energy first-hand. At the same time, the Forest Conference are intended to help participants connect this experience to their everyday actions through discussions with their colleagues based on the Seven Paths to Transformation toward achieving the MVW.

The forest is a world in which living organisms and nature coexist in harmony. And by immersing themselves within the forest, participants can experience a world in which the pursuit of happiness and a sustainable environment are harmonized free of conflict as aimed for by the Mission. This environment is precisely why we value holding these meetings in the forest.

As part of the two-day, one-night program, attendees travel to Nishiawakura-son in Okayama prefecture. During the first day participants walk along the virgin forest under the guidance of a natural cycle professional, experience nature first-hand, and learn about harmony from the forest, particularly how living organisms in a virgin forest harmonize with nature. During the second day, all participants declare what their departments must do, along with their own efforts, in order to realize the Mission and Vision based on what stimulated

them and what they learned the first day.

Although participants originally only included those from the middle management tier and others who serve as key persons in promoting MVW, this fiscal year we invited regular employees as well, thereby allowing for the participation of all employees possessing a strong will and desire. During each event, roughly 15 participants and Panasonic Energy directors, the latter who volunteer to serve as chairpersons of conferences actively exchange ideas in a way that supersedes departmental boundaries. In fiscal 2023, 229 individuals participated in 16 meetings. We have also scheduled 16 meetings for roughly 240 participants for fiscal 2024, and will accelerate the promotion of MVW among workplaces as well as changes in behavior on the basis of the Seven Paths to Transformation.



Forest Conference: Talking together with colleagues about MVW while surrounded by the harmonious world of the forest

**[Seven Paths to Transformation]**

*The Mission*  
Achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict.

**Inevitable Evolution**  
*<Objective paths>*

**Unattainable goals**  
The goal is unattainable. High goals that transformation that will change the future. Even if you don't have the resources, 100% of people will work together. The common pursuit of the goal is essential for a society.

**Laugh at things or situations with your friends and yourself.**  
The goal is unattainable. Laugh at things, laugh at yourself, laugh at others, and laugh at things as an absurd digital thing. No matter, the smiles of your friends will change your perspective.

**Push forward until you arrive at the unattainable solution.**  
The goal is unattainable. Push forward until you arrive at the unattainable solution, and you will see that the "100%" that will allow you to realize your goals.

**Ultimate Adaptation**  
*<Defensive paths>*

**To maintain the status quo is to abandon the future.**  
Look to the past, look to the future, understand what's been the world, and know that the future is not the same as the past. The future is not the same as the past.

**Attack completely to defend completely.**  
We need to attack completely, we need to defend the status of the future, rather than trying to defend the status of the past. We need to attack and defend completely.

**Keep your passion burning.**  
Remember that you are 100% of the people you have here. You can keep the fire of your passion alive and pass it on to the next generation.

**Absolute Transformation**  
*<Path for mankind>*

**For future generations.**  
We need to think about the future. We need to think about the future. We need to think about the future. We need to think about the future. We need to think about the future.

Panasonic ENERGY

# Working to Solve Social Issues

## Promoting DEI

### Toward a company that attracts a diverse range of human resources

Panasonic Energy positions human resources as the most important form of capital for management to achieve dramatic yet sustainable growth in the energy business domain and to realize the Mission and Vision raised by the Company. We will also advance active and continuous investments in human resources to build an organizational culture and climate that focuses on human resource development and allow individuals to reach their full potential.

Moreover, we engage in initiatives that envision a company in which the diverse range of colleagues who gather here coexist and in which individual well-being and job satisfaction are in harmony. These initiatives also aim to foster an environment that continues to provide spaces for supporting the challenges taken by each employee, all while enabling these spaces to change in a flexible manner. As one of these initiatives, we hold an internal forum under the theme of How to Be a Company Full of Happy People. During the first forum, we invited Daisuke Maki of A Zero Group inc. to speak on the topic of Diversity within the Forest. During the second forum, we invited Eri Yamamoto, a paralympic powerlifting athlete, to speak on the topics of Methods for Enhancing Personal Energy and Unconscious

During the first forum under the theme of How to Be a Company Full of Happy People participants considered diversity and coexistence from the forest



During the second forum under the theme of How to Be a Company Full of Happy People, Eri Yamamoto, a powerlifting athlete, was invited to hold internal talks

Bias, and to hold a panel discussion on these. We will continue to create these kinds of opportunities as a means of helping to create a happy company in which each employee can reach their full potential.

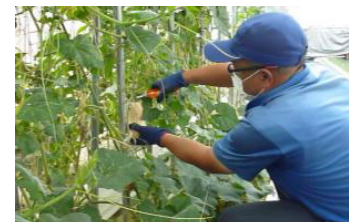
### Leveraging the individuality, experience, and values of each employee

In order to create an organization and environment in which a diverse range of human resources generates value, Panasonic Energy promoted initiatives that give rise to spontaneous collaboration.

Specifically, we are working to increase the ratio of women among our new graduate hires and mid-career hires, and to raise the current percentage of women in managerial positions (5.8%). Along with actively working to attract external female human resources in management positions, we are working to carefully align employee career plans between our employees and their superiors in order to accelerate promotions of internal human resources. At the same time, for this purpose we provide support for expanding roles, including building new networks among internal human resources, introducing role model employees, and holding dialogues with managers.

Furthermore, we aim to increase the ratio of mid-career hires to 40% by fiscal 2026, and are advancing the creation of groups of human resources that possess diverse characters and experiences, as well as the desire to undertake challenges. In addition, we are establishing horizontal connections between departments through the use of IT systems, as well as designing mechanisms to promote community activities and to invigorate interactions between human resources.

In addition, we will create employment opportunities that carry us above the statutory employment rate by organizing workplace environments in which it is easy for those with disabilities to work. In an effort to further increase diversity, we are also actively engaged in



\*Panasonic Farm Miyoshi aims to realize a workplace where employees with disabilities can play an active role through vegetable cultivation.

expanding employment at Panasonic Farm Miyoshi\*, which provides support for independence among those with disabilities.

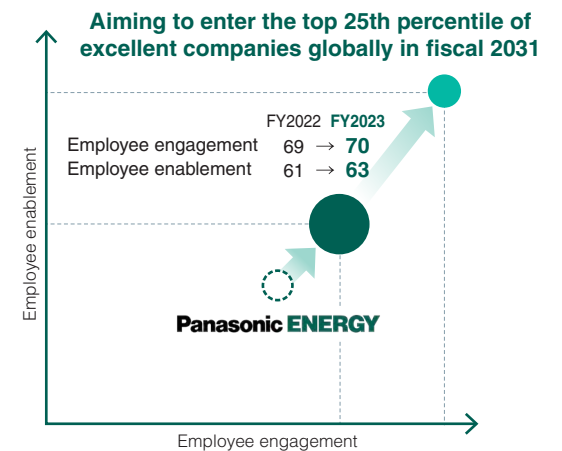
## Improving employee engagement

### Toward management that enables each employee to reach their full potential

In order to realize an approach to management that enables each employee to reach their full potential, and in order to realize the growth of employees on an individual basis, Panasonic Energy emphasizes finding a balance between life events and career development. We are therefore evolving toward work styles and building environments that maximize the value of human resources and match with diversifying lifestyles and value sets. Specifically, we will increase the rate of childcare leave taken among men, expand options for work locations, and reform the promotion screening process.

Moreover, we encourage employees to boldly undertake challenges to achieve our Mission and Vision, and are considering introducing a new assessment and remuneration system that reflects these challenges and their level of achievement.

Through these initiatives, we will enhance the Employee Engagement score and the Employee Enablement score on the Employee Opinion Survey (EOS) as we aim to enter the top 25th percentile of excellent companies globally.



# Working to Solve Social Issues

Building an environment that allows individuals and organizations to fully demonstrate their respective abilities will directly connect to greater motivation and a stronger desire to contribute among employees. At the same time, the presence of employees flush with desire will attract talented human resources from outside the Company, which will also help to expand new personal networks and spread connections among human resources.

In order to improve job satisfaction for employees in this way, we must carefully align the goals of organizations with the desire to take on challenges among individuals and the goals they wish to achieve. We will therefore create an environment in which individuals can achieve their goals through detailed follow-up by the Company in an effort led by middle management (goal setting at the beginning of the period, progress updates and support at the middle of the period, one-on-one meetings to verify outcomes at the end of the period, etc.).

Moreover, we will provide support for the careers our employees desire to development in order to help them realize their individual medium- to long-term career visions. In addition, we aspire to a company of which employees are proud to be members, and periodically hold various events to foster a sense of unity together with their families. In fiscal 2023, we held events where employees attended Gamba Osaka soccer games and Panasonic Panthers volleyball games. We will continue to hold similar events into the future in order to realize ONE ENERGY.

We also use the Employee Engagement item from the EOS, an indicator for monitoring increases in job satisfaction, in an effort to accelerate improvements and evolution in this area.



Corporate event: Gamba Osaka soccer game attendance (approx. 1,100 participants)



Corporate event: Panasonic Panthers volleyball game attendance (approx. 600 participants)

## Putting together an environment that enables employees to reach their full potential

In regard to the needs of employees with diverse value sets and backgrounds, we are designing mechanisms that encourage them to challenge difficult goals and easily produce outcomes, namely by allowing each employee to select the ideal work style for their individual circumstances.

Specifically, we are establishing an environment that conforms to their working needs by, for example, expanding the remote work system to increase the flexibility of work locations, enhancing leave systems, and revising the housing system to address various lifestyles.

Moreover, we are creating on-duty and off-duty human resource networks between employees from different departments in order to drive innovation and improve the efficiency of work. And we are invigorating communication between different sites and departments through the Engagement Gardening Group as an employee network that utilizes gardening and internal community activities based on the concept of the diversity of forests.

### [Engagement Gardening Group]

Group activities for communicating internally and externally through gardening and engagement



The Moriguchi head office was honored with the Award for Encouragement as part of the Nikkei New Office Awards

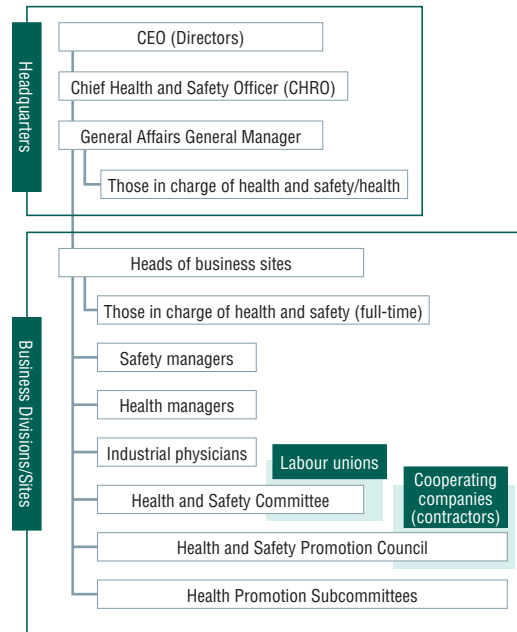
# Working to Solve Social Issues

## Health and safety activities and “Health and Productivity Management”

The purpose of the Group’s health and safety activities and Health and Productivity Management is to create work environments in which each and every employee, who is an asset of our company, can work in safety, security, health as well as in a highly engaged and vibrant manner while contributing to the happiness of our employees and the development of our business. Under the president and heads of the business sites, the Company, health insurance union, and labour union have built a tripartite system to promote health and safety as well as health activities while working to achieve zero lost time incidents and to support proactive employee health promotion. In our health and safety activities in particular, we are aiming to build a corporate culture where safety is the norm. We achieve this through health and safety committees composed of labour and management by high-level standardization of activities that transcend departmental and site boundaries, such as the development of optimal safety standards in accordance with the characteristics of our business and the thorough training of on-site leaders. To prevent industrial accidents among contractors’ employees operating on our premises, we also hold Health and Safety Meetings with those contractors operating on our premises and manage health and safety overall, including facilitating communication between operations and the like. The Group has obtained ISO 45001 certification and is operating it to clarify the roles of all employees, set targets, promote health and safety activities, and conduct periodic reviews by the heads of workplaces to review these activities.

