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### **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 2025 (April 1, 2024 to March 31, 2025)

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 2025)

### 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

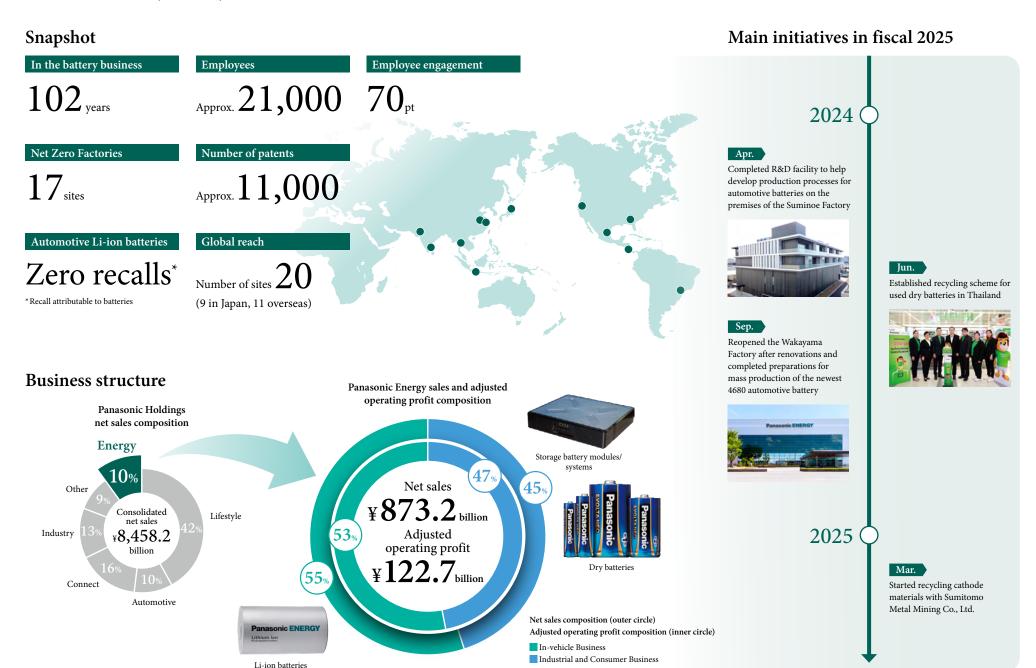
Forward-looking statements in this report, such as forecasts of performance (of Panasonic Energy or the Panasonic Energy Group), growth strategies, and perceptions and evaluations of facts, include future prospects based on the judgments of Panasonic Energy in light of the information currently available 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.

# Our Mission

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



# At a Glance (as of March 2025)





Kazuo Tadanobu

President, CEO

Unwavering Commitment to Realizing Our Mission

# Our reason for existence is to deliver safety and security to people's lives and contribute to improved sustainability in society

Since Panasonic Energy's establishment in 2022, we have worked towards realizing our Mission of "achieving a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict," our Vision of "energy that changes the future," and our strong intention to embrace great challenges, as expressed in our Will of "doing what humankind requires."

We are on a mission to deliver electrical energy to people in a more abundant and sustainable way. Historically, there have been three stages associated with electricity: generation, transmission, and use. But in recent years, "storage" has been added. In order to use generated energy more effectively and sustainably, the storage function is growing increasingly important. We are especially focused on the areas of energy storage and use, creating indispensable value for society. We are not just a company that makes batteries. We provide the world with the batteries we make, and through our products and solutions, we generate energy, including stored energy, to support society and change it for the better. Delivering safety and security to people's lives and contributing to improvements in sustainability for society —that is our reason for existence.

# Enhancing our strengths even further and challenging ourselves to maximize contributions

From 2024 to 2025, the business environment surrounding the Company underwent some considerable changes. That said, our goal has not changed in the slightest; rather, there is now an even stronger need for us to realize the Mission I mentioned above. This is because extreme weather and natural disasters caused by climate change are intensifying, and the impacts of such events are growing more severe year by year, leading to heightened expectations for us to bring about faster and greater changes. Moreover, we have been required to conduct activities on a much broader scope, and the speed at which we must respond has increased.

The strength of the Company, in my view, lies in our business portfolio that contributes to the pursuit of people's happiness and a sustainable environment, as well as in having a workforce that is strongly motivated and committed to realizing our Mission, along with highly specialized personnel who have long been at the forefront of the industry. To accelerate our response to changes in the world, we will be a leading force in the industry and pass it on to the future. It is our mission to further evolve what we have been working on and give back to society. We want to be a company that advances while boldly challenging the difficult problems that lie before us, and we aim to make our ability to do so even stronger. That is precisely why we believe we must uphold our Mission, Vision, and Will.

I recognize that reinforcing this strength and putting the Company on a firm footing is one of the major responsibilities entrusted to me. We possess the technology to meet the demands of society, and in addition, we have the capacity to create new technologies with a pioneering approach. We also have the resources to respond to those demands. We are considering how to respond to these environmental changes by utilizing not only our own resources, but also those of the Panasonic Group, and by closely collaborating with external partners who share the same aspirations and values.

In 2014, we made the decision to invest in the establishment of a solid foundation in North America, the leading EV market. Since then, we have pressed ahead with the largest investment in the history of the Panasonic Group by building and improving our production system and supply chain with the aim of securing a strong position in this market.

We know that EV market growth is currently in an adjustment phase, and while there are some uncertainties in the in-vehicle business, establishing production bases at the earliest opportunity in North America, one of the main battlegrounds for EVs, aligns with the US administration's policies. Going forward, we will further strengthen this system while evolving our technological superiority to ensure that we maintain our dominance in this business. At the same time, we will also continue to further diversify our customers and partners in order to respond more flexibly to changes in business environments.

Our investments in the North American in-vehicle business will gradually transition to a "recovery stage" from fiscal 2026. We will look to recoup our investments efficiently by firmly grasping changes in the market environment and aligning with customer strategies obtained through close collaboration with our customers.



Meanwhile, building the business foundation in the industrial and consumer business before our competitors, based on our development and proposal capabilities honed and refined over many years, has been highly lauded. This owes to the combination of our battery development prowess centered on materials and our system proposal capability that helps solve customer challenges. In particular, in our mainstay business for data centers, the expectations and demands on us to respond to the rapid evolution of generative AI, which is experiencing significant marked growth, are moving faster than we expected, and the business domain itself is also expanding rapidly. We are targeting further business growth by firmly capturing opportunities where we can leverage our strengths.

In the in-vehicle business, some adjustments will be necessary in the near term, but in the industrial and consumer business, we are generating better-than-expected growth. This balanced management and business portfolio is one of our strengths. For some time now, I have operated our business under the policy of "two-pillar management," meaning that we advance both the in-vehicle business and the industrial and consumer business side by side. I believe that this two-pillar management functions organically and serves as a buffer against recent changes in the operating environment. We will continue to keep a close eye on changes in our business structure, optimally allocate resources, and strive to maximize our contributions.

# Overcoming great changes as a team and growing as a team

While our Mission remains the same, the environment that envelops us is changing significantly. Not only those of us in management roles but also each and every employee will need to respond to these changes. On the other hand, it is human nature to fear change, so it is our teams and corporate culture that must encourage and support those who may have a reluctance to change in order to transform their behavior. While the difficulty or scale of the challenges faced by each team varies, teams capable of fighting together with a positive attitude and a culture that boosts motivation must be continuously cultivated at all times, regardless of changes in the business environment. I believe that such cultural reform will generate vitality, give rise to problem-solving capabilities, and function as the strength of the Company when it is faced with major changes. We will create a corporate culture that views the very timing of great changes as an opportunity for growth and encourages the entire Company to work together on it. I believe that by fully leveraging this opportunity, individuals can grow and, in turn, take on even greater challenges in their work.

To overcome these significant changes, I want everyone to approach their work with a sense of mission rather than out of obligation. For that reason, in October 2024, we established the Mission Ownership Taskforce as a department that reports directly to the President, and I myself have taken on the role of director of this division. I certainly hope that each employee strongly identifies with the Company's Mission, Vision, and Will, and proactively embraces challenges and growth with a lot of energy to positively influence those around them. Every individual should truly understand what they need to do, ignite their sense of mission to find solutions, draw upon new wisdom, and turn their actions into the kind of change society is calling for. As a result, the motivation and engagement of every employee will rise even further, and through this chain reaction, the Company will grow. It is this kind of cycle that I want to create.

# Working to reduce our environmental impact across the entire value chain

We have stated in our Mission that we aim to achieve a sustainable environment, and we have publicly declared that we will tackle environmental issues head-on and contribute greatly to reducing environmental impacts. With climate change progressing faster than expected and its negative effects being felt on a daily basis, our intentions remain unchanged, regardless of how the business environment may change up ahead. In fact, our commitment has grown even stronger. Therefore, to further accelerate our efforts, we are committed to improving the trust and corporate evaluation of the Company in the fields of environment and CSR to the extent that we will be seen as an industry leader.

In terms of specific initiatives, for example, we are expanding our number of Net Zero Factories, introducing renewable energy, and establishing resource-recycling schemes to drive decarbonization and resource recycling in our production activities. Regarding the expansion of Net Zero Factories, we have already established a roadmap to achieve this across all sites by fiscal 2029. We are making steady progress at our sites in Japan and overseas according to this plan, and as of July 2025, 17 out of 21 sites had been turned into Net Zero Factories. As to resource-recycling schemes, the possibilities are manyfold. As a concrete example, in fiscal 2025, we started recycling the components of cathode materials for Li-ion batteries in collaboration with a supplier, and we have also established a process to recycle zinc and manganese separated from used dry batteries as trace elements in fertilizer. We plan to engage in these initiatives even more actively in the future. In addition, building a supply chain with a small environmental footprint is a very important element in the execution of our business strategy. By expanding our range of products with low environmental impact, which is what our customers want to see, we will further enhance the added value of our products and gain a competitive advantage. To reduce our burden on the environment across the entire value chain, we will continue to demonstrate leadership and deepen our collaboration with various partners going forward.

# Aiming to realize our Mission without fear of change

Given the further changes anticipated in the business environment and the uncertainty about the future, I believe fiscal 2026 will be a challenging year. Nevertheless, I believe that times of crisis are opportunities for growth, so I look forward to taking on this challenge. My management of the Company is underpinned by the belief that what we have done based on our Mission, what we are about to do, and the goals ahead are all correct.

As I already mentioned, we are not just a company that makes batteries. We will deliver freedom and security to people's lives and make society more sustainable. That is our reason for existence and our promise for the future.

In a turbulent world, we will steadfastly pursue the realization of our Mission without fear of change. Each employee will face change with determination, share their wisdom, and continue to take on challenges. And one year from now, we will look back and proudly say, "We truly outdid ourselves a year ago." Please look forward to it.



The Path to our Mission: Embracing the Challenge

This picture depicts ourselves undeterred by unpredictable trials, building a boat strong enough to handle rough waves and to cross the lake.

# Our DIA the Source of Our Strengths

the Source of

In accordance with the management philosophy of Panasonic's founder, Konosuke Matsushita, we have developed batteries for more than 100 years with the goal of freeing humanity from inconvenience. Going forward, we will continue to put into practice the Basic Management Objective and the Company Creed, which constitute the heart of his management philosophy, and we will continue to undertake the challenge of creating unprecedented value in order to deliver energy to a society that harmonizes enriched lifestyles with the environment.

# Management Philosophy of the Panasonic Group

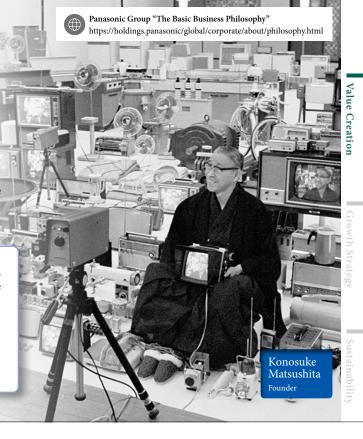
Recognizing our responsibilities as industrialists, we will devote ourselves to the progress and development of society and the well-being of people through our business activities, thereby enhancing the quality of life throughout the world.

The purpose of the Panasonic Group's business and its mission remain unchanged since the proclamation of Meichi, and the Basic Management Objective captures this philosophy concisely. Every day, we continue to strive for progress by providing society with unparalleled products and services to improve the well-being and quality of life of people around the world.



Progress and development can be realized only through the combined efforts and cooperation of each employee of our company. United in spirit, we pledge to perform our corporate duties with dedication, diligence and integrity.

The Company Creed expresses our attitude toward the way the Panasonic Group conduct our work on daily basis. It is essential for everyone to collaborate and work together with sincerity every day. Only when each organization sets its own high goals, its members understand them fully and make them their own, and there is teamwork based on mutual trust, can the goals of the organization and ultimately the development of society be realized.



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

1947

2011

2022

2025

Battery business founded

Konosuke Matsushita found Matsushita Electric Housewares Manufacturing Works

Sanyo Electric Works was established

SANYO

wholly owned subsidiary

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

# 1929

 Management objective and company creed announced

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

• Established Matsushita Battery Industrial Co., Ltd.

• Established Panasonic Corporation Automotive & Industrial Systems Company

SANYO Electric Co., Ltd. became a

• Established Panasonic Corporation Industrial Solutions Company and US Company

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

### 1950

 Established Sanyo Electric Co., Ltd.

• Established Panasonic Corporation Energy Company

### 2014

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

• 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

# History of Freedom

History of Practicing the Management Philosophy

Throughout our history spanning more than 100 years, we have engaged with the challenges faced by society during each era. And through the creation and development of new batteries, this history of freeing humanity from numerous inconveniences has in and of itself served as the practice of our management philosophy, including the Basic Management Objective and the Company Creed.



# Freedom from the darkness

In an era when bicycle lights were dominated by candles and oil lamps, we perfected an innovative bullet-shaped battery-powered lamp by combining an Excel bulb and an Excel battery. This approach extended the life of bicycle lamps from a mere two to three hours, to more than thirty to forty hours, freeing bicycle riders from the darkness.

### 1923

 Invented and released bullet-shaped battery-powered lamp



 Released Excel dry batteries for bullet-shaped battery-powered lamps



# Freedom from use-and-discard

Despite the fact that dry batteries had already become standard throughout the world upon entering the 21st century, these faced environmental challenges because they were, by nature, disposable. In response to this social issue, Sanyo Electric Co., Ltd, as it was then known, bet the entire company on developing eneloop and together with the subsequent rechargeable EVOLTA battery overturned the common assumption that batteries are disposable.

### 1964

• Started production of Cadnica nickel-cadmium Batteries



### 2008

 Released Rechargeable EVOLTA nickel-metal hydride batteries



• Released eneloop nickel-metal hydride batteries



# Freedom from

# environmental impact

The electrification of mobility is playing a critical role in the solutions to climate-change related issues. Ever since delivering the batteries for the world's first mass produced HEVs, we have supplied the electric vehicle market with high-capacity cylindrical Li-ion batteries that ensure long driving ranges, thereby freeing the world from the environmental impacts of human mobility.

# 2008

• Started mass production of automotive Li-ion batteries(1865 size)

### 2024

Completed preparations for mass production of cylindrical automotive Li-ion batteries (4680 size)



# Freedom from short service life

After developing National Hi-Top, last longer than conventional batteries with twice and have a longer shelf life, we went on to develop NEO Hi-Top with 1.5 times the service life of the original design. In response to the strict dimensional restrictions on length, width, and height demanded by international standards, we delivered the longest lasting energy in the world to every corner of the planet.

### 1963

 Released National Hi-Top manganese dry batteries



### 1969

 Released National NEO Hi-Top manganese dry batteries



# Freedom from size, weight, and lack of power

The development of countless different electronics products has led to the needs for smaller, lighter, more powerful energy sources, ultimately leading to the demand for unprecedented performance from batteries. The Li-ion batteries that we developed enabled compact, lightweight laptop computers and smartphones, and have therefore contributed significantly to today's information society.

## 1994

 Developed Li-ion rechargeable batteries



### 2006

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





 Started mass production of automotive Li-ion batteries(2170 size)



# The Seven Pillars of Transformation

Practicing the Management Philosophy Handed Down through to Today

# [ The Seven Pillars of Transformation ]

# **Evolution** is inevitable

# <Pillars of Offense>

# Challenge the impossible

In order to change the future, we must challenge what we think impossible, even without clear pass to success. With this shared vision, we can make impossible reality with team collaboration.

### Find joy to challenge impossible together with friends

That path to evolutional change sometime defies common sense. However, the future awaits us at the end of this journey. No worries. The smiles of our friends will always give us strength. All we have to do is to keep taking on the challenge with resilience

### Push forward until we achieve the unimaginable

Somewhere lies a solution to change the future, but we merely haven't realized it yet. Use all of our senses and try everything. After a series of remarkable mistakes and coincidences, we will be sure to find the "it" that will allow us to solve the problem.

# Ultimate Adaptation

### <Pillars of Defense>

# To maintain the status quo is to abandon the future

Learn from the past, think about the future, understand yourself, know the world, and discern the changes of the times. There is no future if we stand still. Keep imagining the next step at all times.

# Attacking is the best form of defense

Do not rest on our current achievements. We must continuously be on the offensive in order to evolve and meet the demands of the future. Every day, continue to set the next goal and keep pushing forward until we surpass our best.

### Keep your passion burning

No matter what your job is, if you keep pouring your heart into it, you can continue to improve yourself forever. Keep the fire in your hearts alive and pass it on to the next generation.

# Absolute Transformation <Pillar of Mankind>

## For those who come after us

an energy that will change the future for our children and our children's children.

We are not just working for the present. We must transform our company to one with

Our Mission, Vision, and Will illustrate the destination for which we aim, but to reach that destination, we must continue to evolve ourselves. We established the Seven Pillars of Transformation as a new set of guideposts for evolving our everyday activities. These guideposts present the activity guidelines that will help each of our employees modify their behavior in a way that is required to arrive at our destination.

The Seven Pillars of Transformation can also be considered an equation that corresponds to our business in that it represents the fundamental law of evolution, which all life undergoes through repeated mutation and adaptation. Our belief is that we will arrive at our mission by achieving absolute transformation (pillar of mankind) through inevitable evolution (pillars of offense), which ultimately give rise to what had never existed before, and through ultimate adaptations (pillars of defense), which continues to perfect what already exists to the greatest extent possible. By conveying to employees in words that it is okay to take on bold challenges and break through whatever has been holding them back, we aim to encourage each individual to continue to take action beyond their own limitations while still feeling a sense of security.

# Internal measures

# for behavior change

Through measures that encourage behavioral changes aimed at realizing the Mission, Vision, and Will, we are trying to ensure that they take hold throughout the company.

# The Forest Conference



The forest is a world in which living organisms and nature coexist in harmony. Participants in the Forest Conference 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. The Forest Conference is held in a way that brings together a diverse range of talent, focusing on key middle management levels. It has been held a total of 48 times as of the end of fiscal 2025, with 686 employees participating.

# The "real stories" of the Seven Pillars Heroes



Every year, employees who put the Seven Pillars of Transformation into practice are selected as "Seven Pillar Heroes" and announced at an awards ceremony in which all employees participate online.

Since the awards ceremony cannot convey all the achievements of the Heroes and the process leading to their awards, we compile the Heroes' "real stories" into videos and post them on the company intranet to encourage understanding and inspire action among all employees.

