



**NeG**

**Nippon Electric Glass**

Integrated Report **2024**

For the year ended December 31, 2024

## Corporate philosophy

At Nippon Electric Glass, our corporate philosophy is a reflection of our founding mission, a statement of our devotion to creating products infused with the very best of human civilization for the betterment of society.

### Our corporate philosophy

**We strive to build a brighter future for the world by uncovering the unlimited possibilities of glass for more advanced creative manufacturing.**

Firmly rooted in the traditions of our founding mission, the NEG corporate philosophy plots a path for our quest for sustainable growth. Thanks to material design, melting, forming, and processing technologies, glass can be infused with different properties for a broad range of functions. We are dedicated to unlocking glass's potential to make life better and more comfortable for people and communities the world over.

**GLASS FOR FUTURE**

### Our vision

**The world's leading manufacturer of special glass**

Our goal is to become the world's leading manufacturer of special glass, with the best talent, the best technology, and the best creative manufacturing ability.

At the same time, we strive to run our company in a way that inspires pride among our workers and enables us to make a genuine contribution to the community.

The way we see it, creative manufacturing is achieved through state-of-the-art technological development, the highest quality standards, efficient production, and a steady supply of products, all underpinned by a fundamental dedication to environmental sustainability.

### Our values

#### Customer first

Everything is based on accurate understanding and complete satisfaction of customers' requirements.

#### Get the job done

We are dedicated to completing every task properly.

#### Broad minds and open communication

We think beyond existing norms and encourage frank communication among all departments and generations.

#### High ethical standards

We are bound to act ethically and in good faith in all situations.

#### Consideration for the environment

We are constantly aware of the need to be considerate of the environment, and strive to reduce our footprint.

## Editorial policy

Nippon Electric Glass publishes its Integrated Report to communicate with our stakeholders as part of our ongoing effort to enhance the level of disclosure. The Integrated Report 2024 describes our Company's features and strengths in an easy-to-understand manner and serves as a source of information about the company and our vision for the future.

The report also outlines our efforts to enhance our corporate value and deepen our dialogue with all stakeholders as we pursue our objective to be a world-leading manufacturer of special glass.

### • Organizations covered

The Nippon Electric Glass Group's 10 companies in Japan and 14 companies outside Japan are covered in this report. In cases where the coverage area of the data differs, we have indicated the appropriate coverage areas respectively.

### • Period of reporting

Fiscal 2024 (January 2024 to December 2024).

Some qualitative information regarding fiscal 2025 has also been included in this report.

### • Publication, next scheduled publication

Issued in April 2025. Next scheduled issue in May 2026.

### • Editorial guidelines

IFRS International Integrated Reporting Framework, GRI Standards, and others.

The GRI Content Index can be found at <https://www.neg.co.jp/en/sustainability/>

### • Caution concerning forward-looking statements

Statements in this Integrated Report with respect to our Group's plans, outlooks, strategies, and other statements that are not historical facts, are forward-looking statements involving risks and uncertainties. Please be aware that actual results may differ significantly from these statements due to various factors.



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# Our history

Nippon Electric Glass was established in 1949 during the turbulent postwar period in Otsu, Shiga Prefecture, with more than 90 employees. Our mission is to uncover the unlimited possibilities of glass and enable manufacturers to provide new value to society.

## Products and technological advances

**1951**  
Automated production of glass tubing using the Danner process



**1954**  
Started production of glass tubing for pharmaceutical and medical use

**1958**  
Started production of radiation-shielding glass

**1965**  
Started production of black-and-white CRT glass (production of color CRT glass began in 1968)



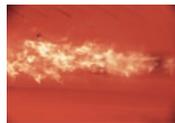
**1974**  
All-electric melting furnaces with no fuel-derived CO<sub>2</sub> emissions brought online  
Started production of LCD glass substrate

**1976**  
Started production of glass fiber

**1981**  
Started production of glass capillaries for optical connectors

**1988**  
Introduced FireLite®, super heat-resistant glass-ceramics for fire doors

**1993**  
Japan's first oxy-fuel firing furnaces brought online



**2000**  
Production of LCD glass substrate by applying the overflow process



**2003**  
Developed mass production technologies for producing Micro Prisms used in optical devices

**2008**  
Roll-to-roll process achieved for ultra-thin (50 μm) glass



**2011**  
Started production of glass for chemical strengthening

**2013**  
Started production of Lumiphous™ phosphor-glass composite

**2015**  
Developed glass wafer for supporting semiconductors

**2018**  
Developed the world's smallest optical isolator for high power fiber lasers using magneto-optical glass

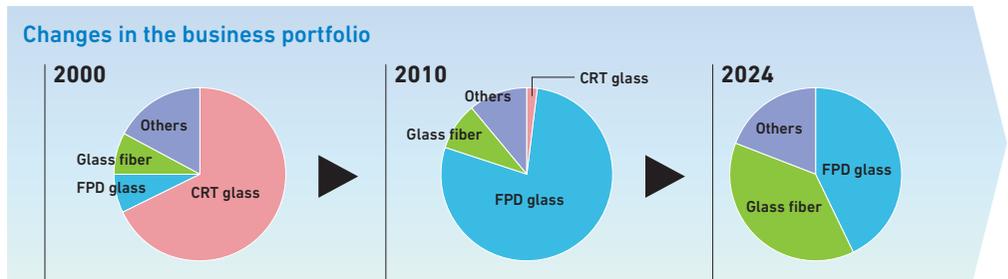
**2019**  
Started production of flat glass fiber  
Established an all-electric melting technology for LCD glass substrate



**2022**  
Established a hydrogen combustion glass-melting technology



**2023**  
Developed an all glass-ceramic, all-solid-state sodium-ion secondary battery, a world first



1949      1960      1970      1980      1990      2000      2010      2020      2024

**Applying technologies to expand our business as a leading special glass manufacturer**

We started out as a manufacturer of hand-blown glass for vacuum tubes for radios, and after succeeding in automatic forming of tube glass, moved on to mass produce such products as glass tubes for fluorescent lighting. In 1965, we enlarged the scale of our business to include producing glass for cathode-ray tubes (CRTs). Businesses were launched around glass-ceramics, glass fiber, glass for electronic devices, and more.

**Promoting global business as overseas markets expand**

In the 1990s, we set up a global production and supply system to meet global demand for CRTs, and grew into one of the world's leading CRT glass manufacturers. After launching our glass fiber production operations in Malaysia in 1998, we progressed to developing new liquid-crystal display (LCD) technologies in the late 1990s and continued evolving to meet the ongoing changes.

**The end of the CRT and changeover to LCDs**

To meet the rapid growth of the LCD market, in 2000, we started producing glass substrates for LCDs using an overflow process. Year by year, we were able to produce larger, higher quality substrates to meet the demands for increasing complexity in the LCD market. Business also expanded in glass fiber for strengthening high-function plastics and glass tubing for pharmaceutical and medical use.

**Building a new axis for growth to become the world's leading manufacturer of special glass**

We acquired production facilities in Europe and the United States from U.S.-based PPG Industries to expand our composites business. This operation grew into a major business for the company alongside the displays business. We also released new products, such as cover glass for smartphones and a phosphor-glass composite, and developed unique products such as glass ribbon and an all-solid-state sodium-ion secondary battery.

# Market and products

Nippon Electric Glass makes special glass products that provide a range of solutions through the limitless possibilities of glass. These possibilities support society wherever you look, whether it's in the electronic devices all around us, or in automobiles, offices, hospitals, or infrastructure.



## Automotive

**Special glass advancing automotive innovation**

We are advancing the innovation of automobiles by applying the performance features of our special glass to automotive structural and electronic components. Engineering plastics made from our E glass fibers play an important role in reducing vehicle weight to improve the environmental performance, and sensing devices with our high-performance glass are key components for achieving safe autonomous driving.



E glass fiber

Cover glass for image sensors

**E glass fiber chopped strands**  
Global market share

**Approx. 30%**



## Energy

**Special glass for a carbon neutral society**

Our glass is used in solar, wind, and other renewable-energy power plants, as well as in other areas of the energy production field, such as for research in next-generation energy. We are also developing glass technologies for secondary batteries in the energy storage field.



UV shielding ultra-thin glass

All-solid-state sodium ion secondary battery

**All-solid-state sodium ion secondary battery**

**World's first**



## Medical care

**Supporting advances in medical care and safety**

Advanced medical technologies must be highly safe and reliable, and strict quality control is essential. We develop, manufacture, and supply a variety of glass products that make medical care more sophisticated and safer. Our medical-use glass tubes reduce the risk of deterioration or alteration of pharmaceutical substances, and our radiation-shielding glass protects medical personnel from radiation exposure.

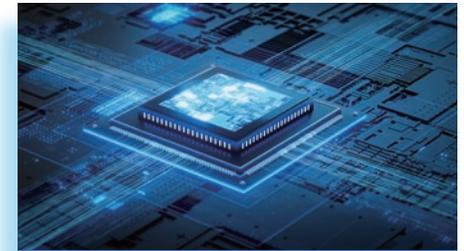


Glass tubing for pharmaceutical and medical use

Radiation shielding glass: LX Premium

**Glass tubing for pharmaceutical and medical use**  
Global market share

**Approx. 15%**



## Semiconductors

**Supporting semiconductor production indispensable to industry**

Whatever kind of electronic device—computers, home appliances, automobiles—they are used in, semiconductors are crucial to making our lives comfortable. Technological advances are leading to rapid progress in both performance and miniaturization. Our products featuring glass compositions and forming and processing technologies refined over decades are essential to bringing out the full potential of semiconductors.



Functional glass powder

Support glass for semiconductors

**Support glass for semiconductors**  
Global market share

**Approx. 70%**

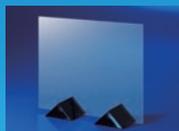
Market and products



## Displays

### The second largest supplier of glass display substrates

We are the world's second largest supplier of glass display substrates meeting the increasingly diverse and technical needs for high-definition video equipment used in televisions, computers, and smartphones as well as automobile displays and wearable devices. Our Dinorex® glass for chemical strengthening protects smartphone, tablet, and automotive displays from scratches and impacts.



Glass for displays



Ultra-thin glass for chemical strengthening: Dinorex UTC®

Glass for displays  
Global market share

Approx. **20%**



## ICT

### Optical and electronic components for an advanced information society

The outstanding properties of our special glass are making it a vital component in optical and electronic devices for an advanced information society. Our glass for optical and electronic components is gaining wider usage as next-generation network technologies and devices become more common. In addition, the changes in the ICT market and technological innovations are also broadening applications into the emerging fields of autonomous driving and smart cities as well as education.



Cover glass for image sensors



Optical communication components

Cover glass for image sensors  
Global market share

Approx. **90%**



## Social infrastructure

### Reinforcement glass for improved safety

The attributes of glass make it a common element in social infrastructure, where it is used as walls and windows as well as protective and reinforcing material. We provide decorative fire-protective glass and wall materials and glass fiber for reinforcing concrete. For over 40 years, the construction and civil engineering industries have been using our alkali-resistant glass fiber WizARG™ as a reinforcement material, improving the durability of buildings and infrastructure facilities.



Alkali-resistant glass fiber WizARG™



Glass-ceramic building materials: Neopariés®

ARG fiber  
Global market share

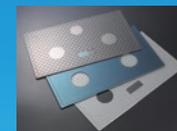
Approx. **20%**



## Home appliances and housing equipment

### Adding convenience and comfort to our lives

Special glass is also common in-home appliances and houses. We provide a full range of glass products that make our daily lives safer, more comfortable, and more enjoyable. Induction heating and gas stove top plates use our super heat-resistant glass ceramics, compressors in air conditioners and refrigerators use our functional glass powder, and plastic items are strengthened with our glass fiber.



Super heat-resistant glass-ceramics for cooking appliance top plates



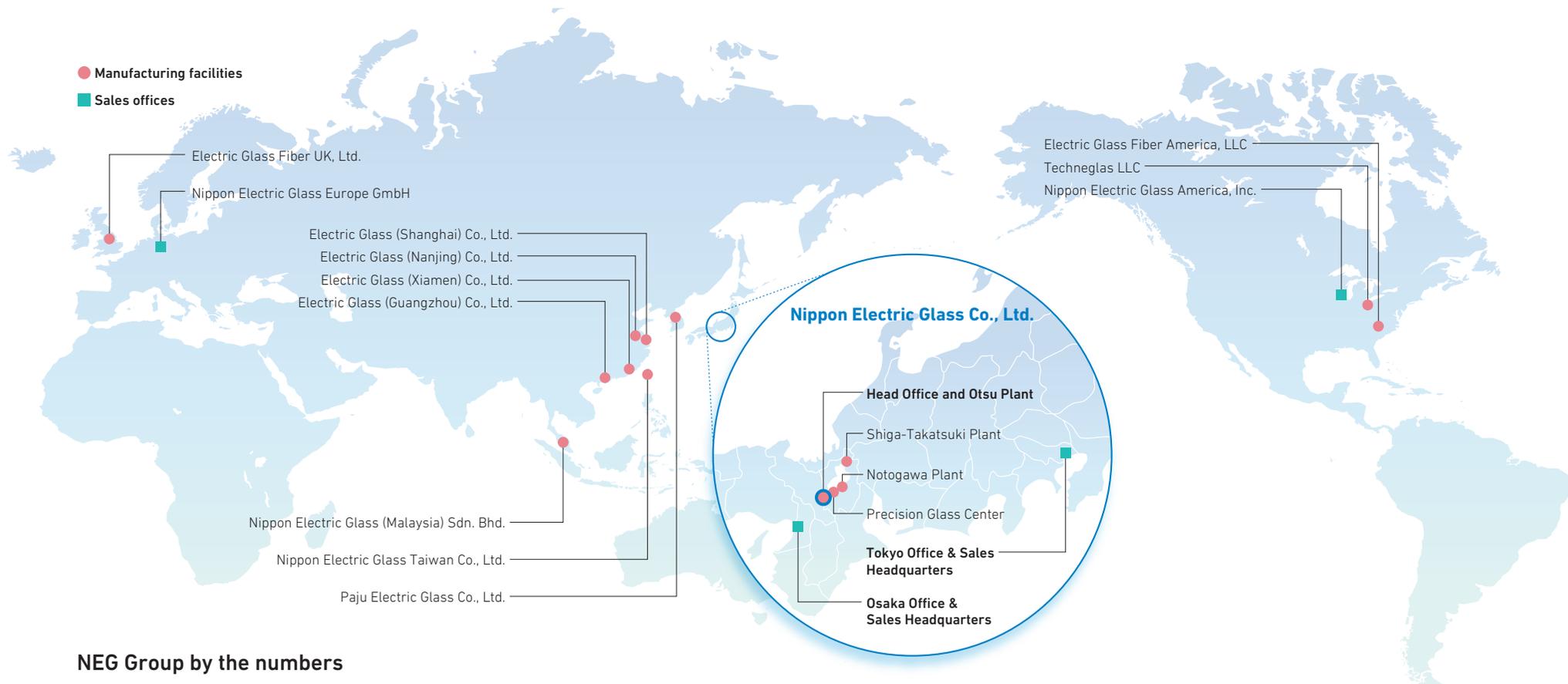
Granulated glass for metal packages

Glass-ceramics for cooking appliance top plates  
Market share

Approx. **15%**

# The Nippon Electric Glass global network

NEG's main development and manufacturing base is in Japan, and we also manufacture and sell various glass products in Asia, the United States, and Europe. We are a global corporation with 14 group companies overseas, and overseas sales accounting for over 80% of the Group's total sales.



## NEG Group by the numbers

Net sales  
**¥299.2 billion**  
(Year ended December 31, 2024)

Operating profit  
**¥6.1 billion**  
(Year ended December 31, 2024)

Total assets  
**¥695.1 billion**  
(Year ended December 31, 2024)

Clients in  
**over 80 countries**

Number of employees  
**5,498 consolidated, 1,746 non-consolidated**  
(As of December 31, 2024)

Ratio of overseas net sales  
**87%**  
(Year ended December 31, 2024)

Return on equity  
**2.5%**  
(Year ended December 31, 2024)

Equity ratio  
**69.6%**  
(Year ended December 31, 2024)

Percentage of employees overseas  
**55%**  
(Year ended December 31, 2024)

Group companies  
**10 in Japan, 14 outside Japan**

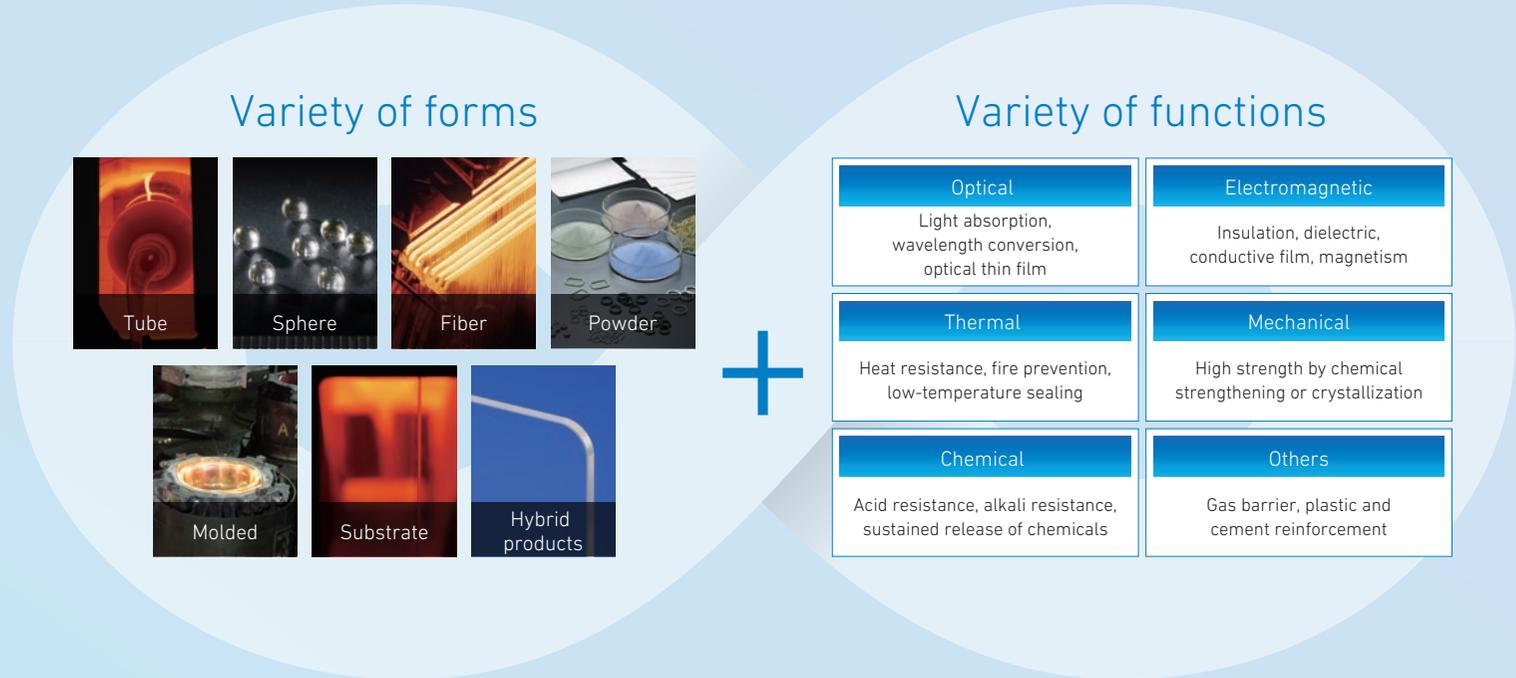
# Our strengths

Over the years, we have developed a wide range of glass technologies including material design and evaluation, melting, forming, and processing, and incorporated them into our production facilities, where they are the foundation for the development of new applied technologies. These technologies enable us to create unique, high-function glass products.

## Technologies

### Unmatched glass composition and process technologies

Our core glass technologies start with basic research and encompass material design, process engineering, product development, and glass characteristic evaluation. These competencies enable us to produce special glass with various forms and functions with fully integrated processes through to commercialization so we can swiftly deliver glass needed by our customers and society.



### Seventy years' experience combining basic and applied technologies



Our strengths

# Responsiveness

## Three elements for rapidly solving problems

One of the Group's strengths is our three-pronged approach to addressing problems using our inherited values, human resource development programs, and seamless organizational structure. Our frontier spirit of starting by giving anything a try has produced numerous groundbreaking products, which have earned us the trust of customers and high praise from society.

### 1 Our values



#### Our inherited values

Since our founding, NEG overcome severe competition and turbulent business conditions by being tenacious and maintaining high aspirations. Today, these "key values" serve as guiding principles for all NEG Group employees.

### 2 Human resource development



#### Various human resource development programs

We cultivate personnel capable of performing at a world-class level in all areas through a wide range of training programs, such as level-specific training, global human resource training, and skills training. We also provide support for self-development and the acquisition of professional qualifications as well as ensuring our work environments allow everyone to fully demonstrate their abilities.

### 3 Organizational structure



#### A seamless organizational structure

We have constructed an integrated development system facilitating the smooth sharing of information between the Research & Development Group, Process Development & Engineering Group, and Business Group, which together form the foundation of our manufacturing activities. With the further support of the Corporate Strategy Division and Marketing Division, we seek to "create glass that makes dreams come true."

**Highlight**

Turning technology into reality

## Breakthrough materials for next-generation semiconductors

The ever-growing volume of data traffic is making it increasingly vital to improve the performance of semiconductors. Current core substrates are made of resin, which cannot support the miniaturization required to improve semiconductor performance and lacks sufficient rigidity, causing deformation in larger substrates. We solved this issue by developing GC Core™, a new glass-ceramics core substrate that takes advantage of the excellent electrical

properties, rigidity, and flatness of glass. The GC Core™ is a core substrate made from a composite of glass and ceramic powder. In addition to the properties of glass, the material offers easy machining of micro-holes. GC Core™ is a promising material for next-generation semiconductor packages for its high-speed processing, damage resistance, and superior economic efficiency.