In health promotion, the Company views the improvement of employee well-being in measures crucial to management that enables each employee to reach their full potential. In addition to considering measures to prevent damage to employees’ health and measures to help them improve and maintain their health, we promote mental and physical health of our employees and their families while also fostering a culture at the work sites where every employee can play active roles. We encourage and support the well-being of our employees, and that is our motivation as we undertake our corporate activities toward the achievement of an ideal society with affluence both in matter and mind.

### Health and Safety/Health Promotion System



## Creating safe and secure workplaces

In aiming to create safe and secure workplaces, the Company is redoubling its efforts to (1) thoroughly strengthen measures to prevent industrial accidents and (2) further improve the risk sensitivity and safety awareness of each and every employee, based on the premise of zero lost time incidents.

In (1) thoroughly strengthening measures to prevent industrial accidents, at least once a year we regularly conduct mechanical equipment and hazardous substance surveys and work environment risk assessments, identify the latent risks of industrial accidents in the workplace and thoroughly consider and introduce preventive measures. We are also sharing examples of industrial accidents that have occurred within the Company, thoroughly investigating the causes of industrial accidents and measures to prevent any recurrence, and developing activities to prevent recurrence at each business site.

In (2) further improving the risk sensitivity and safety awareness of each and every employee, we are implementing *Shin Kakarichokai* and *Shin Hanchokai*. These are cross-learning activities that go beyond individual sites targeting supervisors and group leaders who play a key role at manufacturing premises. While conducting mutual safety patrols of the manufacturing processes at each site, we are working to identify potential industrial accident risks and eliminate unsafe areas. To work toward eradicating unsafe behavior by having each and every employee made directly aware of the risks posed by industrial accidents, we are cooperating with factory managers and health and safety managers at each site while promoting the establishment of or upgrades to the *Anzen Dojo* (experience-based safety practice simulation spaces) at each site.

With regard to new domestic and global sites associated with future business expansion as well, we are aiming for zero lost time incidents while working to strengthen the foundation for continuous business activities.



Risk assessments by on-site verification



Shin Hanchokai

# Working to Solve Social Issues

## Anzen Dojo Safety Activity Initiative

Working to eliminate latent risks by allowing employees to experience industrial accident risks for themselves

[Aims]

- Understand at first-hand the causes of accidents through simulated experiences to eliminate industrial accidents that occur in the workplace.
- Develop human resources who by learning about the sources of hazards and heightening their sensitivity to them are able to prevent latent risks and behave in a safe manner.
- Utilizing VR, cultivate the ability to predict the danger of behavioral disasters that occur frequently



Chains and sprockets  
(safety training to prevent getting caught in/up)



Rollers  
(simulated experience of getting caught in/up)



Air cylinders  
(sandwiched between)



VR disaster  
(simulated experience of workplace location where an accident has occurred)

### Immediate Responses to Manufacturing Evolution and Change

Standard installation of hazardous items

Enlargement in conformity with manufacturing

Installation of new hands-on equipment

Expansion of VR content

## Employee health promotion and raising of awareness

Under improvement of employees' well-being, one of the pillars of our medium-term HR strategy, we position mental and physical health promotion for employees and their families as well as enhancement of job satisfaction and purpose in life as important issues while fostering a workplace culture in which employees can play active roles. Specifically, for them to learn appropriate lifestyle habits in terms of sleep, diet, exercise, alcohol consumption, and giving up smoking, we held walking seminars for employees and walking parties for employees and their families. Going forward, we will continue to deploy a variety of initiatives to support employees in proactively promoting their health.

Also, in Japan we are advancing efforts under the Certified Health & Productivity Management Outstanding Organizations Recognition Program promoted by the Ministry of Economy, Trade and Industry. In March 2022, the former Panasonic Corporation\* had been certified as a 2022 Certified Health and Productivity Management Outstanding Organization, and the Group took over this certification from April 2022.

In the years to come, we will continue to work together with the health insurance organization and the labour union to involve all employees in various initiatives aimed at promoting good health. As an objective evaluation of our various initiatives, we aim to acquire certification as one of the top 500 companies in the White 500 health management survey by fiscal 2026.

\*Transitioned to a holding company system including Panasonic Energy in April 2022



Online walking seminar



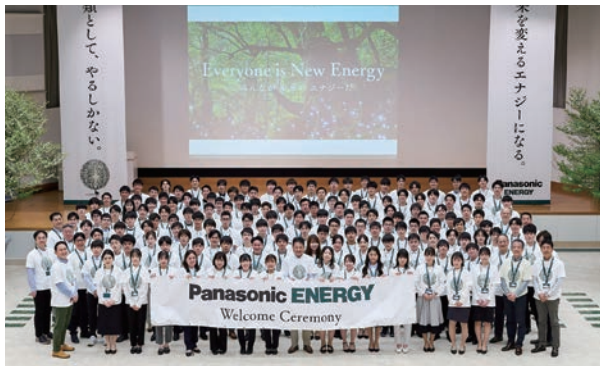
Walking party with the President and CHRO

# Working to Solve Social Issues

## Promoting human resource development

### Accelerating learning through dialogue

At Panasonic Energy, we formulate individual human resource development plans for the career and skill development of all employees through regular one-on-one meetings between superiors and subordinates. We also support development and growth by providing—irrespective of role, age or gender—a variety of training opportunities



Fiscal 2024 new employee welcome ceremony  
Following introductory training as full-fledged adult members of society and training in, for example, manufacturing or sales, they start their onboarding programs.



Welcome ceremony for mid-career hires

that meet the motivation of each individual to learn. So that newly recruited human resources (new graduates and career hires) are able to smoothly adapt to the Company's culture and climate as well as fully demonstrate their individuality, characteristics, and expertise, we place great importance in particular on seeing growth in the first three years after joining as new graduates. In fiscal 2023, we also conducted a roundtable discussion between mid-career hires and the CHRO. While listening to their specific suggestions and requests, we have begun efforts to identify and resolve issues.

We are also actively investing in human resource development for the next generation of executives and middle management, who are key personnel in workplace management, promoting recurrent education to support the active participation of motivated human resources regardless of their age, and responding to employees' strong desire for personal growth.

### Basic education and training system

Our education and training system is based on the acquisition of management philosophy, knowledge and skills that are commonly required of all employees. We also have systematized, rank-based

training according to the growth of each individual and specialized training by function to hone their expertise in the tasks of which they have been placed in charge. We are developing learning on a global basis by enhancing and upgrading online learning that enables learning with high-quality teaching materials regardless of time and place. At the same time, we are working on the matching of business management and human resource development by, for example, individually developing customized training in accordance with business needs. Based on training courses at an in-house training institution, we are currently conducting human resource development training sessions, such as specialized training and external training, in accordance with personal growth.

### Supporting early and active participation of diverse human resources

Considering three years as the training period for new graduates, we conduct the new employee onboarding program to ensure they acquire the skills necessary for their work. We have introduced a mentor system and put in place a system by which senior employees with whom they are familiar are able to provide consultation and support for concerns related to their non-work lives and careers.

Mid-career recruits are able to adapt smoothly to our culture and climate through the career joining onboarding program and, for example, through opportunities for communication with management, the understanding of our mission and vision, and Group management philosophy training. We are working to make the most of the individuality, desire, and ability that each person possesses.

### Basic education and training system

Managing director	Executive training/Training for exceptional talent	Onboarding training for new graduates and mid-career hires
Managers	<ul style="list-style-type: none"> <li>Executive development training (Career development program for women, etc.)</li> <li>Job rank-based training</li> </ul>	
Staff	<ul style="list-style-type: none"> <li>Senior position challenge program (business literacy, etc.)</li> <li>Job function-specific training (technology, manufacturing, sales and marketing, planning, accounting, human resources, etc.)</li> </ul>	

# Working to Solve Social Issues

As a mechanism for the diverse human resources who join Panasonic Energy to learn specialized skills in a short period of time by providing basic education centered on technology and skills, we established the Technology Manufacturing Academy in April 2023. Consisting of technology, production technology, and manufacturing faculties with our highly certified technicians as instructors, this academy has programs in place so that even mid-career hires with no battery-related experience can acquire the necessary skills at an early stage.

To confirm the level of retention after joining Panasonic Energy, we also conduct a pulse survey\*1 once a month, and superiors and the human resources departments work together to discover issues and provide support. Pulse surveys are also conducted in the same way for new hires. As measures to discover and develop female executive candidates, we are also conducting career development programs, creating opportunities for dialogue with executives, transforming mindsets, and dialogue with role models, while helping them network within the company.

\*1 Employee Opinion Survey

## Development of core human resources that support business

To quickly and stably secure the executive personnel who will drive continuous business growth, we are actively working on those human resources who will lead the next generation developing skills and acquiring new experience. Specific training measures are discussed at Talent Management Committee meetings, which are attended by the president, business division directors, the CTO and CHRO, and put into practice.

[Main Menu]

- One-on-one coaching program for leadership development
- Management school activities presided over by the president
- Self-reflection of aptitude and ability by external agency assessment
- Resilience programs for self/organizational revitalization

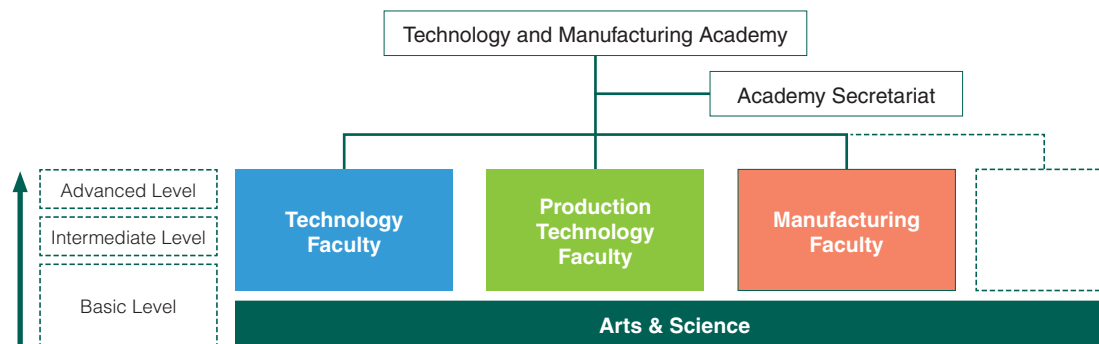
In addition, the driving force behind the organization that brings growth strategies to fruition is middle management. To accelerate the appointment of human resources in line with the Company's mission and vision, the direction of our business, and what we should aim for, we have fundamentally changed our promotion and training policies.

### [Points for Reform]

- From selection/screening to the concept of supporting the growth of each and every individual
- Define the image of the ideal human resource in line with the business direction and what we aim for
- Introduce a self-appeal system that encourages taking on challenges and is based on enthusiasm and passion

Through this transformation we are speeding up the development of middle management and expanding the population of general managers and section managers who lead the organization. We also foster a culture that encourages individuals to take on challenges and a climate that nurtures human resources throughout the Company.

Chart showing Technology Manufacturing Academy system



[Image of Ideal Human Resource]

**[Management Position\*2]**  
**Ability to change**  
 Rather than following the conventional way, human resources who are able to envision the future and will be able to lead the transformation toward its realization by backcasting.

**[Assistant Management position\*3]**  
**Ability to formulate/resolve issues**  
 Even for difficult tasks, human resources who can tenaciously confront issues and promote problem-solving together with team members

\*2 Management level

\*3 Supervisor level



# Working to Solve Social Issues

## —Respecting Human Rights—

### Policy

Based on the opinions of domestic and foreign experts, Panasonic Group's Human Rights and Labour Policy is predicated on compliance with international standards set by the United Nations and the International Labour Organization (ILO) and the applicable laws in countries where we do business. The policy includes our commitment to respecting internationally recognized human rights to identify, prevent, and correct risks related to human rights, to promote remedy to people affected by those risks, to create working environments where people are fulfilled by their work and ways in which we use dialogue related to these topics with all our stakeholders.