# Strengths of Panasonic Energy

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

Even in a future world of intense uncertainty, we will create new markets using our steadfast technological capabilities, and leverage the trust of our partners and our track record to maintain our business and to expand our contributions to society.

Technological capabilities

- Material development and cell design
- Intellectual property

 $11,\!000_{\text{patents}}$ 

Market creation

- Strategic relationships with customers
- Ability to solve customer problems

eneloop

Contribution to the evolution of lifestyles



- Manufacturing that supports high reliability
- Brand

Zero recalls of automotive Li-ion batteries\*
\*Recall attributable to batteries

















# Technological capabilities

Another Level of Know-how Accumulated Over 100 Years

For Panasonic Energy's medium- to long-term technology strategy, see "Intellectual Property Strategy" on page 24.



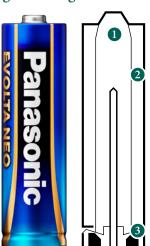
Ever since we launched our battery business in 1923, more than 100 years ago, we have been involved in the development of batteries. And the material development capabilities acquired from the manufacture of dry batteries, the know-how for improving the packing density of materials, and the sealing and can manufacturing technologies that enable longer battery service life are all alive and well in the way we manufacture secondary batteries today.

Moreover, we have focused on cylindrical secondary batteries that leverage the technologies we have accumulated in this field. The breadth of know-how we possess, ranging from primary to secondary batteries, constitutes our technological capabilities – our strengths.

And we will continue to leverage these technological capabilities as we increase the capacity of batteries and realize a greater level of safety in an effort to maintain and continuously expand our battery business.

# Dry Batteries Since 1923

Longest lasting in the world\*1



# Technologies for Creating High-capacity, Highly Reliable Batteries

# 1 Materials Technology

We possess the advanced process control and other peripheral technologies required to fully utilize battery materials. Likewise, we are able to manufacture high-capacity, highly reliable batteries in a way that addresses battery material reactivity, expansion, contraction, and other challenges.

# **2** Electrode Structuring Technology

Increasing battery capacity relies on the technology for packing materials into a limited space. We possess the production technology for packing powders of different geometries in an efficient, uniform manner, thereby allowing us to achieve higher capacities.

In regard to Li-ion batteries with a cylindrical configuration consisting of a wound three-ply cathode-separator-anode structure, we possess winding technologies that create high-precision cylinders, thereby enabling us to manufacture highly reliable batteries.

# 3 Sealing/Can Manufacturing Technology

The seals and cans that come into contact with air-borne moisture and oxygen are a critical part of ensuring the safety and security of batteries. We possess sealing techniques that prevent leaks, and sealing and can manufacturing technologies that restrict gas generation, which allow us to manufacture highly reliable batteries.

# 4 Analysis Technology

Leveraging observation techniques suited to the materials, measuring know-how with a deep understanding of electrochemistry, and other advanced analysis capabilities, we are able to make accurate performance assessments and discover problems, thereby enabling us to manufacture highly reliable batteries.

# Li-ion Batteries Since 1994

Highest capacity in the industry\*2

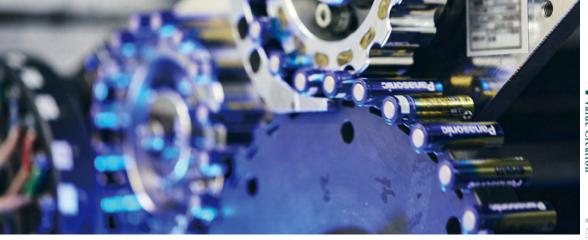




- \*1 EVOLTA NEO: Certified by Guinness World RecordsTM on October 2, 2017, as the longest lasting AA-size alkaline battery (LR6). Recertified on February 28, 2025. Based on the average value under full-discharge mode in accordance with IEC standards. 250 mA; one-hour discharge cut-off voltage per day of 0.9 V, etc. (temperature: 20±2°C, relative humidity: (55+20, 55-40)%).
- \*2 According to research by Panasonic Energy

# Market creation

Pioneering New Battery Applications through Technological Innovation



We have provided solutions to social issues by using our advanced technological capabilities and have created new markets by disrupting existing understandings.

And we have supported the lifestyles of people, by creating markets for cylindrical Li-ion batteries that ensure a high level of safety, by entering the telecommunications infrastructure business with an eye to the coming future, and by creating markets for dry batteries designed to be stored in preparation for disasters. Through our ongoing, tireless efforts to evolve our technologies, we will solve challenges faced by society and create new markets.

# Creating Markets for Cylindrical Li-ion Batteries

At a time when it was uncommon to use the cylindrical format for automotive batteries, we began developing and manufacturing cylindrical Li-ion batteries from the perspective of balancing high energy density and safety.

In-vehicle battery packs are composed of modules in which multiple cells connected in parallel and serial. The cells in cylindrical batteries can be more efficiently cooled, which keeps battery temperatures from rising even during rapid recharging, in turn preventing battery deterioration.

We began mass producing cylindrical automotive Li-ion batteries in 2008, at which time we pioneered new markets for these. In 2017, we commissioned a cylindrical automotive Li-ion batteries plant in Nevada, USA, and worked to expand mass production in an effort to create a larger market for these batteries.



# Entering the Telecommunications Infrastructure Market

In 2014, we entered the storage battery systems market for data centers.

More recently, the demand for data centers has expanded with the growing use of generative AI. We therefore began developing and manufacturing these storage battery systems in anticipation of growing demand for data center backup power supplies.

Given their need to operate consistently even in emergencies, the most important issue for data centers is the reliability of their backup power supplies. We have captured a high share of the market because our exceedingly safe, highly reliable storage battery systems are ideal for data centers.

We have also horizontally deployed the technology accumulated in targeting data centers to residential storage battery systems, thereby contributing to various parts of the social infrastructure.



# Creating Markets for Storage-use Dry Batteries: EVOLTA NEO

Dry batteries deteriorate when stored long-term, regardless of whether they are used or not, so we face challenges in terms of capacity drops and leaks.

Applying the technological capabilities we have built-up over the years, we revolutionized the dry battery materials, production methods, and structures to create EVOLTA NEO. This battery can be stored for ten years, thereby allowing us to establish a market for dry batteries intended to be stored as a means of providing support in the event of disasters or emergencies.

As a dry battery that helps people enjoy safe, secure lifestyles at all times, even in the event of disasters, EVOLTA NEO has the longest-lasting performance in the world, a fact certified by Guinness World RecordsTM, and is designed to prevent leaks using the "battery leakage preventing manufacturing process Ag+".



# Reliability and track record

Reliable market performance and brands



We have supplied a cumulative total of over 19 billion cylindrical automotive Li-ion battery cells to date (as of March 2025).

The most important part of battery manufacturing for us is the extent of product safety and quality, which is why we have made tireless efforts involving quality innovation with a top priority on product safety. In the field of automotive Li-ion batteries, these efforts have manifested in the fact that no recalls have stemmed from our batteries.

# Battery Manufacturing Innovation Based on Manufacturing Technology Advancement

# **Manufacturing Strengths**

Highly productive, high-quality production processes

Product safety management

# Perfected traceability systems

We have committed to transforming our manufacturing technologies as batteries have evolved. Today, our advanced manufacturing processes enable us to manufacture high-quality cells at high speeds, with production reaching 80 automotive Li-ion battery cells every second, or more than 7 million cells every day\*. Specifically, this capability is founded on the in-house manufacturing relying on the technologies we have accumulated to date, the traceability system which detects abnormalities and contaminants, conducts causal analysis of such abnormalities and corrects them, and the advanced production line management which is based on regular condition-based maintenance.

\*As of 2022

### Inspection Assembly Market Materials Electrodes Modules

# Key process: In-house manufacturing



- Proprietary development of production process technologies
- In-house manufacturing of key process equipment

# Traceability & production monitoring



- Sensing and monitoring systems
- Traceability from plant to market

# Production line management



- Process visualization, condition detection and feedback
- Condition-based maintenance



# At the Forefront of the Evolving Energy Transition

# Leading the world in battery performance

For more than 100 years now, we have been leading the evolution of battery technology, always at the fore-front of the industry primarily with our technology for higher energy density for Li-ion batteries. In addition, our cylindrical batteries for electric vehicles (EVs) stand out from the competition for not only their long-range performance on a single charge, but also for their safety. They are rated particularly highly in the North American automotive market, which is characterized by a vast land mass and long travel distances. That said, in order to continue to be favored in the market, it is imperative that we possess not only outstanding performance, but also a highly productive automotive batteries factory at the GWh scale, coupled with a resilient supply chain.

We were the first to enter the North American market, starting production at our Nevada Factory in 2017. We have now established a large-scale production capability with an annual capacity of approximately 41 GWh. We have applied the experience gained from the challenges faced there to our Kansas Factory, which came online in fiscal 2026 and is designed to achieve a 20% improvement in productivity compared to the Nevada Factory in part through the introduction of labor-saving production lines. Also, with the growing complexity of world affairs, securing material sourcing networks has grown more challenging. Amid such circumstances, we are steadily expanding partnerships, including those upstream in the supply chain, while also considering our environmental footprint.

Meanwhile, the rise of generative AI has led to a sharp increase in data centers that require stable operation 24 hours a day, 7 days a week. In this environment, our energy storage systems for data centers are held in high regard by hyperscalers\* for their safety, long lifespan, and high reliability, as well as for achieving high output and space efficiency.

<sup>\*</sup>Cloud service providers with large-scale servers

# Making EVs affordable

Looking back on the three years since I took office as CTO, we have improved the capacity of the 2170-size automotive batteries by using new materials and we have begun supplying next-generation cells that boast a world-class volumetric energy density of over 800 Wh/L. We are advancing the development of materials with the aim of achieving 1,000 Wh/L by 2030, striving to stay ahead of the competition, even at a time when materials development has reached the stage where breakthroughs on multiple fronts are necessary for the next evolution. Moreover, at our Wakayama Factory, we have completed the preparations for the mass production of 4680-size cells, which have approximately five times the capacity of the 2170-size cells, and are making discussions with our customers. As to our production capability in North America, the Kansas Factory has been built and has started its operations. In parallel with this, we have been developing a framework for local procurement and recycling, based on the concepts of local production for local consumption and reducing environmental impact, as part of our ongoing efforts to shape and realize the ideal supply chain for the North American market.

Mass production of the 2170-size cells commenced at the Kansas Factory in fiscal 2026, and we are finally entering the phase of recouping the investments made thus far. The biggest challenge going forward will be costs. With an eye on the full-fledged uptake of EVs after 2030, the primary objective is to make EVs affordable. Improving energy density and capacity not only extends the range of EVs but also reduces the number of battery cells used in each vehicle, directly contributing to lowering the cost of EVs. The real challenge lies in how far we can lower the per-vehicle battery cost while overcoming the difficult technical issue of balancing safety and battery performance. We will not only continue to drive technological evolution, but also promote production efficiency and supply chain transformation.

In the area of production efficiency, we have doubled down on the introduction of automation for factory operations. As depreciation costs of equipment and labor expenses account for 20%–30% of manufacturing costs, we will lighten capital investments and further

enhance labor productivity by optimizing production lines and employing the use of AI. And as part of our efforts to transform the supply chain, we have initiated various initiatives, such as the joint development of nickel processing technology with Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO). This is because significant cost reductions and lower CO<sub>2</sub> emissions are expected to be achieved through the development and simplification of upstream processes specialized in battery materials.

# Reducing our carbon footprint and realizing a circular economy

We aim to halve the carbon footprint (CFP) of our automotive Li-ion batteries produced in North America by fiscal 2031 compared to fiscal 2022. In particular, over 80% of CO<sub>2</sub> emissions come from upstream activities such as mining, raw material processing, and distribution. In terms of the key issues, we are focusing on local procurement, the use of recycled materials, and reductions in the use of rare metals.

In addition, as part of our efforts to expand the use of recycled materials in cathode materials for automotive Li-ion batteries, we are partnering with Redwood Materials Inc. in the US to establish a scheme for recycling cathode materials from process waste and used batteries. We have begun operating a battery-to-battery closed-loop recycling system in collaboration with Sumitomo Metal Mining Co., Ltd. in Japan and suppliers in China, extracting nickel, a type of rare metal, from battery waste generated in factories for reuse in cathode materials. We are also planning similar initiatives for lithium and cobalt. Up ahead, the key will be to increase the number of partners to ensure a stable supply of battery scrap and to scale up the scheme to a point where we can generate cost advantages.

In addition to these initiatives, we are stepping up efforts geared towards a circular economy for primary batteries. We have begun utilizing recycled zinc materials in our EVOLTA NEO dry batteries. Furthermore, as a new initiative for utilizing recycled materials, we have established a recycling process in collaboration with TOMATEC CO., LTD. in Japan to use mixed powders containing components such as zinc and manganese separated from used dry batteries as trace



elements in fertilizer. In this way, we are at the forefront of efforts to reduce environmental impacts related to the battery business in both Japan and the US.

# Promoting better solutions for energy storage systems for data centers

In the industrial and consumer fields, we have elevated our offerings from cells to battery packs, modules, and systems architecture in an effort to enhance the added value of energy storage system solutions. As a result, we have been able to incorporate the needs of AI data centers and grow our energy storage systems for data centers into a business pillar. Data centers process vast amounts of data in real time, and even a momentary power disruption can lead to hardware failures or data loss. This is where backup power is essential. Our distributed power systems can provide stable power supply, especially during momentary outages or fluctuations in electricity. Plus, our systems are more compact than centralized power systems and can be distributed at the server rack level, making them a perfect match for the current proliferation of high-performance GPU servers used for AI processing.

Data center demand is expected to expand at an accelerated pace in the future, and we have our sights set on capturing a dominant market share of the energy storage system for backup power applications. As AI data centers experience significant fluctuations in electricity usage between peak computing times and non-peak times, relying entirely on external power sources would require substantial investments in power infrastructure. For this reason, by leveling out power peaks with our power control technology, we can contribute to significantly reducing infrastructure investments, so in this regard as well, our solutions play a crucial role.

Leveraging our expertise in battery materials, we have a significant advantage by being involved with hyperscalers from the design stage. In the future, fluctuations in power consumption are expected to become even larger, and the solutions demanded by users will become more sophisticated. Accordingly, we will proactively anticipate the needs of our customers and take up the challenge of new innovations. Unlike the automotive battery market, where scale and cost are the main focus, the backup power market has specialized applications. Therefore, we will focus on developing technologies that enhance the value of solutions that solve our customers' challenges.

# Focusing on DX and IP strategies as well

We will also accelerate digital transformation (DX) to improve production efficiency in the automotive battery business. Particularly in North America, where there is a high employee turnover, it can be difficult to implement Japanese-style plant operations that rely on the accumulation of experience by long-serving employees. That is why we have aggressively promoted automation and DX at our Nevada Factory. Furthermore, we have implemented a system that incorporates past knowledge into AI so that it can optimally allocate personnel and provide instructions for handling issues. For R&D, we are drastically improving experimental efficiency through materials informatics, enabling us to quickly narrow down material candidates and speed up development.

As for intellectual property (IP), we have teamed up with LG Energy Solution Ltd. (LGES) in the Republic of Korea to launch an industry-first joint licensing program that will bolster our efforts to protect and monetize our IP. In the batteries domain, we are focusing on patent applications across a wide range of areas, and in terms of the Group's research and development of all-solid-state batteries, we are proudly ranked number one\* in the world for the number of international patents published by the Japan Patent Office.

\*According to the Japan Patent Office's 2023 survey results on technology trends in patent applications by field (proportion of international patents for 2013–2021) (https://www.jpo.go.jp/resources/report/gidou-houkoku/tokkyo/2023theme.html) (Available only in Japanese)

# Developing personnel capable of overseeing processes is key

Over the past three years, we have hired around 1,000 technical personnel in Japan. In preparation for such large-scale hiring, we established the Academy of Battery Technology & Manufacturing in April 2023 and have been developing and promoting the programs to train personnel who can contribute immediately. As the scale of our production increases, so does the specialization of each process, which in



turn leads to a division of responsibilities. Therefore, we aim to develop personnel who, after gaining general experience through rotation across different roles, can solve problems effectively with a broad perspective on the entire operations. Externally, we are pressing ahead with an industry-academia collaboration at the newly built research building on the campus of Osaka Metropolitan University. We have been providing the know-how cultivated at the academy to convey the appeal of working in the battery industry to engineering students.

Overseas, we are planning to hire thousands of employees to support the operations of the Kansas Factory, and, the recruitment process is going smoothly due to the relatively large population living in the surrounding area. On the other hand, since the area is not a hub for high-tech companies, we believe we need to strengthen our commitment to securing local battery talent over the medium to long term. To that end, as a joint effort between industry and academia, we are partnering with the local University of Kansas to promote technological development and the training of specialized personnel in automotive batteries.

# Always challenging ourselves to stay one step ahead

As electrification is on the rise toward the realization of a decarbonized society, the presence of storage batteries is growing increasingly important day by day. Back when development first began, there was little certainty about the future market expansion both for automotive batteries, which are now entering the investment recovery phase, and for energy storage systems for data centers, where demand is rapidly growing. Even so, we persisted with development efforts for over a decade, believing that a time would come when these solutions would be needed in society. The accumulation of those efforts is what supports our growth today. We will continue to look ahead to the future of the energy transition and remain at the forefront of a constantly changing society.

# **Value Creation Process**

### External environment Tighter environmental Climate change Resource depletion Child labour/ Health care crisis forced labour Technological innovation Growing ESG awareness

P.19

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.

> Our Vision Energy that changes Our Will the future

> > Outputs

P.20

Doing what humankind requires

<u>P.26</u>

environment are harmonized free of conflict

Achieving a society in which the pursuit of happiness and

B

sustainable

# Our Mission

regulations

Poverty

### [Human capital]

Inputs

Strengthening of human resources



### [Natural capital]

Strengthening responses to resource and environmental



# [Social and relationship capital]

Sustainable and resilient supply chain



### [Intellectual capital]

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



### [Manufactured capital]

Improvement of productivity, pursuit of quality and product



### [Financial capital]

Generation of operating cash flow and expansion of investment for growth



**Business** activities

Human resource as a core competence Robust corporate governance



# **Mobility Energy** Reduce CO<sub>2</sub> emissions by supporting electrification of mobility **Energy Solutions**

Contributing to a safe and secure social infrastructure that does not stop even in emergencies



# **Energy Device**

Providing convenient and comfortable living with eco-friendly batteries



Providing energy for the pursuit of happiness

[Related materiality]



Society Realization of a lower environmental impact society

Value proposition [2]







Realizing a circular society

Further capital reinforcement for sustainable corporate value enhancement

# 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.

All figures in the table are results for fiscal 2025.



Overseas personnel 71.1% (  $\Rightarrow$  )

# **Enhancing human resources**

To expand our business in Japan and overseas, we aim to increase the number of employees, focusing on technical and manufacturing human resources. In addition, we will enhance our business competitiveness by fostering an organizational culture in which each and every employee can thrive and building a system and environment that encourages them to take on challenges. We also focus on improving the wellbeing of our employees by promoting health and safety activities and "Health and Productivity Management."



39.5 billion (1) R&D expenditures .....