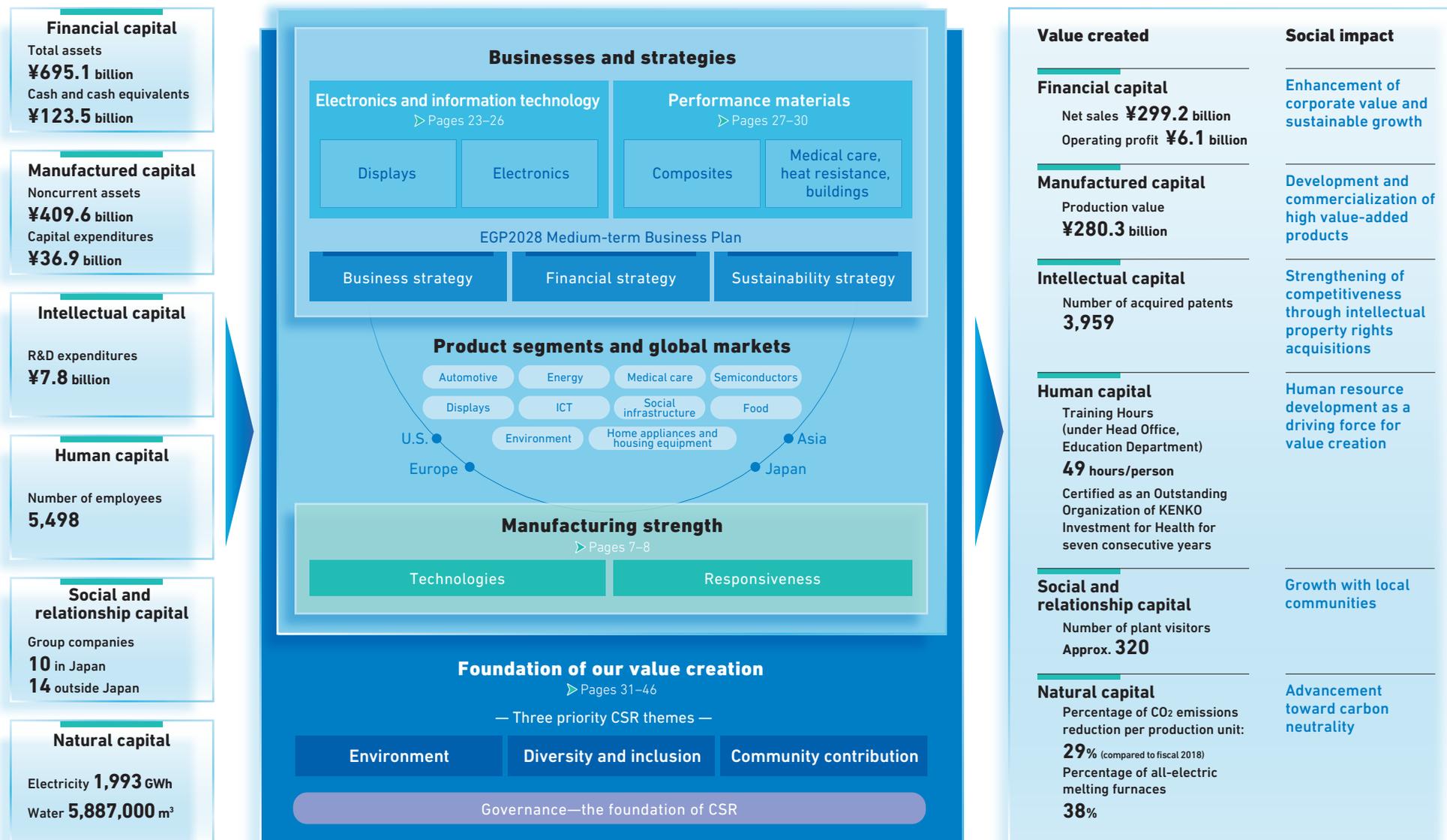


GC Core™



# Value creating process

Utilizing six resources of capital for our business operations, we provide value to society through our innovative products. We will continue our efforts to realize sustainable societies.



**Financial capital**  
 Total assets  
**¥695.1 billion**  
 Cash and cash equivalents  
**¥123.5 billion**

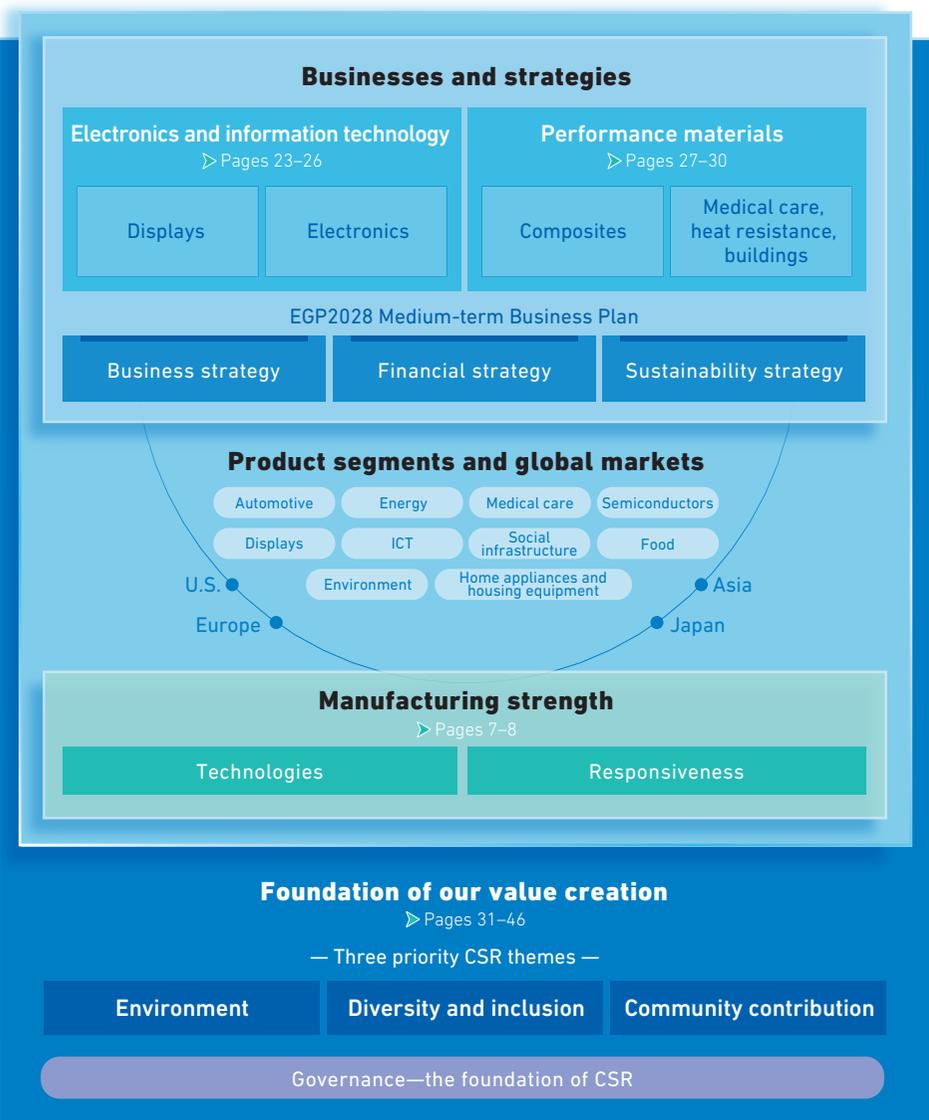
**Manufactured capital**  
 Noncurrent assets  
**¥409.6 billion**  
 Capital expenditures  
**¥36.9 billion**

**Intellectual capital**  
 R&D expenditures  
**¥7.8 billion**

**Human capital**  
 Number of employees  
**5,498**

**Social and relationship capital**  
 Group companies  
**10** in Japan  
**14** outside Japan

**Natural capital**  
 Electricity **1,993 GWh**  
 Water **5,887,000 m³**



**Value created**

**Financial capital**  
 Net sales **¥299.2 billion**  
 Operating profit **¥6.1 billion**

**Manufactured capital**  
 Production value  
**¥280.3 billion**

**Intellectual capital**  
 Number of acquired patents  
**3,959**

**Human capital**  
 Training Hours (under Head Office, Education Department)  
**49 hours/person**  
 Certified as an Outstanding Organization of KENKO  
 Investment for Health for seven consecutive years

**Social and relationship capital**  
 Number of plant visitors  
 Approx. **320**

**Natural capital**  
 Percentage of CO<sub>2</sub> emissions reduction per production unit:  
**29%** (compared to fiscal 2018)  
 Percentage of all-electric melting furnaces  
**38%**

**Social impact**

Enhancement of corporate value and sustainable growth

Development and commercialization of high value-added products

Strengthening of competitiveness through intellectual property rights acquisitions

Human resource development as a driving force for value creation

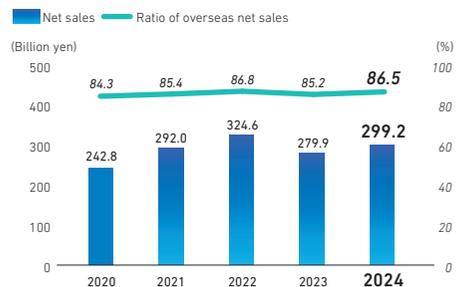
Growth with local communities

Advancement toward carbon neutrality

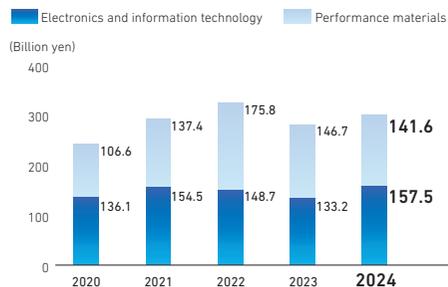
# Financial and non-financial highlights

## Financial highlights (consolidated)

### Net sales, ratio of overseas net sales



### Sales by business segment



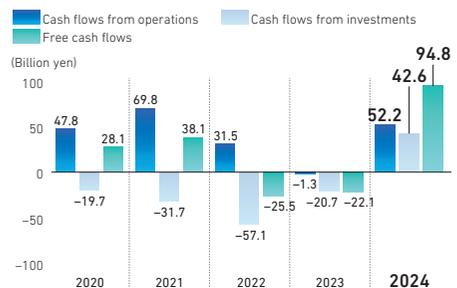
### Operating profit, operating profit ratio



### Net Assets, liabilities



### Cash flows



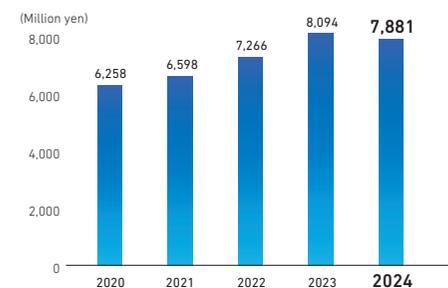
### Return on equity (ROE)



### Cash dividends, dividend on equity ratio



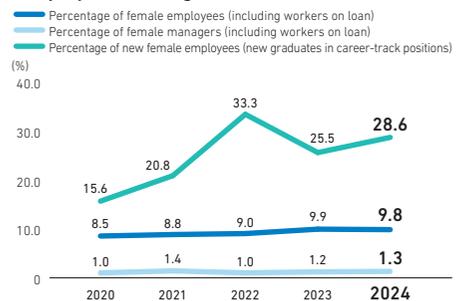
### R&D expenditures



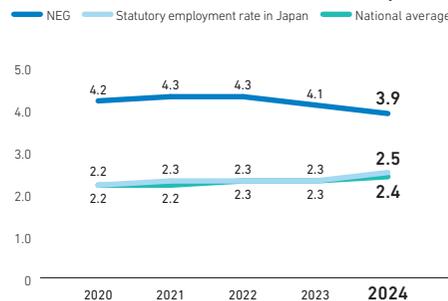
\* Dividend on equity ratio = total dividends / shareholders' equity

## Non-financial highlights

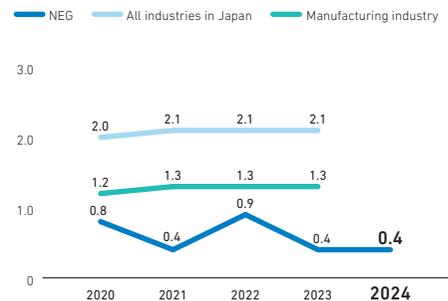
### Percentage of women (employees, managers, recruits) (NEG)



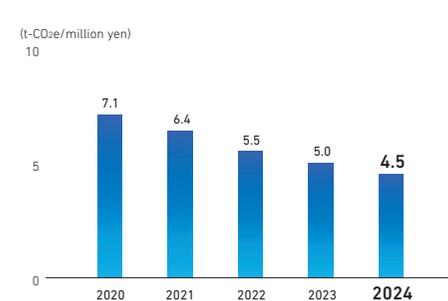
### Percentage of employees with disabilities (NEG and consolidated subsidiaries in Japan)



### Industrial accident frequency rate (NEG)



### CO<sub>2</sub> emissions intensity (to consolidated sales)



## Message from the President

We will make steady progress toward achieving the targets of the EGP2028 Medium-term Business Plan and increase our presence as the world's leading manufacturer of special glass.

**Akira Kishimoto**

President and Representative Director



## Message from the President

### Reestablishing profitability through strong semiconductor product sales and ongoing cost control

The business environment was more severe than expected in fiscal 2024, as the economies slumped in China and several other countries, the Russia-Ukraine conflict persisted, and the situation in the Middle East continued to worsen. Economic uncertainty led to ongoing high prices for raw materials and energy as well as rising ocean freight rates. Despite these headwinds, we raised net sales by 6.9% from the previous fiscal year to ¥299.2 billion and improved from an operating loss to an operating profit of ¥6.1 billion. The main drivers of this solid performance were the recovery in demand, price increases in the displays business, and strong sales of semiconductor products in the electronics business. Also contributing to our performance were improved cost management following the business restructuring reform implemented in fiscal 2023 and our ongoing efforts to improve productivity.

We made steady progress during the year developing and commercializing products. A prime example is Dinorex UTG®, our ultra-thin glass for chemical strengthening, which is receiving numerous inquiries and is already being used for foldable smartphones. Dinorex UTG® is also attracting attention for use in speaker diaphragms for the ability of glass components to improve acoustic performance. We expect the number and range of applications to continue growing.

In the semiconductor field, sales of our support glass for semiconductors used in manufacturing processes increased markedly in fiscal 2024. The growth was largely attributable to

our enhanced production capacity, and we plan to continue expanding our facilities to support ongoing sales growth in fiscal 2025. In late fiscal 2024, we also launched mass production and sales of glass substrates for probe cards, which are used in electrical testing instruments for semiconductor chips mounted on silicon wafers. We expect these substrates to start contributing significantly to sales in fiscal 2025.

We offer products ranging from glass materials to glass products used in semiconductor processes, and we are leaning into our strengths to step up development of products for next-generation semiconductors. Our inorganic core substrates, such as GC Core™ and other glass substrates, are gaining attention in the growing market for semiconductors used for generative AI and data centers, and we are accelerating development to bring products to market sooner.

### EGP2028 basic strategies



### Steadily implementing EGP2028 Medium-term Business Plan to achieve our ultimate goal

The EGP2028 Medium-term Business Plan launched in February 2024 sets performance targets for fiscal 2028 of ¥400 billion in net sales, ¥50 billion in operating profit, a 12.5% operating profit ratio, and an 8% ROE. Reaching these targets requires a balanced approach considering business, finance, and sustainability. In the business aspect, increasing profits in our core businesses is essential, and we are focusing specifically on reinforcing existing businesses, expanding strategic businesses, and managing procurement risks.

Reinforcing the existing business began when I was appointed company president in fiscal 2023. The structural reforms we implemented in the displays and composites

## Message from the President

businesses put them back on the path to profitability. We are now taking steps to ensure the existing businesses continue generating steady profits. Revitalizing the composites business is of vital importance.

Amid the increasing competition from Chinese companies, we are working to improve our cost performance by achieving maximum production efficiency for our specialty and high value-added products. We closed facilities where productivity was decreasing due to aging systems or other factors and consolidated operations into more efficient equipment. Additionally, we reassessed the types of products produced at each site and are introducing electric melting technology to enhance production efficiency in the composites business. We are also focusing on developing and increasing sales of high value-added products.



Growing the electronics business will be another crucial step. We are planning aggressive investment centered mainly on semiconductor products with the aim of tripling the business total sales from ¥20 billion in fiscal 2023 to ¥60 billion by fiscal 2028.

The second focus theme is expanding our strategic businesses. We continue to make rapid progress toward commercialization of all-solid-state sodium ion secondary batteries and are receiving a growing number of inquiries. We are developing batteries designed to meet a wide variety of specific needs, including wireless devices used in ultra-high temperatures exceeding 100°C, and for electronics, mobility, and stationary applications requiring high safety and battery design flexibility. We are also receiving praise from the semiconductor industry for the performance of our batteries

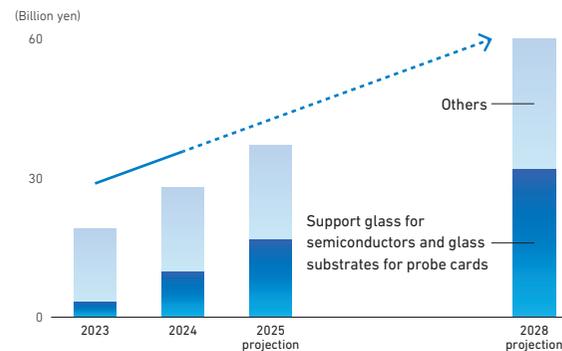
in vacuum and high-temperature conditions. We are currently preparing facilities that will begin mass production and product sales in fiscal 2025.

As advances are made in high-power laser technology around the world, we are focusing on expanding our business in optical isolators for high-power lasers. We see vast potential and anticipate increasing demand for high-power laser technologies in fields spanning advanced medicine, space debris removal, and laser fusion. We are currently developing unique large-glass Faraday elements for the lasers and are aiming to swiftly advance to commercialization.

Currently, there is a functional gap between our R&D and business departments. The R&D department concentrates on creating high-quality, innovative materials and products, and the business departments focus on generating profits through mass production while maintaining quality. These two separate objectives make it challenging to transition smoothly from the development stage to mass production. To bridge this gap, we created an incubation unit in January 2025 that will focus specifically on bringing new products to market.

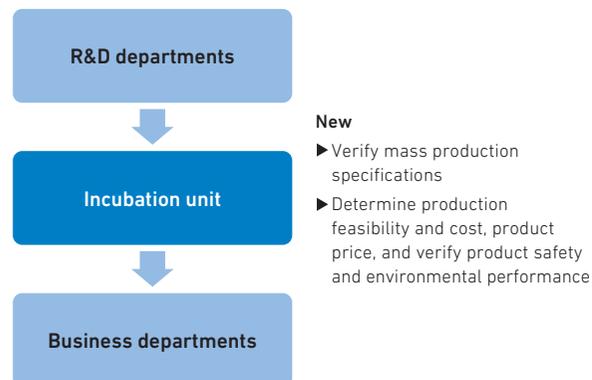
The incubation unit will enhance the likelihood of a product reaching the market by refining large-scale production technology, maintaining product quality and functionality, and assessing business viability. We are currently progressing in R&D on various products, including several targeted for introduction in fiscal 2025.

### Electronics business sales trend



## Message from the President

### Position of the incubation unit



The third focus theme for fortifying our existing businesses is to carefully manage procurement risk to maintain a stable supply of raw materials. One way we are doing this is by securing multiple sources for critical materials. Other ways are by recognizing the importance of our relationships with suppliers and constantly reviewing and making adjustments to ensure ongoing steady supply, such as by considering the long-term outlook and by communicating and sharing information with our suppliers.

We are also implementing digital transformation to strengthen our business foundation. In fiscal 2019, we introduced four levels of programs aimed at developing a digital mindset among Group employees and advancing professional human resources. The highest-level course

sends individuals to acquire advanced data analysis skills through master's degree programs at partnered universities. We believe these initiatives will further enhance our ability to develop cutting-edge technologies, optimize production processes, and ultimately transform manufacturing operations.

These initiatives, our push to increase sales with new products, and other efforts are all part of our drive to concretely improve business performance. We fully recognize that our current performance has much room for improvement. The entire company is fully committed to doing everything in our power to achieve the EGP2028 targets, and we will continue steadily advancing our strategies.

### Cultivating future human resources for the world's leading manufacturer of special glass

Our vision is to be the world's leading manufacturer of special glass providing products that will build a brighter future for the world. We strongly believe that our mission and reason for existing is to continue developing and providing the glass needed by civilization and the times. When an industry faces a challenge or needs a glass solution, I want NEG to be the first company they think of. I know we have the capability to be that company because from the very beginning we have been creating new glass compositions in the specialty glass field and cultivating unmatched manufacturing technologies. For



the next 10 and 20 years, I want us to remain highly focused on glass as we continue to grow our company. Our specialization in glass has provided the foundation for a viable engineering business, and we are actively developing our core glass technologies to expand further into producing our own devices with glass components.

We look forward to using our strengths as a company to help provide solutions to social issues and create a better future.

We would like to thank all our stakeholders for their continued support.

Akira Kishimoto  
President and Representative Director

# EGP2028 Medium-term Business Plan

Outline of the EGP2028 Medium-term Business Plan (fiscal 2024 to 2028)

## Slogan and basic policy

### STRONG GROWTH

We work to realize sustainable growth and enhance corporate value by fortifying the revenue base of existing businesses and aggressively allocating resources to growth areas

## Business targets

(Year ended December 31, 2028)

Net sales	Operating profit	Operating margin	ROE
<b>¥400 billion</b>	<b>¥50 billion</b>	<b>12.5%</b>	<b>8%</b>

## Positioning of EGP2028

### EGP2018

- Dissemination of corporate philosophy
- Business expansion
- Proactive M&As

### EGP2021

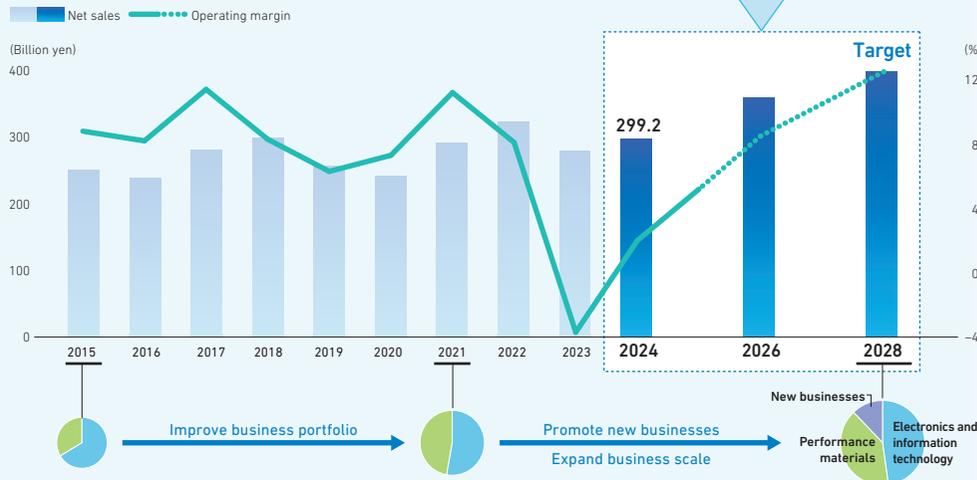
- Strengthen the business platform
- Innovative process technology
- Promote research and development

### EGP2026

- Reviewed as EGP2028

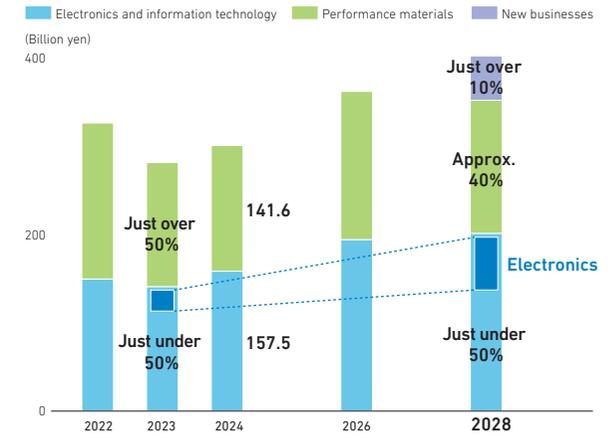
### EGP2028

- Reinforcement of existing businesses (Fortification of revenue base by increasing competitiveness)
- Expansion of strategic businesses (Enhancement of resource allocation to growth areas)
- Promotion of carbon neutrality



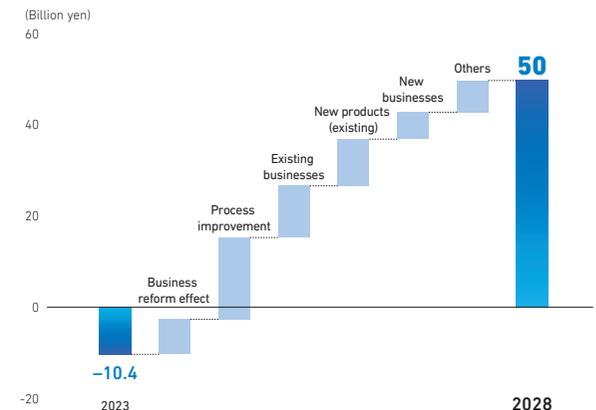
## Net sales

### Expansion of electronics business and development of new businesses



## Operating profit

### Improving profitability of existing businesses and increasing profits through new businesses



## EGP2028 Medium-term Business Plan

## Initiatives for the three strategies

## 1 Business strategy

**Reinforcement of existing businesses (Strengthen the earnings base by improving competitiveness)**

- Develop high value-added products and strengthen commercialization.
- Leverage all-electric melting technology to increase productivity and quality.
- Build a strong business foundation. (Efficient operation of resources, advance digital transformation, review of procurement, operational/manufacturing process reform, etc.)
- Thoroughly analyze business profitability to determine whether to invest in, downsize, or withdraw from businesses.