We also create and enforce rules within the Group in order to better spread and promote these initiatives globally while continuously improving upon them.

### Management system

The Panasonic Group has defined our Panasonic Group Human Rights and Labour Policy (Human Rights and Labour Policy) with reference to the international standards listed below. In keeping with this policy, we set rules within the Group, set up systems to promote the policy, and promote concrete initiatives toward achieving working environments that both respect human rights and provide meaningful work. The Panasonic Group Code of Ethics & Compliance (Code of Ethics & Compliance), which stipulates the promises that each employee must fulfill, also includes respect for human rights as a part of our social responsibilities and we are making efforts to raise awareness of them among all our employees.

[Main international standards used as reference]

- The United Nations' Guiding Principles on Business and Human Rights
- The United Nations' International Bill of Human Rights (Universal Declaration of Human Rights, International Covenant on Civil and Political Rights, and International Covenant on Economic, Social and Cultural Rights)
- ILO Declaration on Fundamental Principles and Rights at Work and ILO Core Conventions

### Human rights due diligence

The Panasonic Group establish a Human Rights Due Diligence system (based on the United Nations Guiding Principles on Business and Human Rights) for identifying, preventing, and reducing negative impacts related to human rights with regard to our business activities or our products, services, or business dealings. Reflecting the issues that have been identified based on the requirements of society and the operation of the system, we continuously implement and improve the system with the advice of outside experts.

As part of these efforts, in fiscal 2022 we utilized a self-assessment tool—based on the international standards of the Responsible Business Alliance (RBA), an international CSR organization in the electronics, ICT, and automotive industries—to conduct self-assessments related to human rights and labour at 10 Group manufacturing companies outside of Japan. In fiscal 2023, based on the results of the previous year, we conducted a self-assessment focused on the ILO core labour standards with using the questionnaires that we reviewed to more clearly identify issues. Through this self-assessment, it was confirmed that there were no events that could be considered forced labour or child/juvenile labour. In the years to come, we will promote initiatives geared toward the prohibition of forced labour, the protection of children and young workers, the appropriate management of working hours and wages as well as the prohibition of discrimination to improve the working environment on an ongoing basis.

We will operate the system by building and making continuous improvements through dialogue, discussion, and cooperation with relevant stakeholders both internally and externally. We will also make disclosures about initiatives as appropriate using our official website, relevant reports, and other means of communication.

### Implementation of human rights education

We have made opportunities (including when first starting work and upon promotion) to make sure employees know about the topic of respect for human rights included in our Code of Conduct. Having added a separate chapter, Respecting Human Rights, in our Code of Ethics and Compliance in April 2022, we will ensure that this is well-known and utilize e-learning\* and other means to offer continuous education to all our employees.

We also provide training to all individuals, including executives, who will be dispatched from Japan to posts outside of Japan before their assignment begins. Training is given on international standards and national laws regarding corporate responsibility to respect human rights. In addition, in Southeast Asia, where Panasonic's manufacturing operations are concentrated, the person in charge of the Panasonic Holdings Strategic Human Resources Department conducted direct training for managers of manufacturing sites and human resource managers.

\* IT-based learning

# Working to Solve Social Issues

## Panasonic Group Human Rights and Labour Policy

The Panasonic Group (“Panasonic”) recognizes that its mission is to contribute to the realization of “an ideal society with both material and spiritual affluence” through its business activities. We tackle with global environmental issues and help people gain comfort, peace of mind, well-being and happiness in various aspects of their “lifestyle” and “workstyle”.

Based on the belief that a company with such a mission belongs not only to itself but also to society, Panasonic considers that “a company is a public entity of society”. As Panasonic is entrusted by society with assets such as human resources, capital, and materials for its business activities, we must contribute to society by making the most of these resources and creating value from our activities.

Panasonic’s business activities are supported by many people, including our employees, customers who use our products and services, suppliers, and business partners, which are involved in procurement, manufacturing, sales, and other business operations. As a public entity of society, we cannot allow ourselves to develop at the expense of these people. We believe that developing together with society through transparent and fair business practices will lead to the improvement of people’s lifestyles and the development of society.

Panasonic hereby establishes the Panasonic Group Human Rights and Labour Policy and is committed to fulfilling our social responsibilities of contributing to the well-being and happiness of all these people.

### Responsibility to respect human rights

Panasonic complies with all applicable laws and regulations in its business activities and supports internationally recognized human rights, such as those expressed in the “International Bill of Human Rights” and the International Labour Organization’s (ILO’s) “Declaration on Fundamental Principles and Rights at Work”, and promotes initiatives for the prohibition of all forms of forced labour, the effective abolition of child labour, the elimination of discrimination in respect of employment and occupation, freedom of association and the effective recognition of the right to collective bargaining, as well as safe and healthy working environment.

Panasonic faithfully strives to prevent human rights abuses in its business activities and to address any adverse human rights impacts if they occur. When adverse human rights impacts by our suppliers, customers, or business partners are linked to our business, products, or services, we will seek their understanding of this policy and work with the relevant entities to prevent or mitigate such impacts. We will seek ways to honor the principles of internationally recognized human rights when faced with conflicting requirements.

### Human rights due diligence

Panasonic will continuously implement and improve its “human rights due diligence” system, in accordance with the “United Nations Guiding Principles on Business and Human Rights”. This system is intended to identify, prevent, and mitigate adverse human rights impacts related to our business activities, products, services, and transactions, and also to explain how we address these impacts to relevant stakeholders.

Our business operations and business relationship with large numbers of customers and suppliers, direct or indirect, may change over time and human rights risks may change over time as well. Therefore, we will observe Panasonic entities and their value chains on an on-going basis to identify the areas most at risk for adverse human

rights impacts and areas where we will have leverage to address them. We will prioritize these areas in our human rights due diligence. In particular, with regard to our procurement activities that pose an increased risk of human rights abuses, we will strengthen dialogue with our suppliers, enhance the effectiveness of our human rights due diligence with their understanding and supports, and seek to prevent or mitigate human rights risks not only at our direct suppliers but also in our supply chain as a whole.

To address adverse human rights impacts and to continuously improve our efforts, Panasonic will engage in dialogue, discussion, and collaboration with relevant internal and external stakeholders. We will also disclose these efforts through our corporate website and related reports and other communication channels.

### Access to remedy

To ensure that complaints about human rights abuses are addressed promptly, Panasonic will encourage use of its whistle-blowing system, and also participate in grievance mechanisms provided by government agencies, business associations, and other organizations. We shall strictly maintain the confidentiality of such reports, prohibit adverse treatment of whistleblowers or other impacted individuals, and communicate promptly with them in order to provide a possible remedy.

### Realization of a rewarding work environment

Panasonic aims to realize that the diverse human resources entrusted to us by society can fully demonstrate their individuality and feel fulfilled in their work. The safety and health of each employee is an essential element for achieving this goal. Hence, we will create secure, healthy, as well as highly psychologically safe working environment by eradicating occupational accidents, preventing harassment, paying adequate wages, realizing work-life balance, promoting DEI (Diversity, Equity & Inclusion), and providing opportunities for personal growth.

### Education, review and improvement

Panasonic will provide all employees with appropriate education and training on this policy. We will ensure that this policy is integrated into all of our business activities and is effectively implemented and embedded. This policy and its implementation will be continuously reviewed and improved with the advice of outside experts.

August 1, 2023  
Panasonic Holdings Corporation  
Group CEO




Panasonic Group Human Rights and Labour Policy

<https://holdings.panasonic/global/corporate/sustainability/social/human-rights/policy.html>

## Working to Solve Social Issues



### Responsible Supply Chain

KPI	FY2023	FY2031
Ratio of tier 1 suppliers with an A-rank self-assessment	77%	100%
Written pledge acquisition rate from tier 1 suppliers	46%	100%
CMRT/EMRT questionnaire collection rate	98%	100%
Ratio of active/conformant smelters	82%	100%

#### Policy

At 20 global production sites, the Group procures such raw materials as active materials for batteries as well as various components ranging from various processed parts to electronic devices, from about 1,000 tier 1 suppliers in Japan and overseas. We recognize that, among them, we are required to fulfill our corporate social responsibility not only between the tier 1 suppliers and the Company but also throughout the entire supply chains that spread in elaborate networks in various countries, from suppliers of raw materials, such as upstream resources and minerals, to tier 1 suppliers and delivery to the Group's domestic and overseas production sites.

To fulfill this social responsibility, we build partnerships with our suppliers on a global basis. Based on mutual trust and cooperation, we maintain and improve the quality of purchased products, realize

competitive prices, promote responses to market changes, and create the product value required by our customers while studying together with our suppliers, who are our indispensable partners.

For the realization of this product value creation, it is essential to comply with laws and regulations, social norms, and corporate ethics, and to fulfill social responsibilities, such as human rights, labour, health and safety, global environmental conservation, and information security. Together with our suppliers, the Group promotes procurement activities that can guarantee that we are fulfilling our social responsibilities while building a sustainable supply chain with low environmental impact.

#### Outline of initiatives

##### Compliance with CSR Guidelines

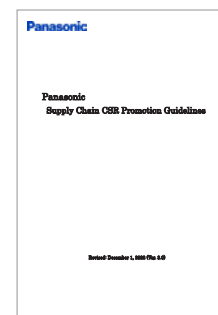
To clearly communicate its approach to CSR procurement to suppliers, the Panasonic Group formulated the Panasonic Supply Chain CSR Promotion Guidelines with reference to laws and international norms such as the UN Guiding Principles on Business and Human Rights.

In line with the Panasonic Group's activities, from fiscal 2023 the Group has started to conclude basic transaction agreements that require new suppliers to comply with the Guidelines. We will also request that existing suppliers sign an agreement to comply with the Guidelines.



Panasonic Supply Chain CSR Promotion Guidelines

<https://holdings.panasonic/global/corporate/about/procurement/for-suppliers.html>



##### Reducing CSR Risks through Self-assessment

Amid growing demands in the international community for human rights initiatives, in 2021 Panasonic Holdings joined the RBA, a global organization that promotes social responsibility, and is developing initiatives to strengthen CSR procurement in its supply chain.

As part of those initiatives, we are distributing the Supply Chain CSR Promotion Guidelines to all tier 1 suppliers and requesting that they not only check contracts and agreements but also conduct regular self-assessments. The assessment results are classified into three ranks, A, B, and C, in ascending order according to risk. The precondition for starting transactions with a new supplier is an evaluation of B rank or higher in the CSR assessment. As of March 2023, we had 455 suppliers conduct self-assessments, and of the 455 companies, 352 were ranked A and 103 were ranked B. For B-ranked suppliers, our Procurement Department works together with them to promote risk reduction.

# Working to Solve Social Issues

## Human rights due diligence initiatives

With regard to its suppliers, the Panasonic Group performs risk mapping based on the risk indicators of international organizations and the impact the risks would have on business. In fiscal 2023, the Panasonic Group had been conducting trials of CSR audits using third-party organizations. From fiscal 2024, we will promote human rights due diligence, including the identification and countermeasures of supply chain risks, by taking the lead in conducting CSR audits, including items related to human rights, labour, health and safety, etc., at a pace of more than 10 cases per year for high-risk suppliers that do business with the Group.

## CSR-related education and training

To realize responsible procurement activities, we believe that it is essential to educate and train our personnel who are in charge of procurement and who come into contact with our suppliers on a daily basis. There are CSR Level 1 and CSR Level 2 systems according to the degree of proficiency in CSR, and currently about half have acquired Level 2. We are formulating and promoting annual plans so that all of our employees can reach Level 2 or higher. We are also conducting e-learning sessions for domestic users to promote their understanding of CSR compliance and prevention of legal violations in purchasing operations.