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

In addition to improving battery performance such as higher capacity, we will focus on minimizing the use of rare metals by transitioning to cobalt-free and less-nickel batteries, thereby contributing to a reduction in environmental impact. Meanwhile, to meet customer needs, we will steadily strengthen our product capabilities along the two axes of progress: higher capacity and higher power output.



# Natural capital

# Strengthening responses to resource and environmental issues

We will reduce our CO2 emissions and contribute to the reduction of CO2 emissions in society as we move towards decarbonization. We are also stepping up our efforts to maximize the positive impact and minimize the negative impact on both achieving decarbonization and the realization of a circular society to use limited resources efficiently and reduce our environmental footprint.

- \*1 Factories that have achieved virtually zero CO2 emissions by promoting energy conservation, introducing renewable energy, and using carbon credits.
- \*2 The amount of CO2 emissions reduced by customers and society through the use of our products compared to the baseline level without our products.



# Social and relationship capital

Rate of implementation of self-assessments related to human rights and labour .....

Rate of implementation of risk assessments related to the environment and human rights for existing suppliers.....

# Sustainable and resilient supply chain

We will work with various stakeholders to fulfill our social responsibilities with regard to human rights, labour, health, and safety while also establishing a robust supply chain by promoting recycling of battery materials and diversifying and local procurement of raw materials.



# Manufactured capital

 $\underline{\qquad \qquad } 20 \text{ sites (} \Rightarrow \text{)}$ 

Number of serious product accidents.....

Capital investment....... $\$\,501.1\,$  billion (  $^{ullet}$ 

# Improvement of productivity, pursuit of quality and product safety

While working to improve productivity at each site through human resource development and the promotion of automation, we are promoting quality innovation with product safety as the top priority. In addition, we will make efficient capital investments to expand production capacity by starting operations at the Kansas Factory and the Wakayama Factory and by increasing domestic production for new customers in Japan.



# Financial capital

Operating cash flow......¥213.0 billion ( ↑ )

Generation of operating cash flow and

# expansion of investment for growth

The in-vehicle business will accelerate the establishment of revenue bases in both Japan and the U.S., while the industrial and consumer business will strengthen its solutions for the data center business. In this way, we will increase our ability to generate future operating cash flows and transform into a highly profitable business entity.

# 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.

## **In-vehicle Business**

Contributing to reduce CO<sub>2</sub> emissions by supporting electrification of mobility

Mobility Energy Business Division

## **Industrial and Consumer Business**

Contributing to a safe and secure social infrastructure that does not stop even in emergencies

**Energy Solutions Business Division** 

Providing convenient and comfortable living with eco-friendly batteries

**Energy Device Business Division** 

# 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.



# 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.



# Bicvcles

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



### 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.



# 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.





In-vehicle Business + Industrial and Consumer Business



# Panasonic Energy's Value Proposition (outcome)

Panasonic Energy achieves sustainable value creation by providing a variety of value to stakeholders and collaborating with them.

# Realization of a lower environmental impact society

By promoting the electrification of mobility, including EVs, we will make a significant contribution to the decarbonization of society. We also aim to realize a circular society that reduces consumption of natural resources by expanding recycling and reducing waste.

# Achieving decarbonization

- Increasing avoided CO<sub>2</sub> emissions
- Reduction of CO<sub>2</sub> emissions during battery production

Value proposition

### Realizing a circular society

- Reduced consumption of natural resources
- Waste reduction

### Providing energy for the pursuit of happiness

- Contributing to safe and secure lifestyles
- Contributing to learning among children

# **Major Initiatives**

- Reduction of CO<sub>2</sub> emissions at our own factories
   Use of in-house and external renewable energy
- Reduction of CO<sub>2</sub> emissions through technological innovation
- Promotion to utilize recycled materials
- Research and development to promote recycling/reuse
- Promotion of social contribution activities



# Supply of safe and reliable battery products

By supplying safe and reliable battery products to our customers, we contribute to the popularization of EVs and support social infrastructure (such as IoT, data centers, medical care, and gas and water meters), thereby helping to make our daily lives more convenient and comfortable.

### In-vehicle area

- Safety with zero recalls attributable to our batteries
- Increased cruising range due to higher capacity
- Widespread use of EVs due to lower costs

### Industrial and consumer areas

- High safety and reliability
- High-capacity and long life
- Improved living convenience through miniaturization and wireless operation
- Provision of power supply in the event of a disaster

- Material development
- Improvement of volumetric energy density
- Product safety management
- Improvement of production capacity
- Up one layer and new market development
- Stable supply of products



# Growing together by solving social issues

With our collaboration partners, we work together to maintain and improve the quality of purchased products, realize competitive prices, and respond to market changes based on mutual trust and cooperation. We also grow together while studying to solve social issues.

- Resolution of social issues through collaboration
- Partnership that continues to grow together
- Maintenance and improvement of product quality
- Realization of competitive prices
- Response to market changes

- Local procurement of materials
- Promotion of procurement of materials with low environ mental impact
- Compliance with CSR Guidelines
- CSR risk reduction through voluntary assessment
- CSR education and training
- Support for suppliers

- Human rights due diligence
- Responsible minerals procurement
- Promotion of joint research through industry-academia collaboration
- Promotion of projects in cooperation with national governments



# Improving employee well-being

We strive to enhance the wellbeing of our employees by creating a work environment in which each and every employee, with their diverse values, can work with high engagement and vitality in a safe, secure, and healthy environment.

- Resonance with Mission, Vision, and Will (MVW)
- Personnel system to accelerate challenge and growth
- Various personalized training programs
- Securement of diverse and talented human resources
- Respect for each individual's personality, experience, and values
- Creation of safe and secure workplaces
- Employee health promotion

- Transitioning to job-based human resource management
- Formulation and encouragement of the Seven Paths to Transformation
- Implementation of Forest Conference, an approach to promoting Mission, Vision, and Will (MVW)
- Raise the wage level

- Conduction of internal forums
- Measurements to increase job satisfaction and workplace flexibility
- Enhancement of leave systems
- Thoroughly strengthen measures to prevent industrial accidents
- Acquisition of certification in the White 500 (goal)

# 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.

### List social issues

We listed 71 social issues that are candidates for materiality.

## 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.

# Evaluate their importance from a stakeholder perspective

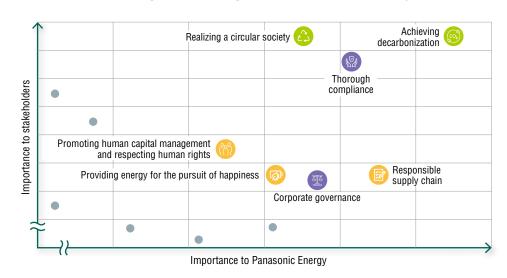
For each item on the list of social issues, we evaluated its importance from the perspective of all stakeholders, based on the opinions we have obtained through dialogue with stakeholders to date and the interest of investors and certifying organizations.

# 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

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



# Promoting human capital management and respecting human rights



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



### Corporate governance

Strengthening the functions of the Board of Directors and management team



· Ensuring transparency



# Achieving decarbonization

- Reduction of greenhouse gas (GHG) emissions
- · Contribution to reducing CO2 emissions in
- · Effective use of renewable energy
- · Local procurement



# Providing energy for the pursuit of happiness



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



### Responsible supply chain

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



### · Supply chain management



### Thorough compliance

- · Pursuit of quality and product safety
- · Compliance with laws and regulations



### · Ensuring information security

# Materiality & KPIs at a Glance

Materiality	KPI	FY2023	FY2024	FY2025	FY2031
	Environmental Contribution Index	4.5	4.0	4.9	10*10
	Avoided CO₂ emissions*1 (10,000 t-CO₂)	1,316	1,271	1,632	4,500*10
Achieving decarbonization	Net Zero Factories*2	10 sites	14 sites	17 sites	All sites (FY2029)
	Electricity renewable energy ratio*3	23%	33%	46%	100% (FY2029)
	Carbon footprint*4	100% (FY2022)	100%	<b>-22%</b> (vs. FY2022)	-50% (vs. FY2022)
Realizing a circular society			Compliance with local regulations in each country		
	Sales of stationary storage batteries that support clean energy*5	1.3	1.9	3.6	4.0
Providing energy for the	Sales of healthcare storage batteries that support everyday life*5	1.3	0.7	1.0	2.4
pursuit of happiness	Sales of dry batteries that provide support in emergencies*5*6	1.1	1.2	1.2	2.2
	Sales of batteries that protect the security of mobility*5*7	1.0	1.1	1.5	8.2
	EOS Score: Employee engagement (global)	70pt	70pt	70pt	85pt*11
	EOS Score: Employee enablement (global)	63pt	62pt	65pt	80pt*11
	Percentage of women in managerial positions (non-consolidated)	5.8%	6.5%	7.3%	15%
Promoting human capital	Rate of childcare leave taken among men and women (consolidated, Japan)	Women 100% Men 56.2%	Women 100% Men 58%	Women 100% Men 86%	Men/Women 100%
management and respecting human rights	Health management index(non-consolidated)	52.5pt	55.7pt	56.9pt	White 500
roopooling naman ngmo	Number of fatalities due to industrial accidents (global)	0 incidents	0 incidents	1 incidents	0 incidents
	Number of industrial accidents (lost time incidents in Japan, consolidated)	4 incidents	5 incidents	3 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%	100%	100%
	Written CSR consent acquisition rate from tier 1 suppliers	46%	62%	100%	100%
	Ratio of tier 1 suppliers with an A-rank CSR self-assessment	77%	81%	87%	100%
Responsible supply chain	Ratio of assurance provided by conducting CSR audits of tier 1 suppliers	_	10%	34%	100%
cnain	CMRT/EMRT collection rate	98%	99%	100%	100%
	Utilization ratio of conformant/active smelters	82%	82%	90.8%	100%
	Number of serious product incidents*8	0	0	0	0
Thorough compliance	Number of serious legal and compliance violations*9	0	0	0	0
	Number of information security incidents*9	2	2	6	0

<sup>\*1</sup> The amount of CO2 emissions reductions achieved for our customers and society as a result of the introduction of our products, compared to the baseline level where no products were introduced.

 $<sup>^*2</sup>$  Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.

<sup>\*3</sup> Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items).

<sup>\*4</sup> CO2 emissions per unit capacity of lithium-ion batteries for automotive use produced at the North American factory.

<sup>\*5</sup> Sales volume with fiscal 2022 set as 1

<sup>\*6</sup> Sales in the three key regions

<sup>\*7</sup> Automotive batteries excluding those for drive applications

<sup>\*8</sup> Number of product incidents leading to safety-related recalls

<sup>\*9</sup> The criteria are based on internal rules and regulations, etc.

 $<sup>^{\</sup>star}10$  Target values revised based on market conditions in-vehicle business and other factors

<sup>\*11</sup> Target values revised to include sites outside of Japan

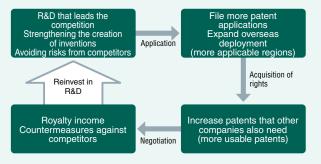
# Intellectual Property Strategy That Enhances Corporate Value

Focusing on creating a virtuous cycle by further strengthening and utilizing our intellectual property rights.

# Strategy and policy

The purpose of Panasonic Energy's intellectual property (IP) strategy is not only to protect R&D results in the form of IP, but also to establish and maintain a virtuous cycle in which profits gained from utilizing IP are reinvested into R&D. Currently, our IP balance sheet, defined as the profits generated by our IP minus the expenses necessary to acquire the IP, is in the black, which means that IP income covers a portion of our R&D expenditures. To further expand this virtuous cycle, we are working on both strengthening IP rights and utilizing IP rights, with a dual focus on application endpoint and geographic region. In terms of strengthening IP rights, we are actively utilizing the PCT international application system to promote our ownership of IP rights in regions where late-started manufacturers are aggressively entering the market. We are also focusing on rights ownership in regions where our business partners are located to ensure smooth business operations with them.

# Establishing and maintaining a virtuous cycle for IP



# **Strengthening IP rights**

# Strengthening applications and discovering promising patents

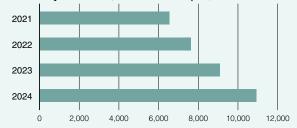
Panasonic Energy files patent applications that cover a wide range of areas, from existing batteries to all-solid-state batteries and next-generation secondary batteries. For these batteries, our patent applications are mainly in the areas of materials and chemistry related to cathodes and anodes that yield high energy density, as well as safety-enhancing

mechanisms and shapes for battery cells and packs. We are also expanding our business globally, mainly in the U.S., and the percentage of our patent applications first filed in Japan that we subsequently file overseas has reached 90%.

In addition to the U.S. and China, we are strengthening our overseas applications in Europe where we expect to acquire new royalties, and in India where we anticipate future growth. As a result, the overseas expansion coefficient per domestic patent application has expanded from 3.4 countries in fiscal 2022 to 4.4 countries in 2025\*.

Furthermore, the total number of applications worldwide (including PCT national phase applications) in fiscal 2025 almost doubled compared to fiscal 2022, and as of the end of fiscal 2025, our total number of patents held worldwide (including applications) increased by 1.7 times compared to the end of fiscal 2022.

### ■ Number of patents held (end of each fiscal year)



In recent years, we have also increased patents related to production technology and equipment. Until now, these patent applications have not been actively filed, and instead have been managed as confidential information within the company. However, while continuing to keep confidential know-how secret, starting from fiscal 2025, we have shifted to a policy of filing patent applications for inventions that have unique equipment features and for production technologies that are of general use to other companies. As a result, in fiscal 2025, patent applications for production technology increased by 75% compared to fiscal 2024.

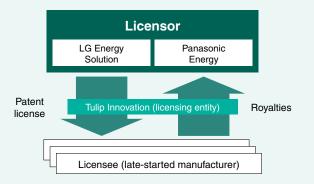
Furthermore, in order to expand royalty income, it is also important to identify key patents that other companies are infringing upon. Not only does the Intellectual Property Department become involved in development benchmarks, but it also identifies the analysis items necessary to prove patent infringement and works to discover infringements by other companies.

# Utilization of IP rights

# Joint licensing program

Over the years, we have made significant R&D investments that have contributed to the advancement of battery technology. By protecting this technology from unauthorized use and ensuring that our development investments are properly rewarded, we create a fairer competitive environment for everyone. That is why we launched the industry's first joint licensing program with LG Energy Solution (LGES), a company that shares this view.

Under this scheme, operated by the patent licensing solutions company Tulip Innovation, we are building a system that allows access to a wide range of patented technologies under a single license by aggregating patents related to Li-ion battery technology from Panasonic Energy and LGES. This allows us to efficiently obtain appropriate royalties from late-started manufacturers, enabling us to reinvest royalty income into the development of differentiated technologies and strengthen the virtuous cycle created by our IP activities.



### Risk assessment

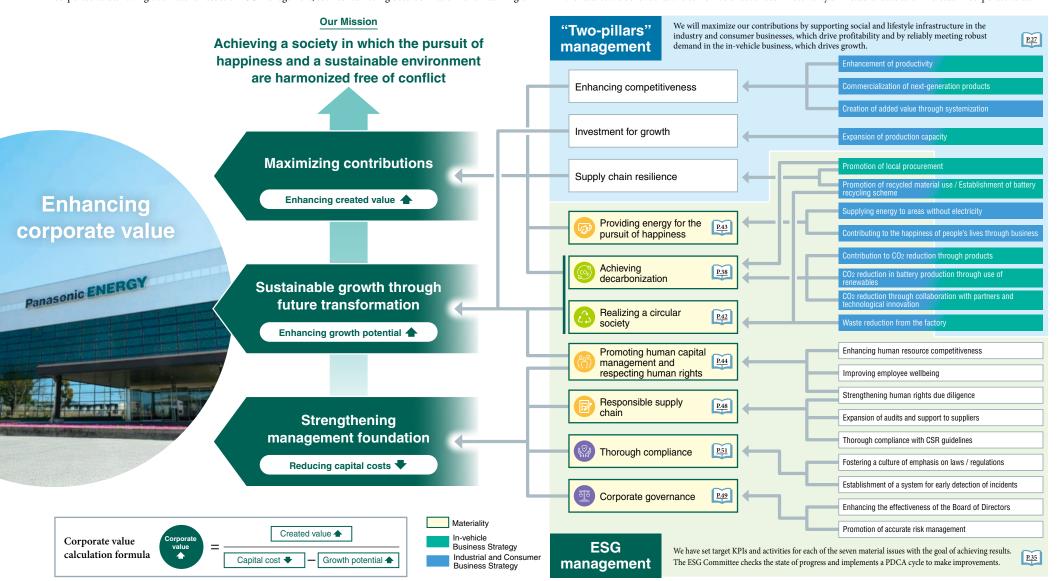
We also actively conduct risk assessments to defend our business against patents from other companies. Not only in the area of technologies developed in-house, but we also scrutinize the patent risks of parts and materials procured from suppliers in collaboration with the Procurement Department, thereby contributing to the strengthening of the supply chain.

<sup>\*</sup> Europe is counted as one country

# **Process for Enhancing Corporate Value**

We have broken down the factors that contribute to increasing corporate value into three categories: created value, growth potential, and cost of capital. Note that we also promote both financial and non-financial initiatives from each of these perspectives. We are promoting initiatives to ensure that all measures based on "two-pillars" management will enhance financial performance and ESG management to support non-financial performance, which will lead to enhance corporate value. Taking two material issues of ESG management, such as "achieving decarbonization" and "realizing a

circular society," certain measures such as reducing CO<sub>2</sub> emissions in battery production, contributing to CO<sub>2</sub> reduction through products, and establishing a recycling model for batteries will contribute to "enhancing created value" as a solution to the climate change and resource depletion faced by society as a whole. At the same time, the technological capabilities and partner relationships fostered in this process can be seen as drivers of "enhancing growth potential" in the future. We believe that the combined effect of each materiality or measure leads to an increase in corporate value.



# **Business Situation**

## Latest business status

(Performance in fiscal 2025 and forecast for fiscal 2026)

# Business performance in fiscal 2025

Net sales decreased 5% year-on-year to 873.2 billion yen. In the in-vehicle business, amid slower growth in the electric vehicle (EV) market, strong demand for battery cells produced in North America and the start of the operation of newly added manufacturing equipment at the Nevada Factory led to higher sales volumes. However, overall of the in-vehicle business decreased 20% year-on-year to 481.2 billion yen due to the significant impact of decreased demand for automotive batteries produced at the factories in Japan and price revisions reflecting decreased material costs. The industrial and consumer business saw a significant increase in sales of storage battery systems for data centers driven by the growth of the generative AI market. Overall of the industrial and consumer business increased 28% year-on-year to 392.2 billion yen due to growth in dry batteries and micro batteries, especially in our key regions.

Adjusted operating profit, which indicates the strength of our core business, was 122.7 billion yen. The in-vehicle business saw a decrease of operating profit due to increased upfront costs for ramp-up operations at the Kansas Factory in North America and at the Wakayama Factory in Japan, despite increased sales volume of automotive batteries, mainly by productivity improvement at the Nevada Factory, and recording of Inflation Reduction Act (IRA) tax credits for production costs of electrode active materials including such costs in the past. On the other hand, the industrial and consumer business saw overall year-on-year increase in operating profit of 28.1 billion yen due to increased sales of storage battery systems for data centers, decreased material prices, and material rationalization.