**Expansion of strategic businesses (Expanding resources to growth fields)**

- Leverage our strengths in special glass and allocate resources aggressively to business with promising growth opportunities to expand strategic businesses.
- Expand device businesses that will increase the added value of glass products.
- Bolster research and development resources focusing mainly on the fields of energy, medical care, environment, and food, and collaborate with universities, research institutes, startups, etc.
- Establish a budget for strategic investment (¥50 billion in five years) and actively undertake M&As, strategic alliances, business investments, etc.

**Procurement risks management**

- Respond to procurement risks by diversifying sources, distribution routes, and building strategic partnerships.

## 2 Financial strategy

**Reduction of cross-shareholdings**

- In consideration of changes in the business environment, we will evaluate the appropriateness of shareholdings both quantitatively based on cost of capital and qualitatively based on management strategies with the aim of reducing the proportion of cross-shareholdings in consolidated net assets.

**Asset reduction**

- We will dispose of any non-core assets arising in the course of EGP2028, structural reform of businesses, etc., as appropriate in order to increase asset efficiency.

**B/S management and enhancement of shareholder returns**

- We will work to enhance shareholder returns while managing our balance sheet in consideration of financial stability and capital efficiency and securing earnings to prepare for future growth.
  - **Share repurchases**  
We will carry out share repurchases of ¥100 billion in total during the period from November 2023 to the end of December 2028 (five years).
  - **Continuous dividend expansion: Target DOE\* 3%**  
While maintaining stable dividends as the basic policy, enhance dividends based on performance, financial conditions, growth investment, etc. (Annual dividend for fiscal 2024: ¥130, up ¥10 from the previous year)

\* Dividend on equity ratio (DOE) = total dividends / shareholders' equity

## 3 Sustainability strategy

**Promote carbon neutrality**

- We will pursue the development of all-electric melting technology and other technologies to contribute to the prevention of global warming while striving to achieve sustainable growth and corporate value enhancement.
  - Electrification of all our processes
  - Investing in and procuring renewable energy
  - Developing technologies for hydrogen energy and other carbon-free energy sources

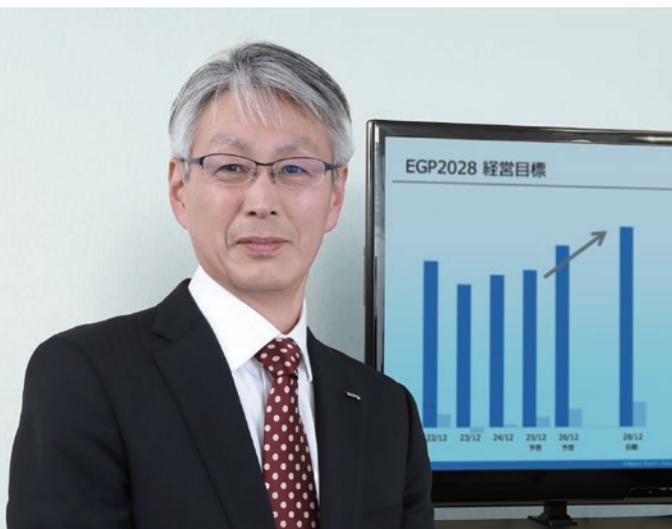
**Human resource strategy**

- We will expand investment in human resources who are expected to play pivotal roles in management while securing a work environment in which diverse individuals can fully demonstrate their abilities as appropriate in order to increase our competitiveness.
  - Recruiting and training personnel with advanced knowledge and skills
  - Encouraging diversity in our human resources hiring and promotions
  - Creating comfortable and motivating workplaces

**Supply chain management**

- We will promote initiatives to fulfill our social responsibility with regard to the environment, biodiversity, and human rights throughout the supply chain and work to achieve sustained growth and corporate value enhancement.

## Message from the CFO



We are strengthening our earnings base and strategically investing for the future to be a company that society knows and relies on.

**Mamoru Morii**

Director and Senior Vice President, CSR Committee Chairperson

### Regaining profitability and resolutely disposing of non-core assets

In fiscal 2024, we diligently focused on generating operating profit and successfully regained profitability even in a very challenging business environment. Ordinary profit also increased substantially, although this was largely due to foreign exchange gains. The extraordinary income resulted from the active disposal of non-core assets in line with the EGP2028 Medium-term Business Plan. During the year, we divested ¥49 billion in assets, primarily through the sale of the former Fujisawa Plant site and elimination of fixed assets following the structural reform of the displays business in fiscal 2023.

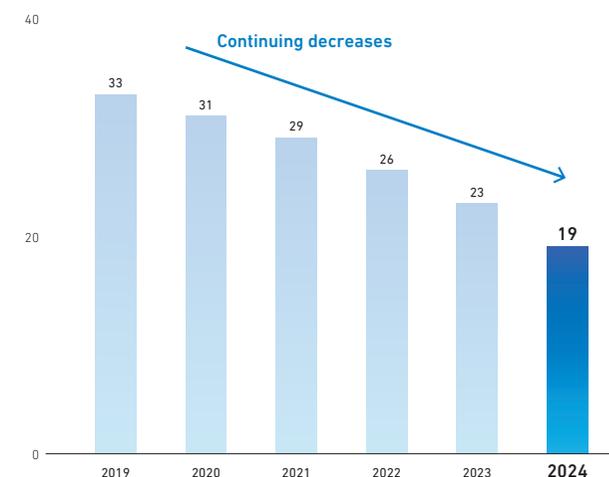
Every year, we also review and verify the appropriateness of our cross-shareholdings. In fiscal 2024, we sold all of our shares in four companies and a portion of our shares in another company. We presently maintain shares in 19 companies, representing 7.7% of consolidated net assets.

### Summary of fiscal 2024 consolidated results

	2023	2024	Percent change
<b>Net sales</b>	¥279.9 billion	¥299.2 billion	6.9%
<b>Operating profit (margin)</b>	-¥10.4 billion (-3.7%)	¥6.1 billion (2.0%)	—
<b>Non-operating profit</b>	¥0.9 billion	¥6.2 billion	6.7 times
<b>Ordinary profit</b>	-¥9.4 billion	¥12.4 billion	—
<b>Extraordinary profit</b>	-¥19.1 billion	¥11.3 billion	—
<b>Profit attributable to owners of the parent</b>	-¥26.1 billion	¥12.0 billion	—
<b>Net income per share</b>	-¥282.90	¥141.67	—
<b>Cash dividends per share</b>	Annual dividend ¥120	Annual dividend ¥130	—

### Reduction of cross-shareholdings

(Number of companies)



## Message from the CFO

### Growth-oriented cash allocation

EGP2028 contains a cash allocation budget of ¥210 billion for strategic investment and other spending, as development and investment are critical for future business growth. At the same time, we must be astute about where we allocate our funds. We plan to spend about ¥10 billion annually on R&D, which is part of our operating cash flow, to advance the development of products and process technologies.

We are currently focusing on increasing production capacity to meet the growing demand for support glass used in cutting-edge semiconductor manufacturing processes. In other areas, we are stepping up efforts to begin mass production of all-solid-state sodium-ion secondary batteries by the end of fiscal 2025, and advancing the development of inorganic core substrates in preparation for use in semiconductor packages. We are actively investing and advancing development in these and other areas where we see potential for strong increases in demand. At the same time, we are also improving our manufacturing efficiency in our existing business fields.

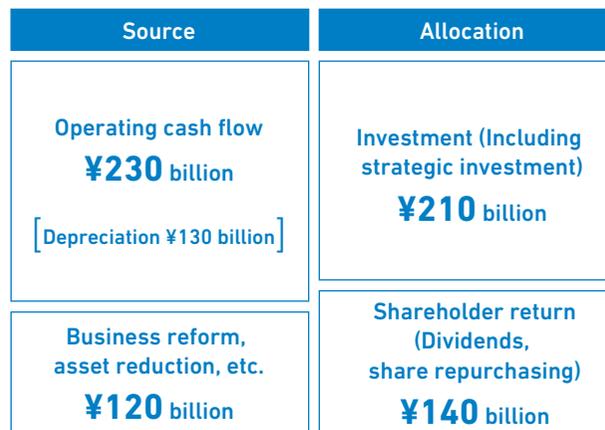
EGP2028 calls for providing ¥140 billion in shareholder returns during the plan's period. In fiscal 2024, we distributed a total of ¥10.9 billion for a combined interim and year-end dividend of ¥130 per share, and repurchased ¥28.1 billion worth of our own shares. In fiscal 2025, we plan to increase the annual dividend by ¥15 to ¥145 per share. We also commenced a ¥20 billion share buyback program in February 2025. This will raise the total value of shares repurchased since November 2023 to ¥60 billion.

### Constructing a business and strengthening communications to enhance the P/B ratio

We believe the most fundamental factor in improving our price-to-book (P/B) ratio is building a business model that generates profit. Achieving this requires continuously enhancing the profitability of our existing businesses while actively investing in new ventures that will drive future earnings. A crucial part of this process is identifying unprofitable products and either improving or discontinuing them if necessary.

### Cash allocation

EGP2028 plan (fiscal 2024 to 2028)

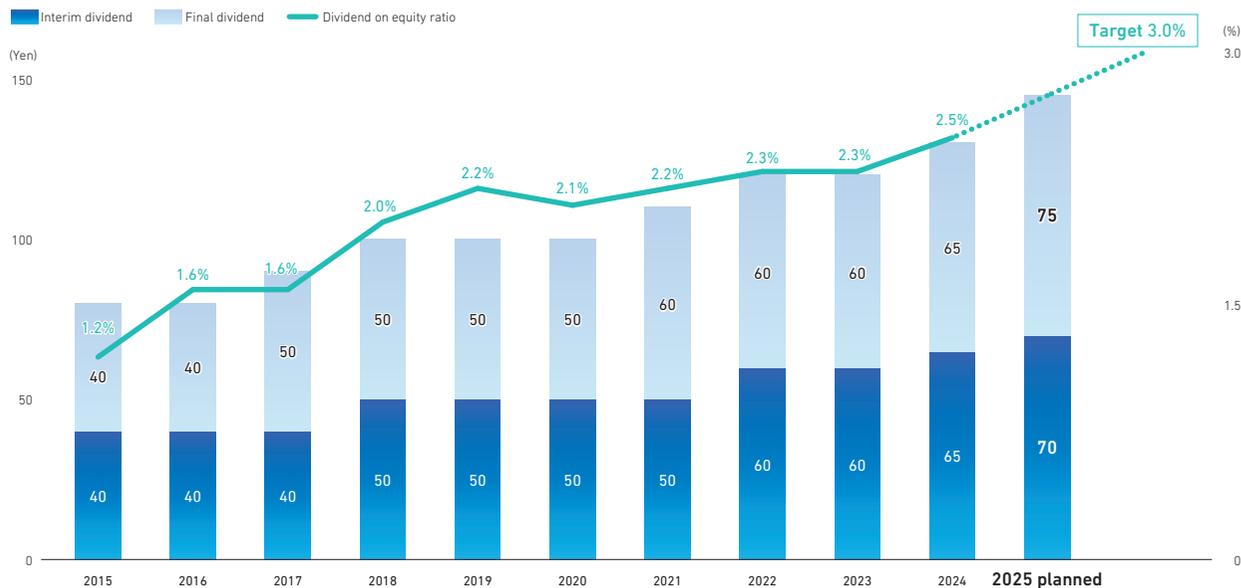


### Fiscal 2024 results

Operating cash flow	¥52.2 billion
(including depreciation ¥28.9 billion)	
Gains from the sale of fixed assets	¥49.0 billion
Gains from the sale of investment securities	¥10.7 billion
-----	
Capital expenditure	¥36.9 billion
Shareholder return	¥39.0 billion
[ including dividends ¥10.9 billion share repurchases ¥28.1 billion* ]	

\* Total of ¥40.0 billion during November 2023 to December 2024

### Shareholder return



## Message from the CFO

Similarly, nonessential assets will be eliminated. At the same time, we must carefully manage our balance sheet and control the cost of equity.

We also recognize that strengthening our ability to disseminate information is essential for raising the P/B ratio. Our past efforts in this area have been insufficient, and to build greater investor trust, we must communicate in a more timely and effective manner.

Many investors consider short-term earnings and shareholder returns, such as dividends, as well as a company's long-term potential, including its business prospects and appeal. We will focus on providing timely and relevant information that clearly outlines a concrete growth path, ensuring investors see the value in being part of our future success.

### **Strengthening our sustainability initiatives to fulfill the expectations of our investors, business partners, and employees**

One of the key focuses of our sustainability initiatives is ensuring that the activities themselves are sustainable. Efforts related to climate change, such as achieving carbon neutrality, have no meaning if they are only temporary. We aim to make sustainability initiatives permanent by integrating them into our business through activities designed to both support and enhance our operations.

Over the years, we have developed numerous technologies to reduce our environmental impact. Among them, our most innovative and effective breakthrough is our all-electric melting technology. Compared to conventional gas-powered glass melting methods, our all-electric approach is significantly more energy efficient and produces zero CO<sub>2</sub> emissions from combustion processes. It also allows for the production of higher-quality glass, benefiting both the environment and our business.

We are expanding our use of all-electric melting technology to encompass a wider range of products and have established an engineering business to make our environmentally friendly technologies available to other companies. Dedicating our full efforts to growing these businesses helps build a sustainable society while also increasing our corporate value.

In addition, ensuring diversity is essential for creating value that aligns with the times, and we are actively bringing in employees with diverse backgrounds. We are hiring more mid-career professionals, who now account for about half of our total hiring, and energetically promoting the participation of women and people with disabilities in the workforce. We are providing a framework to enable all of our human resources reach their full potential by expanding the flextime and work-from-home systems, supporting employees balancing work and childcare, and upgrading our education and training programs. One special step we are taking to develop digital human resources is to foster the digital mindset through rank-based training tailored to each individual's level and skills.

We introduced employee awareness surveys in fiscal 2023. Each department receives feedback on the findings to identify their key issues and set specific objectives, which is part of our ongoing effort to improve the work environment. We aim to create an environment where every employee feels comfortable expressing their individuality, works to their full potential, and is fully engaged in their work.

We consider human rights and environmental protection to be important not only for our company but also across our entire supply chain. To mitigate associated risks, we regularly survey our key business partners.

In January 2025, we established a human rights consultation desk to support supply chain members in addressing emerging issues.

Our activities align with social norms and with full respect for human rights and environmental considerations. Additionally, our basic purchasing policy strictly prohibits the procurement of conflict minerals. We are committed to fair business transactions and fostering mutual growth with our business partners.

Guided by our corporate philosophy—"Strive to build a brighter future for the world by uncovering the unlimited possibilities of glass for more advanced creative manufacturing"—we see this mission as both our way of contributing to society and the key to our long-term success. Generating solid profits is essential, as it provides the financial foundation to drive the next



stage of our business development, ensuring we remain a company that contributes to and is valued by society. We also recognize the importance of sharing our success with investors and the employees who dedicate their time and effort to our growth.

To be a company that investors, business partners, and employees value and trust, we will continue solidifying our foundation for generating stable profits and step up efforts to steadily enhance corporate value with a medium- to long-term perspective.

## Research and development, intellectual property strategy

### Uncovering the unlimited possibilities of glass

Glass is a unique material that can be customized into different shapes with a wide variety of functions by modifying its composition and altering the various forming and processing methods used. By combining our accumulated glass technologies with original ideas, we continue to deliver a variety of high-performance glass products matching contemporary needs.

#### R&D policy

We seek to speed up product development and commercialization by putting in place a well-coordinated system of development for materials, processes, and products. The results are then applied to our business strategy for medium- to long-term growth.

Under the EGP2028 Medium-term Business Plan, our aim is to use research and development (R&D) to drive the creation of future business. To this end, we are expanding our resources, mainly in the fields of energy, medical care, environment, and food.

#### R&D organization

Our R&D and manufacturing departments work closely together. Also, in support of R&D activities, the Corporate Strategy Division handles medium- to long-term business strategy planning; the

Marketing Division collects and analyzes information about markets, products and technologies, performs product and technology promotion, and disseminates information to secure customers; and the Intellectual Property Division is tasked with the research, rights acquisition, and utilization of intellectual property.

The Fundamental Technology Division, Research & Development Group, and Process Development & Engineering Group collaborate in conducting the NEG Group's R&D. The Fundamental Technology Division engages in glass-related basic research (glass structural analysis, strength, high-temperature melting, and others). The Research & Development Group and Process Development & Engineering Group design, develop, and evaluate the material and process characteristics based on a scientific approach.

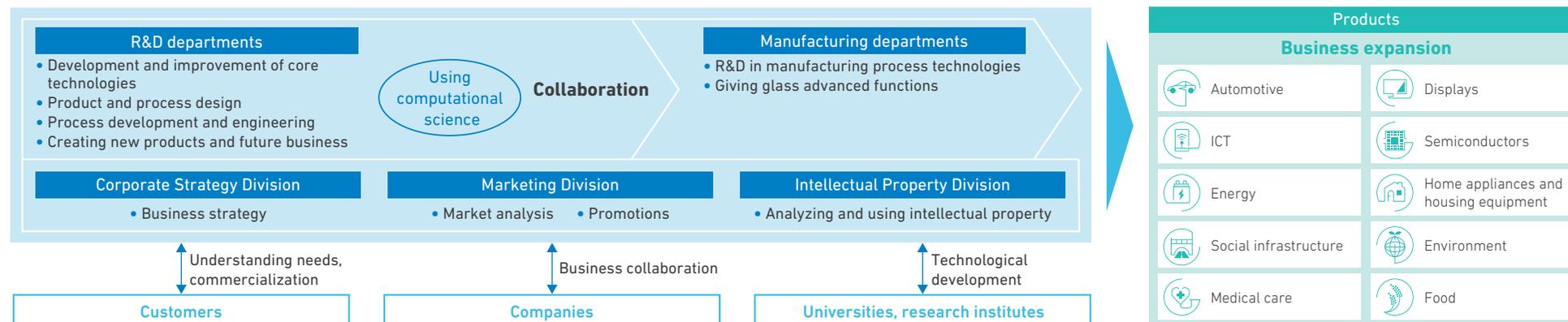
These core technologies are used as the foundation for fully capitalizing on the characteristics of glass to develop higher

functionality, which is then used to create new products with next-generation glass meeting the longer-term needs of society and industry.

Our manufacturing departments work closely with our R&D departments to come up with products and manufacturing process technologies that will facilitate growth and development in each business segment. Our main objectives are maintaining and improving manufacturing process technology, as well as utilizing that technology to improve the functionality of glass.

In addition to using computational science (including ICT and AI-driven data analysis) for these R&D activities, we work to strengthen development by pursuing co-creation in partnership with universities, research institutes, and companies in Japan and overseas possessing advanced expertise and technology in specific fields.

#### R&D organization chart



## Research and development, intellectual property strategy

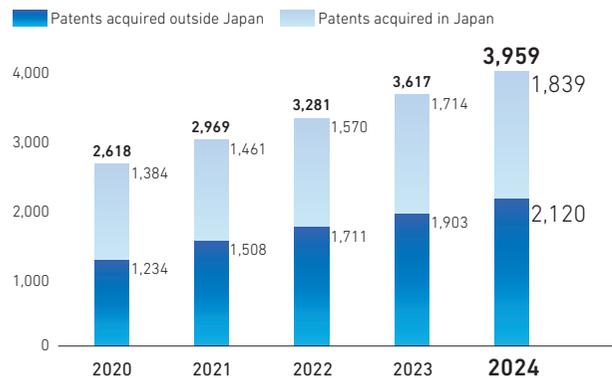
### Intellectual property policy

We have established the following basic policy for intellectual property activities, including patent rights, utility model rights, design rights, and trademark rights.

Pursue the appropriate acquisition or protection of intellectual property rights for development results in glass materials, manufacturing methods, and products. Use them to secure business domains and to maintain and strengthen competitiveness in order to differentiate our technology from that of competitors, leveraging this relative superiority for the sake of the company's development.

Our company philosophy is to "Strive to build a brighter future for the world by uncovering the unlimited possibilities of glass for more advanced creative manufacturing." To achieve this, we work daily to develop materials and products with new functionality and value, as well as the advanced manufacturing processes to produce them. These advanced technologies are important assets for our company and must be appropriately protected.

### Number of acquired patents



By actively acquiring intellectual property rights, such as patents with strong restraining force, and by appropriately safeguarding and managing our know-how, we keep other companies from imitating or catching up with us. We also formulate intellectual property strategies for each of our businesses to protect our business domains while maintaining and strengthening our competitiveness.

### Intellectual property management system

The head office's Intellectual Property Division is primarily focused on facilitating the activities listed below.

- Intellectual property-related investigation, rights acquisition, and utilization
- Analysis of NEG's and others' intellectual property, and provision of information to management and business departments
- Intellectual property-related employee education
- Incentive system for employee inventions

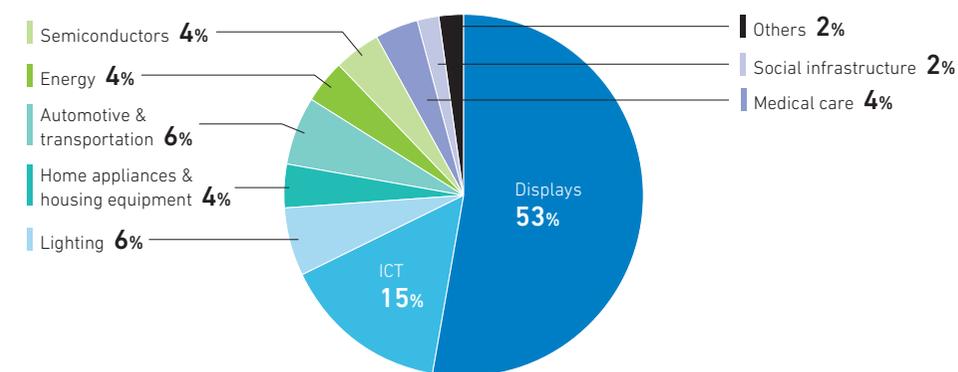
### Intellectual property education

We run a variety of training programs, including group training for new employees and patent search and application training for young to mid-level employees, in order to foster an intellectual property-oriented mindset focused on protecting our own intellectual property while respecting the intellectual property of others, thereby facilitating sound development and business activities.