## Responsible minerals procurement

The supply chains of minerals, which are the main materials in batteries, pose a variety of CSR risks, such as human rights violations, poor working conditions, environmental destruction around mines, and the involvement of armed groups. In contrast, such supply chains represent an important economic activity for mineral-producing countries, and appropriate due diligence with regard to CSR risks is essential. In accordance with the *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* established by the Organisation for Economic Co-operation and Development (OECD), we have formulated a responsible mineral procurement policy and are promoting activities. As a member of the Panasonic Group, which is a member of RMI\*<sup>1</sup>, a global organization that promotes responsible mineral procurement, we identify smelters and confirm their compliance with RMAP\*<sup>2</sup> every year with the cooperation of our suppliers. In addition to encouraging non-compliant smelters' participation in RMAP, in the unlikely event that conflict-affected minerals are found, we would ask that they take steps to eliminate the use of such materials, including changing suppliers. Collecting survey forms from all our suppliers on an ongoing basis, we aim to procure only from conformant/active smelters\*<sup>3</sup>.

Due to the need to respond sensitively to the changing environment surrounding responsible mineral procurement activities, we have also established a Responsible Minerals Committee, which consists of relevant functions, such as procurement, legal and sales, and hold general meetings on a regular basis. Along with sharing environmental changes, at the general meetings we are promoting CSR risk responses by reporting, for example, the policy and status of responses to relevant problems and cooperating with related departments.

## Activities Regarding Tantalum, Tin, Tungsten and Gold

Item	Data
CMRT (questionnaire)* <sup>4</sup> collection rate	100%
Ratio of conformant/active smelters	85%

## Cobalt-related activities

Item	Data
EMRT (questionnaire)* <sup>4</sup> collection rate	98%
Ratio of conformant/active smelters	69%

\*1 RMI: Responsible Minerals Initiative, an organization that provides industry-standard survey tools, etc. for companies to conduct responsible mineral procurement.

\*2 RMAP: Responsible Minerals Assurance Process program stipulated by RMI

\*3 Conformant smelters: Smelters that have been audited to be RMAP compliant  
Active smelters: Smelters that are at the preparation stage to be audited

\*4 CMRT, EMRT: RMI-issued conflict minerals survey forms

## Support for suppliers

As stipulated in our regulations, we conduct an audit before commencing a new transaction with a material supplier. Based on the audit results, if necessary, we provide support that will lead to improvements in, for example, the management level of our suppliers with regard to the control methods for processes, chemical substances and health and safety. We also hold a Partners' Meeting once a year to strengthen cooperative relationships with suppliers by understanding our management policy. In fiscal 2023, 323 people from 172 companies participated.



## Corporate Governance

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## Thorough Compliance

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FY2031 Targets and KPIs



Number of serious product incidents\*

0 incidents



Number of serious legal and compliance violations

0 incidents



Number of information security incidents

0 incidents

\*Number of product incidents leading to safety-related recalls

# Strengthening Governance



## Corporate Governance

### Policy

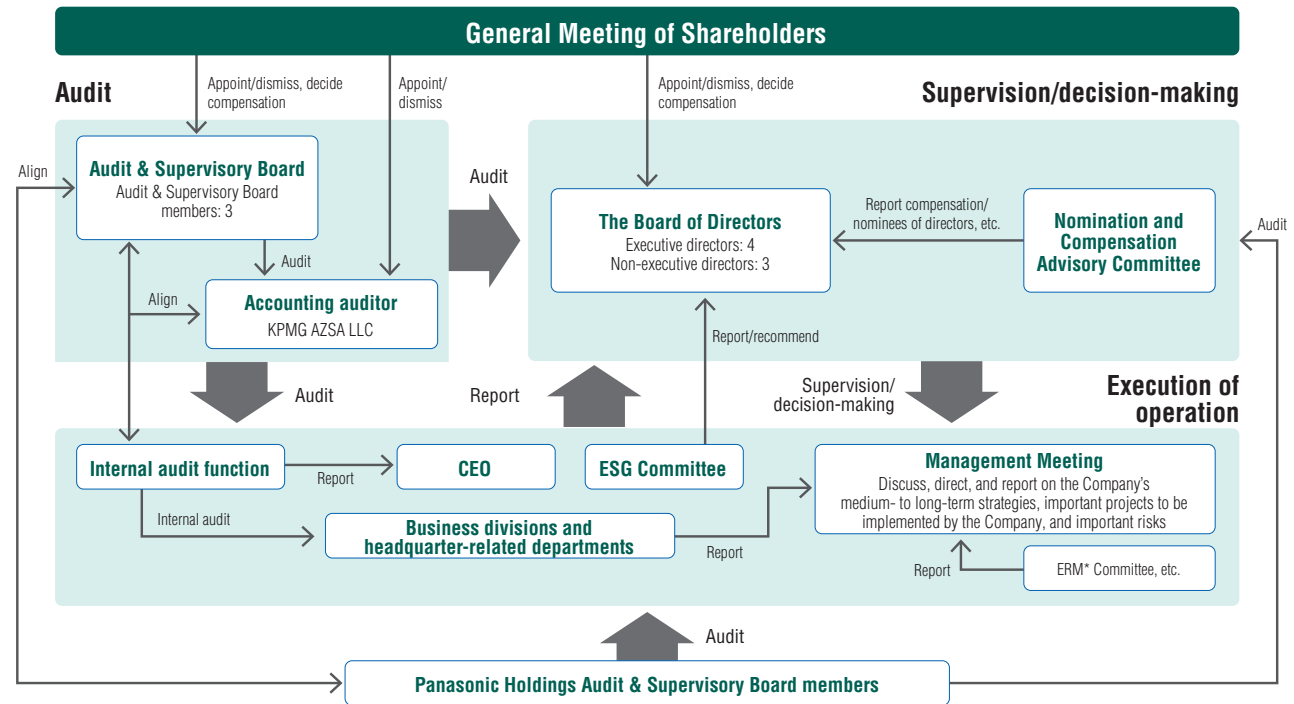
Since its founding, the Panasonic Group has been guided by the management philosophy of “contributing to the progress and development of society and the well-being of people worldwide through its business activities.” Then, in April 2022, the Group shifted to an operating company system (holding company system) with Panasonic Holdings Corporation as the parent company, in order to advance our corporate management from a medium- to long-term perspective, as the changes in the business environment become more drastic and uncertain each year. Panasonic Energy, one of the Group’s operating companies, views corporate governance as an important foundation. We are striving to build and strengthen an effective corporate governance structure by setting up the Board of Directors, which makes decisions on important business operations related to the entire Company and supervises the directors’ execution of their duties, and the Audit & Supervisory Board System, which is independent from the Board of Directors and audits the directors’ execution of their duties, as well as the Nomination and Compensation Advisory Committee and other important committees.

### Corporate governance structure

#### The Board of Directors

The Board of Directors of the Company consists of seven directors, all of whom have excellent insight into the Company’s business areas along with sophisticated business execution skills. Three of the Company’s seven directors are non-executive directors who supervise the directors’ execution of their duties. The Board of Directors meets at least once a month for the purpose of promoting appropriate business

Corporate governance structure



\*ERM:Enterprise Risk Management

activities by making prompt and accurate management decisions. In addition, the Board of Directors is able to respond quickly to sudden changes in the business environment and to situations where strong business execution is required, by flexibly making extraordinary resolutions and reports at actual meetings or in writing as necessary. In fiscal 2023, the Company’s Board of Directors held 12 regular meetings and six extraordinary meetings, including written resolutions. The attendance rate of directors at the Board of Directors meetings during the fiscal year was 98.9%, and that of Audit & Supervisory Board members was 97.6%.

#### Audit & Supervisory Board Members

The Company has three Audit & Supervisory Board members, who are selected from among those with advanced auditing capabilities who are familiar with the Company’s operations. In addition, the Company also appoints auditors with knowledge and experience in finance and accounting to monitor the governance system of the Panasonic Energy Group and its operations, and to ensure an efficient and organizational audit system. Audit & Supervisory Board members attend Board of Directors meetings to express their opinions, conduct regular on-site inspections, including interviews with employees and

# Strengthening Governance

other relevant personnel and field surveys, and audit daily management activities, including the execution of duties by directors. In addition, Audit & Supervisory Board meetings are held regularly among Audit & Supervisory Board members to formulate audit policies and exchange information, and the Audit & Supervisory Board members also cooperate with the internal auditing departments and accounting auditors by regularly exchanging information.

## Meeting Bodies/Committees

The Company has established a Management Meeting, consisting of executive officers, as a preliminary body to the Board of Directors, which makes practical decisions and enables more in-depth discussions at subsequent meetings of the Board of Directors. The Company has ten executive officers, each of whom holds deep knowledge and experience in their respective fields. The Management Meeting meets twice a month in principle to make decisions based on prompt and appropriate discussions and reports on matters related to the overall management of the Company, and to establish and strengthen the Company’s governance by clarifying the process and scope of decision-making in the Company. Furthermore, we have established the Nomination and Compensation Advisory Committee to strengthen objectivity and transparency in the appointment, dismissal, and compensation of directors and executive officers. In addition, we have established an ERM Committee to identify, assess, and formulate measures to address cross-organizational risks at the Panasonic Energy Group. From fiscal 2024, we established an ESG Committee, which is responsible for formulating an overall plan for ESG, monitoring progress, assessing progress, and reporting and making recommendations to the Board of Directors.

## Initiatives to improve the effectiveness of the Board of Directors

Based on the Corporate Governance Code Supplemental Principle 4-11 (3), each director and Audit & Supervisory Board member conducted a self-evaluation of the operation of the Board of Directors

Attendance & Expertise of Board of Directors & Audit & Supervisory Board Members (As of March 31, 2023)

	Name	Title	FY2023 Activities & Attendance	Management Experience	Expertise					International/Diversity
					Manufacturing/R&D/IT	Finance/Accounting	Legal Affairs*	Planning	ESG	
Directors	Kazuo Tadanobu	Representative Director President	The Board of Directors 14/14	●	●					●
	Yasuaki Takamoto	Representative Director Executive Vice President	The Board of Directors 13/14	●						●
	Yuki Kusumi	Director	The Board of Directors 14/14	●	●			●		●
	Tetsuro Homma	Director	The Board of Directors 14/14	●				●		●
	Hirokazu Umeda	Director	The Board of Directors 14/14	●		●		●		●
	Masaaki Mizoguchi	Director Managing Executive Officer	The Board of Directors 14/14	●		●		●		●
Audit & Supervisory Board Members	Kunio Tanaka	Director Managing Executive Officer	The Board of Directors 14/14	●	●		●	●		●
	Noriyuki Fujiwara	Senior Audit & Supervisory Board Member	The Board of Directors 14/14 Audit & Supervisory Board 42/42		●		●	●		●
	Hiroyuki Tanaka	Senior Audit & Supervisory Board Member	The Board of Directors 14/14 Audit & Supervisory Board 42/42	●		●		●		●
	Takafumi Mizuno	Audit & Supervisory Board Member	The Board of Directors 13/14 Audit & Supervisory Board 41/42			●		●		●

\*The officer in charge of Legal Affairs attends Board of Directors meetings as an observer, and their comments are reflected in the deliberations of the Board of Directors.

in fiscal 2023. The self-evaluation included the following questions: (1) Is the current composition of the Board of Directors appropriate for effective discussions, (2) Has the Board of Directors sufficiently demonstrated its supervisory function, (3) Are issues of importance to the Company set as agenda items for Board of Directors meetings, (4) With regard to agenda items, are issues and points to be discussed and examined clearly defined, and are possible risks and their analysis

properly explained at Board of Directors meetings, and (5) Are medium- to long-term strategies adequately discussed at Board of Directors meetings? The evaluation was an anonymous survey, and each evaluation item was rated on a 5-point scale, with a comment section. We also interviewed respondents and established an operating policy for the Board of Directors to ensure more productive and efficient operation.