As a result, with regard to our medium-term management indicators (KGIs), the cumulative operating cash flow for fiscal 2023 to fiscal 2025(fiscal year ending March 2025) was 422.9 billion yen, achieving the target, while ROIC for fiscal 2025 fell slightly short of the target at 11.9%. The operating cash flow includes the impact of monetization of the U.S. IRA tax credit through third-party credit transfer, but the target was achieved even excluding this impact.

Initiatives for business growth are also making steady progress. In the in-vehicle business, the Kansas Factory will begin operations in fiscal 2026 and will gradually increase its production capacity.

We have completed preparations for mass production of 4680 size-cells\*1 at the Wakayama Factory and are currently coordinating shipping dates with our customers. At the Suminoe and Kaizuka factories, we are advancing our collaborations with Subaru and Mazda, and preparations are underway with the aim of starting supply in fiscal 2028. In addition, together with Subaru, we have started full-scale preparations for the construction of a new factory in Oizumi Town, Gunma Prefecture, to make automotive lithium-ion (Li-ion) batteries.

In the industrial and consumer business, to meet the rapidly growing demand for data centers, we are continuously strengthening our supply systems in Japan and North America. Furthermore, by enhancing our solutions, we aim to expand the areas in which we can make contributions and further improve added value.

Meanwhile, since geopolitical risks are increasing year by year, we are promoting the establishment of a flexible supply chain by diversifying the sources of raw materials and strengthening collaboration with suppliers.

### Business forecast for fiscal 2026

Net sales are expected to increase by 19% year-on-year, reaching 1,039 billion yen. In addition to the strong demand for data centers, in the in-vehicle business, we expect sales to increase due to increased production at our Nevada Factory and the start of operations at our Kansas Factory and Wakayama Factory.

Adjusted operating profit is expected to increase by 45.3 billion yen year-on-year to 168 billion yen. We expect the benefits of increased sales and rationalization measures to offset upfront expenses such as investment in development, leading to increased profits. It should be noted that the impacts of tariffs have not been factored in.

### ■ Business performance in fiscal 2025

	Fiscal 2025 results	
	(billions of yen)	YoY /difference
Net sales	873.2	95%
In-vehicle Business	481.2	80%
Industrial and Consumer Business	392.2	128%
Adjusted operating profit	122.7	+28.1
In-vehicle Business	65.1	-3.0
Industrial and Consumer Business	56.8	+30.7
EBITDA*2	189.9	+29.5
(EBITDA margin)	21.7%	+4.2%

# ■ Medium-term Management Indicators (KGI)

	F: 1000F !:	
	Fiscal 2025 results (billions of yen)	Difference from target
Cumulative Operating CF (fiscal 2023 - 2024)	422.9	+92.9
ROIC	11.9%	-0.1%

### ■ Forecast for fiscal 2026

	Fiscal 2026 forecast		
	(billions of yen)	YoY /difference	
Net sales	1,039.0	119%	
In-vehicle Business	554.0	115%	
Industrial and Consumer Business	484.0	123%	
Adjusted operating profit	168.0	+45.3	
In-vehicle Business	98.0	+32.9	
Industrial and Consumer Business	70.0	+13.2	
EBITDA*2	251.0	+61.1	
(EBITDA margin)	24.2%	+2.5%	

<sup>\*2</sup> Additional adjustment for the amount equivalent to depreciation of the underlying asset which the lessor's lease accounting treatment is applied

<sup>\*1</sup> Cylindrical battery sizes: The first two digits indicate diameter (mm) and the second two digits indicate height (mm).

# **Business Situation**

# Medium- to long-term strategy

To realize sustainable growth, we are implementing two-pillar management seeking "sales growth" in the in-vehicle business and "profitability" in the industrial and consumer business. We are also further increasing our contribution to society through ESG management that emphasizes environmental contributions and human capital as the cornerstone of our strategy.

In the in-vehicle business, we revised our strategy in fiscal 2025 in response to changes in the business environment and are accelerating the establishment of its revenue base with a dual-region focus on Japan and North America. We aim to achieve early stable operation of the Kansas Factory, turning it into a new revenue base following in the footsteps of the Nevada Factory, while also progressing with the

# [Strategic framework]

"Two-pillars" management

# In-vehicle

# Drive sales growth

 Accelerate the establishment of a revenue base with a dual-region focus on Japan and North America

# Industrial and Consumer

# Drive profitability

- Solidify our No.1 position\*1 in the data center business
- Optimize business portfolio

# Business foundation

Minimize geopolitical risks

• Strengthen supply chains

# ESG management

• Elevate our corporate activities so that they become sources of competitiveness (environmental contribution / strengthening response to relevant laws and regulations and customer requests)

transformation of our factories in Japan into production bases primarily for Japanese OEM customers.

In the industrial and consumer business, we aim to solidify our No.1 position\*1 in storage battery systems for data centers. We are even considering a temporary shift in resources from the in-vehicle business into the data center market, which is experiencing rapid growth driven by generative AI, with the goal of balancing business growth and profitability. Furthermore, aiming to build new business pillars to follow in the footsteps of the data center business, we will continue to optimize our business portfolio by taking on the challenge of creating new growth areas in parallel with the reduction of unprofitable businesses.

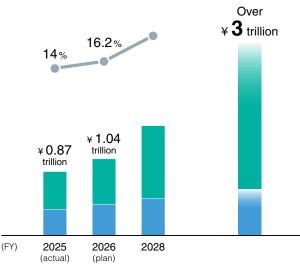
Furthermore, in terms of our business foundation, we are continuing to work on strengthening our supply chain to minimize geopolitical risks. We are also using IRA subsidies to build a stable and flexible supply chain.

\*1 According to our research

As our social responsibility grows with the expansion of our business scale, we regard ESG management as an important element of our business strategy. In particular, in terms of contribution to the environment, we are actively promoting efforts to halve our carbon footprint\*2 (CFP) and reduce our environmental impact through resource recycling, with a focus on measures to achieve decarbonization and to realize a circular societ y as our priority themes. We are also developing an internal system that can comply with international standards and strengthening cooperation with suppliers to ensure we can respond quickly to increasingly sophisticated laws and regulations and customer requests.

\*2 Carbon footprint: A figure that expresses the amount of greenhouse gas emissions in terms of CO2 throughout the entire life cycle, from raw material procurement to disposal and recycling

# [Management goals]

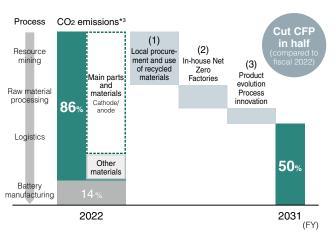


Net sales ■ In-vehicle ■ Industrial and Consumer 

Adjusted operating profit margin

# [CFP reduction targets]

# Steady progress towards halving CFP



\*3 Based on our own calculations (CO2 emissions per unit capacity of automotive Li-ion batterie s produced at the North American factories)

Measures	(1)	(2)	(3)
Progress	Graphite procurement	Targets to be	Recycled nickel
	(NMG and others)  Cathode procurement	achieved in	utilization     Nickel-free
	(Redwood Materials Inc.)	fiscal 2029	development



# Enhancing corporate value with a balance of offense and defense

As CFO, I am always mindful of employing both offensive and defensive actions. Offense is about boosting earnings and our ability to generate cash, as well as the building of a robust business structure with which we can realize our management strategy. Defense, on the other hand, is about establishing an appropriate governance structure and an internal control framework to prevent malpractice and mistakes. We are now in our fourth year as an operating company under the umbrella of Panasonic Holdings (PHD), and I believe we are making steady progress on both offensive and defensive fronts.

From the perspective of Group financial discipline, our financing is conducted through Panasonic Holdings, but the fact remains that these funds have been entrusted to us by society. My role is to effectively utilize the funds in our business and enhance corporate value with both offensive and defensive approaches to achieve our Mission.

# Aiming to be self-sufficient

Our fundamental approach is to utilize the funds we generate while being conscious of our capital costs target\*1 (where ROIC\*2 is greater than WACC\*3), thereby further strengthening our business. By maintaining this cycle, we aim to build a structure that can support sustainable business growth and value creation. Our medium- to long-term targets are EBITDA of 20% and operating cash flow of 300 billion yen. We have established these "self-sufficiency" targets to generate enough cash so that we can grow the business with our own funds.

Currently, we are unable to cover the necessary investment amounts with our own cash-generating capacity, so we have proceeded with investments utilizing Panasonic Holdings' strategic investment allocation through to fiscal 2025. Stable operations at the Kansas Factory are still one of the key factors in whether we reach our ROIC target. However, as the current operating environment is rapidly changing, we will

carefully stay on top of cash outflows by flexibly adjusting the timing of when we introduce production lines and through other measures, while keeping an eye on market and customer trends.

We continue to improve operating cash flow by strengthening our operational capabilities, mainly through EBITDA and inventory reductions. We will also draw on the IRA tax credit in the US as needed to balance cash inflows and outflows.

- \*1 ROIC that exceeds the WACC
- \*2 Return on invested capital
- \*3 Weighted average cost of capital

# Summary of the previous medium-term management plan (FY2023-2025): Realizing "two-pillar management"

We aim to achieve business growth by promoting a so-called "two-pillar management" approach with the in-vehicle business and the industrial and consumer business. In the previous medium-term management plan, some significant changes occurred in the external environment from the time the plan was formulated. One was the enactment of the US Inflation Reduction Act (IRA), and the other was the rapid growth of the generative AI market. The IRA has been a boon for the in-vehicle business with subsidy income corresponding to sales of battery cells produced in the US, but it has also presented a negative aspect in the shape of weaker demand in the US market for Japan-made battery cells. Furthermore, the evolution of generative AI has led to growth in demand for our energy storage systems, with which we have built strong relationships of trust with customers by addressing their advanced power supply requirements for data centers. In addition to these impacts, even when including new investments and related costs for the Kansas Factory to manufacture automotive batteries—initiatives that were not part of the initial medium-term management plan-in fiscal 2025 we mostly achieved our initial targets with adjusted operating profit of 122.7 billion yen (14.0%), EBITDA of 189.9 billion yen (21.7%), cumulative operating cash flow of 422.9 billion yen, and ROIC of 11.9% (Table 1).

In the in-vehicle business, in addition to making preparations for the future, such as the establishment of a new factory, we made

(Table 1) (Unit: billion yen)

	FY2025			FY2026		
	Initial MTMP target (June 2022)	Initial forecast (May 2024)	Results	YoY change	Initial forecast (May 2025)	YoY change
Sales	970.0	877.0	873.2	42.7	1,039.0	165.8
Adjusted operating profit	87.0	111.0	122.7	28.1	168.0	45.3
EBITDA	150.0	187.0	189.9	29.5	251.0	61.1
ROIC (%)	12.0	9.1	11.9	-2.7	9.2	-2.7
3-year cumu- lative operat- ing cash flow	330.0	330.0	422.9		_	_

progress on productivity and yield improvements at the Nevada Factory. Moreover, in the industrial and consumer business, we were able to boost profitability through the expansion of our solutions business and the transformation of our product mix on account of higher B2B sales of primary batteries. I believe we were able to advance the realization of two-pillar management by strengthening our earnings capabilities, driven by the growth potential of the in-vehicle business and the profitability of the industrial and consumer business.

Currently our earnings are struggling in the domestic in-vehicle business because of the sharp decline in production for the North American market. We have already started our short-term measure of controlling fixed costs, and we will expand operations for Japanese OEMs in the medium to long term, thereby shoring up our business structure.

# Fiscal 2026 outlook

As of the time we announced our initial forecasts for fiscal 2026 (excluding tariff impacts), demand remains brisk from strategic customers in the in-vehicle business and from data centers in the industrial and consumer business. We forecast year-on-year sales and profit growth in fiscal 2026 with sales of 1,039 billion yen and adjusted operating profit of 168 billion yen (16.2%) (Table 1). Profits may be dented by such factors as forex impacts, the establishment of new locations, upfront costs, and expenses related to the development of new models for data center energy storage systems and increased production, but we still expect to record profit growth primarily driven by higher sales and profits in the in-vehicle and industrial and

consumer businesses, as well as an increase in IRA tax credit.

Since the establishment of the new US administration, its policies have reverberated around the world. For us too, the uncertainties are growing, such as concerns about slowing demand triggered by changes in EV subsidy policies, as well as concerns about the impacts on material supply chains and increases in procurement costs due to new tariffs and foreign policies.

While there are some positives, such as stronger demand for products made in the US, given our already-established production scale at the Nevada Factory, we will need to exercise caution in light of such factors as import tariffs on raw materials that are difficult to secure from inside the US, developments concerning the IRA, and demand for products produced in Japan and Mexico. We will continue to monitor these developments closely. As to the additional US tariffs, we will work to mitigate the impact on our business primarily by reviewing our supply chain and engaging in discussions with customers.

In fiscal 2026, we will gradually set up and bring online automotive battery production lines at the Kansas Factory. Even though we will continue to invest in this facility, the investment amounts started to peak out from fiscal 2025, marking the transition to the phase in which we will recoup the investments made thus far. Depending on the operating environment, changes may be made to the timeframe for full-scale operations and investment recovery. Still, in order to compete with our competitors, we will steadily enhance our workforce and equipment productivity and endeavor to strengthen our competitiveness. Also, our business for data centers will underpin earnings by effectively responding to customer demands.



# Strengthening our resilience

Drastic changes in our business environment can occur intermittently, so we recognize that it is essential that we strengthen our resilience in business management, operations, and the total supply chain.

While the EV market may experience a temporary slowdown in growth rate compared to predictions made a few years ago, we believe it will expand in the medium to long term. On the other hand, the data center market in the industrial and consumer business is currently experiencing enormous growth, driven by the generative AI trend. We will assess these business environments, allocate management resources appropriately, and flexibly adjust how hard we hit the accelerator or the brakes. As a result, our two-pillar management approach comprising the in-vehicle business and the industrial and consumer business will enable us to achieve sustainable growth for the entire Company.

# Enhancing value with both financial and non-financial indicators

Our businesses and the products themselves are at the core of sustainability. Even in Panasonic GREEN IMPACT —the Group's long-term environmental vision—Panasonic Energy's own impacts and contribution impacts are quite significant. We utilize a lot of mineral resources, and by achieving business growth while upholding human rights and compliance obligations throughout the entire supply chain, we can improve both financial indicators and non-financial indicators.

Moreover, investing in human capital and extending returns in the form of salaries is a corporate responsibility, and by improving employee engagement through investments in human capital, we can contribute to increased added value, further business development, and greater resilience.

Corporate value is composed of both financial and non-financial indicators. In the course of implementing financial management, my attention will also be on non-financial value.

# In-vehicle Business





# Net sales composition

(Fiscal 2025 results)



# **Business overview**

The in-vehicle business is engaged in the development, manufacture, and sale of automotive Li-ion batteries that support the evolution and spread of electric vehicles (EVs) by providing them with high-performance and safe motive energy.

As a pioneer in automotive Li-ion batteries, Panasonic Energy has always led the industry in increasing the capacity of cylindrical batteries. Mass production of 1865<sup>+1</sup> size-cells began in 2008, and mass production of 2170 size-cells began in 2017. We completed preparations for mass production of 4680 size-cells in fiscal 2025 and are currently coordinating shipping dates with our customers.

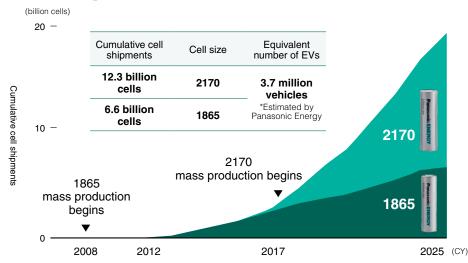
To date, we have supplied a cumulative total of more than 19 billion cells\*2 (equivalent to approximately 3.7 million EVs) to the market.

Since our founding, we have worked together with our customers on product development, placing the highest priority on product safety. As a result, no battery-caused recalls have occurred to date. This track record has been achieved through proprietary material technology and optimization of the cylindrical form factor. Going forward, we will continue to contribute to the performance improvement and widespread adoption of EVs through performance enhancements to the 2170 cells and the deployment of the 4680 cells.

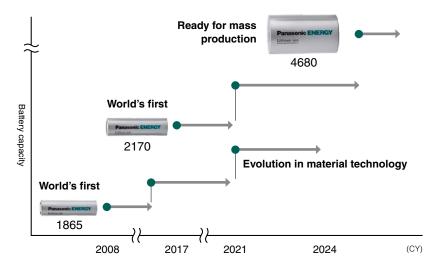
Furthermore, by supporting the electrification of all forms of mobility through our automotive battery business and thereby contributing to reducing CO<sub>2</sub> emissions, we will continue to work towards realizing a sustainable society.

- \*1 Each cylindrical Li-ion battery model is named according to its size. The first two digits indicate diameter (mm) and the second two digits indicate height (mm); for example: 1865 = 18 mm×65 mm.
- \*2 Cumulative shipments since 2008 (as of March 31, 2025)

# Cumulative shipments (as of March 2025)



# Evolution of automotive Li-ion battery technology



# **In-vehicle Business**

# **Business strategy**

Electrification of mobility is one of the most effective measures towards achieving a carbon-neutral society. Against the backdrop of the global trend toward a decarbonized society, global growth of the EV market is expected in the medium to long term.

We are taking advantage of our high-performance, high-quality automotive batteries to strengthen our presence in the Japanese market in addition to the North American market, on which we have been focusing so far. By shifting our model from a "focus on North America" to a "dual-region focus on Japan and North America," we are expanding our manufacturing and customer base and building a more robust revenue base.

At our production sites in Japan, we are advancing the restructuring of our business foundation through medium- to long-term partnerships with Mazda and Subaru. We plan to supply Mazda from the Suminoe and Kaizuka Factories from 2027 onwards under the Ministry of Economy, Trade and Industry's plan to secure a stable supply of storage batteries. We also plan to supply Subaru from the Suminoe Factory starting in fiscal 2028, and from the factory scheduled to be built in Oizumi Town, Gunma Prefecture from 2028 onwards. Thereafter, we will expand production capacity as appropriate, contributing to the establishment of a domestic manufacturing base as advocated by the Japanese government.



Left : Masahiro Moro, President and CEO, Mazda Motor Corporation Right: Kazuo Tadanobu, President, CEO, Panasonic Energy Co., Ltd.



Left: Atsushi Osaki, President and CEO, Subaru Corporation Right: Kazuo Tadanobu, President, CEO, Panasonic Energy Co., Ltd.

In addition, the Wakayama Factory is currently coordinating shipping dates for 4680 size-cells for strategic customers in North America. The 4680 size-cell is positioned as a next-generation battery with high energy density and excellent cost efficiency, and is an important technology that will contribute to enhancing our competitiveness.



WAKAYAMA Factory

In North America, we are proceeding with operational improvements and the introduction of technology for increasing battery capacity at our Nevada Factory where additional facilities came online in the third quarter of fiscal 2025. The new Kansas Factory began operations in fiscal 2026. At both factories, we plan to expand production capacity and establish supply systems while taking into account market conditions.