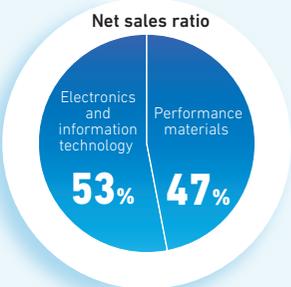
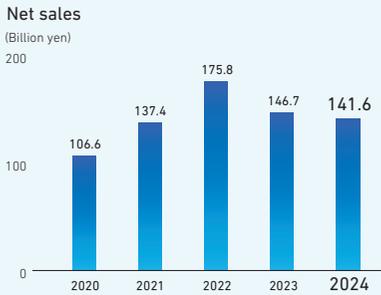
### Rewarding employee inventions

We offer incentives to employees for inventions and other proposals with the aim of stimulating acquisition of intellectual property rights, including patents, utility models, and designs. We also have a system to reward inventors in accordance to the degree they contribute to intellectual property rights the company acquires.

### Acquired patents by area



# Business portfolio

	Electronics and information technology	Performance materials		
Net sales and net sales ratio	<p><b>Net sales</b> (Billion yen)</p>  <p><b>Net sales ratio</b></p> 	<p><b>Net sales</b> (Billion yen)</p> 		
Businesses and main products	<p><b>Displays business</b></p> <ul style="list-style-type: none"> <li><b>Glass substrates</b> <ul style="list-style-type: none"> <li>Glass for LCDs</li> <li>Glass for OLED displays</li> <li>Ultra-thin glass: G-Leaf®</li> </ul> </li> <li><b>Glass for chemical strengthening</b> <ul style="list-style-type: none"> <li>Glass for chemical strengthening: Dinorex®</li> <li>Ultra-thin glass for chemical strengthening: Dinorex UTC®</li> </ul> </li> </ul>	<p><b>Electronics business</b></p> <ul style="list-style-type: none"> <li>Glass wafer for supporting semiconductors</li> <li>Glass substrate for probe cards</li> <li>LTCC products</li> <li>Functional glass powder</li> <li>Cover glass for image sensors</li> <li>Glass tubes for small electronic components</li> <li>Glass for optoelectronics</li> <li>Phosphor-glass Composite: Lumiphous™</li> </ul>	<p><b>Composites business</b></p> <ul style="list-style-type: none"> <li>Chopped strands for functional plastics reinforcement</li> <li>Wet chopped strands for building materials</li> <li>Roving for plastics reinforcement</li> <li>Chopped-strand mats for automobiles</li> <li>Alkali-resistant glass fiber for cement reinforcement: WizARG™</li> </ul>	<p><b>Medical care, heat resistance, and buildings business</b></p> <ul style="list-style-type: none"> <li><b>Medical care</b> <ul style="list-style-type: none"> <li>Glass tubing for pharmaceutical and medical use</li> <li>Radiation-shielding glass: LX Premium</li> </ul> </li> <li><b>Heat resistance</b> <ul style="list-style-type: none"> <li>Super heat-resistant glass-ceramics: Neoceram</li> <li>Super heat-resistant glass-ceramics for cooking appliance top plates: StellaShine®</li> </ul> </li> <li><b>Buildings</b> <ul style="list-style-type: none"> <li>Fire-rated glass: FireLite®</li> <li>Glass blocks</li> <li>Glass-ceramic building materials: Neopariés®</li> </ul> </li> <li><b>Others</b> <ul style="list-style-type: none"> <li>Glass for lighting</li> <li>Glass making machinery</li> </ul> </li> </ul>
Markets	 Automotive  Displays	 Automotive  Semiconductors  ICT  Home appliances and housing equipment	 Automotive  Infrastructure  Energy  Home appliances and housing equipment	 Infrastructure  Home appliances and housing equipment  Medical care
Features	<p><b>Sales percentage:</b> Approximately 80% of electronics and information technology</p> <p><b>Main customers:</b> Display panel manufacturers</p> <p><b>Sales regions:</b> China accounts for approximately 60%. Other regions include South Korea and Taiwan</p> <p>Large, thin glass produced using the overflow process makes possible beautiful, high-definition images on large displays.</p>	<p><b>Sales percentage:</b> Approximately 20% of electronics and information technology</p> <p><b>Main customers:</b> Electronic component manufacturers</p> <p><b>Sales percentage by market:</b> Semiconductors Just under 50%, automobiles just under 30%, ICT approximately 10%, home appliances and others approximately 20%</p> <p><b>Sales regions:</b> Japan approximately 40%, overseas approximately 60% (mainly in Asia)</p> <p>A wide variety of glass types with excellent properties and produced via high-precision processing supports the miniaturization of electronic components and ensures their high performance and reliability. We also supply processed products that offer greater ease of use.</p>	<p><b>Sales percentage:</b> Approximately 80% of performance materials</p> <p><b>Main customers:</b> Resin manufacturers, compound manufacturers, civil engineering and construction companies</p> <p><b>Sales percentage by market:</b> Automobiles just over 50%, housing equipment 10%, others (e.g., electronic equipment) 40%</p> <p><b>Sales regions:</b> Asia 30%, North and South America approximately 40%, Europe just under 30%</p> <p>Sizing agents applied to the surface of the glass fiber firmly bond the resin raw material with the glass fiber and add functions such as strength, rigidity, and heat resistance to expand the scope of use of resin.</p>	<p><b>Medical care</b></p> <p>Glass tubing for pharmaceutical and medical use, which accounts for more than 80% of the medical care business, imparts high chemical durability to pharmaceutical containers, enabling stable transportation and storage of pharmaceuticals.</p> <p><b>Heat resistance</b></p> <p>Glass-ceramics with excellent thermal shock resistance enhance the design and functionality of gas and IH cookers.</p> <p><b>Buildings</b></p> <p>Glass building materials with a variety of functions, shapes, and colors enable safe and well-designed buildings.</p>

# Business strategies

Electronics and information technology

## Displays business

Markets  Automobiles  Displays



**Takuo Horiuchi**  
Senior Vice President  
Group General Manager, Display Glass Group

### Our strengths

#### Technology using the overflow forming process to manufacture large, high-quality sheet glass

With the overflow forming process, we can produce thin and large flat glass sheets of high surface quality without the need for surface polishing since this manufacturing method avoids contact with both sides of the glass substrate. Currently, we have mass production technology capable of producing glass substrate of sizes up to the 10.5-generation (approx. 3,000 × 3,300 mm).

#### Innovative manufacturing process technologies that contribute to carbon neutrality

We are installing the innovative manufacturing process technologies that we have developed to all facilities, which is improving productivity and reducing energy consumption and CO<sub>2</sub> emissions. These technologies are enhancing our competitiveness in terms of cost and quality and advancing our progress to achieving carbon neutrality.

### Strategies

- Enhance quality and reduce environmental impact by expanding our innovative manufacturing process to all facilities
- Increase production and sales in the Chinese market, focusing on 10.5-generation size glass, and expand market share
- Expand applications for ultra-thin glass and glass for chemical strengthening
- Promote the development of new products other than displays by applying our overflow forming technology to various other glass materials

### Opportunities

- Increasing demand for display equipment due to increased unit sales and demand for larger screen sizes
- Strengthening competitiveness due to our innovative manufacturing processes

### Risks

- Rapid changes in the display market
- Tighter CO<sub>2</sub> emissions regulations and impact to reputation

### Cutting-edge, ultra-thin glass manufacturing technology

We manufacture ultra-thin glass of 0.2 mm (200 μm) and smaller thickness, and we are broadening applications for flexible devices and other devices. By applying this ultra-thin glass manufacturing technology, we have developed the Dinorex UTG® glass for chemical strengthening with a thickness of 0.025 mm (25 μm), which is the thinnest glass in the world and which has been well received by our customers.

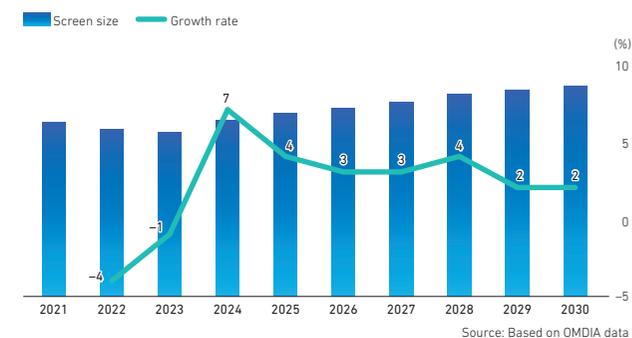
### Business environment

The Olympics and other major televised events were expected to boost TV sales in fiscal 2024, but the sales volume ended up near the same level as the previous year. At the same time, the market for larger display screens grew with the ongoing trend of larger screens for TVs, monitors, and other devices.

We expect the display market to continue growing at a moderate pace following the trends for larger screens and

increasing unit sales of notebook computers, smartphones, and automotive displays.

#### Outlook for increasing demand for larger display screens



## Business strategies

Electronics and information technology

Displays business

### Review of fiscal 2024

Net sales increased year on year in fiscal 2024 as brisk demand in the first half of the year and higher product prices in the second half overcame a slight dip in demand in the third quarter (July to September). Profits were supported by improved manufacturing costs from the higher utilization rate compared to the previous fiscal year.

We continued broadening the applications for our ultra-thin glass. Chemically strengthened Dinorex UTG® glass is being used in a growing number of devices, including the Motorola smartphones released in June 2024.

We also expanded applications for our speaker diaphragms. Speaker diaphragms have been usually made of paper, resin, or metal, but we recognized the attention being focused on the acoustic qualities of glass and formed a collaboration with the Taiwanese company Glass Acoustic Innovations Co., Ltd. (GAIT) to develop glass diaphragms. We see great potential to apply this innovation in markets ranging from home appliances to mobility.

Our strength is that we are the only company in the world capable of mass producing ultra-thin glass under 50 μm thickness using the overflow forming process. We are developing new materials and advancing our production technologies for manufacturing larger glass products and accommodating a broader range of applications.

### Initiatives to fulfill the EGP2028 Medium-term Business Plan

The displays business is the Group's primary and largest current operation. We recognize that our highest priorities are to become more competitive and to enhance our market position. We are accordingly developing innovative manufacturing processes in Japan and China designed to improve the quality, cost and environmental competitiveness of our products. We are also seeking to increase market share for our strategic products of 10.5-generation glass and high heat-resistant, low thermal compaction glass substrates for high-quality displays, while also expanding the range of applications for ultra-thin glass.

### Main products

#### Glass for displays

We have the second largest market share in the world for glass used for displays in LCD and OLED TVs, PCs, smartphones, automotive displays and wearable devices, among others. The main type is 0.4 to 0.5 mm in thickness and approximately 2,200 by 2,500 mm (8.5 generation) in size.

#### Dinorex® glass for chemical strengthening

This product is used as cover glass for smartphones, tablets, automotive displays, and other applications. It protects screens from scratches and impact. We also manufacture Dinorex UTG® ultra-thin glass that can be used for foldable devices.



#### G-Leaf® ultra-thin glass

This glass is as thin as 0.2 mm (200 μm) or less and can be bent like film. By taking advantage of its flexibility and lightness, this product is being put into practical use in electronic devices.

#### UV shielding ultra-thin glass

Our UV shielding ultra-thin glass offers exceptional shielding properties that protect devices from damaging UV light and extends their lifespan. These qualities make the glass suitable for use in perovskite solar cells and satellite solar panels.



## Business strategies

Electronics and information technology

### Electronics business

Markets  Automobiles  Semiconductors  ICT  Home appliances and housing equipment



**Masahiro Kobayashi**  
Senior Vice President  
Group General Manager, Electronic Products Group

### Our strengths

#### Advanced product development capabilities

We use our advanced material design technologies and abundant process technologies to carry out all aspects of material, product, and process development and engineering internally. This enables us to surpass all competitors in developing, commoditizing, and commercializing products with exceptional properties.

These strengths are particularly suited to the semiconductor market, where clients often must produce prototypes with differing specifications within a short timeframe. Providing these services in turn makes us even more competitive.

#### Consistent production and quality assurance systems

Our production and quality assurance systems for glass melting and forming, processing, incorporating coating, compounding, and other high added-value features, as well as examination, and analysis enable us to provide consistent and reliable product

### Strategies

- Expand sales through product development and stronger marketing in growth sectors, including semiconductors, automobiles, and next-generation communications
- Actively investment to build supply systems in the growth sectors
- Strengthen development of products for next-generation semiconductor packages (e.g., GC Core™, glass core substrates)
- Continue developing new customers through stronger marketing mainly in Europe and North America
- Strengthen customer communication and relationship building

### Opportunities

- Growing demand following the long-term growth of the semiconductor market
- Increasing competitiveness from our advanced technologies and a wide range of products

### Risks

- Rapid changes in the semiconductor market
- Insufficient human resources to keep pace with rapid demand growth

quality and supply, which has garnered high praise from our clients. We also specialize in small-lot, high-mix production, enabling us to flexibly respond to client needs.

#### Establishing strong brand power and high market share

Our high market share derives from our strong product development capabilities, consistent production system, and solid relationships of trust with clients, along with our strong brand presence power.

### Business environment

#### Glass for electronic devices

The home appliance and automotive markets saw limited growth in fiscal 2024 due to factors such as global inflation and weak domestic demand in China.

The semiconductor market grew significantly during the year in segments related to advanced packages and

high-performance memory for generative AI. We expect the ongoing expansion of generative AI and growing demand for data centers to drive robust market growth, exceeding 10% annually, into the long term.

#### Glass for optoelectronics

Demand for optoelectronic glass was weak in the first half of fiscal 2024, but showed signs of gaining momentum in the second half. We expect the ongoing strong demand for data centers to support a full-fledged demand recovery starting in fiscal 2025. Additionally, we expect continuing growth in data processing volume to fuel market expansion into the long term.

## Business strategies

Electronics and information technology

Electronics business

## Review of fiscal 2024

Overall segment sales rose supported by increased sales of glass wafers for supporting semiconductors. Supply chain inventory adjustments progressed and demand improved moderately for our image sensor glass, glass powder, microtube glass, and phosphor-glass composite—all which command high shares in the home appliance and automotive markets.

Optoelectronic glass sales increased year on year supported by improving demand in the second half of fiscal 2024 and rising demand for data centers.

## Initiatives to fulfill the EGP2028 Medium-term Business Plan

We responded to the strong semiconductor market demand in fiscal 2024 by increasing our glass wafer production capacity and offering a wider product lineup to meet client needs. In the second half, we commenced mass production and sale of glass substrates for probe cards.

Our product development efforts advanced further than we had planned for our composite glass and ceramic powder GC Core™ substrate for next-generation semiconductor packages as well as for other glass core substrates.

We plan to continue to aggressively expand our production capacity and product development for semiconductor components in fiscal 2025. In fields other than semiconductors, we aim to achieve the targets of EGP2028 by continuing to improve existing product quality and productivity. We will also accelerate the commercialization of new products while planning additional new products for the future.

## Main products

### Semiconductor manufacturing process components

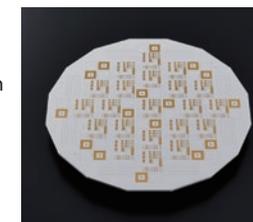
#### Glass wafer for supporting semiconductors

Carrier substrates for state-of-the-art semiconductor packaging processes.



#### Glass substrate for probe cards

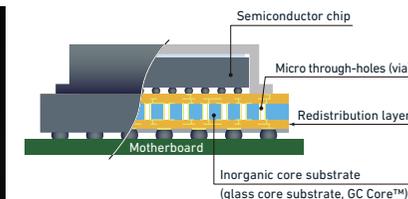
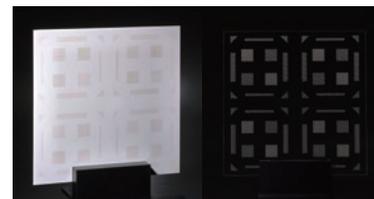
Substrate used in electrical testing for semiconductor chips on silicon wafers.



### Semiconductor materials

#### GC Core™, glass core substrates

Next-generation semiconductor packages are expected to use inorganic core substrates. Our glass core substrates provide excellent electrical properties, rigidity, and flatness.



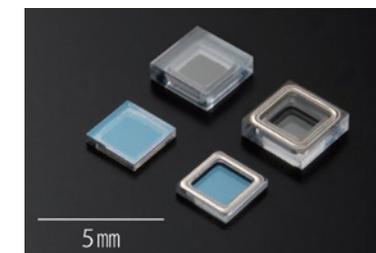
#### Glass for LTCC



#### Automotive image sensor cover glass



#### Glass lids with seals for packages for optical devices



## Business strategies

Performance materials

### Composites business

Markets  Automobiles  Infrastructure  Energy  Home appliances and housing equipment



**Tomonori Kano**  
Executive Vice President  
Group General Manager, Glass Fiber Group

### Our strengths

#### Global production system

Our base of four global production and supply systems in Japan, Malaysia, the United States, and Europe enable us to rapidly develop and supply our products and services in each region.

#### Advanced technical capability

We have gained strong market share by developing sizing agents (surface treatment agents) that have earned praise and customer trust. Sizing agents are applied to the surfaces of glass fibers to form strong bonds between the glass fibers and resin.

### Strategies

- Increase equipment effectiveness at our Malaysian plant and improve the competitiveness of our plants in Europe and the United States
- Introduce electric melting technology
- Actively invest in, and expand sales of, high value-added products (flat glass fiber, high-performance glass fibers for electronic materials)

#### Opportunities

- Increasing demand from the shift to electric vehicles and reducing vehicle weights
- Improved competitiveness by developing manufacturing processes that help attain carbon neutrality

#### Risks

- Soaring costs for raw materials, energy, and logistics due to a deteriorating global economy and heightened geopolitical risks
- Declining profitability due to changes in the competitive environment

### Low emission manufacturing technologies

We have been converting more of our melting processes to electric power sources to reduce our CO<sub>2</sub> emissions. For some of our products, we have been using all-electric melting technology for over 40 years, and we are currently expanding its use to other products.

### Advanced recycling technology

Our plants in Japan and Malaysia recycle all waste glass from the production processes. Waste glass is commonly disposed of in landfills, but for over 20 years we have been an industry leader in introducing recycling-based production systems.

### Business environment

The market for high-performance resin for automotive parts was sluggish in fiscal 2024 owing to the global economic slowdown and the impact of the slowing growth of the Chinese economy, which triggered an outflow of inexpensive Chinese products and caused prices to fall worldwide.

In the longer term, we expect demand for glass fibers to increase as the global trend toward carbon neutrality leads to energy-saving measures including the electrification of automobiles and efforts to lighten vehicle weights. For our products used in flooring, roofing, and other housing materials, we anticipated ongoing steady demand in Europe and North America.

## Business strategies

Performance materials

**Composites business**

### Review of fiscal 2024

The business environment remained highly competitive, resulting in sluggish segment sales, particularly for high-performance resin for automotive parts. The market conditions forced us to continually adjust the operating activities at our facilities, causing cost of sales to remain high. Profit was also affected by the persisting high raw material and energy costs.

We implemented the following measures to improve profitability.

- Formulated a flexible production system to meet local demand and improve production efficiency
- Incorporated manufacturing process technologies that contribute to attaining carbon neutrality
- Improved the quality and reduced costs for high value-added products (flat glass fibers)
- Developed high-performance glass fibers for electronic materials

### Initiatives to fulfill the EGP2028 Medium-term Business Plan

The composite business segment, with its vast range of products, is expected to grow in the medium and long term. We will continue advancing the above initiatives as we seek to produce steady results while improving profitability.

#### Market outlook for composites by application



Source: Based on data from Lucintel, Estin & Co. analyses and estimates

### Main products

#### Flat glass fiber

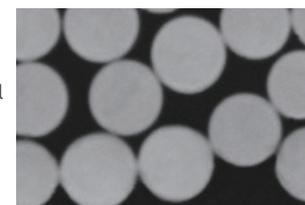
Flat glass fiber is chopped strands for thermoplastic resin reinforcement with flat cross sections.

Flat glass fiber offers improved dimensional stability and reduced warpage for molded products compared to conventional chopped strands with circular cross sections. Unlike conventional chopped strands, flat glass fiber can also accommodate special surface treatment agents suitable for specific workpieces to improve impact resistance and surface appearance.

#### Applications

- Automotive interior and exterior components
- Housings for smartphones and other electronic devices
- Electronic equipment

Cross-section shape

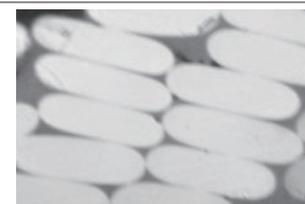


Conventional glass fiber

Molded product



Flat glass fiber



#### Alkali-resistant glass fiber WizARG™

WizARG™ is glass fiber with a high concentration of zirconia, offering exceptional alkali and acid resistance.

It is widely used as a reinforcing material in glass fiber-reinforced concrete (GRC) and calcium silicate products, as well as a crack inhibitor in mortar and concrete.

#### Applications

- GRC (panels, spacers, wall exteriors, exteriors)
- Fiber-reinforced utility poles
- Reinforcement materials for construction



Glass fiber products



Construction use: Airport in Mumbai, India

## Business strategies

Performance materials

### Medical care, heat resistance, and buildings business

Markets  Infrastructure  Home appliances and housing equipment  Medical care



**Norio Nakamura**  
Senior Vice President  
Group General Manager, Consumer Glass Products Group

### Our strengths

We remain committed to developing technologies related to glass materials, melting, and forming in order to develop a high-quality product line beyond the capabilities of our competitors.

#### Glass tubing for pharmaceutical and medical use

We offer pharmaceutical glass tubing with world-class chemical durability, homogeneity, and molding accuracy, which has earned deep trust in the pharmaceutical and medical industry in Japan and worldwide.

We are the only manufacturer of glass for pharmaceutical containers in Japan and play a vital role in supporting the country's medical industry. Our well-established manufacturing and supply systems, along with our close ties with glass processors, have enabled us to ensure Japan is fully self-sufficient for pharmaceutical containers.

### Strategies

- Medical care**
  - Introduce all-electric melting technology to establish a high-quality, highly efficient process for producing glass tubing for pharmaceutical and medical use. This will help generate sales growth and contribute to developing new customers in Europe, North America, India, and other countries
- Heat resistance**
  - Expand sales and develop new applications for high value-added products that capitalize on their excellent heat resistance and unique printing technology
- Buildings**
  - Expand sales of FireLite® fire-rated glass by promoting its safety and design

### Opportunities

- The expanding market for medical glass accompanying advances in medical care
- Increased competitiveness from developing our own innovative manufacturing processes

### Risks

- Soaring costs for raw materials, energy, and logistics due to a deteriorating global economy and heightened geopolitical risks
- Decline in profitability due to increasing competition

### Radiation shielding glass

Our radiation shielding glass is used in medical equipment and radiation research facilities for the high level of safety and reliability through its outstanding shielding performance. We provide glass in all sizes, including extra-large for industrial applications.