# Strengthening Governance

## Director experience

### Kazuo Tadanobu

Representative Director, President  
Chief Executive Officer (CEO)

- Apr. 1992 Joined Matsushita Electric Industrial Co., Ltd.
- Jul. 2020 Vice President of Industrial Solutions Company, Panasonic Corporation
- Oct. 2021 President of Energy Company of the company
- Apr. 2022 Representative Director, President, and Chief Executive Officer (CEO) of Panasonic Energy Co., Ltd. (incumbent)

### Yasuaki Takamoto

Representative Director, Executive Vice President  
Director, Mobility Energy Business Division

- Apr. 1993 Joined Matsushita Electric Industrial Co., Ltd.
- Apr. 2019 Vice President of US Company, Panasonic Corporation
- Oct. 2021 Executive Vice President of Energy Company of the company
- Apr. 2022 Representative Director, Executive Vice President of Panasonic Energy Co., Ltd. (incumbent)

### Yuki Kusumi

Director

- Apr. 1989 Joined Matsushita Electric Industrial Co., Ltd.
- Apr. 2014 Executive Officer of the company
- Apr. 2019 Managing Executive Officer of the company
- Apr. 2021 Chief Executive Officer (CEO) of the company
- Jun. 2021 Representative Director and President of the company (incumbent)
- Oct. 2021 Group Chief Executive Officer (Group CEO) of the company (incumbent), Group Chief Strategy Officer (Group CSO) of the company (incumbent)
- Apr. 2022 Director of Panasonic Energy Co., Ltd. (incumbent)

### Tetsuro Homma

Director

- Apr. 1985 Joined Matsushita Electric Industrial Co., Ltd.
- Oct. 2013 Executive Officer of the company
- Apr. 2015 Managing Executive Officer of the company, President of Appliances Company / in charge of Consumer Business
- Jun. 2015 Managing Director of the company
- Apr. 2016 Representative Director and Senior Managing Director of the company
- Apr. 2019 CEO, China & Northeast Asia Company and Regional Head for China & Northeast Asia of the company
- Jun. 2019 Representative Director and Senior Managing Executive Officer of the company
- Apr. 2020 Chairperson, Panasonic Corporation of China (incumbent)
- Apr. 2021 Representative Director and Executive Vice President of Panasonic Corporation (incumbent)
- Apr. 2022 Group Regional Head for China & Northeast Asia of the company(incumbent) / President, Panasonic Operational Excellence China and Northeast Asia, Panasonic Operational Excellence Co., Ltd. (incumbent) / Director of Panasonic Energy Co., Ltd. (incumbent)

### Hirokazu Umeda

Director

- Apr. 1984 Joined Matsushita Electric Industrial Co., Ltd.
- Apr. 2017 Executive Officer of the company / in charge of Accounting and Finance / General Manager, Corporate Management Support Department, Corporate Strategy Division / in charge of Group-wide Cost Busters Project, BPR Project
- Jun. 2017 Director, Executive Officer, and Chief Financial Officer (CFO) of the company
- Apr. 2018 Director, Managing Executive Officer of the company, President, Panasonic Equity Management Japan Co., Ltd. (currently Panasonic Equity Management Japan Godo Kaisha) (incumbent)
- Sep. 2019 CEO, Panasonic Holding (Netherlands) B.V. (incumbent)

- Apr. 2021 Director, Senior Managing Executive Officer of Panasonic Corporation / in charge of Facility Management(incumbent)
- Oct. 2021 Group Chief Financial Officer (Group CFO) of the company (incumbent) / in charge of Group Cost Busters Project, in charge of Prime Life Technologies Corporation (incumbent)
- Apr. 2022 Director and Executive Vice President of the company / in charge of Group MUDA Busters Activity (incumbent)/ Director of Panasonic Energy Co., Ltd. (incumbent)
- Jun. 2022 Representative Director and Executive Vice President of Panasonic Holdings Corporation (incumbent)

### Masaaki Mizoguchi

Director, Managing Executive Officer  
Chief Financial Officer (CFO)

- Apr. 1994 Joined Matsushita Electric Industrial Co., Ltd.
- Apr. 2016 Director of Panasonic Liquid Crystal Display Co., Ltd., AIS Company, Panasonic Corporation
- Oct. 2021 Managing Officer of Energy Company
- Apr. 2022 Director, Managing Executive Officer, and Chief Financial Officer (CFO) of Panasonic Energy Co., Ltd.

### Kunio Tanaka

Director, Managing Executive Officer  
Chief Strategy Officer (CSO)

- Apr. 1983 Joined Matsushita Electric Industrial Co., Ltd.
- Apr. 2017 Managing Officer, AIS Company, Panasonic Corporation
- Apr. 2019 General Manager, Global Business Promotion Department, Corporate Strategy Division and Vice President of Panasonic North America, US Company of the company
- Oct. 2021 Managing Officer of Energy Company
- Apr. 2022 Director, Managing Executive Officer, and Chief Strategy Officer (CSO) of Panasonic Energy Co., Ltd. (incumbent)



# Strengthening Governance



## Thorough Compliance

KPI	FY2023	FY2031
Number of serious product incidents*1	0	0
Number of serious legal and compliance violations	0	0
Number of information security incidents	2	0

\*1 Number of product incidents leading to safety-related recalls

## —Pursuit of Quality and Product Safety—

### Policy

As the level of quality demanded by society increases, product safety and superior quality are important elements that demonstrate our brand power. We have positioned quality as the driving force behind the advancement of our business, defining quality as “our competitive edge to win customer trust and satisfaction,” and setting our quality policy as “maximizing our competitive edge to achieve 100% customer satisfaction.” Maximizing competitiveness requires maximizing the sum of the competitiveness of all job functions, including design, manufacturing, quality, sales, among others, and we are promoting initiatives from the following perspectives to maximize our competitiveness.

**Defense:** Initiatives to make existing frameworks and processes more robust\*2.

**Offense:** New initiatives aimed at advancing our business

**Foundation:** Initiatives that form the basis for business promotion

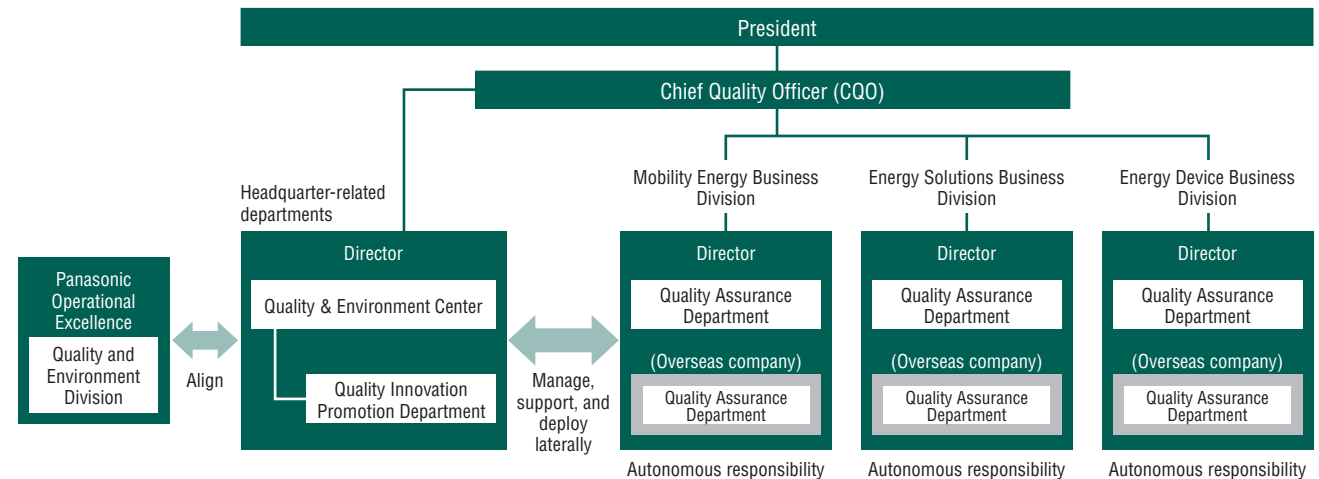
Through these activities, we aim to eliminate all serious product incidents.

\*2 The strength of a system or machine against external forces.

### Quality assurance system

The Chief Quality Officer (CQO) is the officer in charge of quality, directly reporting to the President who is responsible for managing the Company. For each business division, a quality manager reports to the Director of the respective business division and autonomously promotes quality assurance. The Quality & Environment Center, a department directly under the Company, formulates quality policies, checks quality status, assists each business division in addressing quality issues, and disseminates quality information, recurrence prevention measures, best practices, and other information across the Company. In addition, the Center implements a variety of educational and awareness-raising measures to create a corporate culture that places the highest priority on safety and quality. Specifically, quality manager meetings and liaison meetings are held monthly among Headquarter-related departments and each business division to share information on quality losses and important quality issues, and to discuss and decide on policies and specific measures to address common issues of the Panasonic Energy Group. Furthermore, for major issues that could affect the entire Panasonic Group, the Center works closely with the Quality and Environment Division of Panasonic Operational Excellence to discuss and address the issue.

#### Our quality assurance system



### Details of initiatives

#### Activities to ensure product quality and safety

The batteries we sell are devices that store high-density energy in large capacities, and their safe and reliable use is an absolute necessity. In particular, Li-ion batteries, our main products, have inherent risks that can lead to smoke and fire; these risks include high energy density, which can cause the battery to reach high temperatures in the event of a short circuit, and the use of flammable liquid as an electrolyte. Given these product characteristics, we issued a recall notice to prevent unsafe accidents, which caused great concern and inconvenience to our customers and other concerned parties.

Based on these reflections and lessons learned, we continue to promote quality innovation, including making quality assurance processes more robust, enhancing safety design, and fostering a quality-oriented culture, to ensure high quality standards with the utmost priority on product safety.

# Strengthening Governance

## 1. Making quality assurance processes more robust

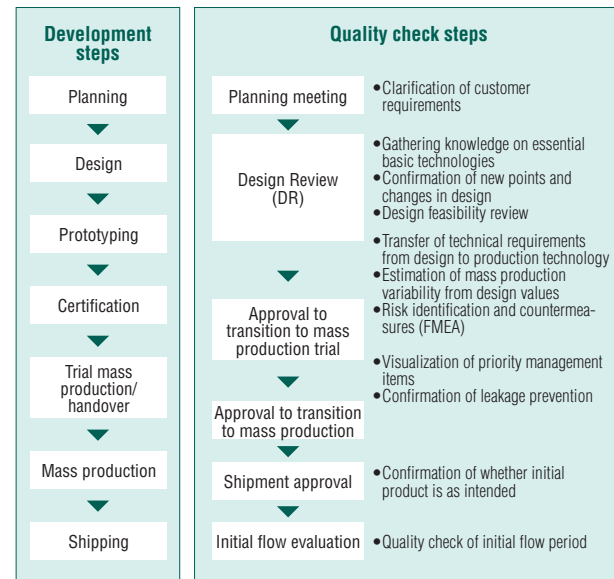
To establish a quality assurance process, we have a quality management system that complies with ISO 9001 requirements and global standards such as IATF 16949. Quality audits are conducted periodically to check the effectiveness and progress of the system, and we are working to continuously improve quality. In addition to checking each process, the quality audit also includes checking for quality compliance.

The environment, fields, and devices in which batteries are used are changing with the evolution of society, as exemplified by their use in electric vehicles. To address these changes in the design process, we verify and identify risks together with our customers (B-to-B and B-to-C) and supplier. The identified risks are fed back to product design, component design, and process design to confirm their validity as key verification items in the development process. To prevent problems in the manufacturing process as well, we regularly identify risks and take countermeasures by visualizing key data (DX) and FMEA\* in all processes from source to shipping, thereby continually bolstering management.

In addition, we are working to prevent product incidents and claims by establishing risk management guidelines, and we have also established a system to ensure that the Panasonic Energy Group works together to take appropriate countermeasures and responses in the event of a serious product incident, with customer safety as our top priority. The risk management guidelines have been established to take appropriate measures against market incidents based on past unsafe accidents and the reflections and lessons learned from the recall notices. Furthermore, these guidelines are thoroughly communicated to all concerned parties, and are reviewed and revised as necessary.

\*Failure Mode and Effects Analysis

## New product development flow



## 2. Developing human resources and fostering a quality-oriented culture

The base of fostering a corporate culture is human resource development, and we are building an education system according to rank and skill, as well as holding various events. We provide training for new technical employees to learn the basics of statistical quality management methods as well as the fundamentals of quality. For young quality personnel, we have established training courses that enable intensive learning and are working to enhance their development.