We are also focusing on improving production efficiency. At the Nevada Factory, we are working to improve productivity and costs through further automation and process improvements, thereby strengthening profitability. At the Kansas Factory, leveraging our experience at the Nevada Factory, we will achieve high cost competitiveness through optimal layout design, automation, and labor saving.

On the earnings front, we expect income from subsidies under the U.S. IRA, and given the purpose of the IRA, we also expect to utilize it effectively with customers to strengthen and expand our North American business.

We are actively promoting material procurement in North America with the aim of making our supply chain more resilient and reducing its environmental impact. In fiscal 2026, to respond to geopolitical risks and changes in environmental regulations, we will accelerate our efforts on two fronts: multi-sourcing of materials and promotion of local procurement, and strategic securing of upstream raw materials. Through these measures, we aim to build a sustainable value chain and contribute to the realization of a sustainable society. This initiative is positioned as an important measure in our ESG management, and we will continue to steadily promote it in the future.



Kansas Factory (2nd site in North America)

# Industrial and Consumer Business



# Net sales composition

(Fiscal 2025 results)



# **Business overview**

The industrial and consumer business offers an extensive product lineup, including manganese and alkali dry batteries, cylindrical and coin-shaped lithium primary batteries, and nickel-metal hydride and Li-ion batteries that can be recharged repeatedly. From home appliances and industrial equipment to data centers and other social infrastructure, this business supports a daily abundance of life in a wide range of fields and applications.

In the past, bicycle lamps were used to illuminate the darkness, and dry batteries were used to make equipment portable. In recent years, small, high-capacity Li-ion batteries have helped make PCs and phones smaller and wireless, and highly reliable lithium primary batteries have contributed to the IoT in water and gas meters. Most recently, we have developed advanced storage battery systems with high-output, high-durability cells and control technology to support the rapid evolution of generative AI servers and contribute to improving lifestyle convenience.

Going forward, the demand for batteries and power sources is expected to grow alongside the ongoing progress of digitalization in society and electrification. We will continue to refine the high-capacity, high-reliability technologies we have developed over the years, while also strengthening our efforts to contribute to the environment.

In anticipation of future changes, we will work together with our business partners to grow and create businesses and expand the areas where we can make contributions.

## Overview of Industrial and Consumer Business

# **Energy Solutions Business Division**



Data centers

Laptops





Electrically assisted bicycles







Li-ion batteries Dry batteries

**Energy Device Business Division** 









Water and gas meters

TPMS

In-vehicle e-call





Lithium primary batteries

Nickel-metal hydride batteries

# **Energy Solutions Business Division**

# **Business strategy**

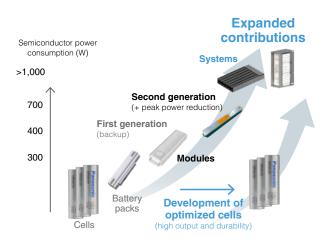
The market for Li-ion batteries for industrial and consumer use. which are handled by the Energy Solutions Business Division, is expected to steadily expand in the future due to the accelerating electrification of society and the expansion of information infrastructure through the evolution of generative AI. Among their applications, we will particularly focus on the area of data center (DC), which is expected to grow over the medium to long term, thereby aiming to

DCs are required to operate stably and continuously 24 hours a uting to optimizing power consumption by developing products that

achieve both business growth and profitability.

day, 365 days a year, and not to stop even in the event of a disaster. We contribute to the stable operation of DCs by providing backup power supplies based on high-output, high-durability Li-ion batteries as the core, with enhanced safety through packs and modularization. Since the increasing power consumption of DC servers is becoming an issue, particularly for generative AI applications, we are also contrib-

# ■ Enhanced solution offerings for DCs

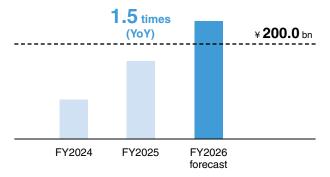


help level out power peaks. Through these efforts, Panasonic Energy has gained a strong reputation, and we estimate that we have the top market share\*1 in the DC backup power supply market.

\*1 According to our research

The evolution of DCs, driven by generative AI, is expected to continue in the future. By honing our technical strengths, we aim to

■ Total sales to data centers (including generative AI)



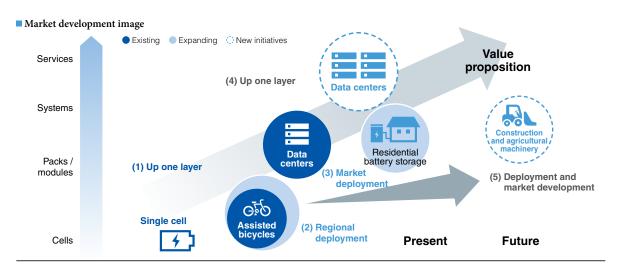
further increase the value we provide with our integrated systems and establish Panasonic Energy as a "power solutions provider."

Net sales for fiscal 2026 are expected to be 1.5 times year-on-year, exceeding 200 billion yen.

We are also actively working to build new business pillars to follow in the footsteps of the DC business. For example, we have a high market share in Japan for electrically assisted bicycles, and for the next stage of growth, we are working on expansion into the large European market. We aim to enhance value and differentiate our products from competitors through customization for each customer.

In other applications, we will continue to develop new markets by improving the value we provide through the use of battery packs and modularization.

While implementing these growth strategies, we will systematically withdraw from unprofitable businesses and products in order to transition to a stronger, more sustainable business portfolio.



# **Energy Device Business Division**

# **Business strategy**

The Energy Device Business Division operates in two business areas: B-to-C (for consumers) and B-to-B (for businesses). Its main products include dry batteries, lithium primary batteries, and nickel-metal hydride batteries. In the case of dry batteries, market demand is expected to remain stable, with growing demand expected in the future for batteries for sensors for applications such as the internet of things (IoT).

Dry batteries are essential for everyday life, and they also play an important role in supporting lifelines in the event of a disaster. While maintaining our position as the market leader in Japan, we aim to expand sales globally, focusing on regions with underdeveloped energy infrastructure as key markets. In addition, we will continue to work on the development of dry battery products that have a long life and can be stored for a long period of time to further improve product competitiveness.

Our lithium primary batteries are highly reliable even under a wide range of temperature environments and for long-term use. Taking advantage of this feature, we supply them for use in smart meters, medical devices, and tire pressure monitoring systems, thereby contributing to the IoT for infrastructure for daily life. In 2024, we developed a new cylindrical lithium primary battery with a long life and high durability that is optimal for smart meters, and began supplying it to the North American market. Our nickel-metal hydride batteries, which can be used in a wide range of temperature environments, are mainly supplied for automotive and railway applications as a contact power source in the event of an emergency. Going forward, we will continue to focus on expansion in the markets that require long-term reliability.

In terms of environmental contribution, as of the end of fiscal 2025, we have achieved net zero CO<sub>2</sub> emissions at 8manufacturing sites, and we aim to achieve this goal at all 10 sites by fiscal 2027.

At the Nishikinohama Factory, which began operations in 2023, we have completed the installation of hydrogen tanks and hydrogen fuel cells, strengthening our efforts to reduce the factory's environmental impact.

In terms of environmentally friendly products, we have developed and started shipping dry batteries that use 100% recycled zinc, which makes up 15% of the battery's weight, and nickel-metal hydride batteries using 35% recycled nickel, the highest level in the industry. In terms of rationalizing the collection and processing of batteries, we are promoting the establishment of a sustainable recycling scheme, which we regard as a challenging area. As part of this effort, we have collaborated with other companies to implement an initiative to recycle used dry cell batteries into fertilizer. Going forward, we will continue to strive to achieve clean and sustainable manufacturing through the development of battery-to-battery resource recycling and other recycling technologies.

### Core devices

# Various operating environment Long-term reliability



8



Nickel-metal hydride batteries



Lithium primary batteries Nickel-metal hydride batteries

# **Business opportunities**

### B-to-C

- More natural disasters due to climate change
- Increased demand for equipment in emerging countries

# B-to-B

- IoT for infrastructure for daily life
- Independent power supply for greater system stability

### Focus areas

# Japan + regions with high profitability and growth potential



Focus on markets where long-term reliability is important



Power source for emergency communication

Power supply for tire pres-



Power supply for meters

# Promoting Sustainability (ESG) Management

Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/sustainability\_management.html

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.

The Basic Business Philosophy (BBP) 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 society and invest in further contributions. From the perspective of governance, 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 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.

(h)

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

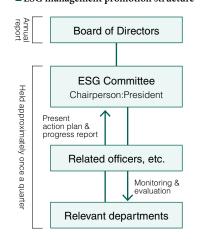


# ESG promotion structure

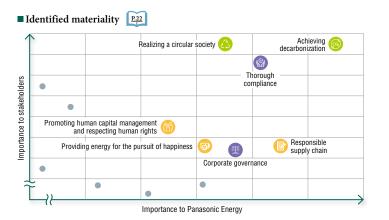
Panasonic Energy established its ESG Committee, chaired by the President, to formulate an overall ESG plan, monitor its progress, and evaluate its achievement status. In addition, based on the outcomes of its deliberations, the Committee makes annual reports and recommendations to the Board of Directors to ensure that ESG considerations are integrated into the management decision-making process.

In promoting specific measures, we designate Executive Officer, or other person to take charge of addressing each of the 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 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 have established the PDCA cycle throughout the year.

**■**ESG management promotion structure



In fiscal 2025, in addition to confirming the results of the previous fiscal year and reviewing progress, we conducted interim reviews of the three material issues that are particularly important for improving our company's growth potential—namely achieving decarbonization, realizing a circular society, and promoting human capital management and respecting for human rights— to identify any issues and advance the steady implementation of corrective measures. The issues we identified include: responding to increasingly complex laws and regulations and customer requirements, enhancement of non-financial goal setting and management, and instilling ESG values among our employees. The company has therefore resolved to redouble its efforts on each of these issues with the goal of achieving ESG-focused management that leverages growth.



# 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.

# Suppliers Investors Industry associations Local communities Employees Customers Investors Governments NPO NGO Employees

■ Major stakeholders

# Sustainability Initiatives at Our Sites in China

## Our China sites in Suzhou and Wuxi

We operate two manufacturing sites in China. Established in 2000, Panasonic Energy (Suzhou) Co., Ltd. (the Suzhou Factory) specializes in Li-ion batteries and manufactures cylindrical cells, pouch cells, and battery packs for a wide range of applications. It is also the only site producing pouch cells in the Panasonic Group.

Panasonic Energy (Wuxi) Co., Ltd. (the Wuxi Factory) was established the following year in 2001, and is a R&D and manufacturing site for Li-ion batteries, nickel-metal hydride batteries, and lithium primary batteries.

We have established integrated manufacturing systems at both sites, covering the full process from cells to battery packs. By leveraging equipment and materials procured in China, we capture China's unique speed and cost advantages to respond flexibly to market changes. Both sites also lead the Group in sustainability initiatives, with employee awareness survey scores for "employee engagement" and "empowering work environments" substantially exceeding the company-wide average.



# Locally-driven manufacturing

Under its own initiative, the Suzhou Factory has introduced automated inspection lines, flexible automated assembly lines for small lot and high mix manufacturing tailored to customer needs, and new

processing equipment for the latest high-capacity cells in its pouch cell manufacturing operations. In its pack manufacturing process, the factory achieved high manufacturing efficiency by having employees perform multiple tasks, thereby enabling the manufacturing line to operate with a small team.

The Wuxi Factory also independently developed and implemented highly flexible automated manufacturing lines to support high-mix, small-lot manufacturing. While steadily automating each stage of the manufacturing process, the local team focuses on reducing manpower and rectifying quality loss. By meeting Panasonic's safety and quality standards while actively leveraging general-purpose equipment available in China, the factory has established a supply system for global markets that emphasizes speed and cost advantages unique to China, enabling agile responses to market changes.

# Safety initiatives

We believe that the safety and health of our employees are the source of their happiness, and we are committed to implementing safety measures. For example, we work to raise safety awareness at the Suzhou Factory by displaying the number of consecutive days without lost-time injuries and fire incidents, and conducting emergency drills involving all employees. In 2024, we conducted 20 drills as part of the Safety Dojo, including simulated entrapment incidents, Cardiopulmonary Resuscitation (CPR), and emergency response training.

# Achieved net zero CO<sub>2</sub> emissions\*

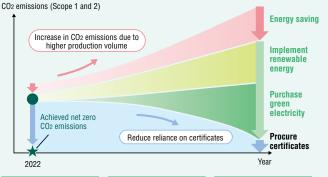
Through energy-saving initiatives and expanded use of renewable energy, the Wuxi Factory became the first Net Zero Factory\* in China within the Panasonic Group in 2020. This achievement is the result of various efforts, including the installation of LED lighting, use of inverters for power equipment, implementation of an AI-powered energy management system, innovations in manufacturing and production methods, the use of solar power generation, and procurement of electricity derived from renewable sources. The factory also uses a solar-powered streetlight system, assembling battery packs using in-house made cells to store solar energy during the day and supply

electricity to LED lights at night. Looking ahead, the factory aims to become a model green factory by lowering its purchase ratio of green power certificates and reducing its external reliance.

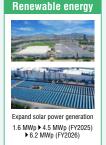
The Suzhou Factory also achieved Net Zero Factory status\* in 2022 by installing solar panels on the rooftops of its second and third buildings. It was subsequently honored as a "Jiangsu Province Green Factory" in 2023 and a "Suzhou City Zero Carbon Factory" in 2024. The factory is also developing a low-carbon supply chain by recycling its own waste, purchasing components made from recycled materials, and promoting decarbonization through optimized transportation methods. In addition, it actively engages with its major suppliers, who account for approximately 60% of total procurement value, to reduce CO2 emissions across the supply chain.

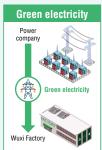
\* Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.

# Long-term vision for CO<sub>2</sub> emissions reduction











# 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 our contribution to the environment and minimize the environmental impact on each of these, we have set a total of six KPIs and their targets for fiscal 2031 as shown in the figure on the right.

With respect to the KPIs associated with the material issue "achieving decarbonization," to expand avoided CO<sub>2</sub> emissions\*<sup>1</sup> from our products and solutions that are used by end users, we have set a target of 45 million tons\*<sup>2</sup> of avoided emissions in fiscal 2031. We also aim to reduce CO<sub>2</sub> emissions during battery production, including procurement of raw materials, production, and product distribution. To this end, we are pursuing initiatives such as expanding the number of our own Net Zero Factories\*<sup>3</sup> and increasing our electricity renewable energy ratio\*<sup>4</sup>, with the goal of cutting our carbon footprint in half \*<sup>5</sup> by fiscal 2031 compared to fiscal 2022.

With respect to the KPIs associated with the material issue "realizing a recycling-oriented society," we had previously set a recycling rate (in-house waste) KPI. However, now that almost all of our sites have achieved a recycling rate of 99% or more (with less than 1% of in-house waste going to landfill), we decided that this KPI was no longer necessary, since we had a system in place within the company that could be sustainably maintained. Therefore, starting this fiscal year, our only recycling KPI will be our recycled material utilization rate. Going forward, we will strengthen our efforts to collect and recycle waste materials from the production process as well as used products, aiming to create a recycling loop through the reduction of natural resource consumption and waste. We believe that these initiatives will also contribute to reducing the carbon footprint of batteries.

For these two material issues, we have established our own unique composite indicator, the "Environmental Contribution Index." This 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 value for fiscal 2031 is 10\*2, which we aim to achieve by maximizing our contribution to the environment and minimizing the environmental impact of battery production.

■ Environmental Contribution Index calculation formula

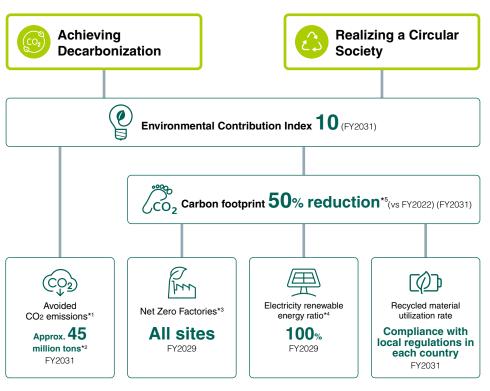
Environmental contribution amount

Avoided CO₂ emissions in society through use of our batteries

Environmental impact
Net CO₂ emissions from our battery production

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

# Two material issues on environment



- \*1 The amount of CO2 emissions reductions achieved for our customers and society as a result of the introduction of our products, compared to the baseline level where no products were introduced.
- \*2 Target values revised based on market conditions in-vehicle business and other factors.
- \*3 Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.
- \*4 Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items).
- \*5 CO2 emissions per unit capacity of lithium-ion batteries for automotive use produced at the North American factory.



# **■** 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 and solutions are used by end-users) and reduce CO2 emissions during battery production, including procurement of raw materials, production, and product distribution. By increasing our environmental contribution and reducing our environmental impact, we are working together as a Group and in collaboration with our stakeholders to maximize the value we provide.

KPI	FY2025	FY2031
Environmental Contribution Index	4.9	10* <sup>5</sup>
Avoided CO <sub>2</sub> emissions*1 (10,000t-CO <sub>2</sub> )	1,632	4,500*5
Net Zero Factories*2	17 sites	All sites (FY2029)
Electricity renewable energy ratio*3	46%	100% (FY2029)
Carbon footprint*4	Vs FY2022: -22%	Vs FY2022: -50%

- \*1 The amount of CO2 emissions reductions achieved for our customers and society as a result of the introduction of our products, compared to the baseline level where no products were introduced.
- $^*$ 2 Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.
- \*3 Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items).
- \*4 CO2 emissions per unit capacity of lithium-ion batteries for automotive use produced at the North American factories.
- \*5 Target values revised based on market conditions in-vehicle business and other factors.

# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/environment/decarbonization.html

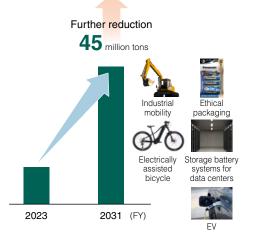
# Increasing avoided CO2 emissions

# Contribution to the environment through our products

Panasonic Energy is working to increase avoided CO2 emissions through mobility electrification and other initiatives to contribute to the environment through the spread of our products and solutions. To increase avoided CO2 emissions, we are looking beyond products like our Li-ion batteries for vehicles and electrically assisted bicycles that reduce CO2 emissions through product electrification, and are now considering products that can be expected to avoided CO2 emissions through the energy saving benefits of replacing conventional products, including our storage battery systems for data centers,\*6 whose avoided emissions we quantified for the first time in fiscal 2025. This brings our avoided CO2 emissions to approximately 16 million tons in fiscal 2025.

By fiscal 2031, we aim to achieve avoided CO2 emissions of 45 million tons by continuing to enhance our production capacity and expanding our products and solutions into areas such as industrial mobility, where electrification is progressing, thereby contributing to the decarbonization of society.