### Glass-ceramics

We produce a large variety of glass-ceramics, a special glass with extremely unique properties. Glass-ceramics provide excellent thermal shock resistance capable of withstanding rapid heating and cooling with virtually no thermal expansion. Applications range from cooking appliance top plates and stove window glass to fire protection equipment.

### Business environment

#### Medical care

Demand for medical care glass has slowed since the end of the

pandemic, but we expect demand for our pharmaceutical glass tubing to steadily grow as medical care becomes increasingly sophisticated.

We also expect demand for radiation shielding glass to continue steadily rising with advances in medical care and radiation equipment technology.

#### Heat-resistance

The economic stagnation in Europe and sluggish demand for wood-burning stove applications due to the high fuel prices have led to low demand for heat-resistant glass since fiscal 2023.

Our transparent glass-ceramic top plates, one of our core products, have been steadily penetrating the global market for cooking equipment components.

#### Building materials

Our FireLite® fire-rated glass offers superior fireproofing, heat resistance, and other properties compared to the wire-reinforced

## Business strategies

Performance materials

Medical care, heat resistance, and buildings business

glass and thermally tempered glass of competitor products. FireLite® is attracting increasing demand for building projects placing high priority on quality and safety.

## Review of fiscal 2024

### Medical care

Sales grew from the previous fiscal year as we raised our product prices amid the ongoing strong demand.

### Heat-resistant

Weak demand led to a year-on-year decline in sales.

### Building materials

Strong demand supported a year-on-year increase in sales.

## Initiatives to fulfill the EGP2028 Medium-term Business Plan

### Medical care

In fiscal 2024, we continued to develop our all-electric melting technology for pharmaceutical glass tubing, conducted mass production prototyping, and installed mass production technology. We are now preparing for broader deployment and horizontal expansion of the system to improve production efficiency and profitability.

### Heat-resistance

We will expand sales by taking advantage of our unique printing technology to propose more design-oriented and value-added products.

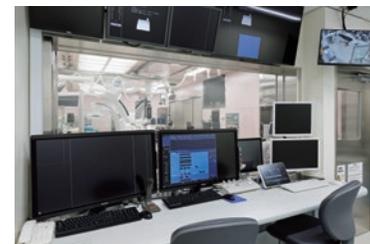
### Building materials

We will continue improving the properties and ease of use of FireLite Plus® Neo and FireLite® F (single-plate film-covered specifications) introduced in fiscal 2024. We will broaden their range of applications and generate demand to further increase sales.

## Main products

### Glass for medical care

Borosilicate glass tubing with outstanding acid resistance, chemical resistance, and strength, is in growing demand as a material for vials, syringes, and other pharmaceutical containers. LX Premium, with its excellent radiation-shielding properties, is used in medical facilities to protect healthcare personnel from radiation exposure.



Many uses of radiation-shielding glass



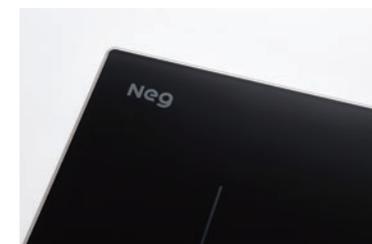
Pharmaceutical glass tubing

### Heat-resistant glass

Our heat-resistant glass is used in heaters, fireplace windows, cooking top plates, and other heat-related housing equipment for its exceptional thermal shock resistance and mechanical strength.



Heat-resistant glass is common in homes



### Glass for building materials

We offer a wide variety of glass for building materials used in housing, commercial facilities, and public facilities. Our glass comes in various shapes and offers outstanding properties, including fire-rated glass, glass-ceramic building materials that brighten and enliven spaces, and glass blocks that provide insulation and natural light.



FireLite Plus® Neo fire-rated glass

# CSR foundation

We will contribute to realizing a sustainable society by working on three priority themes: the Environment, Diversity and Inclusion, and Community Contribution.

## CSR history and key themes

In the early 1970s, addressing pollution issues at our Fujisawa Plant (which closed in 2015) taught us the critical importance of environmental conservation for sustaining our business. As a glass manufacturer, we use significant amounts of energy and natural resources, which leads to carbon emissions. As such, environmental protection remains one of our Group's most pressing priorities. Alongside this, we have made community contributions, focusing on local education initiatives and active efforts to employ individuals with disabilities.

Based on this history, the Management Committee and top leadership established clear guiding principles for further advancing our CSR activities. These principles reflect our commitment to basic policies and to advancing efforts related to our CSR priority issues (materiality).

## Materiality determination process



## Our approach to CSR

CSR is integral to our overall business strategy and cannot be separated from our Corporate Philosophy. Guided by this, our CSR activities are aligned with our core values and philosophy.

Through these efforts, we seek to enhance our corporate value and contribute to creating a sustainable society. These principles shape our entire approach to CSR.

**Approach to CSR**

Our Corporate Philosophy Structure serves as the foundation for our CSR initiatives. By driving CSR through this lens, we aim to raise our corporate value while contributing to a more sustainable world.

## Three priority themes

We have identified the Environment, Diversity and Inclusion, and Community Contribution as the three priority themes of our CSR. These themes are closely connected to our existing priority issues of environmental conservation, community contribution, and employment of the disabled.

We have reconfirmed the background and importance of these three themes and have clarified the future direction for scaling up our initiatives on a broader scale. In addition, we will place emphasis on these themes, as we believe they are directly linked to the United Nations' Sustainable Development Goals (SDGs).

### Three priority themes defined

Environment	Diversity and inclusion	Community contribution
Because environmental conservation is a duty for our operations, we advocate "consideration for the environment" and "efficient manufacturing processes for environment-friendly manufacturing." We also maintain the attitude that it is unthinkable for our operational activities not to include environmental conservation activities.	We believe that diversity in personnel, including gender, age, and nationality, is a fundamental driving force for corporate growth. Of course, employment of the disabled is also included in this theme. At the same time, we will do our utmost for all these employees by providing personnel training and maintaining a safe and healthy working environment for them.	A good relationship with the community is essential for sustainable business. Therefore, we believe it is important to engage with local communities to gain their trust and appreciation. We will continue to actively participate in local activities, and also provide support for the disadvantaged and for human resource development in the communities we serve.

## CSR foundation

### The basic policy of our priority themes

We further clarified the direction of our CSR activities by setting a basic policy for each priority theme. We are fortifying our corporate governance, which we consider the foundation of our CSR.

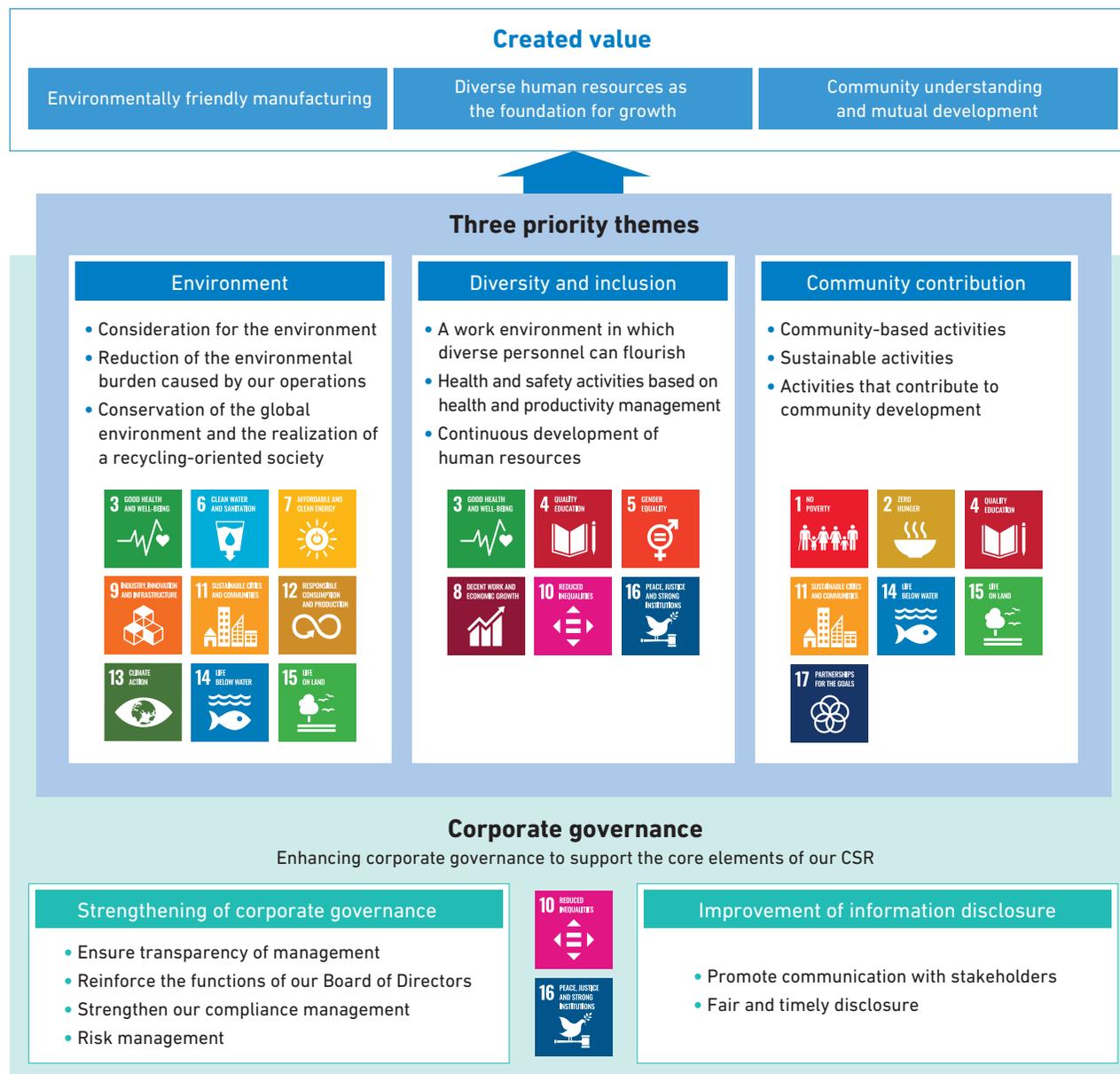
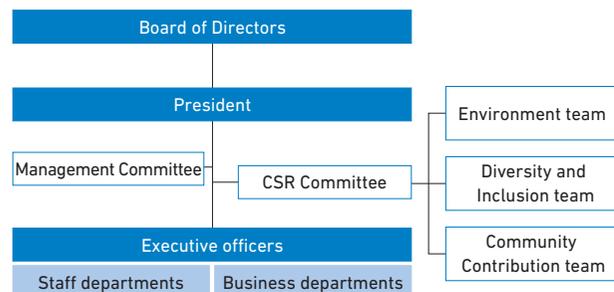
We believe that firmly addressing these priority issues will generate financial and social value, and enhance our corporate value.

### CSR Committee

In today's business environment, companies are increasingly expected to address global challenges such as climate change, developing a skilled workforce, and human rights. They must also engage in social problem-solving while maintaining transparency in their operations. To meet these demands, we established the CSR Committee in January 2023. This cross-functional body advises management on CSR strategy, guides the implementation of initiatives, and ensures timely and accurate information disclosure.

The CSR Committee is focused on three key areas: the environment, diversity & inclusion, and community. By addressing these themes, we tackle a broad range of sustainability challenges, including ESG and SDGs, helping us increase corporate value while contributing to the long-term sustainability of society.

### CSR organizational structure



# Environment

With “consideration for the environment” as one of our key values, we will continue to manufacture products in an environmentally friendly way.

## Our approach to protecting the environment

As a glass manufacturer that relies heavily on resources and energy, protecting the environment is a top management priority. We view environmental responsibility as a core value, and in all our operations we are strongly committed to protecting the

environment. We believe the key to environmentally friendly manufacturing lies in creating the most efficient processes possible. To that end, we continually strive to reduce our environmental footprint and develop operations that promote sustainability and protect biodiversity. We are also actively pursuing carbon neutrality as part of our efforts.

**Environmental Charter** The Environmental Charter is shared with all employees and affiliated companies and is available to external parties upon request.

### Environmental Principles

Preserving the global environment is essential for the prosperity of people and society in the 21st century. Nippon Electric Glass, guided by the corporate philosophy of “Exploring Glass’s Creative Potential to Shape a Brighter Future” and committed to “consideration for the environment” as a core value, strives to remain the world’s leading manufacturer of special glass. We achieve this through cutting-edge technological development, top-tier quality standards, efficient production processes, and a steady supply of products. Together with our group companies, NEG is dedicated to preserving the environment and fostering a recycling-based society by adopting highly efficient, environmentally responsible practices.

### Action Plan

1. We comply with all environment-related laws, regulations, conventions, and agreements we have signed, while also establishing and enforcing our own voluntary environmental standards.
2. We aim to minimize our environmental impact across all stages of our corporate activities and product life cycle, from procurement and manufacturing to transportation, sales, use, reuse, treatment, and disposal.
3. We are committed to achieving the world’s most efficient manufacturing processes, which optimize resource and energy use while contributing to biodiversity preservation and greenhouse gas reduction.
4. We strive to adapt to the evolving environmental demands of 21st-century society, taking action to prevent pollution and strengthen our societal presence.
5. We set clear environmental objectives and targets, achieving them through the participation of all employees in environmental protection activities and the continuous improvement of our environmental management system to enhance overall performance.

Established September 1, 1992  
Revised January 1, 2023 (8th edition)

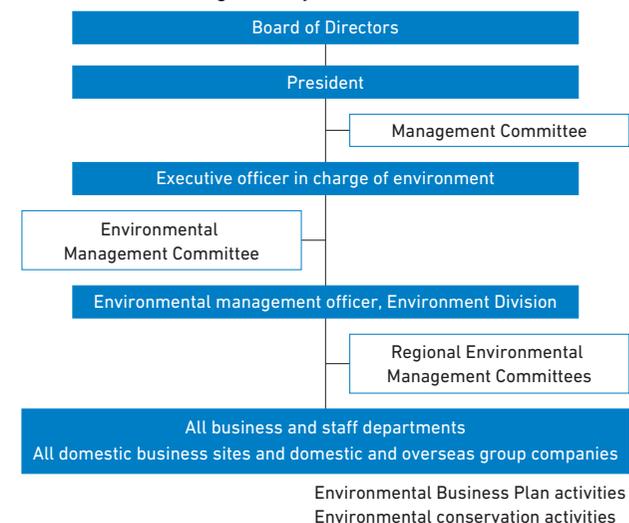
*A. Kishimoto*  
Akira Kishimoto  
President

**NEG** Nippon Electric Glass

## Environmental management

Our environmental management system, overseen by the president and the executive officer in charge of environmental affairs, extends across the Environment Division, all business departments, staff functional departments, and domestic and overseas group companies.

### Environmental management system



### Environmental Management Committee

The Environmental Management Committee convenes every three months. The executive officer in charge of the environment chairs the meeting, which is attended by the president, executive officers, general managers of our business departments, and representatives of our major group manufacturing companies. The committee serves as a forum for deliberations related to groupwide environmental conservation activities, covering our

## Environment

responses to climate change and other issues raised in the Environmental Division's monthly meetings with regional environmental managers.

### Addressing climate change

"Consideration for the environment" is one of our key values, and we believe that the world's most efficient manufacturing will also be the world's most environmentally friendly manufacturing. Following this belief, we are continually working to improve our quality and yield in order to save energy and reduce CO<sub>2</sub> emissions. In November 2021, we declared our support for the Task Force on Climate-related Financial Disclosures (TCFD) to analyze risks and opportunities that climate change brings to our business, as well as to inform our stakeholders of financial impacts and our countermeasures.

We will continue enhancing our information disclosure while steadily advancing our carbon neutrality action plan.

Note: TCFD dissolved in October 2023 and was succeeded by the International Financial Reporting Standards (IFRS) Foundation.

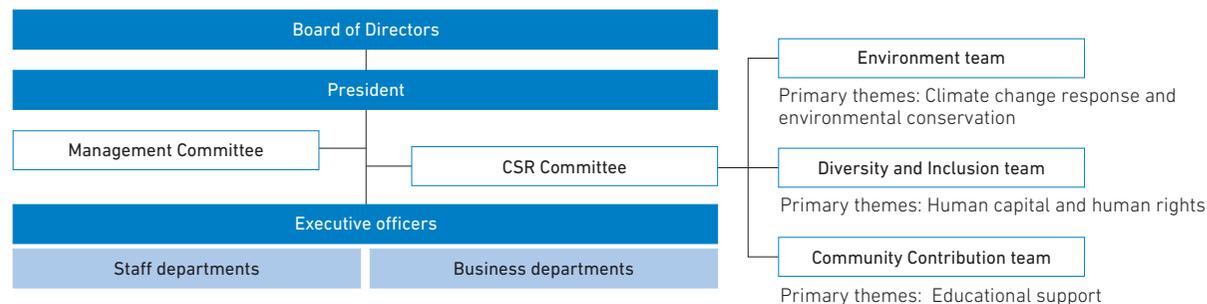
**Related information** ▶ Carbon neutral initiatives  
Metrics and targets, and Initiatives to achieve targets on page 37

### Carbon neutral initiatives

#### •Governance and risk management

The figure on the right shows our governance structure for CSR, including for climate-related risks and opportunities.

#### Governance structure



#### Board of Directors

The Board of Directors oversees management activities related to climate-related measures, including creating the management systems, identifying issues to prioritize, and determining measures and targets. The Board also provides evaluations and advice concerning measures implemented by the company president, who serves as the chief executive officer.

#### Management Committee

The Management Committee deliberates matters important to company management and draws up detailed action plans for decisions made at the Board of Directors meetings.

#### CSR Committee

The CSR Committee conducts comprehensive discussions on the direction of our CSR activities, including concerning climate change, and formulates the necessary action plans. Three working teams have been created to increase the effectiveness of activities for the priority themes.

The CSR Committee develops basic CSR policies, identifies priority issues, and plans, reviews, and implements measures to address them. It also formulates and evaluates information disclosure policies and content, and submits recommendations and reports to the Management Committee and Board of Directors.

The Environment Team handles climate-related matters and the TCFD framework. The team conducts hearings with staff and

business departments to identify and review climate-related risks and opportunities, and evaluates and reviews business impact based on scenario analysis. The division responsible for these risks and opportunities promotes the Carbon Neutrality Action Plan, which is central to the Group's strategic resilience. The Environment Team regularly verifies progress and reports to the CSR Committee. The committee drafts, discusses, and supports divisional activities related to the reported items from the standpoint of sustainability. In addition, the committee drafts and discusses the policy for data disclosure and content and, when deemed necessary, provides recommendations and reports to the Management Committee and Board of Directors.

#### Executive officers, staff departments, and business departments

We endeavor to mitigate climate-related risks and capitalize on opportunities through the carbon neutrality action plan and other initiatives.

The climate-related risks and opportunities, as well as countermeasures, identified and evaluated by the CSR Committee are integrated in the periodic risk auditing conducted by the NEG Group in line with our basic policy on internal control. The division responsible for risks and opportunities promotes countermeasures.

## Environment

### •Strategies

#### Scenario analysis

We conduct scenario analysis to evaluate the business impacts under different scenarios and to evaluate our strategic resilience to climate-related risks and opportunities.

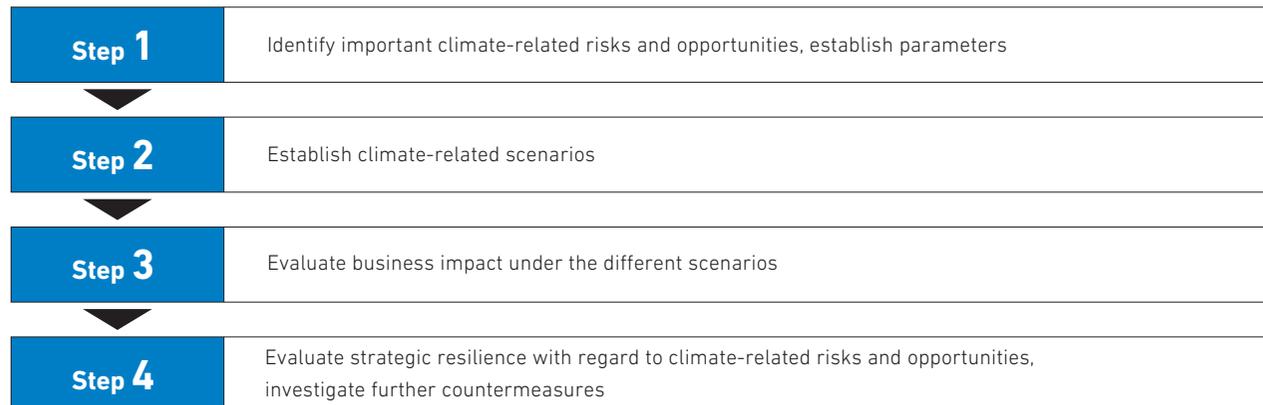
#### Businesses targeted for analysis

All NEG Group businesses are targeted for analysis.

#### Evaluation timeline

The impact on the NEG Group's business by major climate-related risks and opportunities identified from scenario analysis was evaluated on a timeline focused on fiscal 2030.

#### Analysis steps



#### Established scenarios

Category	Scenario overview	Main reference scenarios
1.5°C/2°C scenario	This scenario involves the enactment of policies and regulations aimed at achieving a decarbonized society and which seek to keep global warming to within 1.5°C/2°C above the pre-industrial revolution global temperature. Compared with the 4°C scenario, the transition risks are high, but the physical risks can be kept low. Demand for products that contribute to the achievement of a decarbonized society will become high.	<ul style="list-style-type: none"> <li>• IEA World Energy Outlook 2024 Net-Zero Emissions by 2050 Scenario</li> <li>• IEA World Energy Outlook 2024 Announced Pledges Scenario</li> <li>• IEA World Energy Outlook 2019 Sustainable Development Scenario</li> <li>• IPCC RCP2.6</li> </ul>
4°C scenario	This scenario involves a future where the policies and regulations, which various countries have announced are fulfilled, but no new policies or regulations are introduced. Energy-derived CO <sub>2</sub> emissions continue to increase worldwide. Compared with the 1.5°C/2°C scenario, transition risks are low, but the physical risks will grow larger.	<ul style="list-style-type: none"> <li>• IEA World Energy Outlook 2024, 2019 Stated Policies Scenario</li> <li>• IPCC RCP8.5</li> </ul>

## Environment

### Major climate risks and opportunities, impact on business, and countermeasures

Type	Risks and opportunities	Impact on business	Countermeasures
<b>Transition risks</b>			
<b>Policy and legal</b>	Carbon pricing introduction and increase	Increase in manufacturing costs ¥21 billion for 1.5°C/2°C ¥4 billion for 4°C	Enactment of the carbon neutrality action plan
<b>Technology</b>	Investment in manufacturing facilities to reduce CO <sub>2</sub> emissions	Increase in depreciation costs Impact on business*1: Medium	
<b>Reputation</b>	Negative criticism of energy-intensive companies	Decreased sales*2	
<b>Market</b>	Increase in energy prices	Increase in logistics costs Impact on business*1: Medium for 1.5°C/2°C Medium for 4°C	Maintain good relationships with suppliers, pursue supplier development and diversification, switch to generic items
	Soaring glass raw material prices due to changes in the supply and demand structure for resources	Increase in procurement costs*2	
<b>Physical risks</b>			
<b>Acute</b>	Negative impact on operations and logistics due to increased frequency of disasters, extreme weather, typhoons, and flooding	Decreased sales*2 Increase in facility repair costs*2	Implement business continuity planning, carry out disaster prevention activities, disperse operations among different manufacturing bases
<b>Chronic</b>	Negative impact on operations due to drought		
<b>Opportunities</b>			
<b>Resource efficiency</b>	Reduced energy consumption and Scope 1 + Scope 2 CO <sub>2</sub> emissions as a result of highly efficient production (implementation of carbon neutrality action plan)	Reduction in manufacturing costs Impact on business*1: High for 1.5/2°C High for 4°C	Enactment of the carbon neutrality action plan
<b>Products</b>	Increased demand for low-carbon products (thin sheet glass for FPDs), which contribute to reduced production and shipping costs in customer processes	Increased sales*2	Promote R&D; pursue active sales to respond to new needs
	Increased demand for glass fiber for strengthening functional plastics, which will be used to lighten automotive bodies and in battery casings as EVs become more widespread		
<b>Market</b>	Increased demand for all-solid-state Na-ion batteries as they go to market and society transitions to becoming decarbonized		

\*1 Estimated impact on business Low: below ¥10 billion. Medium: ¥10 billion to ¥30 billion. High: above ¥30 billion

\*2 Due to a lack of data for calculating impact on business, qualitative descriptions are utilized

## Environment

### Strategic resilience

Following updates to the reference scenarios, we reviewed impacts on business. The impact has changed due to global inflation and other factors that have led to soaring costs for raw material and fuel, and fluctuations in foreign exchange rates. We are incorporating new technologies and solutions from inside and outside the company, and implementing the Carbon Neutrality Action Plan and other initiatives to further fortify our business resilience.