Furthermore, we regularly hold various training sessions and events for all employees to foster a culture of placing the highest priority on product safety. In particular, every November is designated as “Quality Month” to pass on the details and lessons learned from past product incidents. In fiscal 2023, we carried out the following various initiatives. First, the CEO, CTO, Director of the Quality and Environment Center, and Directors of each business division delivered messages on the importance of quality, in order to reaffirm that

quality is an absolute requirement for our business. Next, we held a Product Safety Forum to review and reflect on the recall problems that have occurred in the past for consumer products and confirmed the need for further safety and reliability improvements. In addition, to learn about different product case studies, we organized a tour of the Panasonic Group’s Product Safety Learning Square. At this tour, employees who were involved in the recall were assigned to explain the recall case, and their firsthand accounts, including their own reflections on the recall and the situation at the time, were presented to emphasize the importance of product safety. Moreover, in order to improve basic skills, we conduct tests after learning the causes of quality irregularities, preventive measures, and other content in order to improve comprehension.



Product Safety Forum



Tour of the Product Safety Learning Square

# Strengthening Governance

## —Compliance with Laws and Regulations—

### Policy

The Basic Business Philosophy of the Panasonic Group describes the ideas and action guidelines that are important to us in carrying out our business activities while practicing compliance, such as ensuring social justice, realizing co-existence and mutual prosperity with our stakeholders, respecting diversity, contributing to ensuring harmony with the environment, and fulfilling our corporate social responsibility. We believe it is important not only to comply with laws and social morality, but also to always think about what is right for society from selfless motives and act with integrity and fairness. In accordance with the Basic Business Philosophy of the Panasonic Group, we carry out fair business practices in all situations based on the belief that compliance is the foundation of our business activities, and fulfill our Mission of “achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict.”

### Compliance system

The Panasonic Energy Group ensures the legality of the execution of duties by officers, employees, and others by thoroughly promoting compliance awareness, implementing initiatives in accordance with the policy, and establishing an effective governance system, including an appropriate monitoring system. Furthermore, we have established a system that ensures effective auditing by having Audit & Supervisory Board members collaborate with the accounting auditor and internal auditing departments in accordance with the Audit Plan formulated annually.

### Details of initiatives

#### Promoting understanding of the Code of Ethics & Compliance

The Panasonic Group Code of Ethics & Compliance embodies the Basic Business Philosophy of the Panasonic Group and defines the commitments that each Panasonic Group company must fulfill, the responsibilities that all employees must fulfill, and the additional responsibilities that all officers and organization leaders must assume with respect to the organizations for which they are responsible, which are essential for carrying out our business activities while ensuring compliance.

To ensure that this Code is understood and instilled, we conduct a variety of compliance-related training programs for all global employees. Compliance-related content is incorporated in new employee training, training for newly appointed employees and other rank-specific training, training for employees assigned overseas, and other training programs. We also provide risk-based, field-specific compliance training, including anti-cartel and anti-bribery training, security export control training, etc., as needed. In particular, we designate September of each year as “Compliance Month” to provide an opportunity to reflect on the importance of compliance. We will continue to implement initiatives to raise awareness and knowledge of compliance.

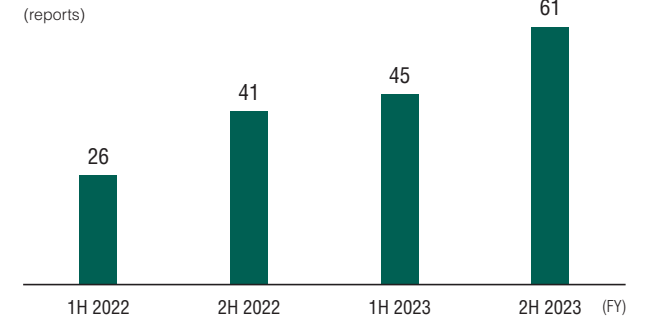
#### Operation of various committees

We have established a various committees system to ensure compliance with laws and regulations, including the Compliance Committee, the Trade Compliance Committee, and the Subcontract Act Compliance Committee. Through these committee activities, we ensure the thorough implementation of our policies, share information on incidents, laterally deploy measures to prevent recurrence, and conduct education and awareness-raising activities.

#### Effective operation of the whistleblowing system

We have established a global hotline (EARS) as a communication channel for both internal and external parties to report and consult on suspected misconduct. All reports received by EARS are properly investigated in accordance with the relevant rules and regulations, and feedback is provided to the whistleblower. In addition, a response system is in place, which is designed to ensure prompt escalation to the Compliance Committee and senior management as necessary. Whistleblowers can report anonymously to EARS. Retaliation against whistleblowers is clearly prohibited in our internal rules and regulations and is communicated to all employees, providing an environment where whistleblowers can secure psychological safety upon reporting incidents.

#### Number of reports



\*Includes reporting to the Equal Partnership Consultation Office

There were no significant legal or compliance violations in fiscal 2023. We will continue working to prevent legal and compliance violations from occurring going forward.

# Strengthening Governance

## —Ensuring Information Security—

### Policy

In today's world, where the convenience of digitalization has also brought with it the great risk of losing trust due to information leaks, the financial impact of information security on our business is significant and must be a point of focus. We position information security as one of our important management strategies and ensure information security by establishing an information security system, educating our employees, and appropriately managing our information assets.

We believe that it is important to work together as a company for everything we do. Variations in information security systems and awareness among operating sites, which we have identified as issues, will be centrally managed and improved to a high standard by adopting initiatives in line with the Panasonic Group's management systems as a reference. In addition, through interactive committee activities in the workplace, we will build systems and rules optimized for the Company by drawing on the collective wisdom of our employees, thereby protecting the information of our customers around the world and everyone involved in our business. To work toward fulfilling our Mission of "achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict," we aim to ensure customer satisfaction and trust by having zero information security incidents\*.

\*Refers to the following incidents that threaten the safety of information held and managed by the Panasonic Group, including trade secrets, personal information, customer information, etc. (including information of other parties).

- Information leaks or suspected leaks outside of the Company
- Unauthorized access or suspected unauthorized access to the Company's information from inside or outside the Company
- Destruction or falsification of information, or suspected destruction or falsification of information

### Basic Information Security Policy

Established: April 1, 2022

In accordance with the Basic Management Policy, Panasonic Energy Co., Ltd. ("we") aim to ensure customer satisfaction and trust in our superior technologies, products and services. To this end, we believe that it is important to protect personal information, information entrusted by others and information held by us (hereinafter referred to as "Information Assets"). Based on this understanding, we regard information security as one of our important management strategies, and we strive to achieve customer satisfaction and trust, as well as to realize a sound information society.

#### 1. Information Security System

We will establish a system of responsibility for information security in each organization, formulate and implement the necessary rules and regulations, and make efforts to appropriately manage Information Assets.

#### 2. Management of Information Assets

In order to ensure the security of Information Assets, we will clarify how Information Assets are to be handled in accordance with their importance and the risks pertaining to them, and will appropriately manage Information Assets.

#### 3. Education and Training

We will continue to provide education and training on information security to all officers and employees, and strive to raise their awareness of information security and to ensure that all relevant rules and regulations are implemented. We will take strict measures, including disciplinary action, against those who violate these rules and regulations.

#### 4. Provision of Reliable Products and Services

We will give special consideration to the security of the information of customers who use our products and services, and strive to provide products and services that customers can feel are reliable to use.

#### 5. Compliance with Laws and Regulations, and Continuous Improvement

We will comply with laws and regulations related to information security, and strive to continuously improve and enhance our efforts to ensure information security.

#### 6. Establishment of a System to deal with Incident and Response in the case of Incident

We will establish a reporting and response system in order to minimize the impact caused in the event of any unauthorized access, and/or the loss, destruction, falsification, and leakage, related to the handling of Information Assets (collectively "Incident"). In the event of any Incident, we will investigate the cause and take measures to prevent a recurrence.

Panasonic Energy Co., Ltd.  
President, CEO

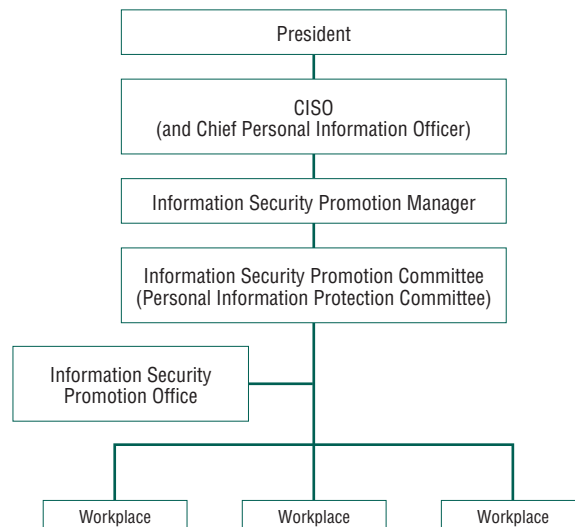
Kazuo Tadanobu

# Strengthening Governance

## Information security system

The Chief Information Security Officer (CISO) is the officer in charge of information security and personal information protection, directly reporting to the President who is responsible for managing the Company.

The promotion system is designed to enable the Information Security Promotion Office, appointed by the CISO, to interact with the workplace to gather knowledge and engage in initiatives.



## Details of initiatives

### Management of information assets

The department that created information or the person in charge of the department that received information from other parties, establishes the confidentiality, scope of disclosure, and handling of the information as the owner of the information, and protects the information appropriately. Information disclosed by and received from other parties under a confidentiality agreement will be managed as confidential information in accordance with the provisions of the Panasonic Group Global ISM (Information Security Management) Regulations and related rules. If there is a disclosure-related contract, written pledge, etc., the information will be handled and managed strictly in accordance with such contract or pledge. Departments that hold information will conduct periodic inventory checks to identify the confidential information and check its management status, thereby proving that the confidential information is properly managed in the Company.

### Education and training

The Information Security Promotion Office regularly plans and implements education and training to prevent information leaks. Specific initiatives include e-learning using the Panasonic Group's training systems and targeted attack e-mail drills. Since e-learning can be conducted at any time and place, and the progress of employees taking the course can be easily monitored, it is being deployed in a wide range of learning areas. Through these initiatives, we are working to thoroughly enforce our information security rules and raise employee awareness.

### Audit and ISO27001 certification

The Information Security Promotion Office conducts internal audits in accordance with the Panasonic Group Information Security Audit Guidelines to confirm the implementation status of information security management measures in each department. When deficiencies are discovered, we provide instructions for improvement and monitor the situation. Acquisition or continuation of ISO27001 certification is determined by each business site based on the nature of its business, customer requirements, etc., and we annually review those business sites that must acquire or maintain the certification.

### Compliance with laws and regulations, protection of personal information

We comply with laws, regulations, and other norms related to information security. In recent years, personal information protection laws have been enacted and enforced in many countries, and we believe that protecting personal information is an important matter. We strive to protect privacy by acquiring and managing personal information in accordance with the Panasonic Group's response manual, as well as by educating our employees.



Personal Information Protection Policy

<https://www.panasonic.com/global/energy/privacy-policy.html>

# Data Section

This part presents aggregated financial, non-financial and corporate information.