■ Increasing contribution from the spread of EVs and electrified equipment



# Relationship between the Inflation Reduction Act (IRA) and avoided emissions

The IRA is the largest investment the U.S. has ever made to tackle climate change.\*7 The law is designed to reduce CO<sub>2</sub> emissions by 21 billion tons between 2023 and 2050 and to prevent \$5.6 trillion in global economic losses from climate change.\*8

The IRA provides tax credits and subsidies for industries that contribute to energy security and climate actions. Panasonic Energy benefits from a tax credit of \$35/kWh on our automotive batteries produced and delivered in North America.\*9 We believe that this tax credit was made possible by our efforts to promote the spread of EVs in society and contribute to avoided CO2 emissions through the manufacture of automotive batteries. As indicated, the amount of our tax credit under the IRA is proportional to the amount of avoided CO2 emissions from our automotive batteries. We believe this is an example where our contribution to decarbonization through automotive batteries has been recognized by society in terms of monetary value.

- ${\bf ^*6}\ Reduction\ in\ the\ amount\ of\ electricity\ supplied\ over\ the\ lifetime\ of\ use\ by\ replacing\ centralized\ power\ sources\ with\ distributed\ power\ sources$
- \*7 As of August 2022
- ${\tt *8\ https://home.treasury.gov/news/featured-stories/the-inflation-reduction-acts-benefits-and-costs}$
- \*9 Section 45X

# Reducing CO<sub>2</sub> emissions during battery production

# **Initiative policy**

While contributing to avoided CO<sub>2</sub> emissions in society through the widespread use of our products and solutions, we are also working to reduce CO<sub>2</sub> emissions during battery production, including procurement of raw materials, production, and product distribution.

In our battery production process, we are working to reduce our environmental impact by both conserving energy and introducing renewable energy. Using environmental certificates and credits, we aim to achieve Net Zero Factories\*1 at all sites by fiscal 2029.

Furthermore, to reduce CO<sub>2</sub> emissions across the entire supply chain, we are strengthening our reduction efforts in cooperation with our suppliers with the goal of cutting our carbon footprint (CFP) per unit battery capacity in half  $^{*2}$  by fiscal 2031 compared to fiscal 2022.

# Initiatives in the battery production process

With regard to initiatives for conserving energy, we are promoting the reduction of energy loss during battery production and innovations in production methods. In addition to the reduction efforts at each site, we aim to maximize the reduction effect by spreading successful examples of improvements across the Company.

With regard to initiatives for introducing renewable energy, we are focusing on introducing renewable energy that does not rely on environmental certificates. In Japan, in addition to conventional solar power and onshore wind power, we have introduced off-site corporate power purchase agreements\*3 (PPAs) for geothermal energy. This has raised our in-house renewable energy self-sufficiency rate\*4 for electricity usage in Japan to approximately 30%, resulting in a reduction of approximately 50,000 tons of CO2 annually. In the future, we are considering expanding the system globally, taking into account the regional characteristics of each country.



Off-site PPA for onshore wind



Off-site PPA for geothermal power

# Initiatives in the procurement of raw materials

Most of the CO<sub>2</sub> emissions associated with battery production are from resource extraction, raw material processing, and distribution processes prior to our manufacturing process. Based on this, we have made suppliers understand our CFP reduction policy through partner meetings and other means, and are collaborating with them to advance CO<sub>2</sub> reduction efforts. Specifically, by improving production efficiency, introducing renewable energy, switching to low CFP materials, and engaging with upstream suppliers, we have achieved a 22% reduction in CFP\*2 for fiscal 2025 compared to fiscal 2022.



Partners' Meeting 2024

- \*1 Factories that have achieved net zero CO2 emissions by conserving energy, introducing renewable energy, and using credits
- \*2 CO2 emissions per unit capacity of Li-ion batteries for automotive use produced at the North American factories
- \*3 A model in which an electric power company installs power generation facilities in locations away from the demand point and supplies the generated electricity to users
- \*4 An indicator showing the proportion of renewable energy supplied from in-house power generation facilities. Does not include certificate-only procurement

As part of our efforts to reduce our CFP in raw materials, in fiscal 2025 we signed investment and seven-year offtake agreements with Nouveau Monde Graphite of Canada. The integrated production of anode materials from mining to production in Canada, which has a high ratio of electricity derived from renewable energy sources, will make it possible to significantly reduce CO2 emissions.

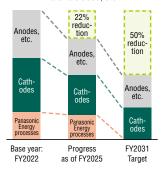
We are also actively promoting the use of recycled materials produced from used Li-ion batteries, thereby contributing to further reductions in CO<sub>2</sub> emissions.

Aiming to further reduce our CFP in the future, Panasonic Energy is accelerating efforts to expand the introduction of renewable energy, improve the ratio of local raw materials procurement, and use more recycled materials.

# Initiatives in product distribution

We are also promoting initiatives to reduce CO2 emissions in product distribution. In Japan, in addition to optimizing transportation methods and transportation routes, we have partnered with EcoTruck Co., Ltd on proof-of-concept trials to replace conventional diesel-fueled trucks with trucks fueled with biogas\*5, which can be regarded as having zero CO2 emissions during driving. We plan to roll out a partial deployment in fiscal 2026, and then, in the future, expand the rollout from product distribution to the procurement and distribution of raw materials.

- Progress and targets for CFP reduction\*2
  - Reduction by suppliers
  - Local procurement
  - Increase amounts of recycled materials used, etc.





Biogas truck

# Initiatives to utilize next-generation energy

We are promoting the use of hydrogen as a next-generation energy source that contributes to the reduction of CO<sub>2</sub> emissions in society. We have introduced pure hydrogen fuel cells at our Nishikinohama Factory in

Japan and at Panasonic Energy Wuxi, China. The Nishikinohama Factory in particular is working to efficiently utilize renewable energy through optimal control of energy that is from the combination of photovoltaic power generation and storage batteries. At the Expo 2025 Osaka, Kansai, Japan, as part of an event under the theme "Change the Future! Hydrogen Week," we offered off-site visit tours\*6 in partnership with Iwatani Corporation and Kawasaki Heavy Industries. Going forward, we will continue to contribute to decarbonization by utilizing next-generation energy.



Hydrogen tank painted with the same design as Evolta NEO batteries (NISHIKINOHAMA Factory)

- \*5 Purified methane derived from biomass
- \*6 Expo-related experiences and tours are accessible not only in Yumeshima, the site of the Expo, but also across Osaka Prefecture and other areas in the Kansai region

# Disclosure Based on TCFD Recommendations

# Response to TCFD

In May 2019, the Panasonic Group endorsed the TCFD\*1 recommendations. Recognizing that risks and opportunities related to climate change are critical management issues, the Panasonic Group is identifying risks and opportunities based on the recommendations and examining the resilience of its strategies through scenario analysis.

Based on the above recognition and verification results, Panasonic Energy will deepen its consideration of risks and opportunities specific to our business and proactively disclose the required information. As recommended by the TCFD, we will disclose information

on 'governance', 'strategy', 'risk management', and 'indices and targets' to strengthen our dialogue with our stakeholders.

\*1 TCFD: an abbreviation of Task Force on Climate-related Financial Disclosures. The task force was set up by the Financial Stability Board (FSB) in response to a request by the G20 Finance Ministers and Central Bank Governors. TCFD published its recommendations in 2017.



Panasonic Group "Environment : Response to TCFD"

https://holdings.panasonic/global/corporate/sustainability/environment/tcfd.html

### Governance

At Panasonic Energy, the Board of Directors oversees risks and opportunities related to climate change based on reports and recommendations from the ESG Committee at least once a year.

Chaired by the president, the Committee includes all executive officers responsible for divisions related to climate change, such as business divisions, human resources, and legal affairs, as well as divisions in charge of the environment. The Committee formulates overall plans, monitors progress, and evaluates the status of achievement in a cross-organizational framework.

In parallel, we analyze risks and opportunities related to climate change and, based on the results, confirm the relevance of our business strategy from a resilience perspective.

In addition, to strengthen the commitment of our executive officers, performance-based remuneration (which is an incentive linked to short term and mid-long term business results) is structured to reflect climate change-related results as well as financial indicators.

# Strategy

To transition society to a low-carbon economy, we have set the following targets.

- FY2029: Net Zero Factories \*2 All sites
- FY2031: Create approx. 45 million tons of avoided CO<sub>2</sub> emissions

To establish the above goals and verify the resilience of our strategy, we have conducted a scenario analysis in line with the framework of the TCFD recommendations.

\*2 Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.



The scenario analysis was conducted as follows, targeting the Mobility Energy Business and part of the Energy Solution Business, which account for a large proportion of our financial performance and contribute significantly to avoided CO<sub>2</sub> emissions.

- Assumed timeframe: FY2031 and FY2051
- Adopted scenarios: Risks and opportunities were identified based on a set of scenarios (including the 1.5°C scenario and the 4°C scenario), which were adopted in the Panasonic Group scenario analysis. For more details, please refer to the four scenarios in the Panasonic Group entitled "Environment: Strategy Resilience through Scenario Analysis."



Panasonic Group "Environment: Response to TCFD"

https://holdings.panasonic/global/corporate/sustainability/environment/tcfd/resilience.html

## Risk management

Panasonic Energy has established an Enterprise Risk Management Committee ("ERM Committee") to manage various risks, including those related to climate change, in an integrated manner.

Based on the PDCA cycle of risk management, the ERM Committee reports regularly to the Management Meeting and the Board of Directors on essential risks and the progress of countermeasures. Each year, the Committee identifies risk items in terms of "impact" and

"possibility of occurrence" while also defining "operational risk" as events that have the potential to affect business activities and pose an operational threat.

In fiscal 2025, we again identified natural disasters such as earthquakes and tsunamis as important operational risks and managed progress on measures to deal with flooding and other disasters.

Regarding the transitional risks, such as an increase in the cost of compliance with environmental regulations, the relevant departments closely monitor trends and take appropriate measures while the Management Meeting continues to manage the progress. In compliance with the EU Battery Regulation in particular, we thoroughly manage risks to our business activities by managing the progress of measures and raising issues at quarterly meetings that include the relevant departments and management.

# Metrics and targets

In addition to disclosing actual GHG emissions (Scope 1, 2, 3), we have set a goal of achieving all of Net Zero Factories\*2 by fiscal 2029 and are working hard to reduce emissions.

We have also set targets for GHG emissions outside of our own company, including the avoided CO<sub>2</sub> emissions that we contribute to society and the reduction of the carbon footprint of our products, including those upstream in our supply chain.

Furthermore, we have established our own "Environmental Contribution Index" (an index that indicates the ratio of avoided CO<sub>2</sub> emissions to the actual CO<sub>2</sub> emissions from our battery production), which is a composite of the above indicators. We are working to improve this to 10 in fiscal 2031. For more details of our efforts to set and achieve our goals, please refer to the Environmental page of this report.

# Significant risks and opportunities and how to respond

The items identified as significant climate-related risks and opportunities are shown in the table below. For each item, the table shows the main applicable scenarios, the timing of occurrence, the impact, and our countermeasures. We prioritize our responses to these items based on the timing of their occurrence and their degree of impact.

	Item	Impact on Panasonic Energy	1.5°C	4°C	Timing of occurrence	Impact	Countermeasures
Tansii	Cost of implementing carbon pricing	Increase in procurement costs due to the levy on the company and the price shift of the levy to suppliers/logistics providers due to the tightening of the carbon pricing system			Medium term	Large	Promote energy conservation, utilize renewable energy
	Higher costs of complying with environ- mental regulations related to products and services	Increase in costs to comply with stricter battery-related regulations (including carbon footprint disclosure and traceability management) and mandatory GHG emissions reporting			Short term	Small	Introduce general-purpose system capable of responding to increasingly sophisticated regulations
	Increase in R&D and capex costs for higher battery performance	Increase in R&D and capital investment costs to develop next-generation batteries for EVs and storage battery systems and to lead other companies in improving environmental performance			Short term	Medium	Improve development efficiency through collaborative research with research institutes and partner companies     Tradition of skills within the company through operation of the Academy of Battery Technology and Manufacturing
Tallsillollal lisks	Increase in costs for energy conserva- tion measures and renewable energy installations	Increase in procurement costs due to higher investment costs related to energy conservation/renewable energy and price shifting of GHG emission reduction costs from suppliers			Short term	Large	Increase amount of renewable energy procurement
	Lower sales due to delay in responding to social and customer needs	Lower sales due to failure to respond appropriately to changing needs of corporate customers who have to address market changes, new regulations, and demands from stakeholders			Short term	Large	Ensure compliance with the EU Battery Regulation, GBA, RBA, etc.     Lead policy frameworks through active participation in industry associations
	Increase in procurement costs due to soaring raw material prices and material switching	Increase in raw material procurement costs resulting from intensified competition for raw materials due to increased demand for batteries and increased protectionism			Medium - to long - term	Large	Expand battery reuse, establish recycling scheme     Review manufacturing processes to help reduce process waste and loss
T	Lower sales/increased costs due to damage to the company's sites and supply chain caused by severe wind and flood damage	Increase in opportunity loss and recovery costs due to damage to the company's sites and upstream/downstream supply chain caused by severe wind and flood damage			Short term	Medium	Shorten the supply chain through local procurement     Promote BCP measures for key parts and materials
rilysical lisks	Lower sales/increased costs due to damage to own facilities and supply chain caused by sea level rise	Opportunity losses and increased costs of recovery and countermeasures due to damage to the company's facilities and supply chain sites near the coast caused by sea level rise			Long term	Small	Assess supplier risk
ONO	Lower sales/increased costs due to employee health risks from heat and cold	Opportunity losses due to disruption of employee health caused by extreme weather and increased capital investment costs for air conditioning and other equipment			Short and long term	Small	Promote measures against infectious diseases in the workplace     Conduct seminars and programs aimed at improving the mental and physical health of employees
	Cost reductions through increased resource efficiency and increased sales through improved production efficiency	Decrease in procurement costs due to recycling resources through resource recycling and increase in sales by developing the battery reuse market			Medium - to long - term	Medium	Expand battery reuse, establish recycling scheme, control waste     Boost energy density, increase lifespan, increase diameter
2	Decrease in energy procurement costs due to lower energy prices	Decrease in energy costs at the Company due to lower prices for renewable energy and in raw material procurement costs due to lower energy costs at suppliers			Medium - to long - term	Medium	Review renewable energy options based on market prices and increase procurement volume
Opportunites	Increase in sales due to higher demand for environmentally conscious products and services	Increase in sales due to growing demand for products that contribute to GHG reduction, such as automotive batteries and stationary storage batteries for use alongside renewable energy sources			Short term	Large	Expand lineup of environmentally friendly products and solutions     Promote image as environmentally advanced company
	Increase in sales due to higher demand for disaster preparedness products and services	Increase in sales due to higher demand for disaster preparedness products, such as storage batteries to prepare for disruptions in energy infrastructure and battery products that contribute to the weather observation/space business			Medium - to long - term	Large	Expand industrial backup power supply and residential energy storage businesses     Promote dry cell batteries as disaster preparedness measure



# **■** 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 CO2 emissions related to the production of materials and disposal of products. We will advance these efforts in tandem with our commitment to achieving decarbonization.

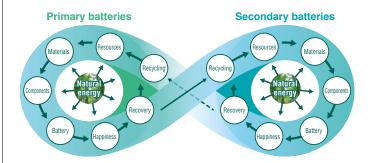


Image of the "Yarushika Circular Concept," which transcends the boundaries between primary and secondary batteries to realize resource recycling

KPI	FY2025	FY2031
Recycled material utilization rate	-	Compliance with local regulations in each country

# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/environment/circulation.html

# **Expansion of recycling**

# Promotion of using recycled materials

In the production of batteries, Panasonic Energy is working to build a recycling loop that contributes to reducing natural resource consumption and waste, for example by our efforts to collect and recycle waste materials from the production process as well as used products and utilize them as recycled materials.

Going forward, we will continue to promote the use of recycled materials as electrode materials, aiming not only to decarbonize our products, but also to realize a recycling-oriented society.

# 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 fiscal 2025, in collaboration with Sumitomo Metal Mining Co., Ltd., we began operating a recycling scheme that recycles nickel, a rare metal, from battery waste materials, and re-uses it as a cathode material in our production processes.

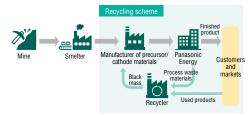
# Initiatives related to dry batteries

We are working to recover and recycle used dry batteries with the aim of unlocking new value for dry batteries which are primary batteries that cannot be used repeatedly.

We started collecting used dry batteries made by Panasonic Energy in Thailand since 2022 in partnership with CP All Plc. (a convenience store operator) and in Japan since 2023 in partnership with AEON RETAIL Co., Ltd.

To recycle the used batteries collected, in Thailand, we are partnering with UMC Metals Ltd., a Thai steelmaker, to recover reusable materials. In Japan, we are partnering with Tokyo Steel Manufacturing Co., Ltd. to recycle batteries into steel materials, and we have also started working with TOMATEC Co., Ltd. to recycle used dry batteries into trace element fertilizer. In the future, the initiative with TOMATEC is expected to contribute to the development of agriculture and to ameliorating social problems such as hunger and poverty. We also started selling the EVOLTA NEO, which uses recycled zinc, in spring 2025.

■ Recycling scheme for cathode materials in cooperation with suppliers



■ Recycling process for cathode materials in collaboration with partner companies



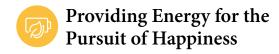
■ Dry battery recycling process

Used batteries



■ Process for recycling used dry batteries manufactured by Panasonic Energy into compound trace element fertilizer





# **■** 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 will continue to undertake the challenge of developing world-first and one-of-akind technologies, and to encourage innovation.

KPI	FY2025*1	FY2031*1
Sales of stationary storage batteries that support clean energy	3.6	4.0
Sales of healthcare storage batteries that support everyday life	1.0	2.4
Sales of dry batteries that provide support in emergencies*2	1.2	2.2
Sales of batteries that protect the security of mobility*3	1.5	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



# **■** Initiatives

# Social contribution through business activities

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

Our high-quality, high-capacity Li-ion batteries and storage battery systems are also used in applications requiring stable operations, including data center power sources, home storage batteries, and medical and healthcare equipment. These products support social infrastructure and contribute to the expansion of clean energy and to lasting health for people.

We provide 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. Our dry batteries also fulfill an important role in supporting lifelines as reserve stocks in the event of an emergency.

### Social contribution activities

We engage in a wide range of social contribution activities for the varying challenges and demands of each region and country.

# Factory tours and battery schools

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.



Visit Battery School

■ Cumulative number of participants at factory tours and battery schools (as of March 31, 2024)

Factory tours		1,020,845 persons
Datta a als a als	Japan	204,965 persons
Battery schools	Overseas	5,466 persons

# "Casa do Leo," Leo's House project

In Brazil, we hosted a "rounding project" that traveled all over the country teaching proper battery disposal and other environmental lessons. It was a program in which participants learned the importance of the circular economy and collected used dry batteries. More than 3,000 people participated in the 30-day event.



# Support for the areas and people affected by the earthquake victims in central Myanmar

In response to the damage caused by the March 2025 earthquake, the Panasonic Group\*4 made donations totaling approximately 12 million yen. We have also donated approximately 900 Panasonic branded LED lights and lanterns and approximately 5,800 dry batteries as emergency support for the severe power outages caused by the earthquake.

\*4 Panasonic Holdings Corporation, Panasonic Asia Pacific Pte Ltd., Panasonic Singapore, Panasonic Energy (Thailand) Co., Ltd.