### •Metrics and targets

Cognizant of the pressing and global need for climate change action, we pursue sustainable manufacturing practices and strive to effectively address climate change. In February 2022, we set Scope 1 + Scope 2 CO<sub>2</sub> emissions reduction targets for fiscal 2030 and committed to achieving carbon neutrality by fiscal 2050. We are undertaking ambitious measures to achieve our targets, including introducing all-electric melting furnaces across our product lines, switching over to energy-efficient facilities, and investing in renewable energy.

We are also creating a system for calculating and disclosing Scope 3 emission volume data.

### CO<sub>2</sub> emissions reduction targets (Scope 1 + Scope 2)

<b>Scope 1 + Scope 2</b>	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> emissions by 36% and emissions intensity* by 60% in fiscal 2030 (compared to fiscal 2018)</li> <li>Achieve carbon neutrality by fiscal 2050</li> </ul>
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\* Production weight ratio

### •Initiatives to achieve targets

The NEG Group is advancing the Carbon Neutrality Action Plan along with the initiatives shown below to achieve its CO<sub>2</sub> emissions reduction targets.

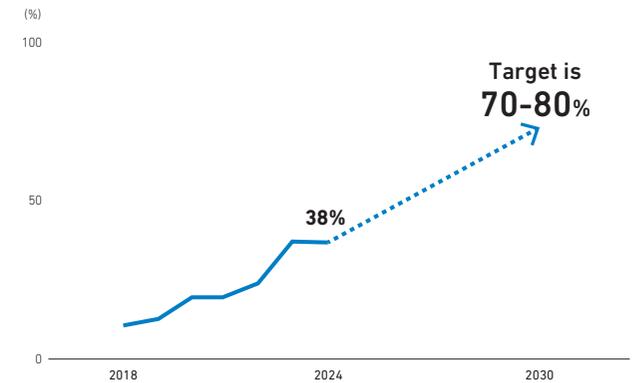
These initiatives will enable us to achieve our targets by fiscal 2030, after which we will continue efforts to become carbon neutral by fiscal 2050.

### Initiatives in the carbon neutrality action plan

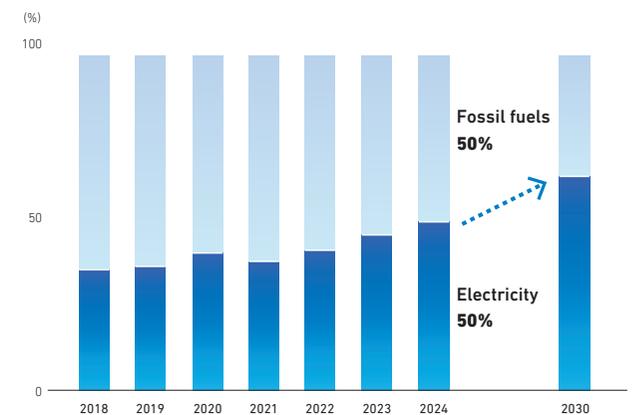
Category	Initiatives
<b>Manufacturing process</b>	<ul style="list-style-type: none"> <li>Promoting all-electric melting and improving melting efficiency</li> <li>Switching to energy-saving facilities</li> <li>Technological improvement and electrification for forming and processing facilities</li> <li>Operations automation and optimization</li> </ul>
<b>Utility facilities</b>	<ul style="list-style-type: none"> <li>Upgrading to high-efficiency facilities</li> <li>Facility optimization</li> <li>Operation optimization</li> </ul>
<b>Technological development</b>	<ul style="list-style-type: none"> <li>Combustion technology development for CO<sub>2</sub>-free fuel (hydrogen, etc.)</li> </ul>
<b>Procurement</b>	<ul style="list-style-type: none"> <li>Investment in and procurement of renewable energy</li> </ul>

### Progress of the carbon neutrality action plan

#### Percentage of all-electric melting



#### Electrification of melting, forming, and processing facilities (energy consumption percentages)



## Environment

### Status of technology development and procurement initiatives

Initiatives	Progress
Combustion technology development for CO <sub>2</sub> -free fuel (hydrogen, etc.)	<ul style="list-style-type: none"> <li>Successfully developed melting glass with combustion technology using a hydrogen-oxygen burner (April 19, 2022)</li> </ul>
Investment in and procurement of renewable energy	<ul style="list-style-type: none"> <li>Started operation of a mega solar power system at the Shiga-Takatsuki Plant (March 30, 2023)</li> <li>Signed our first VPPA (virtual power purchase agreement) for solar power (December 11, 2023)</li> <li>Signed VPPA for solar power in Malaysia (July 25, 2024)</li> </ul> <p>Solar power generation systems are being installed by NEG group companies in Japan and overseas</p>

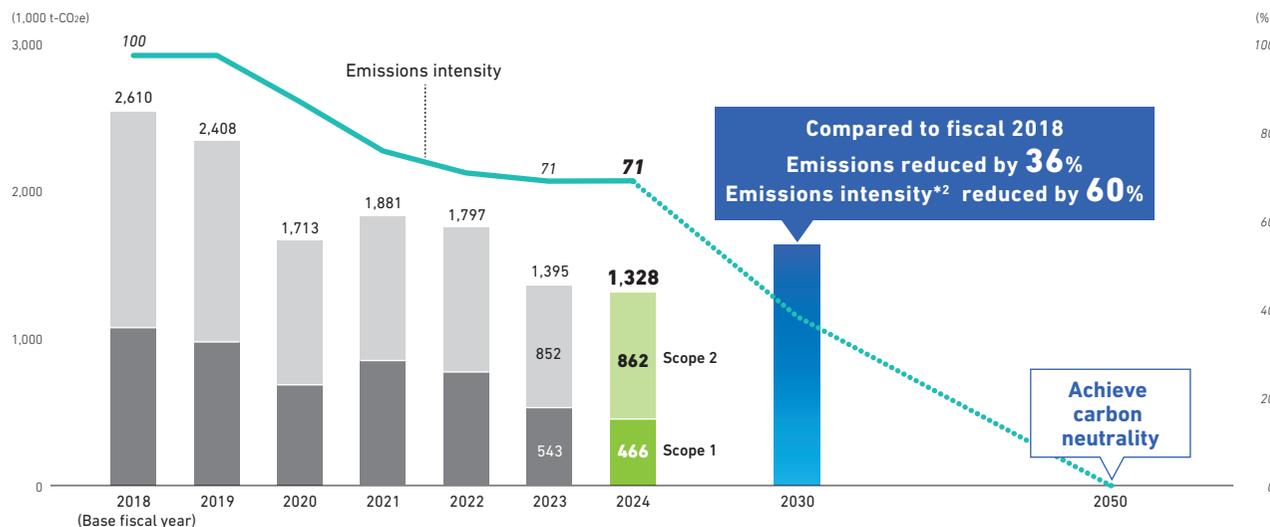
### CO<sub>2</sub> emissions, CO<sub>2</sub> emissions per unit of production

#### •CO<sub>2</sub> emissions (Scope 1 + 2)

Due mainly to structural reform in the displays and composites businesses in fiscal 2023, CO<sub>2</sub> emissions (Scope 1 + 2) in fiscal

2024 declined from the previous fiscal year. CO<sub>2</sub> emissions intensity (Scope 1 + 2) was stable on a unit basis from the previous fiscal year.

#### Trends in CO<sub>2</sub> emissions, CO<sub>2</sub> emissions per unit of production\*1



\*1 Calculated based on the GHG Protocol and ISO 14064-1. Scope 2 figures calculated using a market-based approach

\*2 Production weight ratio

### •CO<sub>2</sub> emissions (Scope 3)

(1,000 t-CO<sub>2</sub>e)

Category	Fiscal 2024	
1	Purchased goods and services	530
2	Capital goods	103
3	Fuel and energy-related activities	191
4	Upstream transportation and distribution	497
5	Waste generated in operations	12
6	Business travel	1
7	Employee commuting	3
8	Upstream leased assets*1	(Excluded categories)
9	Downstream transportation and distribution*2	(Excluded categories)
10	Processing of sold products*2	(Excluded categories)
11	Use of sold products*3	(Not applicable)
12	End-of-life treatment of sold products	188
13	Downstream leased assets*4	(Not applicable)
14	Franchises*4	(Not applicable)
15	Investments*4	(Not applicable)
<b>Total:</b>		<b>1,524</b>

\*1 Category 8: Included in Scope 1 + 2 emissions.

\*2 Categories 9 and 10: Calculated figures are not included because obtaining them is complicated by the variety of shipment destinations and the different ways customers use the products.

\*3 Category 11: No products directly emit GHG during use.

\*4 Categories 13, 14, 15: No business activities fall under these categories.

### CDP data disclosure

In fiscal 2024, we began disclosing information-based responses to the CDP Climate Change Questionnaire. Our CDP score for fiscal 2024 earned us a "B" ranking.

We are continuing to advance our efforts to address climate change and to provide appropriate information disclosure.

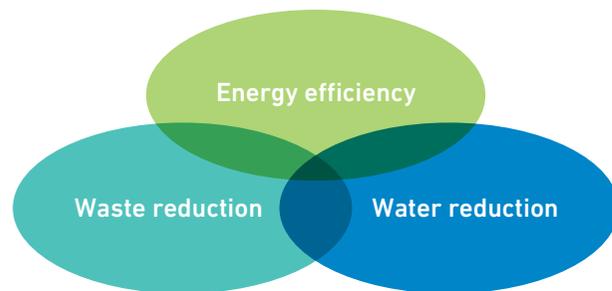


## Environment

### Environmental Business Plan

Our Environmental Business Plan is a unique initiative that applies business management principles to environmental conservation with the aim of protecting the environment and contributing to creating a recycling-oriented society. To ensure we use resources efficiently and reduce waste, in fiscal 2001, we initiated measures specifically focused on eliminating waste, in fiscal 2003, we expanded to reducing water consumption, and in fiscal 2021, we added measures to improve energy efficiency.

For waste and water, we are continuously working to lower our environmental impact by setting annual reduction targets for the basic units of weight to sales, and through ongoing reduction and recycling initiatives. Our efforts to lower energy consumption focus on improving efficiency through targeted efficiency improvement plans, using energy intensity in glass manufacturing as a key metric. In line with our CO<sub>2</sub> emissions reduction goals, we are enhancing our electric power ratio, adopting new processes such as hydrogen combustion, and increasing our use of renewable energy.



### Biodiversity Conservation Initiatives

"Consideration for the environment" is one of our key values, and we conduct our activities on the belief that waste-free manufacturing operations are both economical and environmentally friendly, as well as positive for the preservation of biodiversity.

Our Company has multiple manufacturing sites near Lake Biwa, and our CSR activities prioritize protecting the environment and contributing to local communities. We are actively engaged in biodiversity initiatives, including preserving the potential natural vegetation of the Suzuka Mountain Range near the Notogawa Plant and supporting local forest conservation efforts.

We also provide our business partners with the Guideline for Green Procurement and work with them to implement biodiversity protection measures.

**Related information** Guideline for Green Procurement  
<https://www.neg.co.jp/en/company/procurement/>



Pedestrian path through native natural vegetation



Renewal of Certification for the Highest Three-Star Rating under the fiscal 2021 Shiga Biodiversity Initiative Certification System

### Developing environmentally friendly products

We are committed to sustainability by offering products that support global environmental conservation.

#### Fiscal 2024 Data

<b>Sales of environmentally friendly products</b>	Approx. ¥77 billion
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**Related information** Developing Environmentally Friendly Products  
<https://www.neg.co.jp/en/sustainability/environment/products/>

#### Additional major initiatives are reported on the website.

<https://www.neg.co.jp/en/sustainability/environment/>

- Improving Energy Usage Efficiency
- Waste Reduction
- Water Reduction
- Green Loan
- Analysis of Environmental Burden
- Environmental Accounting
- Third-party Assurance Statements (Scope 1 and 2)

## Diversity

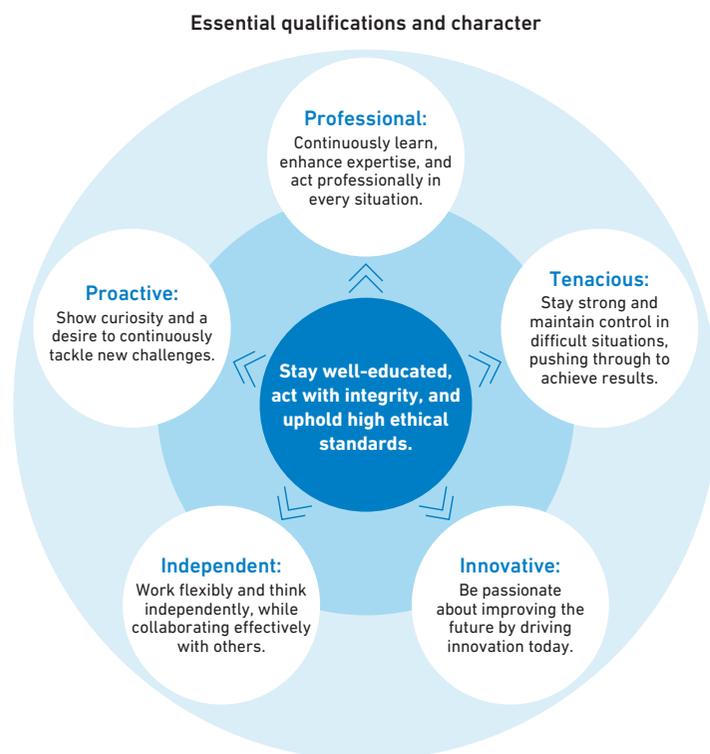
We are committed to building a diverse workforce and fostering an environment where all individuals can thrive as a driving force for long-term value creation.

### Our approach to human resources

The glass business requires significant time and investment to develop new materials and processes. To innovate and achieve sustainable growth, focusing only on short-term profit is not sufficient. We prioritize human resources as the drivers of long-term value creation and are committed to creating a work environment where employees with diverse values and long-term perspectives can take on challenging work.

In 2020, we introduced a vision for our personnel, aiming to

develop individuals capable of world-class performance across all areas. To support this, we offer a variety of growth and development programs, such as level-specific training, career education, and self-development opportunities. Additionally, we are promoting flexible work styles, improving occupational health and safety, and managing health and productivity. In human resource management, we are revising our remuneration system based on skills and performance, improving the treatment of rehired employees, and taking steps to increase overall employee motivation.



### Human resource development

In line with our goal of becoming the world's leading manufacturer of special glass, we provide various educational programs, including on-the-job training, level-specific training, global human resource training, skills development programs, and self-development programs that involve acquiring industry certifications. This allows our employees to continuously improve and develop their expertise at a world-class level.

#### Education and training held (NEG)

Item		Fiscal 2024
Training hours (under head office education section)		49 hours
Training cost	Company-wide	¥329 million
	Per person	¥189 thousand

### Hiring a diverse workforce

We believe that employees are the foundation of a company's growth and accordingly hire a diverse range of human resources regardless of their gender, age, nationality, or other characteristics. We are also increasing the hiring of recent graduates and incorporating new recruiting methods and approaches.

For example, we hire highly qualified, mid-career professionals and young professionals seeking career changes. We also make use of referral recruitment when hiring employees locally. Even amidst accelerating job mobility, we are creating a wide range of entry points, such as for previous NEG employees to be rehired, to help us in securing a diverse workforce.

## Diversity

### Hiring mid-career professionals

We constantly strengthen our human resource foundation by actively hiring mid-career professionals. In addition to recruiting new graduates and other outstanding talent for the future, we also hire experienced professionals with specialized expertise and a strong sense of professionalism.

#### Number of hires



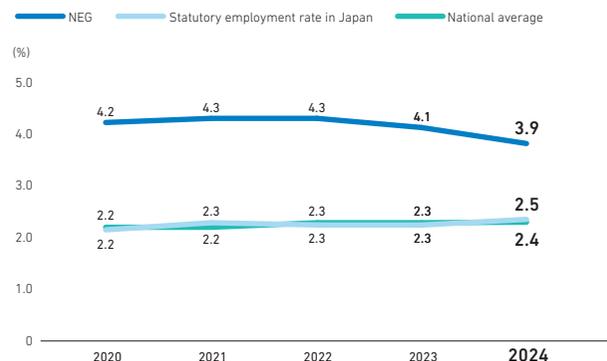
### Employment of people with disabilities

We have a special-purpose subsidiary aimed at employing people with disabilities; E.G.UNIVERSUPPORT CO., LTD. (<https://www.us-neg.com/>). For its outstanding action in hiring and training young people, this subsidiary was in 2018 granted Youth Yell certification from the Ministry of Health, Labour and Welfare, the second special-purpose company in Japan to be certified.

In April 2024, we set a target to increase the percentage of people with disabilities in our workforce to 4.6%, which is above the statutory requirement of 2.5%.

At the end of 2024, we maintained a 3.9% employment rate for people with disabilities, slightly down from the previous year due to some employees reaching mandatory retirement age. We will continue actively engaging people with disabilities as valued members of our workforce.

### Percentage of employees with disabilities (NEG and consolidated subsidiaries in Japan)



### Creating thriving worksites for a diverse workforce

In addition to our continued commitment to providing employment for people with disabilities, we also strive to cultivate a work environment in which the diverse values and backgrounds of employees, regardless of gender, age, nationality, and gender identity, are respected and in which employee welfare and happiness are prioritized.

### Promoting the active participation of senior professionals

Securing and actively leveraging the expertise and abilities of senior professionals is becoming increasingly essential. Following the recent changes to laws and the social trends regarding the employment of older individuals, we have set up a system for gradually increasing senior employee compensation levels in accordance with their volume and evaluation of their work.

We wish to further utilize motivated and capable seniors and promote a smooth handoff to the younger generation.

### Workplace improvement examples

Category	Fiscal 2024
<b>People with disabilities</b>	<ul style="list-style-type: none"> <li>Installing wheelchair ramps, elevators, and accessible washrooms</li> <li>Expanding employees' scope of work</li> </ul>
<b>Women</b>	<ul style="list-style-type: none"> <li>Providing childcare support (received Platinum Kurumin accreditation)</li> <li>Creating more in-house support systems</li> <li>Holding events for female employees to exchange opinions</li> </ul>
<b>Seniors</b>	<ul style="list-style-type: none"> <li>Initiating a stepped system for raising the pay of rehired workers</li> <li>Establishing compensation systems that match job duties</li> </ul>
<b>Foreign nationals</b>	<ul style="list-style-type: none"> <li>Following up to ensure they understand company systems</li> <li>Holding training</li> <li>Japanese language classes, mentoring them</li> </ul>
<b>LGBTQ persons</b>	<ul style="list-style-type: none"> <li>Raising LGBTQ awareness during human rights education</li> <li>Making things less gender-based (gender-free uniforms, changing rooms, washrooms)</li> </ul>

### Empowering employees with roots in other countries

As the number of our non-Japanese employees increases, we are providing follow-up support through measures such as providing Japanese language classes and instituting a mentoring system.

In October 2019, we promoted the first foreign national employee to the position of manager, and have promoted more since then. In January 2023, we appointed a foreign national employee of an overseas subsidiary as an executive officer at the head office for the first time.

## Diversity

Going forward, we will be putting energy into ensuring that workplace environments allow employees of many different backgrounds to participate in the workplace with vitality, building synergy through mutual respect for each other's culture.

### Progress in diverse work styles and work efficiency

We carry out a wide range of initiatives, including expanding work-style diversity to encompass telecommuting, flextime, and the like, implementing five-day holidays and no-overtime days, supporting employees in balancing work with childcare and nursing care, and hosting work-style reform seminars. These efforts have enabled us to reduce overtime work and increase the taking of paid leave. Employees reap the rewards of these efforts in the form of human resource investments such as expanded job benefits and IT funding.

We will continue to pursue improvements as we review and revise our efforts.

### Support for employees with children and women's empowerment

In February 2019, we received Platinum Kurumin accreditation under the Act on Advancement of Measures to Support Raising Next-Generation Children in Japan and have continued providing such support in order to expand our employees' options for work styles conducive to childcare and nursing care. These efforts have helped achieve successes such as realizing an 80% or higher rate of male employees taking their childcare leave for two consecutive years.

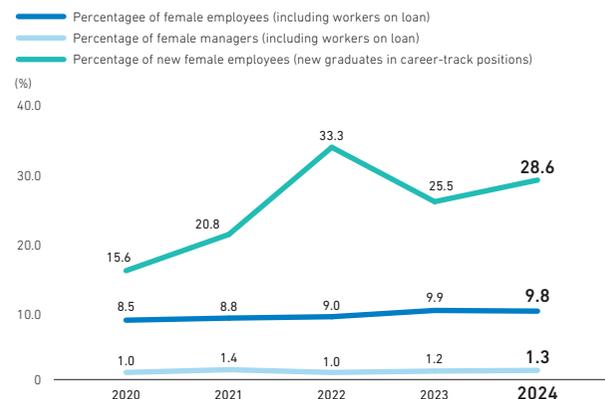
We have created a new voluntary action plan to support employees with children.

We are also taking steps to increase the percentage of female employees. We are taking special steps to cultivate female leaders by strengthening the recruitment of female career-track employees and holding in-house seminars on women's health issues. Our efforts to reach our consolidated-basis target of 10% female managers by fiscal 2028 raised the percentage to 11.9% in fiscal 2024.