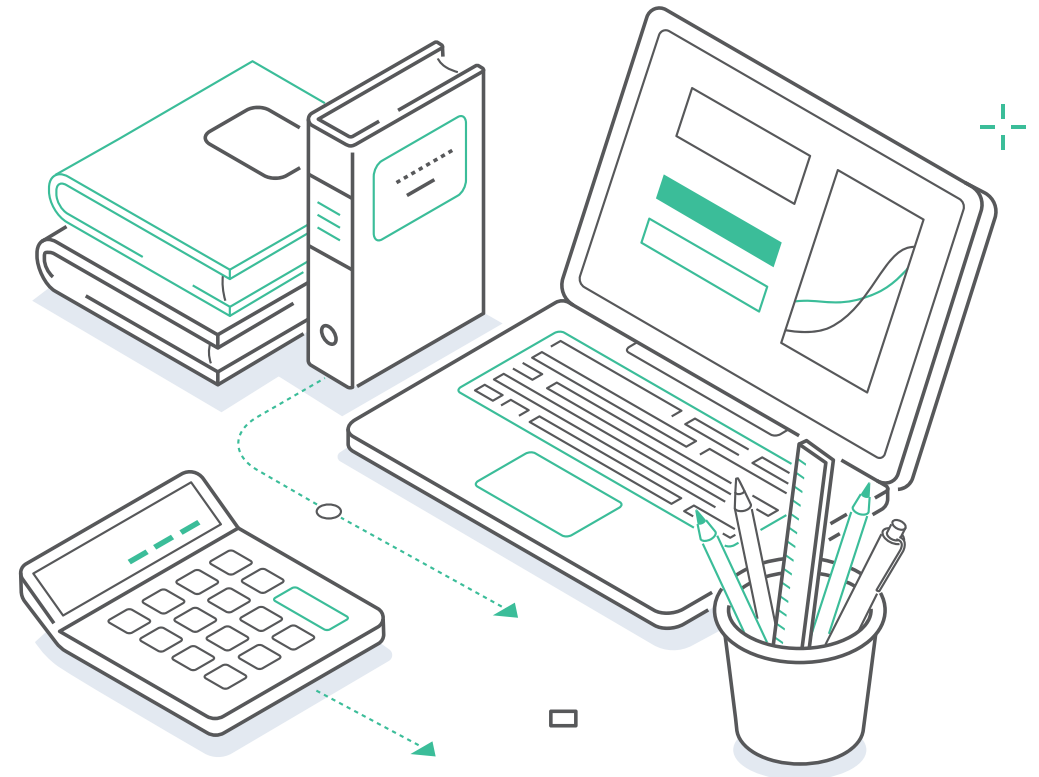
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# Financial Highlights<sup>\*1</sup>

(Excluding IRA impact)

## Profit and Loss Statement

	(Billions of yen)	
	FY2022	FY2023
Sales	772.8	<b>971.8</b>
In-vehicle	468.4	<b>654.1</b>
Industrial/ Consumer	304.9	<b>310.7</b>
Adjusted operating profit	70.8	<b>39.6</b>
In-vehicle	–	<b>10.7</b>
Industrial/ Consumer	–	<b>28.5</b>
Other income/loss	–4	<b>–6.4</b>
Operating profit	66.8	<b>33.2</b>
(OP % to sales)	8.6%	<b>3.4%</b>
Depreciation (tangible) <sup>*2</sup>	56.3	<b>65.3</b>
EBITDA <sup>*2</sup>	123	<b>98.5</b>
(EBITDA % to sales)	15.9%	<b>10.1%</b>

\*1 Unaudited

\*2 Additionally adjusted with the amount equivalent to depreciation corresponding to underlying assets that are applied with Lease accounting treatment as a lessor

## Balance Sheet

	(Billions of yen)
	FY2023
Cash and cash equivalents	<b>120.2</b>
Trade receivables	<b>261.6</b>
Inventories	<b>204.2</b>
Other current assets	<b>33.7</b>
<b>Current assets</b>	<b>619.7</b>
Property, plant and equipment	<b>181.5</b>
Right-of-use assets	<b>6.9</b>
Goodwill and intangible assets	<b>3.1</b>
Other non-current assets	<b>10.6</b>
<b>Non-current assets</b>	<b>202.1</b>
<b>Total assets</b>	<b>821.8</b>
Trade payables	<b>204.1</b>
Debt (1)	<b>129.7</b>
Lease liabilities (2)	<b>7</b>
Other liabilities	<b>106.9</b>
<b>Liabilities</b>	<b>447.7</b>
<b>Equity (3)</b>	<b>374.1</b>
<b>Invested capital (1)+(2)+(3)</b>	<b>510.9</b>
<b>ROIC</b>	<b>5.0%</b>

## Statements of Cash Flows

	(Billions of yen)
	FY2023
FCF	<b>0.5</b>
Operating CF	<b>70.6</b>
Investing CF	<b>–70.1</b>
Capital investment	<b>90.6</b>
Investment in intangible assets	<b>1.1</b>
R&D expenditures	<b>25.1</b>

# Non-Financial Data

(As of March 31, 2023)

## Environment

		Scope	Unit	FY2022	FY2023
Greenhouse gas emissions	Scope 1 emissions	Consolidated*	kt-CO <sub>2</sub>	42.00	40.18
	Scope 2 emissions	Consolidated*	kt-CO <sub>2</sub>	393.85	319.52
	Scope 3 emissions	Consolidated*	kt-CO <sub>2</sub>	2.6	2.47
	(Category 6: Business Travel)				
Increase size of avoided CO <sub>2</sub> emissions for society		Consolidated	kt-CO <sub>2</sub>	13,150	14,930
Targeted reduction ratio for greenhouse gas emissions	Fiscal 2031	Consolidated	%	–	30
	Fiscal 2051	Consolidated	%	–	100
Targeted fiscal year for carbon neutrality at Company sites	Domestic sites	Consolidated	Fiscal year	2026	
	All global sites	Consolidated	Fiscal year	2029	
Total energy consumption	Renewable energy	Consolidated*	PJ (Petajoules)	0.92	1.02
	Non-renewable energy	Consolidated*	PJ (Petajoules)	3.57	3.34
Energy intensity		Consolidated*	TJ/¥100mn	0.56	0.5
Amount of reductions in energy consumption		Consolidated*	PJ (Petajoules)	0.027	0.026
Recycled resin used		Consolidated	t	14,643	9,545
Factory waste recycling rate		Consolidated*	%	98.7	98.7
Total wastes	Meal scrap	Consolidated*	kt	21,499	19,916
	Paper scrap	Consolidated*	kt	1,754	1,602
	Plastics	Consolidated*	kt	1,924	1,737
	Acids	Consolidated*	kt	5,483	4,212
	Sludge	Consolidated*	kt	2,597	2,454
	Wood	Consolidated*	kt	650	596
	Glass/ceramics	Consolidated*	kt	12	8
	Oil	Consolidated*	kt	7,569	7,229
	Alkalis	Consolidated*	kt	3,724	3,296
	Other	Consolidated*	kt	1,637	1,452
	Total	Consolidated*	kt	46,849	42,502
	Recycled	Meal scrap	Consolidated*	kt	21,184
Paper scrap		Consolidated*	kt	1,754	1,564
Plastics		Consolidated*	kt	1,853	1,677
Acids		Consolidated*	kt	81	43
Sludge		Consolidated*	kt	2,474	2,268
Wood		Consolidated*	kt	650	589
Glass/ceramics		Consolidated*	kt	12	7
Oil		Consolidated*	kt	7,535	7,192
Alkalis		Consolidated*	kt	2,581	2,123
Other		Consolidated*	kt	1,454	1,309
Total		Consolidated*	kt	39,578	36,149

(Vs. fiscal 2014. Set as uniform target for all Panasonic Group operating companies.)

(Set as uniform target for all Panasonic Group operating companies.)

\*Head office MORIGUCHI sites (manufacturing/non-manufacturing) and Panasonic Energy Group manufacturing sites



# Non-Financial Data

## Environment

		Scope	Unit	FY2022	FY2023
Landfill	Meal scrap	Consolidated*1	kt	314	280
	Paper scrap	Consolidated*1	kt	0	0
	Plastics	Consolidated*1	kt	6	17
	Acids	Consolidated*1	kt	14	20
	Sludge	Consolidated*1	kt	7	15
	Wood	Consolidated*1	kt	0	0
	Glass/ceramics	Consolidated*1	kt	0	0
	Oil	Consolidated*1	kt	0	6
	Alkalis	Consolidated*1	kt	0	0
	Other	Consolidated*1	kt	178	139
	Total	Consolidated*1	kt	519	477
Water withdrawal	Surface water	Consolidated*1	1,000 m <sup>3</sup>	0	0
	Groundwater	Consolidated*1	1,000 m <sup>3</sup>	238	221
	Third-party water: Municipal water and industrial water, etc.	Consolidated*1	1,000 m <sup>3</sup>	1,609	1,578
	Total	Consolidated*1	1,000 m <sup>3</sup>	1,847	1,799
Total water withdrawal intensity		Consolidated*1	1,000 m <sup>3</sup> / ¥100mn	0.227	0.208
Water discharge	Surface water	Consolidated*1	1,000 m <sup>3</sup>	35	26
	Groundwater	Consolidated*1	1,000 m <sup>3</sup>	0	0
	Third-party water: Wastewater, etc.	Consolidated*1	1,000 m <sup>3</sup>	1,344	1,206
	Total	Consolidated*1	1,000 m <sup>3</sup>	1,379	1,231
Total water consumption		Consolidated*1	1,000 m <sup>3</sup>	468	568
Human Environmental Impact		Consolidated*1	count	70,718	59,424
Release/transfer of substances requiring management		Consolidated*1	t	235	300
Number of offices that acquired ISO 14001 certification		Consolidated	Sites	22	19
Case of violations of laws and ordinances (exceeding of standards resulting in penalty, etc.)		Consolidated	Violations	0	0
Percentage of suppliers that were screened using environmental criteria		Consolidated*2	%	100	100
Percentage of suppliers who carry out risk assessments related to environment	New suppliers	Consolidated*2	%	100	100
	Existing suppliers	Consolidated*2	%	100	100

(Metric expressed by multiplying the "hazardousness factor," which expresses the weight of harmfulness as independently determined by the Panasonic Group for chemical substances, by "release and transfer amount.")

\*1 Head office MORIGUCHI sites (manufacturing/non-manufacturing) and Panasonic Energy Group manufacturing sites

\*2 All Panasonic Energy Group corporations excluding overseas sales companies

# Non-Financial Data

## Social

			Scope	Unit	FY2022	FY2023
Total number of employees (consolidated)			Consolidated	Employees	-	18,716
By job function	Indirect		Consolidated	%	-	39.8
	Direct manufacturing		Consolidated	%	-	60.2
Gender	Female		Consolidated	%	-	32.9
	Male		Consolidated	%	-	67.1
By region	Japan		Consolidated	%	-	27.5
	China/Northeast Asia		Consolidated	%	-	18.0
	Southeast Asia		Consolidated	%	-	19.2
	North America		Consolidated	%	-	27.9
	Europe		Consolidated	%	-	0.3
	India		Consolidated	%	-	4.9
	Central and South America		Consolidated	%	-	2.2
Total number of employees (domestic)			Consolidated (domestic)	Employees	4,733	5,145
By job function	Indirect		Consolidated (domestic)	%	71.9	73.7
	Direct manufacturing		Consolidated (domestic)	%	28.1	26.3
Gender	Female		Consolidated (domestic)	%	14.9	14.6
	Male		Consolidated (domestic)	%	85.1	85.4
By age group	29 years of age or under		Consolidated (domestic)	%	6.3	8.7
	30-39 years of age		Consolidated (domestic)	%	18.8	19.2
	40-49 years of age		Consolidated (domestic)	%	32.5	30.0
	50-59 years of age		Consolidated (domestic)	%	38.0	36.3
	60 years of age or over		Consolidated (domestic)	%	4.4	5.9
Average years of continuous service	Female		Non-consolidated	Year	-	21.2
	Male		Non-consolidated	Year	-	19.1
Percentage of employees in managerial positions	Female		Consolidated	%	17.0	17.7
			Non-consolidated	%	4.8	5.8
	Male		Consolidated	%	83.0	82.3
			Non-consolidated	%	95.2	94.2
Percentage of people with disabilities employed			Consolidated (domestic)	%	1.6	2.2
Number of employees who are contracted or dispatch employees			Consolidated (domestic)	Employees	-	1,511
Number of employees recruited (new graduates)	Female		Non-consolidated	Employees	10	7
	Male		Non-consolidated	Employees	25	54
	Total		Non-consolidated	Employees	35	61