# **Promoting Human Capital Management**

# **■** Policy

To realize Panasonic Energy's Mission and Vision, the Company positions human resources as its most important management asset. In fiscal 2025, we continued to promote human resources and organizational initiatives based on the following two main pillars: "Individuals who take on challenges autonomously" and "An organization that enables employees to reach their full potential."

Through our initiatives at Mission Ownership Taskforce (see p. 45 for details) established in 2024 to fulfill our Mission, and through measures such as support for middle management in managing human resources and organizations, Panasonic Energy will further increase the enthusiasm of each and every employee to take on challenges, continue to strengthen its people, organization, and culture, and continue to evolve into a profitable, high-growth business.

KPI	FY2025	FY2031
EOS Score: Employee engagement (global)	70pt	85pt*
EOS Score: Employee enablement (global)	65pt	80pt*
Percentage of women in managerial positions (non-consolidated)	7.3%	15%
Rate of childcare leave taken among men and women (consolidated, Japan)	Women 100% Men 86%	Men / Women 100%
Health management index (non-consolidated)	56.9pt	White 500
Number of fatalities due to industrial accidents (global)	1 incident	0 incidents
Number of industrial accidents (lost time incidents in Japan:consolidated)	3 incidents	0 incidents

<sup>\*</sup> Numerical targets have been revised to include global sites

# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/social/human\_capital.html

# ■ Individuals who take on challenges autonomously

# Maximizing our "human competitiveness"

# Identifying and training management executives to support the business

In the company's rapidly changing business environment, it is essential to have management executives who can drive business growth by responding to these changes flexibly and quickly from a medium- to long-term perspective. To this end, we are promoting the development of a robust pipeline of next-generation management personnel.

To ensure the next generation of management personnel in terms of both quality and quantity, we actively seek out candidates at a young age and help them develop their individual capabilities through new experiences.

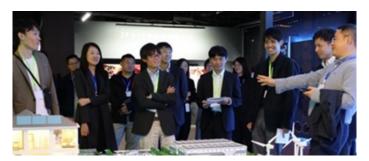
Specifically, we define succession requirements for business division directors and CxO positions with business responsibilities as target positions, while also selecting succession candidates for immediate appointment and 3-, 5-, and 10-year time horizons.

Then, once the abilities and skills to be acquired corresponding to the requirements for successors have been identified, career development plans centered on challenging assignments that will achieve dramatic growth are thoroughly discussed and implemented by our entire management team, including the President, the business division directors, and the CTO, CMO, and CHRO.

We also offer a variety of executive development training programs to support the career development of management succession candidates.

Our Management of Technology training is intended to deepen our technology and manufacturing capabilities, based on the idea that these are among our core competitive strengths, as well as to advance the development of human resources who can create innovation by envisioning management strategies based on technical and manufacturing competitiveness.

We also conduct tutoring activities for the next generation of young management candidates, with our management executives serving as instructors. In these tutoring activities, students experience regular dialogues and brainstorm sessions on issues, receive opportunities to expand their horizons in a completely new way that is not an extension of their daily work, and participate in discussions and interactions with leaders of the same generation from overseas companies and other companies. In this way, they develop a broad perspective and hone leadership skills that can be deployed globally.



Students interacting with leaders from overseas and other companies

# Creating an organization and culture that enables employees to reach their full potential

## Towards the fulfillment of the Mission/Vision

The Forest Conference, which was launched in fiscal 2023 to spread the Mission, Vision, Will (MVW) and Seven Pillars of Transformation, has been held a total of 48 times as of the end of fiscal 2025, with 686 employees participating. It is a forum where management and employees can discuss the fulfillment of MVW in a way that transcends departmental boundaries. In addition, in October 2024, we established a "Mission Ownership Taskforce" as a new organization directly under the President. At the Mission Ownership Taskforce 17 leaders and more than 100 members selected from each department discuss and implement cross-Company initiatives intended to inspire each employee to deeply identify with MWV, feel a strong sense of mission ownership within their heart, and utilize their own individuality, ability, and skills to the fullest, and to evolve the Company into one that takes on challenges autonomously to achieve its Mission.





Mission Ownership Taskforce activities: Once a month, leaders and members selected from each department gather to actively discuss and implement specific activities

# Creating an organization where a diverse workforce can thrive

In fiscal 2025, we offered its female employees a program that combines coaching with opportunities for self-understanding and career reflection, with the goal of creating a company where a diverse group of employees can coexist in harmony, individuals will be happy and fulfilled in their work, and the environment will be conducive to sustainable challenges. We are working to increase the percentage of women in managerial positions (7.3% at the end of fiscal 2025) through measures that encourage employees to take on challenges.

In terms of organizational building, in fiscal 2025 we introduced an organizational management tool at all our sites in Japan, and we are conducting organizational surveys three times a year to collect data for continuous improvement activities. We also provide organizational development training for department and section managers to improve their organizational management skills, as well as personal coaching opportunities for 100 department and section managers who wish to take part in.

# ■ An organization that enables employees to reach their full potential

# Creating systems and environments to support taking on challenges

# Revision of the performance evaluation and remuneration systems

We are working to create systems and environments that foster a "cycle of continuous challenge and growth" in which employees challenge themselves to achieve high goals and are adequately rewarded for their achievements, further increasing their motivation to take on the next challenge and accelerating growth. In fiscal 2025, we revised our goal management system to include "challenging goals," which are ambitious initiatives that

cannot be achieved by simply extending our past and present. We also transitioned to a role- and job-based human resource management for managerial positions, revised our remuneration levels and systems based on market value, and launched the Middle and Senior Partnership Program (an extended employment system) to extend the retirement age to 65 years old for applicants who meet certain job and personnel requirements.

# Each person proactively takes on challenges with high enthusiasm Maximize one's individuality and abilities

# Introduction of discretionary working hours system

To accommodate diversifying values and working styles, we have decided to introduce a discretionary work hour system on a trial basis. The system increases employees' discretion over their working hours within certain limits, while prioritizing the prevention of overwork and ensuring their health. Eligible employees are provided with a remuneration system that provides incentives based on performance and results, instead of allowances based on overtime hours. We plan to pursue full-scale implementation of the system after identifying and examining employee needs and problems in the trial run.

By providing options for working styles that allow individuals to pursue results without being constrained by time, we will create an environment where each and every employee can demonstrate their individual abilities to the fullest.

# Establishment of side job system

We are establishing a new "external side job system" with the aim of allowing employees to acquire experience and skills that are difficult to obtain within the Group. The new external side job system is intended to complement our existing internal and Group-wide job transfer (open recruitment) and side job systems. By accommodating employees' desire to take on a broader range of challenges and grow, we will support them in acquiring diverse experiences, accelerating their growth, and realizing the career goals they aspire to. intended to inspire each employee to deeply identify with MWV, feel a strong sense of mission ownership within their heart, and utilize their own individuality, ability, and skills to the fullest, and to evolve the Company into one that takes on challenges autonomously to achieve its Mission.

# Creating systems and environments to support taking on challenges

# Supporting career realization and promoting human resource development

To help individuals realize their medium- to long-term career vision, we support them in developing the career they desire. At Panasonic Energy, we formulate individual human resource development plans for the autonomous 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 that meet the motivation of each individual to learn.

In fiscal 2025, we fully implemented the Learning Management System called "Manabico" to visualize the development system and centrally manage various training courses, and started supporting employees' autonomous learning. We will continue to support learning by enhancing content to support each individual's autonomous career development.

Setting three years as the training period for new graduates, we ensure that new employees 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, for example, 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.

# Supporting the growth of battery industry personnel

Panasonic Energy's Mission is to "achieve a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict." To fulfill this Mission and to cultivate personnel that will contribute to the development of the battery industry, in fiscal 2025 we established the MIRAI Scholarship program. The aim of the program is to support human resources who can make a significant contribution to the development of the battery industry in the future. The scholarship winners chosen by the selection committee are awarded a one-year grant of 500,000 yen and provided with an environment in which they can concentrate on their research activities.

The program also facilitates ongoing interactions between scholarship winners and engineers of Panasonic Energy who are active globally at the front lines of the battery business. To support their future plans, scholarship winners are given access to our in-house community of engineers and given opportunities to interact with current engineers, which allows them to learn about the benefits of working at a battery manufacturer, to receive advice on research activities, and to brainstorm about their future vision. Through this scholarship program, Panasonic Energy will continue to actively support the development of future battery industry personnel who will achieve its Vision: "Energy that changes the future."

# Building safe, secure, and healthy foundations

# Creating safe and secure workplaces

To create safe and secure workplaces, the Company has set its KPIs as zero fatalities due to industrial accidents (global) and zero lost time incidents in Japan. In fiscal 2025, there was one industrial accident fatality (global), and there were three lost time incidents in Japan. As part of our current efforts to thoroughly strengthen measures to prevent industrial accidents, we have classified the occurrence of accidents related to equipment safety or chemical substances at overseas subsidiaries as an "Emergency" and launched the Emergency Safety Measures Project to promote the eradication of industrial accidents throughout the Company. We are also continuously strengthening our efforts to further improve the risk sensitivity and safety awareness of each and every employee. With regard to disaster preparedness, we are implementing physical countermeasures against earthquakes and tsunami flooding in our buildings and facilities in preparation for a major earthquake, while at the same time working to raise awareness among employees through disaster preparedness activities.



Comprehensive equipment inspection in the Emergency Safety Measures Project



Group leaders from each site meet to exchange opinions at on-site inspections



Improving risk awareness through virtual reality (VR)

# Promotion of "Health and Productivity Management"

To improve the well-being of employees, we have positioned the physical and mental health promotion for employees and their families as well as the enhancement of job satisfaction and purpose in life as important issues, and are fostering a healthy workplace culture in which employees can play active roles. Specific examples of activities to maintain and improve employee health include online seminars on sleep, nutrition education, and walking, as well as "walking events" for employees and their families.



Walking event party



# Promoting Human Capital Management and Respecting Human Rights

# **Respecting Human Rights**

# ■ Policy

The Panasonic Group has established the Panasonic Group Human Rights and Labour Policy, which refers to the content of the following international standards and incorporates the opinions of outside experts. The policy is predicated on compliance with international standards and the applicable laws in countries where we do business and includes our commitment to respecting internationally recognized human rights to identify, prevent, and correct risks related to human rights, to promote remedies for people affected by those risks, to create working environments where people are fulfilled by their work, and to engage in dialogue related to these topics with all our stakeholders. In accordance with this policy, we have established internal rules to develop a promotion system and promote specific initiatives for respecting human rights and creating working environments where people are fulfilled.

The Panasonic Group Code of Ethics & Compliance (Code of Ethics & Compliance) stipulates the promises that each employee must fulfill while also including 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

KPI	FY2025	FY2031
Percentage of implementation of self-assessments related to human rights and labour (overseas manufacturing subsidiaries) and percentage of executed corrective plans	100%	100%

# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/social/human\_rights.html

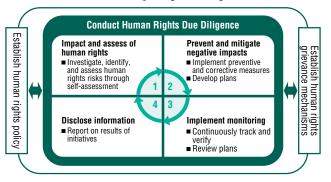
# **■** Initiatives

# Human rights due diligence

# Risk assessment (self-assessments)

Panasonic Energy has established a Human Rights Due Diligence system based on the United Nations Guiding Principles on Business and Human Rights to respect and ensure the human rights of people associated with our business activities, products, services, and transactions. The system is intended to identify, prevent, and reduce negative impacts related to human rights with regard to the relevant business, correct issues, and explain the response results to the relevant stakeholders. 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.

Overview of initiatives for respecting human rights



Since fiscal 2022, we utilized a self-assessment tool—based on the international standards of the Responsible Business Alliance (RBA) and the adaptation to our Company—to conduct self-assessments related to human rights and labour at our Group's manufacturing companies. In fiscal 2023, we conducted a self-assessment focused on the International Labour Organization (ILO) core labour standards by using the questionnaires that we reviewed to identify issues more clearly. This revised self-assessment was then repeated in fiscal 2024. In fiscal 2025, we conducted self-assessments covering 16 subsidiary locations (6 domestic sites and 10 oversea sites). 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 continuously promote initiatives to improve our work environments on an ongoing basis.

### Grievance mechanism

The Panasonic Group has established a global hotline (with service in 32 languages) to ensure that complaints about human rights violations are addressed and to enable redress for our employees, business partners, and other external stakeholders.

# Implementation of human rights education

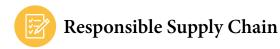
We provide training in 22 languages of our Code of Ethics & Compliance, including "Respecting Human Rights," and provide regular opportunities (including when first starting work and upon promotion) to ensure employees know about the topic of respect for human rights included in the Code.

We also provide training for all seconded employees, including management personnel, posted to overseas subsidiaries to ensure they understand our initiatives including the Panasonic Group Human Rights and Labour Policy, as well as international standards and the laws of each country regarding corporate responsibility to respect human rights.



Panasonic Group Human Rights and Labour Policy

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



# **■** Policy

We procures raw materials such as active materials for batteries as well as various components ranging from various processed parts to electronic devices, from about 1,000 suppliers in Japan and overseas at 20 global production sites. We recognize that, in the procurement process, we are required to fulfill our corporate social responsibility throughout the entire supply chain. To fulfill this social responsibility, we build partnerships with our suppliers on a global basis, we maintain and improve the quality of purchased products and maintain competitive prices to create the product value required by our customers based on mutual trust and cooperation. At the same time, we comply with laws and regulations, social norms, and corporate ethics, and fulfill social responsibilities, such as human rights, environmental conservation, and information security. We promotes responsible procurement activities while building a sustainable supply chain with low environmental impact with our suppliers.

KPI	FY2025	FY2031
Written CSR consent acquisition rate from tier 1 suppliers	100%	100%
Ratio of tier 1 suppliers with an A-rank CSR self-assessment	87%	100%
Ratio of assurance provided by conducting CSR audits of tier 1 suppliers	34%	100%
CMRT/EMRT collection rate	100%	100%
Utilization ratio of conformant/ active smelters	90.8%	100%

# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/social/supply\_chain.html

## **■** Initiatives

# Compliance with supply chain CSR guidelines and risk reduction through self-assessment and audits

To demonstrate its approach to CSR procurement and clearly communicate its requirements to suppliers, the Panasonic Group has established CSR Guidelines in accordance with international norms and principles regarding human rights, including the UN Guiding Principles on Business and Human Rights, and requires compliance with these Guidelines. In line with the Panasonic Group's activities, the Group has started to conclude basic transaction agreements that require new suppliers to comply with the Guidelines. We have also requested that existing suppliers submit a written agreement to comply with the Guidelines. As of the end of March 2025, we were able to obtain written agreements from all tier-1 suppliers. We have asked our 351 tier-1 suppliers to carry out regular self-assessments using a CSR assessment sheet based on the Guidelines. The assessment results are classified into three ranks, A, B, and C, in ascending order according to risk. As of the end of March 2025, 307 companies (87%) were ranked A, 39 companies (11%) were ranked B, and the remaining five companies had yet to submit a self-assessment result sheet. We will continue to request submissions from suppliers who still need to do so. For ranked Bsuppliers, our Procurement Department works together with them to promote risk reduction by implementing improvement activities aimed at strengthening the CSR management system. In the event that a supplier receives a ranked C, we will review our transactions with them. Furthermore, starting in fiscal 2024, we took the initiative to initiate on-site CSR audits of our suppliers. Going forward, we will continue to conduct on-site CSR audits to identify supply chain risks and take countermeasures against them.

# 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 and environmental destruction, and appropriate due diligence is essential. We have formulated a responsible mineral procurement policy in accordance with OECD guidelines, and every year with the cooperation of our suppliers, we identify smelters and verify whether they comply with RMAP\*1 or have acquired other certifications. 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 change suppliers or eliminate the use of such materials. Going forward, we will continue to collect survey forms from all suppliers, with the aim of procuring only from conformant/active smelters\*3.

- \*1 RMAP: Responsible Minerals Assurance Process program stipulated by RMI\*2
- \*2 RMI: Responsible Minerals Initiative, an organization that provides industry-standard survey tools, etc. for companies to conduct responsible mineral procurement
- \*3 Conformant smelters: Smelters that have been audited to be RMAP compliant Active smelters: Smelters that are at the preparation stage to be audited by RMI
- \*4 CMRT, EMRT: RMI-issued conflict minerals survey forms

# ■ Activities Regarding Gold, Tantalum, Tin and Tungsten

Item	Data
CMRT*4 collection rate	100%
Ratio of conformant/active smelters*3	94.1%

### Cobalt and mica related activities

Item	Data
CMRT*4 collection rate	100%
Ratio of conformant/active smelters	80.6%



# **■** 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.

# **■** Initiatives

# Corporate governance structure and initiatives

# Board of Directors, Audit & Supervisory Board, and other meeting bodies

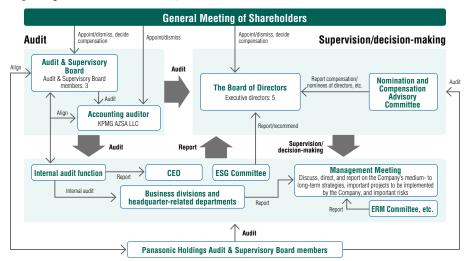
The Board of Directors consists of 5 directors and 3 Audit & Supervisory Board members (as of April 2025). As the decision-making body for important management issues, the Board of Directors makes prompt and accurate judgments and promotes appropriate business operations.

The Audit & Supervisory Board monitors the status of governance operations, among other duties, on an autonomous and independent basis. Through activities such as regular on-site inspections and attendance at major meetings, the Audit & Supervisory Board audits daily management activities, including the status of the execution of duties by directors.

We has also established a Management Meeting, consisting of executive officers and Audit & Supervisory Board members, to make prompt and appropriate decisions. The following additional, committees were set up and are operating to further strengthen our governance system The following additional, committees were set up and are operating to further strengthen our governance system: a Nomination and Compensation Advisory Committee to strengthen objectivity and transparency in the appointment, dismissal, and compensation of directors and executive officers; an ERM\* Committee to identify, assess, and formulate measures to address cross-organizational risks at the Panasonic Energy Group; and an ESG (Environmental, Social and Governance) Committee, which is responsible for planning and evaluating ESG-related matters.



■ Corporate governance structure (as of April 2025)



# **Executive remuneration system**

The remuneration system for executive officers consists of basic salary and performance-based remuneration. Performance-based remuneration is determined based on the degree of achievement against financial targets, such as operating cash flow and EBITDA, and non-financial targets, such as KPIs in the function for which the executive officer is responsible and environmental contribution from an ESG perspective. We are working to enhance corporate value from a non-financial perspective by incorporating environmental contributions, serious accidents, and compliance as ESG perspectives in our non-financial targets.

## Internal control

The Board of Directors has formulated the "Basic Policy for the Establishment of Internal Control Systems" to ensure the adequacy of business operations and reporting systems, to ensure the legality and efficiency of the execution of duties by directors, to manage risks, and to ensure the independence and effectiveness of corporate auditors. Based on each of these basic policies, the Company establishes and operates various regulations, committees, etc., provides education, conducts audits including those of subsidiaries, and operates a fraud prevention hotline, as well as a transaction and contract risk management. Then, we are striving to ensure sound, efficient business operations, and reinforce our management foundations, by strengthening governance.