### Performance indicators for supporting employees with children and women's empowerment

	Indicator
Support for employees with children	<ul style="list-style-type: none"> <li>• Maintain at least 80% eligible male employees taking childcare leave and aim for 100%</li> <li>• Create a flexible family support structure for employees balancing childcare and work based on individual family situations</li> <li>• Maintain a minimum average of 17 days of paid leave being used</li> </ul>
Women's empowerment	<ul style="list-style-type: none"> <li>• Maintain 25% or higher recruitment of female employees (new graduate, career-track) (extend the minimum 25% recruitment set in fiscal 2022) (Above 25% since fiscal 2022)</li> <li>• Target the percentage of female managers by fiscal 2028 to be at least double (2.0% or more) that of fiscal 2022 at NEG</li> <li>• Target the percentage of female managers at NEG and at consolidated subsidiaries in Japan and overseas to be at least 10% by fiscal 2028 (Target achieved with 11.9% in 2024)</li> </ul>

### Indicators of progress in women's empowerment



## Human rights initiatives

### Basic stance on human rights

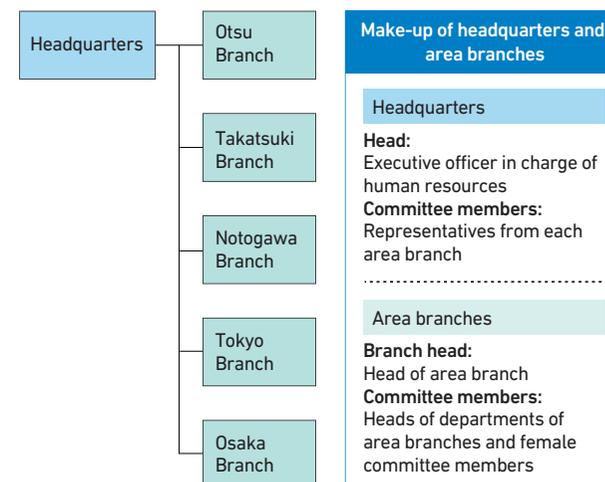
In line with the spirit of our Corporate Philosophy Structure, the NEG Group advocates respect for human rights and ensures workplace safety and health. These principles are embedded in the NEG Group Code of Conduct and NEG Group Principles of Activities.

Additionally, we comply with laws, regulations, and company rules while adhering to international standards, such as the United Nations' Universal Declaration of Human Rights and the International Labour Organization's (ILO) Fundamental Human Rights Conventions.

### System for respecting human rights

We have established the Committee on Human Rights Issues to promote human rights-related activities.

### Organization chart of the Committee on Human Rights Issues



## Diversity

Comprised of members from various departments, the committee works year-round to implement action plans set by both headquarters and regional branches. Key initiatives include conducting human rights training for all new employees, organizing sessions led by external instructors for current employees, and facilitating participation in local government and external organization projects, where NEG executives are often dispatched. Additionally, NEG serves as a board member of the Shiga Prefecture Human Rights Issues Liaison Committee, allowing us to take a leading role in promoting human rights within the region where our main operations are located.

In cases where a human rights risk arises, the Compliance Committee is notified through the NEG Hotline whistleblowing system. From there, the entire NEG Group undertakes collective risk management to address the issue.

### Supply chain human rights initiatives

Preventing and mitigating human rights risks within our suppliers' supply chains is a top priority. To address this across the entire supply chain, we updated our supply chain guidelines in 2023 and established a human rights due diligence framework. In addition, we introduced a human rights hotline for the supply chain in 2025.

Moving forward, we will continue to identify human rights risks within the supply chain and collaborate with our business partners to mitigate them.

### Occupational health and safety

The NEG occupational health and safety, accident prevention, and other committees lead various initiatives in accordance with our Principles of Activities and Action Policies for Company-Wide Health and Safety. Initiatives include creating safe and healthy workplaces, thoroughly understanding and implementing risk measures across all sites, and continuously improving through the PDCA cycle.

NEG recorded four accidents in fiscal 2024. We are continuing to improve occupational health and accident response measures

and will incorporate the issues from fiscal 2024 into our fiscal 2025 health and safety initiatives to prevent future incidents.

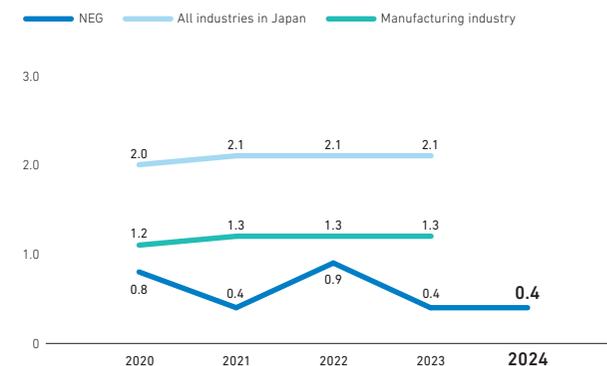
The number of accidents has remained steady in recent years, and we continue to conduct risk assessments to implement intrinsic safety measures, workplace patrols, and safety education measures with the aim of achieving zero safety incidents. NEG's industrial accident frequency and severity rates remain lower than both the manufacturing industry and the overall industry average in Japan.

In terms of third-party certification, the Shiga-Takatsuki Plant and our overseas subsidiaries in the displays business have been certified for ISO 45001, the international standard for occupational health and safety.

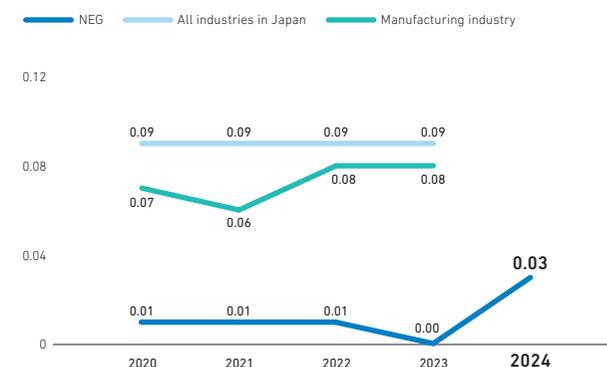
### Organization chart of occupational health and safety



### Industrial accident frequency rate (NEG)



### Industrial accident severity rate (NEG)



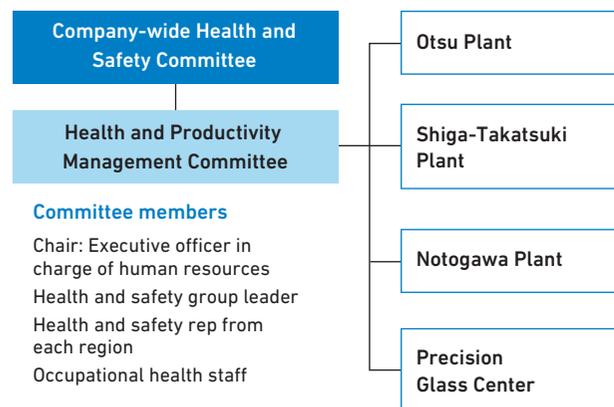
## Diversity

### Health and productivity management

At NEG, we believe that improving employee health drives corporate growth. To support this, we have been implementing health and safety initiatives based on health and productivity management. Our approach includes the development of a strategy map and a range of initiatives aimed at fostering an environment where every employee can work with enthusiasm. To measure our progress, we have established key performance indicators (KPIs) focused on improving both mental and physical health. We conduct various health activities and educational programs at our sites to meet these targets.

In fiscal 2023, we launched the Health and Productivity Management Committee, which is responsible for discussing health and productivity initiatives and determining the actions that all NEG regions should undertake to implement these strategies. In fiscal 2024, we instituted a system to support employees returning to work after a leave of absence.

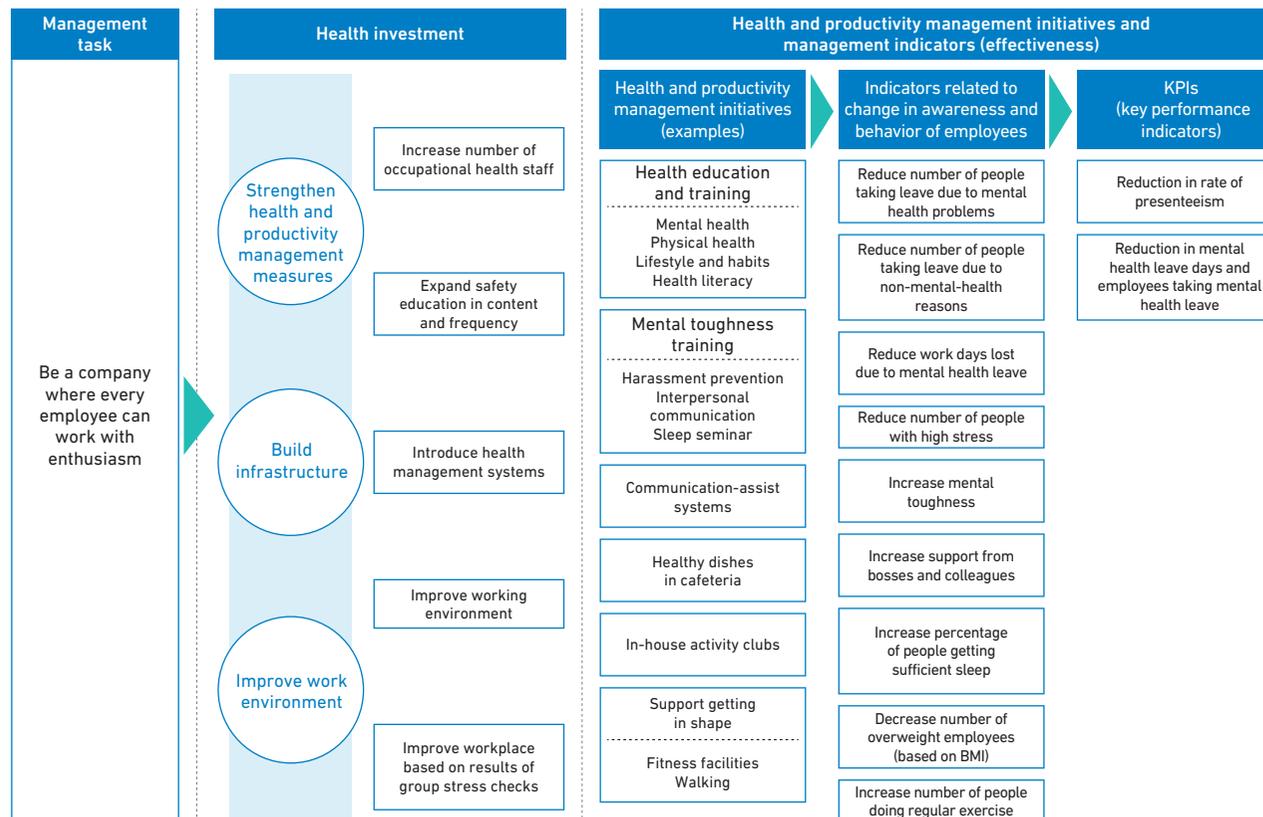
#### Organization chart of the Health and Productivity Management Committee



#### Committee members

Chair: Executive officer in charge of human resources  
 Health and safety group leader  
 Health and safety rep from each region  
 Occupational health staff

### Health and productivity management strategy map



#### Health and productivity management targets and results (NEG)

KPIs	Fiscal 2026 targets	Fiscal 2024 results
Rate of presenteeism*1	Less than 23%	26.7%
Rate of mental health leave*2	Less than 1%	1.3%

\*1 When employees go to work but are not fully productive due to a health issue. A higher percentage is worse.  
 \*2 Percentage of employees taking leave due to mental illness.

Additional major initiatives are reported on the website.

<https://www.neg.co.jp/en/sustainability/social/>

- Education and training system and data
- Number of employees, length of service, turnover rate, salary, and employee awareness surveys
- Health and productivity management initiatives

## Community contribution

For its business to last, a company must strive for harmony with the local community and solutions to the issues that the community faces. We aim to grow in unison with communities through activities such as supporting education and taking part in local events.

### Supporting the future generation

Our educational support activities centered in Shiga Prefecture, where NEG is based, are aimed at getting youngsters interested in science. We also collaborate with universities to carry out glass-related research and to foster the researchers and engineers who will form the pillars for advancements in the glass industry.

### Academic-industrial collaboration

We concluded a comprehensive university-industry collaboration agreement with the University of Shiga Prefecture in 2007. Based on that agreement, we have been collaborating with the university on a variety of ongoing projects, which include the establishment of an endowment course, joint research and technological exchange on glass engineering, and supporting the development of tomorrow's leaders.

In 2023, we launched the NEG endowment course in the basic science of glass at Kyoto University. The course digs deep into basic research on glass with the aim of fostering the next generation of glass researchers and engineers. Course researchers demonstrated the existence of a new group of materials called "highly ordered glass," which are distinct from conventional glasses. The course seeks to expand the potential of glass by approaching research in ways that are not predetermined in textbooks.

**Related Information** July 25, 2024 Kyoto University press release  
<https://www.t.kyoto-u.ac.jp/ja/research/topics/20240725>  
 (in Japanese only)

### Supporting Shiga Prefecture's Lake Biwa Floating School Program

In 2019, we acquired the naming rights to the Lake Biwa Floating School Program, and a youth environmental studies program in Shiga Prefecture aimed at supporting education and self-development. In 2023, we renewed the rights for another four years. In fiscal 2023 (April 2023 to March 2024), the program hosted 13,164 fifth-grade school children on a total of 102 floating workshops.



The *Uminoko* learning ship of the Lake Biwa Floating School Program

### Visiting lessons: Sponsorship of Otsu City Science Museum's "Innovation for the Future"

Our employees visit the Otsu City Science Museum to give hands-on lessons to teach local elementary and junior high school students about the characteristics of glass and how it is used. The Innovation for the Future classes, which highlight inventing, discovering, and making things, were joined by 29 participants in 2024.



An "Innovation for the Future" class

### Participation in the University of Shiga Prefecture Science Career Support Program

In 2020, we became a collaborating enterprise in the University of Shiga Prefecture Science Career Support Program. NEG hosted 19 participants in 2024.



A workplace exchange interaction

### Welcoming visitors to our plants and showroom: Opening our facilities to the local community

#### Fiscal 2024 activities

Item	Participants
Visitors to our plants and showroom	Approx. 320
Visitors to our facilities that are open to the public (green space, etc.)	Approx. 220

## Community contribution

### Coexistence with local communities

To strengthen our ties with local communities, we carry out volunteer activities such as cleaning and planting greenery, host various events to which we invite local residents, and carry out donation and support activities.

#### Fiscal 2024 activities (Japan and Overseas)

Activities	Participants
Employees joining community activities	Approx. 540
People visiting our summer festival and other events	Approx. 12,770
People joining dialogue between the NEG Group and neighborhood councils	Approx. 120
Donations of flower seedlings to local schools and neighborhood councils	Approx. 14,900 seedlings
Donations of Omi rice to children's community kitchens and to children of foreign parents in Shiga Prefecture	6 tons



Participated in the Forest Road Cleanup Operation of the Konze Forestry Association



Hosted an appreciation ceremony at the Shiga-Takatsuki Plant



Paju Electric Glass (Korea)  
Donated to a birthday party at a neighboring senior citizens association



Received a letter of appreciation from the Shiga Prefecture Council of Social Welfare



Electric Glass (Xiamen)  
Donated to a neighboring community welfare program



Electric Glass (Guangzhou)  
Conducted cleanup activities around its plant

## Roundtable discussion of the Chairman and outside directors

Launch of EGP2028 Medium-term Business Plan and realizing sustainable growth



**Motoharu Matsumoto**  
Chairman of the Board

**Reiko Urade**  
Outside Director

**Nahomi Aoto**  
Outside Director

**Hiroyuki Ito**  
Outside Director

**Yoshio Ito**  
Outside Director

## Roundtable discussion of the Chairman and outside directors

### Issues for developing our strategic businesses and fortifying our competitiveness

**Matsumoto** I would like to start by looking back on our fiscal 2024 performance during the first year of the EGP2028 Medium-term Business Plan. How do each of you evaluate our business and management performance for the year?

**Urade** I believe the company performed well, achieving sales that were nearly in line with the plan despite a challenging business environment marked by high raw material and energy costs, along with a weak yen. The electronics business delivered particularly strong results, driven by a sharp increase in semiconductor product sales, reflecting the benefits of years spent refining its technological capabilities. The composites business did not recover as well as expected, and profits fell far short of the initial plan. The business took a significant step forward with its business reform by closing the Netherlands base in fiscal 2023, and the company has since swiftly adjusted its operations and improved production to meet demand. However, I believe there is still room to improve the business's operations.

**H. Ito** The progress made to strengthen the strategic businesses is highly commendable. A key focus has been how President Kishimoto will enhance the company's development capabilities.



Confirming that support glass for semiconductors and other semiconductor products have strong growth potential is an important step. The newly established technical planning and incubation units will further reinforce the development framework, positioning the company to leverage its glass technologies as the foundation for becoming a solutions provider. While challenges remain in the composites business, I believe the ongoing initiatives will enable the business to begin overcoming its difficulties in fiscal 2025.

**Y. Ito** Management's success returning the company to profitability within just one year is laudable. The development of the electronics business, which requires more customization than the displays and other business, into a strong driver of both sales and profits represents significant progress. Given its focus on low-volume, high-mix products, establishing a new business model with KPIs tailored to the electronics business, such as rigorous unit-based cost management, will be crucial. With competition expected to intensify, I believe leveraging the company's unique services and technologies is essential for business growth and strengthening its competitive edge.

**Aoto** I was appointed as an outside director just as the company was launching the EGP2028 plan. During my first year, I observed that the business environment in fiscal 2024 was highly challenging, and management was struggling. Despite these difficulties, I felt we had many meaningful discussions on minimizing risks and developing future business opportunities. The dynamic conversations about expanding from a two-operation structure centered on the composites and displays businesses to a broader portfolio, including electronics and new businesses, gave me confidence in the company's future potential. Another key topic was how management must evolve to stay effective in the rapidly changing electronic information industry, where investment and strategic decisions need to be made more quickly and accurately than ever before.

**Matsumoto** The electronics business is evolving rapidly and significantly. One way we are responding is by shifting our mindset



to prioritize earlier returns on investment. We will continue to strengthen our existing businesses and reshape our portfolio to reduce vulnerability to external factors. We also recognize the importance of further enhancing the product competitiveness and technological capabilities that set us apart from other companies.

### Advancing financial, human resource, and environmental initiatives to strengthen the company's foundation

**Matsumoto** What are your thoughts on our financial strategy?

**H. Ito** The need to place greater emphasis on shareholder returns in the EGP2028 plan was a major discussion point in the Board meetings. Management's strong commitment to aligning corporate and financial strategies was evident in the plan to enhance capital efficiency by reducing shareholders' equity to ¥400 billion over the next five years.

**Urade** I think shareholders likely appreciated the company's proactive approach. I was impressed by management's ability to take decisive action when bold measures were needed.

**Matsumoto** We aim to utilize cash efficiently while maintaining a careful balance between growth investment and shareholder

## Roundtable discussion of the Chairman and outside directors

returns. Human resources are the foundation of the company, and investing in our employees is essential to generating profits.

We are putting much effort into developing our workforce.

Ms. Aoto, what have been your impressions of our human resources initiatives from your first year as an outside director?

**Aoto** I could see that the company is strongly committed to recruiting and developing human resources. It offers benefits beyond statutory requirements and provides a comfortable work environment that supports long-term careers for all employees. I believe management should establish a system tying employee growth directly to the company's success—a system where employees feel that contributing to the company also benefits them personally and motivates them to contribute even more.

I think the next step for the chairman, president, and other corporate leaders is to cultivate that corporate culture.

**Matsumoto** Enhancing employee engagement is crucial for the company's sustainable growth. I believe we have a strong culture of employees conducting their work with integrity, and I want us to continue developing and deepening that ethic. In addition to investing in human resources, we are focusing on environmental activities, such as working toward carbon neutrality, with the aim of balancing environmental sustainability with our business growth. What are your thoughts on these efforts?

**Y. Ito** I believe the company's environmental efforts, such as using all-electric melting technology to reduce CO<sub>2</sub> emissions, place it at the forefront of the industry. However, I feel that these advancements, along with the significant contributions the company is making to society, are not fully reflected in its corporate or product value. In addition to continuing the environmental initiatives, I think more effort should be placed on effectively communicating these efforts to highlight their impact.

**Matsumoto** We are aware of our considerable environmental impact, given our reliance on natural resources for raw materials and the high energy consumption of our manufacturing and distribution processes. We are continually assessing and implementing measures to reduce our impact. One of these



measures was to install all-electric melting furnaces, which are far more energy-efficient than traditional gas combustion furnaces. I believe that few glass manufacturers can utilize electric melting furnaces for such a wide range of glass materials while maintaining consistent quality. I also agree that we need to put more effort into communicating the importance of these initiatives to our clients and society.

### Providing meaningful information and dialogue opportunities with the Board of Directors, which has a majority of outside directors

**Matsumoto** The Board of Directors conducts an annual evaluation of its own effectiveness. What are your impressions about how the Board is functioning?

**Urade** Regarding the Board's ability to actively discuss the agenda during meetings, outside directors are able to ask frank questions and share their opinions, which contributes to a healthy and productive dialogue. However, the quality of the discussion largely depends on the quality of the information provided. Although there has never been a situation where completely new information was introduced, I would like to receive all of the

information that is available, even if it is incomplete, especially for particularly important issues. Overall, I believe the Board of Directors operates with complete integrity.

**H. Ito** We are free to ask any questions and share our opinions without restriction, and I believe all points are answered to the best of the Board's ability. It's also valuable to have opportunities to communicate not only during Board meetings but also when the Management Committee presents agenda items. The Board will change significantly in fiscal 2025 when outside directors become a majority. The outside directors will have the power to reject a proposal they all oppose. This shift in balance will likely prompt the company's Board members to provide strong backing for their views, while also intensifying the sense of responsibility among outside directors. Because of that, I believe that it will be important to explore ways to foster more open and effective communication at the Board meetings, in the Management Committee, and at other forums.

**Y. Ito** I believe it will be important to discuss how the Board will function with the new majority and to explore ways to enhance its effectiveness. I would like to see more opportunities for outside directors to gain firsthand insights to the business operations, such as through off-site meetings with executive officers. I would be particularly interested in hearing how executive officers analyze



## Roundtable discussion of the Chairman and outside directors

and evaluate the environment in their respective business areas, and how they identify their most pressing issues. At the same time, I would encourage them to leverage the knowledge and experience that outside directors can provide.

**Aoto** I think it would also be valuable to hear about off-agenda topics during Board meetings, such as the latest updates and candid assessments of ongoing projects. Additionally, I believe the Board could offer more effective oversight of the company's technology development if we were provided with a clear explanation of the technology roadmap and benchmarks for the longer-term plan.

**Y. Ito** I believe the shift in balance from internal to external Board members makes it necessary to find new ways to facilitate discussions at future Board meetings.

**Matsumoto** We made the decision to make outside directors the majority and entrust the supervisory function to external members as a way to further strengthen governance. We also believe that having a majority of outside directors will not significantly change the nature of decision-making. We will explore ways to provide better information, and I look forward to our strong foundation of trust leading to rigorous oversight.

There is an urgent need for a system able to keep pace with the rapid technological changes around the world

**Matsumoto** We are advancing several EGP2028 initiatives aimed at establishing sustainable growth. What challenges do you think we will face?