# Non-Financial Data

## Social

		Scope	Unit	FY2022	FY2023	
Number of employees hired (mid-career)	Female	Non-consolidated	Employees	16	25	
	Male	Non-consolidated	Employees	99	200	
	Total	Non-consolidated	Employees	115	225	
Rate of childcare leave taken	Female	Consolidated (domestic)	%	–	100	
	Male	Consolidated (domestic)	%	–	56.2	
Average number of days of annual paid leave taken		Non-consolidated	Days	–	17	
Average rate of annual paid leave taken		Non-consolidated	%	–	71.7	
Gender pay gap	Overall	Consolidated (domestic)	–	–	75.9	(Average wages for women ÷ Average wages for men)
	Regular employees	Consolidated (domestic)	–	–	75.7	
	Non-regular employees	Consolidated (domestic)	–	–	61.4	
Percentage of total employees eligible for collective bargaining		Consolidated (domestic)	%	82.8	81.1	
Average amount of overtime work per month (outside of statutory hours)		Non-consolidated	Time	–	18 hrs. 6 min.	
Percentage of employees who show motivation in engagement		Non-consolidated	%	69.0	70.0	
Number of fatalities as a result of work-related injury		Consolidated	Employees	0	0	
Number of recordable work-related injuries		Consolidated (domestic)	Employees	12	20	
Number of fatalities as a result of work-related ill health		Consolidated (domestic)	Employees	0	0	
Number of cases of recordable work-related ill health		Consolidated (domestic)	Cases	0	0	
Number of sites that received OHSAS 18001 (ISO 45001) certification		Consolidated (domestic)	Sites	11	10	
Number of employees who received training in health and safety standards		Consolidated (domestic)	Employees	4,929	5,458	
Lost time incident rate		Consolidated (domestic)	–	0.09	0.18	
Intensity rate		Consolidated (domestic)	Days/1,000 hours	0.01	0.03	
Rate of awareness of steps walked		Consolidated (domestic)	%	60.5	68.7	(Percentage of people who are generally aware of how many steps they take in a week)
Exercise rate		Consolidated (domestic)	%	27.1	27.2	(Percentage of people who have exercised for at least 30 minutes, at least twice a week, over at least one year)
Smoking rate		Consolidated (domestic)	%	23.5	22.7	
Obesity rate		Consolidated (domestic)	%	32.3	31.1	(Percentage of employees with BMI of 25 or higher)
Spending on corporate citizenship activities		Consolidated (domestic)	Yen	343,411	8,486,188	
Percentage of employees who underwent training on human rights policy		Consolidated (domestic)	%	100	100	
Number of incidents of human rights violations		Consolidated (domestic)	Cases	0	0	
Total number of incidents of discrimination		Consolidated (domestic)	Cases	0	0	
Total number of identified incidents of violations involving the rights of indigenous peoples		Consolidated (domestic)	Cases	0	0	
Percentage of new suppliers that were screened using social criteria		Consolidated*	%	100	100	
Percentage of suppliers who carry out risk assessments related to human rights, etc.	New suppliers	Consolidated*	%	100	100	
	Existing suppliers	Consolidated*	%	100	100	
Percentage of suppliers who undergo monitoring or audits with regard to human rights, etc.		Consolidated*	%	100	100	(Physical and/or document-based implementation included)

\*All Panasonic Energy Group corporations excluding overseas sales companies

# Non-Financial Data

## Governance

	Scope	Unit	FY2022	FY2023
Board Meetings Held(in number)	Non-consolidated	Times	–	18
Board of Directors meeting attendance rate	Non-consolidated	%	–	98.9
Compliance committee meetings held(in number)	Non-consolidated	Times	–	7
ERM committee meetings held(in number)	Non-consolidated	Times	–	2
Nomination and compensation advisory meetings held(in number)	Non-consolidated	Times	–	3
Nomination and Compensation Advisory Committee meeting attendance rate	Non-consolidated	%	–	100
Frequency of reviews conducted by highest governance body with regard to economic, environmental and social matters, their impact, risks and opportunities	Non-consolidated	Times	–	8
Ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees	Non-consolidated	–	–	6.3
Percentage of employees who underwent training on anti-corruption policy of organization and associated procedures	Consolidated*1	%	100	100
Total number of confirmed incidents of corruption	Consolidated*1	Cases	0	0
Total amount of serious fines imposed on organization due to violations of relevant laws and regulations in social and economic fields and number of cases of punitive measures other than fines	Consolidated*1	Yen/Cases	0	0
Number of occurrences of cases involving serious compliance violations	Consolidated*1	Cases	0	0
Number of information security incidents	Consolidated*2	Cases	9	2
Total number of identified leaks, thefts, or losses of customer data	Consolidated*2	Cases	0	0
Total number of substantiated complaints received concerning breaches of customer privacy	Consolidated*2	Cases	0	0

\*1 All Panasonic Energy Group corporations excluding overseas sales companies

\*2 All Panasonic Energy Group corporations excluding overseas sales companies, PANASONIC PERUANA and PANASONIC DO BRASIL

### Panasonic Energy Group (Total: 22 companies; as of March 2023)

Panasonic Energy, Panasonic Energy Kaizuka, Panasonic Energy Higashiura, Panasonic Energy Nandan, Panasonic Energy of North America, Panasonic Energy Corporation of America, Panasonic Energy Mexico, Panasonic Centraamericana, Panasonic Peruana, Panasonic do Brasil, Panasonic Energy (Wuxi), Panasonic Energy (Suzhou), Panasonic Energy (Thailand), Panasonic Gobel Energy Indonesia, Panasonic Energy India, Panasonic Carbon India, Panasonic Industrial Devices Sales Company of America, Panasonic Industry Europe, Panasonic Industry Sales Asia Pacific, Panasonic Industry(China), Panasonic Hong Kong, Panasonic Industrial Devices Sales Taiwan

#### Notation in scope column

##### Consolidated subsidiaries (domestic)

Panasonic Energy Kaizuka, Panasonic Energy Higashiura, Panasonic Energy Nandan

##### Consolidated subsidiaries (overseas)

Panasonic Centraamericana, Panasonic Energy (Wuxi), Panasonic Industry Europe, Panasonic Energy (Suzhou), Panasonic Energy Mexico, Panasonic Energy Corporation of America, Panasonic Industry(China), Panasonic Peruana, Panasonic do Brasil, Panasonic Energy India, Panasonic Energy (Thailand), Panasonic Gobel Energy Indonesia, Panasonic Carbon India, Panasonic Industrial Devices Sales Company of America, Panasonic Energy of North America, Panasonic Industry Sales Asia Pacific, Panasonic Industrial Devices Sales Taiwan, Panasonic Hong Kong

##### Sales companies

Panasonic Industry Europe, Panasonic Industry(China), Panasonic Industrial Devices Sales Company of America, Panasonic Industry Sales Asia Pacific, Panasonic Industrial Devices Sales Taiwan, Panasonic Hong Kong

# Corporate Information

## Group Network



## Corporate Data

Company Name	Panasonic Energy Co., Ltd.
Address	1-1, Matsushita-cho, Moriguchi-shi, Osaka 570-8511, Japan
Founded	April, 2022
President, CEO	Kazuo Tadanobu
Business Details	The development, manufacture and sale of primary batteries (dry batteries, lithium primary batteries), cylindrical-type lithium-ion batteries for in-vehicle use, lithium secondary batteries, storage battery modules, nickel-metal hydride batteries, etc.
FY2023* Business results	Sales: ¥971.8 billion Operating profits: ¥33.2 billion
Number of Employees (as of March 31, 2023)	Approx. 20,000 (Consolidated)

\*"FY2023" refers to the year ended March 31, 2023.

### Manufacturing Sites (Japan)

- ① Head Office Function, R&D, MORIGUCHI Factory
- ② SUMINOE Factory
- ③ WAKAYAMA Factory
- ④ SUMOTO Factory
- ⑤ TOKUSHIMA Factory
- ⑥ NISHIKINOHAMA Factory
- ⑦ Panasonic Energy Kaizuka Co., Ltd.
- ⑧ Panasonic Energy Higashiura Co., Ltd.
- ⑨ Panasonic Energy Nandan Co., Ltd.

### Manufacturing Sites (Overseas)

- North America**
  - ① Panasonic Energy of North America
  - ② Panasonic Energy Corporation of America
  - ③ Panasonic Energy Mexico S.A. de C.V.
- South and Central America**
  - ④ Panasonic Centroamericana S.A.
  - ⑤ Panasonic do Brasil Limitada
- China**
  - ⑥ Panasonic Energy (Wuxi) Co., Ltd.
  - ⑦ Panasonic Energy (Suzhou) Co., Ltd.
- Southeast Asia**
  - ⑧ Panasonic Energy (Thailand) Co., Ltd.
  - ⑨ PT.Panasonic Gobel Energy Indonesia
- India**
  - ⑩ Panasonic Energy India Co., Ltd.
  - ⑪ Panasonic Carbon India Co., Ltd.

### Sales Sites

- Japan**
  - ① Panasonic Industrial Marketing & Sales Japan Co., Ltd.
- North America**
  - ② Panasonic Industrial Devices Sales Company of America
- South and Central America**
  - ③ Panasonic Do Brasil Limitada
- Europe**
  - ④ Panasonic Industry Europe GmbH
- Southeast Asia**
  - ⑤ Panasonic Industry Sales Asia Pacific
  - ⑥ Panasonic Industrial Devices Sales (M) SDN. BHD.
  - ⑦ Panasonic Industrial Devices Sales Thailand Co., Ltd.
- China & Northeast Asia**
  - ⑧ Panasonic Industry (China) Co., Ltd.
  - ⑨ Panasonic Hong Kong Co., Ltd.
  - ⑩ Panasonic Industrial Devices Sales Taiwan Co., Ltd.
  - ⑪ Panasonic Industrial Devices Sales Korea Co., Ltd.
- Southwest Asia**
  - ⑫ Panasonic Life Solutions India Pvt. Ltd.

# GRI Standard Contents Index

Our sustainability reports, including the Panasonic Energy Integrated Report, refer to the GRI (Global Reporting Initiative) Standards.

Item	Where posted	Number of pages posted
<b>General disclosure items</b>		
<b>2 The organization and its reporting practices</b>		
2-1 Organizational details	Corporate Information: Corporate Data <a href="https://www.panasonic.com/global/energy/company.html">https://www.panasonic.com/global/energy/company.html</a>	<u>76</u>
2-2 Entities included in the organization's sustainability reporting	Corporate Information: Group Network	<u>76</u>
2-3 Reporting period, frequency and contact point	Contents: Editorial policy, Period covered by the report	<u>1</u>
2-4 Restatements of information	–	
2-5 External assurance	–	
<b>Activities and workers</b>		
2-6 Activities, value chain and other business relationships	At a Glance Value Creation Process	<u>20</u> <u>14</u>
2-7 Employees	Promoting Human Capital Management	<u>49</u>
2-8 Workers who are not employees	–	
<b>Governance</b>		
2-9 Governance structure and composition	Corporate Governance: Corporate governance structure	<u>61</u>
2-10 Nomination and selection of the highest governance body	Corporate Governance: Corporate governance structure	<u>62</u>
2-11 Chair of the highest governance body	Corporate Governance: Corporate governance structure	<u>61</u>
2-12 Role of the highest governance body in overseeing the management of impacts	Promoting Sustainability(ESG) Management	<u>34</u>
2-13 Delegation of responsibility for managing impacts	Promoting Sustainability(ESG) Management	<u>34</u>
2-14 Role of the highest governance body in sustainability reporting	Promoting Sustainability(ESG) Management	<u>34</u>
2-15 Conflicts of interest	–	
2-16 Communication of critical concerns	–	
2-17 Collective knowledge of the highest governance body	–	
2-18 Evaluation of the performance of the highest governance body	Corporate Governance: Initiatives to improve the effectiveness of the Board of Directors	<u>62</u>
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2-20 Process to determine remuneration	–	
2-21 Annual total compensation ratio	Non-Financial Data: Governance	<u>75</u>

Item	Where posted	Number of pages posted
<b>Strategy, policies and practices</b>		
2-22 Statement on sustainable development strategy	Message from the CEO	<u>9</u>
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