### **ERM Committee**

Recognizing that accurately managing risks and taking appropriate countermeasures is an important management issue, the Company has established an ERM Committee, chaired by the Officer in Charge of Risk Management and composed of the heads of the legal, human resources, accounting, and similar departments, as well as Audit & Supervisory Board members. The ERM Committee reports regularly on significant risks and the progress of countermeasures based on the PDCA cycle of risk management to the Management Meeting, which supervises and verifies these efforts. Specifically, the Committee assesses a wide range of risks from the perspectives of both the degree of impact at the time of occurrence and the likelihood of occurrence. Based on the results of these assessments, the Management Meeting identifies key risks, the owners of the identified key risks are responsible for formulating and implementing countermeasures and monitoring their progress in order to ensure continuous improvement.

<sup>\*</sup> ERM: Enterprise Risk Management

# **■** Director profiles

# 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)

### Apr. 1772 Joined Matsusinta Electric industrial Co., Etd.

Apr. 1991 Joined Matsushita Electric Industrial Co., Ltd.

Masaru Miki

In Charge of General Affairs

Director, Managing Executive Officer

Chief Human Resources Officer (CHRO)

Jun. 2014 Seconded to Panasonic India Private Ltd., Director, Chief Human Resources Officer (CHRO) of the company.

Apr. 2017 Seconded to Panasonic India Private Ltd., Director, Chief Human Resources Officer (CHRO) of the company / General Manager, Global Human Resource Department of Panasonic Corporation

Oct. 2021 Managing Officer of Energy Company

Apr. 2022 Managing Executive Officer of Panasonic Energy Co., Ltd.

Chief Human Resources Officer (CHRO) of the company (incumbent)

Apr. 2024 Director, Managing Executive Officer of the company

Jun. 2025 Representative Director, Managing Executive Officer of the company (incumbent)



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.

Jun. 2025 Director, Executive Vice President of the company (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) In charge of Brand Strategy



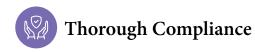
Apr. 1983 Joined Matsushita Electric Industrial Co., Ltd.

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)



# 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  $^{\star_1}$  Offense: New initiatives aimed at advancing our business

Foundation: Initiatives that form the basis for business promotion

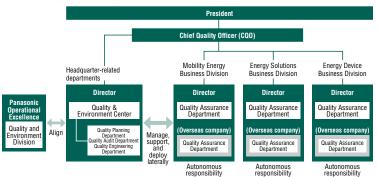
Through these activities, we aim to eliminate all serious product incidents.

\*1 The strength of a system or machine against external forces.

KPI	FY2025	FY2031
Number of serious product incidents*2	0	0

<sup>\*2</sup> Number of new product incidents leading to safety-related recalls

# ■ Our quality assurance system



# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/governance/quality\_safety.html

## **■** Initiatives

# Activities to ensure product quality and safety

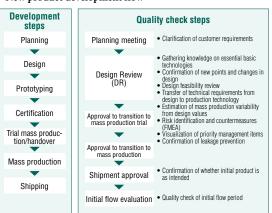
# Making quality assurance processes more robust

To establish a quality assurance process, we have built and operate a quality management system that complies with ISO 9001, IATF 16949, and other global standards in each business division, and regularly check its effectiveness through internal and external audits. We also conduct our own quality audits of business division through our Quality & Environment Center to identify weaknesses and issues in terms of quality assurance and compliance, and work to make improvements toward better quality assurance company-wide through operations and monitoring, including the horizontal rollout of best practices.

# Strengthening product safety design and manufacturing

The environment, fields, and devices in which batteries are used are changing with the evolution of society. To address these changes in the design process, we identify and verify risks together with our customers (B-to-B and B-to-C) and suppliers of parts and materials. The identified risks are then fed buck 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 identify risks and take countermeasures by visualizing key data (DX) and FMEA\*3 in all processes from source to shipping, thereby bolstering management. We are also committed to developing human resources capable of putting these initiatives into practice by providing training in quality tools and statistical management methods, as well as support for hands-on activities.

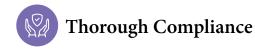
# ■ New product development flow



# Fostering a quality-oriented culture and developing human resources

We regularly hold various training sessions and events for all employees to foster a culture of placing the highest priority on product quality and compliance. At the Product safety forum, we strive to raise awareness and pass on lessons learned through activities such as reviews of past quality issues and technical lectures related to product safety. Furthermore, in order to develop human resources that can achieve the quality we aim for, we are building an education system according to rank and skill, implementing quality-related measures, and hosting various events, etc. For employees in technical roles, we provide training in 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.

<sup>\*3</sup> Failure Mode and Effects Analysis



# 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."

KPI	FY2025	FY2031
Number of serious legal and compliance violations*1	0	0

<sup>\*1</sup> The criteria are based on internal rules and regulations, etc.

# Thorough compliance with 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. As a company, we are engaged in various activities and undertakings to thoroughly enforce the Code for all employees.



# ■ Initiatives

# Initiatives to ensure thorough compliance with the Code of Ethics & Compliance

### **Education and awareness**

We conduct a variety of compliance-related training programs for all global employees. Compliance-related content is incorporated in new employee training, rank-specific training such as for new positions, and training for overseas assignments and similar programs. We also provide risk-based, field-specific compliance training, including anti-cartel and anti-bribery training, security export control training, subcontracting law, etc., as needed. In particular, we designate September of each year as "Compliance Month" for an opportunity to reconsider on the importance of compliance.

# Establishment and operation of 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. We have also 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 are ensuring the thorough implementation of our policies, share information on incidents, laterally deploy measures to prevent recurrence, and conduct education.

# 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 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. There were no significant legal or compliance violations in fiscal 2025.

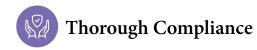
# ■ Trend in number of reports \*2

	1H	2H
FY2023	45	61
FY2024	46	47
FY2025	63	68

<sup>&</sup>lt;sup>†</sup>2 For fiscal 2024 and later, the standard applied until fiscal 2023 has been changed. Cases reported to EARS and the Equal Partnership Consultation Office were counted.

# Initiatives for compliance with laws and regulations in the supply chain

In response to the international security situation and increasing social demands on human rights issues, policies, laws and regulations in various countries and regions are growing and becoming more complex. By monitoring these policies and regulations globally, the Company strives to understand their impact on its business and respond in a timely manner. In particular, with respect to policies and regulations that may affect the entire supply chain, the Legal and Procurement divisions play a central role in establishing a company-wide compliance system, reporting to the Board of Directors and the Management Meeting, and determining how to respond.



# **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, appropriately managing our information assets, and responding to cyberattacks, etc.

We believe that it is important to work together as a company for everything we do. Our such efforts 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, 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

KPI	FY2025	FY2031
Number of information security incidents*	6	0

<sup>\*</sup> The criteria are based on internal rules and regulations, etc.

# Please check the sustainability website for details. https://www.panasonic.com/global/energy/sustainability/governance/information\_security.html

## **■** Initiatives

# Aiming to become zero information security incidents

# Information security governance

The Company has appointed a Chief Information Security Officer (CISO) as 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 Manager and the Information Security Promotion Office, appointed by the CISO, to interact with the workplace to gather collective wisdom and engage in initiatives through committee activities.

With regard to information assets, the leader of the organization that owns the information establishes the confidentiality, scope of disclosure, and handling of the information, and manages it in accordance with the provisions of the Panasonic Group Global ISM (Information Security Management) Regulations and related rules. Departments that hold information conduct periodic inventory checks to identify confidential information and check its management status, thereby proving that the confidential information is properly managed in the Company.

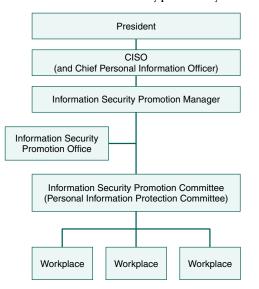
In the area of cyber security, we promote vulnerability countermeasures to ensure the safety of the systems and facilities that manage our information assets, as well as the products and services we provide to our customers.

# **Education and training**

The Information Security Promotion Office regularly plans and implements education and training to prevent information leaks. Specific initiatives include e-learning programs, targeted attack e-mail drills, and seminars by outside instructors to train management and organization leaders. We have also produced an educational manga in 6 languages to enable all employees to learn about information security in a fun way, and are distributing it globally.

Through these measures, we are working to thoroughly enforce our information security rules and raise employee awareness.

### ■ Structure of information security promotion system





Production: Trend-pro Inc.

# Financial Highlights\*1

# **Profit and Loss Statement**

		(Billions of yen)			
		FY2024	FY2025		
Sales		915.9	873.2		
	In-vehicle	605.0	481.2		
Industrial/Consumer		307.1	392.2		
Adjus	ted operating profit	94.6	122.7		
	In-vehicle	68.1	65.1		
	Industrial/Consumer	26.1	56.8		
Other income/loss		-5.8	-2.5		
Operating profit		88.8	120.2		
(OP % to sales)		9.7%	13.8%		
Depreciation (tangible)*2		71.6	69.7		
EBITDA*2		160.4	189.9		
(EBITDA % to sales)		17.5%	21.7%		

<sup>\*1</sup> Unaudited Including US IRA tax credit

# **Balance Sheet**

		(Billions of you)
	FY2024	FY2025
Cash and cash equivalents	222.6	338.5
Trade receivables	229.9	181.7
Inventories	160.9	154.1
Other current assets	54.7	59.6
Current assets	668.1	733.9
Property, plant and equipment	464.1	852.6
Right-of-use assets	6.6	8.0
Goodwill and intangible assets	5.9	11.8
Other non-current assets	228.8	298.0
Non-current assets	705.4	1,170.3
Total assets	1,373.5	1,904.2
Trade payables	180.7	168.9
Debt (1)	169.2	308.4
Lease liabilities (2)	6.7	8.5
Other liabilities	258.2	289.0
Liabilities	614.8	774.9
Equity (3)	758.7	1,129.3
	004.7	4 440 5
Invested capital (1)+(2)+(3)	934.7	1,446.3
ROIC	14.6%	11.9%

(Billions of yen)

# **Statements of Cash Flows**

(Billions of yen)

	FY2024	FY2025
FCF	-174.0	-267.6
Operating CF	139.3	213.0
Investing CF	-313.3	-480.6
-		
Capital investment (tangible)*3	292.1	501.1
Investment in intangible assets*4	3.4	7.8
R&D expenditures	23.2	39.5

<sup>\*3</sup> Calculated on an accrual basis

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

<sup>\*4</sup> Does not include M&A investments (increase in goodwill and intangible assets associated with acquisitions)

# Non-Financial Highlights (As of March 31, 2025)



18,716

72.5

27.5

FY2024

19.036

69.9

30.1

FY2025

20,679

71.1

28.9

FY2023

		Scope	Unit	FY2023	FY2024	FY2025
Greenhouse gas emissions						
Scope1 emissions		Consolidated*1	Kt-CO2	59.01*7	40.01*7	<b>★</b> 36.14
Scope2 emissions		Consolidated*1	Kt-CO2	318.83*7	257.87*7	<b>★</b> 216.63
Scope3 emissions	Category 1	Consolidated	Kt-CO2	2,534	2,367	2,245
	Category 2	Consolidated	Kt-CO2			203.7
	Category 3	Consolidated*1	Kt-CO2			46.96
	Category 4	Consolidated	Kt-CO2			60.73
	Category 5	Consolidated*1	Kt-CO2	0.04	0.11	0.13
	Category 6	Consolidated	Kt-CO2	2.47	2.49	2.62
	Category 7	Consolidated	Kt-CO2			4.71
	Category 9	Consolidated	Kt-CO2			33.32
	Category 12	Consolidated	Kt-CO2			412.44
Carbon offset by credit		Consolidated*1	Kt-CO2	-16.6	-35.86	-48.23
Total		Consolidated	Kt-CO2	2,897.99	2,631.19	3,214.44

# **Environment-related figures**

Net Zero Factories*2	Consolidated	Sites	10	14	<b>★</b> 17
Avoided CO <sub>2</sub> emissions	Consolidated	Kt-CO2	13,159*8	12,710*8	<b>★</b> 16,315
Environmental contribution index	Consolidated	_	4.5	4.0	4.9
Electricity Renewable Energy Ratio*3	Consolidated*1	%	23	33	46

- \*1 Head office MORIGUCHI sites (manufacturing/non-manufacturing) and Panasonic Energy Group manufacturing sites
- \*2 Factories that have achieved virtually zero CO2 emissions by conserving energy, introducing renewable energy, and using credits.
- \*3 Percentage of electricity, fuel, etc. used by Panasonic Energy that is derived from renewable energy sources (includes certificates, credits, and other externally procured items)
- \*4 Only overseas manufacturing subsidiaries until FY2023
- \*5 All Panasonic Energy Group corporations excluding overseas sales companies
- \*6 All Panasonic Energy Group corporations excluding overseas sales companies, and PANASONIC DO BRASIL
- \*7 Actual figures have been revised to reflect disclosure by credit offset amount
- \*8 Actual figures have been revised to conform to the calculation methodology of the WBCSD "Guidance on Avoided Emissions"
- ★ indicates environmental data certified by a third party.

LRQA Independent Assurance Statement:

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ttps://www.panasonic.com	/global/energy/sustainability/er	nvironment/review2025e.pdf

Diversity, Equity & Inclus	sion					
Ratio of employees (Japan)	Female	Consolidated (domestic)	%	14.6	14.5	14.9
	Male	Consolidated (domestic)	%	85.4	85.5	85.1
Percentage of employees in managerial positions	Female	Consolidated (domestic)	%	4.8	5.7	6.7
	Male	Consolidated (domestic)	%	95.2	94.3	93.3
Rate of childcare leave taken	Female	Consolidated (domestic)	%	100	100	100
	Male	Consolidated (domestic)	%	56.2	53.4	86.0
Occupational safety and	health					
Number of work-related fatalit	ies	Consolidated	Persons	0	0	1
Human rights						
Percentage of implementation self-assessments related to human rights and labour	ı of	Consolidated*4	%	100	100	100
Governance						
Number of occurrences of cas involving serious compliance		Consolidated*5	Cases	0	0	c

Scope

Consolidated

Unit

Persons

%

%

### Notation in scope column

Consolidated subsidiaries (domestic)

Panasonic Energy Kaizuka, Panasonic Energy Higashiura, Panasonic Energy Nandan

### Consolidated subsidiaries (overseas)

Panasonic Centroamericana, Panasonic Energy (Wuxi),

Panasonic Industry Europe, Panasonic Energy (Suzhou), Panasonic Energy Mexico,

Total number of identified leaks.

thefts, or losses of customer data

Human resources

Total number of employees

Ratio of employees (Overseas)

Ratio of employees (Japan)

Panasonic Energy Corporation of America, Panasonic Industry (China),

Panasonic do Brasil, Panasonic Energy India, Panasonic Energy (Thailand),

Panasonic Gobel Energy Indonesia, Panasonic Carbon India,

Panasonic Energy Sales Company of America,

Panasonic Energy Corporation of North America,

Panasonic Industry Sales Asia Pacific,

Cases

Panasonic Industrial Devices Sales Taiwan, Panasonic Hong Kong

0

0

### Sales companies

Consolidated\*6

Panasonic Industry Europe, Panasonic Industry (China),

Panasonic Energy Sales Company of America,

Panasonic Industry Sales Asia Pacific,

Panasonic Industrial Devices Sales Taiwan, Panasonic Hong Kong

0

# **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.
FY2025* Business results	Sales: ¥873.2 billion Operating profits: ¥120.2 billion
Number of Employees (as of March31, 2025)	Approx. 21,000 (Consolidated)

<sup>\* &</sup>quot;FY2025" refers to the year ended March 31, 2025.

# Major 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.

# Major Sites (Overseas)

- orth America ① Nevada Factory, Panasonic Energy Corporation of North America
  - (2) Kansas Factory, Panasonic Energy Corporation of North America
  - 3 Panasonic Energy Corporation of America
  - 4 Panasonic Energy Mexico S.A. de C.V.

### South and Central America

- 5 Panasonic Centroamericana S.A.
- (6) Panasonic do Brasil Limitada

### China

- 7 Panasonic Energy (Wuxi) Co., Ltd.
- 8 Panasonic Energy (Suzhou) Co., Ltd.

### Southeast Asia

- Panasonic Energy (Thailand) Co., Ltd.
- 10 PT.Panasonic Gobel Energy Indonesia

### India

- (11) Panasonic Energy India Co., Ltd.
- (12) Panasonic Carbon India Co., Ltd.

# **Major Sales Sites**

# Japan (1) Panasonic Ene

Panasonic Energy Co., Ltd. Global
 Marketing & Sales Division

North America 2 Panasonic Energy Sales Company of America South and Central America

### South and Central America

3 Panasonic Do Brasil Limitada

# Europe 4

e 4 Panasonic Industry Europe GmbH

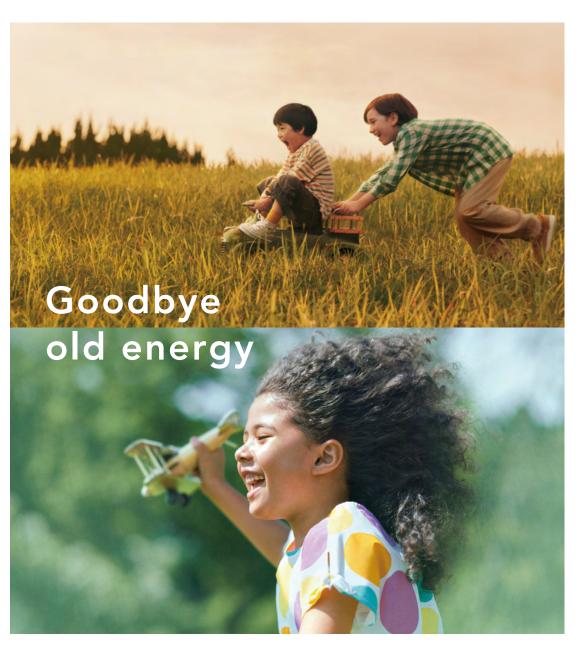
### Southeast Asia

- (5) Panasonic Industry Sales Asia Pacific
- ⑤ Panasonic Industrial Devices Sales (M) SDN. BHD.
- 7 Panasonic Industrial Devices Sales Thailand Co., Ltd.

### China & Northeast Asia

- 8 Panasonic Industry (China) Co., Ltd.
- $\begin{tabular}{ll} \end{tabular}$  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.

# **Brand Message**



# Hello new world.

Bid farewell to the folly of fossil fuels. Say goodbye to daily routines that emit mammoth amounts of CO<sub>2</sub>.

Say hello to forging forward with fresh, inventive approaches. Extend a warm welcome to new ways of thinking. Resolve—with us—to do whatever it takes to get the hard work done.

We're Panasonic Energy.

Our outlook for the future is a more beautiful planet—by the time today's children have kids of their own. We envision outcomes that embrace everyone, from all walks of life.

And so we begin—setting forth to bring about the better world we desire. To weave energy into every corner of life, transforming it into a force as essential and enduring as the elements themselves. Partnering with kindred spirits, we aspire to cultivate a society where prosperity is attainable for all.

Go with Panasonic Energy.

Energy that changes the future.

Panasonic ENERGY

Panasonic Energy Brand Message

https://www.panasonic.com/global/ energy/company/brand.html



# **Panasonic ENERGY**

Energy that changes the future.