**Urade** In a business environment of rapidly advancing technological innovation worldwide and quickly evolving final products, I believe the fundamental challenge for NEG will be how swiftly and accurately it can respond to these changing needs. Fiscal 2024 served a strong reminder that it is more important

than ever to develop and swiftly commercialize unique new materials and products.

**Aoto** Of course, the greater the change, the greater the risk. A sudden change in business conditions could lead to clients departing unexpectedly. In this environment, it is crucial to sharpen the ability to grasp technological trends at an entirely new level. In addition, successfully developing new technologies and transforming them into viable businesses requires a combination of technical expertise and business acumen. I hope that a team with a fresh perspective, distinct from the conventional NEG approach, will drive the creation and realization of new technologies and businesses. I see this as a potential foundation for the company's next major pillar of growth.

**Y. Ito** One approach could be to establish an R&D team focused on 20 years in the future and a business development team focused on the next five years. Also, human resource exchanges between the R&D and business development teams could help energize the organization.

**H. Ito** I believe that striving to become a provider of glass technology solutions, as mentioned earlier, is a strong path toward sustainable growth. I encourage management to actively reflect on their long-term vision for NEG and discuss internally the changes necessary to realize that vision.

**Matsumoto** When managing a business, I always emphasize consistency. In a world where society and markets evolve daily, it is essential to have an anchor point that remains unaffected by these changes. If that anchor shifts, it signals the need for deliberate change. Our company's growth depends on our ability to continuously create new value. Achieving this requires a strong financial foundation that enables sufficient investment in R&D and manufacturing facilities. Our financial needs will therefore always be a fundamental factor in our business planning decisions.

Thank you all for joining me today. I sincerely appreciate your invaluable advice and look forward to working with management to implement these insights as we seek to establish sustainable growth.



# Management (as of March 28, 2025)

## Directors

### Motoharu Matsumoto

Chairman of the Board (Representative Director)



Apr. 1982 Joined Nippon Electric Glass  
Jun. 2003 CEO of Techneglas Inc.  
Feb. 2005 General Manager of Finance Division  
Apr. 2007 Vice President  
Jun. 2011 Director and Senior Vice President  
Apr. 2013 Executive Vice President  
Mar. 2015 President and Representative Director  
Jan. 2023 Chairman of the Board and Representative Director (current position)

### Akira Kishimoto

President (Representative Director)



[Auditing]  
Apr. 1985 Joined Nippon Electric Glass  
Apr. 2012 General Manager, Electronic Products Division, Production  
Apr. 2013 Vice President  
Jan. 2016 Group General Manager, Electronic Products Group  
Oct. 2017 Group General Manager, Consumer Glass Products Group  
Jan. 2019 Senior Vice President  
Jan. 2023 President (current position)  
Mar. 2023 President and Representative Director (current position)

### Mamoru Morii

Director and Senior Vice President



(General Affairs, Human Resources, Finance, Purchasing, Information Systems)  
[Corporate Strategy, Marketing, Sales Management, Tokyo Branch Office, Security Trade Control]  
Apr. 1985 Joined Nippon Electric Glass  
Jun. 2014 General Manager, Finance Division  
Jan. 2017 Vice President  
Jan. 2021 Senior Vice President (current position)  
Mar. 2022 Director (current position)

### Reiko Urade (Independent Director)

Outside Director



Apr. 2010 Professor, Graduate School of Agriculture, Kyoto University  
Apr. 2018 Emeritus Professor, Kyoto University (current position) and Research Professor, Institute for Integrated Radiation and Nuclear Science, Kyoto University (current position)  
Mar. 2019 Outside Director of Nippon Electric Glass (current position)

### Hiroyuki Ito (Independent Director)

Outside Director



Apr. 2009 Professor, Faculty of Economics, Shiga University  
Mar. 2020 Outside Director of Nippon Electric Glass (current position)  
Apr. 2020 Emeritus Professor, Shiga University (current position) and Professor, Faculty of Business Administration, Osaka University of Economics (current position)

### Yoshio Ito (Independent Director)

Outside Director



Apr. 1973 Joined Matsushita Electric Industrial Co., Ltd. (currently Panasonic Holdings Corporation)  
Jun. 2014 Representative Director, Senior Managing Director of Panasonic Corporation  
Apr. 2017 Representative Director, Vice President of Panasonic  
Jun. 2017 Representative Director, Executive Vice President of Panasonic  
Jun. 2020 Outside Director of Kameda Seika Co., Ltd. (current position)  
Jun. 2021 President of the Japan-China Economic Relations and Trade Centre (current position)  
Mar. 2022 Outside Director of Nippon Electric Glass (current position)

### Nahomi Aoto (Independent Director)

Outside Director



Apr. 1983 Joined NEC Corporation  
Dec. 2011 Vice President of Elpida Memory, Inc. (currently Micron Memory Japan, K.K.)  
Apr. 2015 Sr. Director, Responsible for the Development of DRAM and New Memory Processes, Technology Development Division, Micron Technology, Inc.  
Nov. 2017 Sr. Director, Responsible for the Development of DRAM Processes, Technology Development Division, Micron Memory Japan, K.K.  
Aug. 2023 Professor by Special Designation, Research Institute for Semiconductor Engineering, Hiroshima University (current position)  
Visiting Professor by Special Designation, Center for Innovative Integrated Electronic Systems, Tohoku University (current position)  
Mar. 2024 Outside Director of Nippon Electric Glass (current position)  
Apr. 2024 Outside Director of Rorze Corporation (current position)

## Corporate Auditors

### Yoshihisa Hayashi

Full-time



Apr. 1986 Joined Nippon Electric Glass  
Mar. 2015 General Manager, General Affairs Division  
Mar. 2019 Full-time Corporate Auditor (current position)

### Toshiharu Narita

Full-time



Apr. 1991 Joined Nippon Electric Glass  
Oct. 2010 Manager, Technical Division  
Jan. 2025 Special Assistant to President  
Mar. 2025 Full-time Corporate Auditor (current position)

### Yukihiro Yagura (Independent Corporate Auditor)

Outside



Oct. 1992 Joined Tohatsu Audit Corporation (currently Deloitte Touche Tohmatsu LLC)  
Apr. 1996 Registered as certified public accountant  
Jun. 2020 Left Deloitte Touche Tohmatsu LLC  
Jul. 2020 Established Yagura-jicpa (current position)  
Aug. 2020 Registered as certified public tax accountant  
Mar. 2022 Outside Corporate Auditor of Nippon Electric Glass (current position)

### Hiroji Indoh (Independent Corporate Auditor)

Outside



Apr. 1989 Registered as attorney at law and joined Showa Law Office  
Jan. 1994 Partner, Showa Law Office  
May 1998 Established Habataki Law Office, Partner (current position)  
Jun. 2020 Outside Corporate Auditor of Keyence Corporation (current position)  
Mar. 2023 Outside Corporate Auditor of Nippon Electric Glass (current position)

Note: ( ) means "supervising" and [ ] means "in charge" indicating work assignments of executive officers.

## Management

### Skills matrix of Directors and Corporate Auditors

Name	Position in the company	Outside independent	Gender	Nomination and Remuneration Advisory Committee (★ indicates chairperson)	Major knowledge, experience, and capabilities						
					Corporate management and business strategy	Finance and accounting	Legal and compliance	R&D, process development and quality	Sales and marketing	Global	Sustainability
<b>Motoharu Matsumoto</b>	Chairman of the Board (Representative Director)		Male	✓	✓	✓	✓		✓	✓	✓
<b>Akira Kishimoto</b>	President (Representative Director)		Male	✓	✓		✓	✓	✓	✓	✓
<b>Mamoru Morii</b>	Director		Male		✓	✓	✓		✓	✓	✓
<b>Reiko Urade</b>	Director	✓	Female	✓				✓			✓
<b>Hiroyuki Ito</b>	Director	✓	Male	✓	✓		✓				
<b>Yoshio Ito</b>	Director	✓	Male	★	✓			✓	✓	✓	
<b>Nahomi Aoto</b>	Director	✓	Female	✓				✓		✓	
<b>Yoshihisa Hayashi</b>	Full-time Corporate Auditor		Male				✓				✓
<b>Toshiharu Narita</b>	Full-time Corporate Auditor		Male					✓			✓
<b>Yukihiro Yagura</b>	Corporate Auditor	✓	Male			✓	✓				
<b>Hiroji Indoh</b>	Corporate Auditor	✓	Male				✓				

### Executive Vice President

#### Tomonori Kano

(Glass Fiber Business)

### Senior Vice Presidents

#### Hiroki Yamazaki

[Fundamental Technology, Intellectual Property, Product Safety Management, Cooperation in Research & Technology]

#### Norio Nakamura

[Consumer Glass Products Business]

#### Masaaki Kadomi

[Research & Development]

#### Masahiro Kobayashi

[Electronic Products Business]

#### Takuo Horiuchi

[Display Glass Business, Thin Film Business]

#### Hitoshi Kanaya

[Process Development & Engineering, Environmental Management]

#### Toshiyuki Nakajima

[General Affairs, Human Resources, Finance]

### Vice Presidents

#### Hidetaka Oda

[Display Glass Business (Production)]

#### Yoshiyuki Tamamura

[Purchasing, Information Systems]

#### Ken Hamajima

[Glass Fiber Business (Production)]

#### Takuji Oka

[Electronic Products Business (Production)]

#### Masanori Wada

[Consumer Glass Products Business (Production)]

#### Eric Barrouillet

[Glass Fiber Business (Sales)]

#### Ken Choju

[Research & Development]

Note: ( ) means "supervising" and [ ] means "in charge" indicating work assignments of executive officers.

## Corporate governance

We aim to reach the targets outlined in our EGP2028 Medium-term Business Plan by boosting our competitiveness through strengthening overall management oversight and revitalizing the Board of Directors.

### Our corporate governance policy

We believe that to increase corporate value and achieve sustained growth, it is essential to continue to ensure managerial transparency and strengthen supervisory functions regarding the execution of business. This is our basic policy on corporate governance, and we will strive to improve our organization and business systems in accordance with this policy.

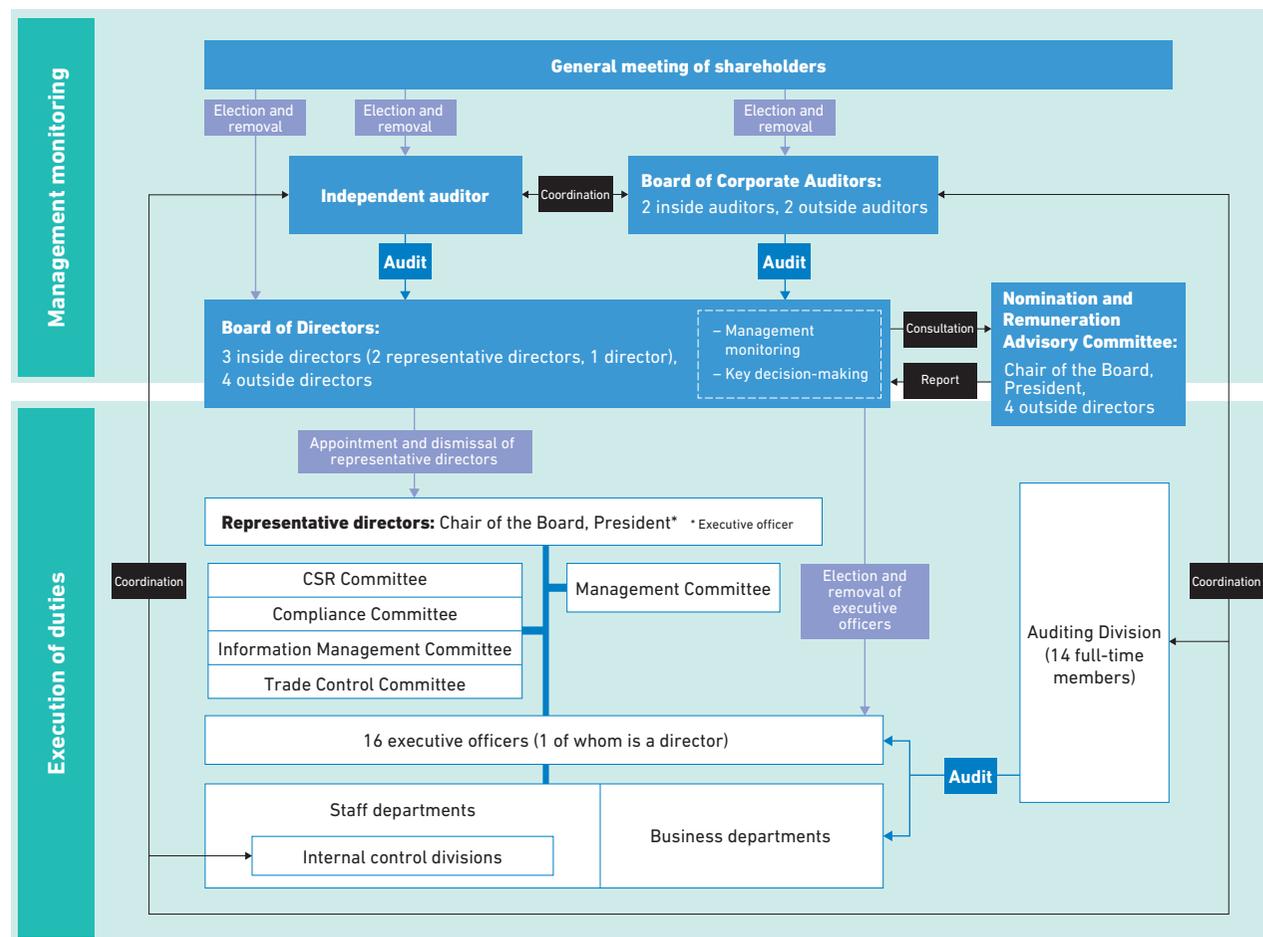
### Corporate governance structure

NEG is a company with a board of corporate auditors. The Board of Directors, which includes outside directors, carries out decision-making regarding the execution of duties and supervision of the execution of duties by directors and others. The supervision of the directors is carried out independently of the Board of Directors and the executive structure by the Board of Corporate Auditors, which includes outside corporate auditors. This system is intended to ensure the transparency and fairness of the Board of Directors.

Also, a Nomination and Remuneration Advisory Committee, which exists as a voluntary committee, has been established as an advisory body to the Board of Directors. The Committee deliberates on the appropriateness of matters related to the appointment and dismissal of representative directors, remuneration policies and systems for directors, and the amount of remuneration determined for directors. It then reports its conclusions to the Board of Directors.

In addition, the CSR Committee, the Compliance Committee, the Information Management Committee, and the Trade Control Committee facilitate organization-wide initiatives to strengthen corporate governance.

Diagram of corporate governance system (as of March 28, 2025)

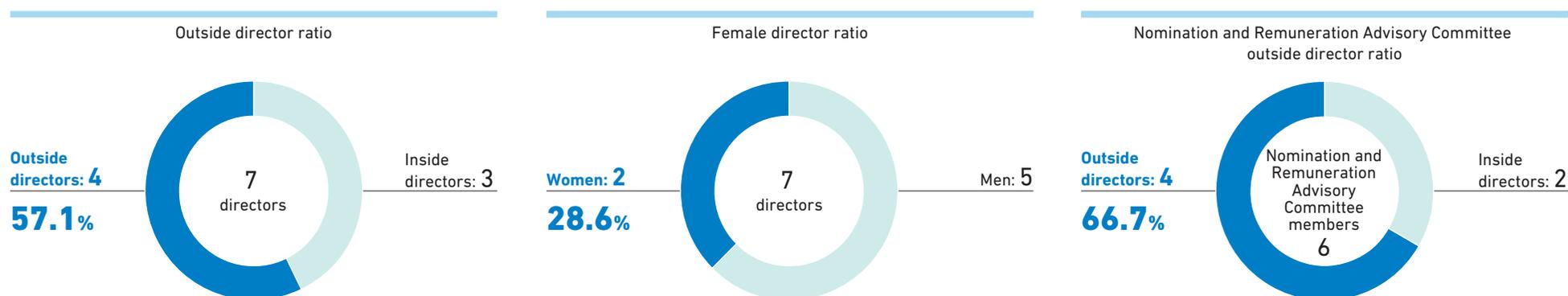


## Corporate governance

### Journey towards stronger corporate governance

	2000s	2010s	2020s
<b>Settlement and shares</b>	<b>2006</b> – Takeover defense measures introduced	<b>2012</b> – Takeover defense measures abolished	
<b>Business execution and supervision system</b>	<b>2001</b> – Executive officer system introduced – Start of reduction in number of directors	<b>2015</b> – First independent outside director appointed	<b>2020</b> – Nomination and Remuneration Advisory Committee established
	<b>2003</b> – Term of office for directors shortened to one year – First independent outside corporate auditor appointed	<b>2016</b> – Independent outside directors increased to two – Start of evaluation of Board of Directors effectiveness	<b>2023</b> – Non-Japanese executive officer appointed – Corporate advisor system abolished
		<b>2019</b> – Independent outside directors increased to three (outside directors now comprise one-third) – System for granting restricted shares introduced – First female outside director appointed	<b>2024</b> – Number of female outside directors increased to two
<b>Internal control and risk management</b>	<b>2000</b> – Principles of Activities established	<b>2015</b> – Corporate Philosophy Structure established – Business continuity planning formulated	<b>2023</b> – CSR Committee established
	<b>2003</b> – Auditing Division established	<b>2019</b> – Whistleblowing system introduced for all group companies	
	<b>2006</b> – NEG Hotline whistleblowing system introduced – Compliance Committee established		

### Governance highlights (as of March 28, 2025)



## Corporate governance

### Corporate governance structure

#### Board of Directors

The Board of Directors makes decisions on important management affairs of the NEG Group and supervises the execution of business affairs. As of March 28, 2025, the Board of Directors consists of seven members (including two representative directors, one inside director, and four outside directors). The Board of Directors is presided over by the Chairman of the Board. To achieve clarity of management responsibility and develop a flexible management system capable of responding to changes in the business environment, the term of directors is set at one year. Regular Board of Directors meetings are held monthly, and extraordinary Board of Directors meetings are held when necessary.

In addition, at the budget meeting held once a year, the Board of Directors monitors management by hearing explanations

directly from the executive officers about the business outcomes of the current fiscal year and the budget of the next fiscal year.

#### Board of Corporate Auditors

We adopt a corporate auditor system. As of March 28, 2025, the Board of Corporate Auditors consists of four corporate auditors, two of whom are outside corporate auditors. Corporate auditors conduct audits of the directors' execution of their duties through assessing business affairs and corporate assets and setting important audit issues according to auditing policies, plans, and assignment of duties established by the Board of Corporate Auditors. They also participate in Board of Directors meetings. Meetings of the Board of Corporate Auditors are held monthly, in principle, and corporate auditors share information and exchange opinions at these meetings.

Corporate auditors endeavor to improve the effectiveness of their audits by deepening their understanding about the company's

business operations. For this purpose, the corporate auditors take various measures, such as attending the annual budget meeting and periodically questioning directors and executive officers about their duties and handling of business affairs.

#### Nomination and Remuneration Advisory Committee

As part of our efforts to strengthen our corporate governance, the company established the Nomination and Remuneration Advisory Committee to ensure transparency and objectivity in the appointment and dismissal of representative directors and in the process of determining director remuneration. The Committee deliberates on the appropriateness of matters related to the appointment and dismissal of representative directors, remuneration policies and systems for directors, and the amount of remuneration determined for directors. It then reports its conclusions to the Board of Directors.

The Nomination and Remuneration Advisory Committee met six times during fiscal 2024. The Committee reviewed the director remuneration policy and system, and reported the total amount of director bonuses to the Board of Directors. Evaluation and allocation of the monthly remuneration (fixed) and bonus for each director (excluding outside directors) does not need to be reported to the Board of Directors, and decisions of the Committee are deemed to have the approval of the Board of Directors.

As of March 28, 2025, the Committee comprises two representative directors and four outside directors. Its membership is shown below.

#### Members of the Nomination and Remuneration Advisory Committee

Chair	Yoshio Ito (outside director)
Members	Motoharu Matsumoto (chairman of the Board)
	Akira Kishimoto (president)
	Reiko Urade (outside director)
	Hiroyuki Ito (outside director)
	Nahomi Aoto (outside director)

#### Attendance at Board meetings in fiscal 2024

	Name	Board of Directors meetings	Board of Corporate Auditors meetings
Representative directors	Motoharu Matsumoto	14/14 meetings (100%)	—
	Akira Kishimoto	14/14 meetings (100%)	—
Directors	Hiroki Yamazaki	14/14 meetings (100%)	—
	Tomonori Kano	14/14 meetings (100%)	—
	Mamoru Morii	14/14 meetings (100%)	—
Outside directors	Reiko Urade	14/14 meetings (100%)	—
	Hiroyuki Ito	14/14 meetings (100%)	—
	Yoshio Ito	14/14 meetings (100%)	—
	Nahomi Aoto	11/11 meetings (100%) (since being appointed in March 2024)	—
Full-time corporate auditors	Masahiko Ohji	14/14 meetings (100%)	13/13 meetings (100%)
	Yoshihisa Hayashi	14/14 meetings (100%)	13/13 meetings (100%)
Outside corporate auditors	Yukihiro Yagura	14/14 meetings (100%)	13/13 meetings (100%)
	Hiroji Indoh	14/14 meetings (100%)	13/13 meetings (100%)

## Corporate governance

### Management Committee

The Management Committee deliberates on the company's important managerial affairs and draws up detailed action plans regarding the decisions made at the Board of Directors meetings. Management Committee meetings are held twice a month and when deemed necessary.

As of March 28, 2025, the Management Committee comprises three inside directors (two of whom are representative directors), one executive vice president, and seven senior vice presidents.

### Executive officers

We adopt an executive officer system to promote faster decision making, ensure managerial transparency, and enhance the execution of business affairs.

As of March 28, 2025, in addition to the president, there are 16 executive officers (one of whom is a director, one of whom is French). Each executive officer serves for a term of one year.

### Analysis and evaluation of the effectiveness of the Board of Directors

All directors and corporate auditors participate in an annual questionnaire concerning the effectiveness of the Board of Directors. The questionnaire focuses on (1) the Board of Directors in general, (2) the running of Board of Directors meetings, and (3) outside directors.

### Fiscal 2023 questionnaire questions, opinions, and actions taken

(1) On the topic of "appropriateness of the content and timing of the distribution of materials in advance of the Board of Directors meetings," a comment expressed that informational materials were sometimes distributed at the last minute prior to a Board of Directors meeting, causing members to attend without adequate understanding of the issues. Our response will be to be more diligent about the timing that materials are distributed so members can be fully informed before attending the meetings.

(2) On the topic of "company efforts to provide outside directors with opportunities to visit plants in Japan and overseas and exchange opinions with local executives," a comment stated that, although the COVID-19 pandemic was one of the reasons, the respondent did not have any opportunities to visit a plant. Our response in fiscal 2024 was to provide outside directors with tours of overseas subsidiary companies.

### Fiscal 2024 questionnaire opinions

A comment on the composition of the Board of Directors commended the company for having a majority of outside directors on the Board but recommended establishing a system to ensure sufficient discussion.

Another comment requested that outside directors be provided with opportunities to visit plants in Japan and overseas and engage in discussions with executives so they can gain a full understanding of the situation at the sites.

Based on the results of the questionnaire, we have determined that the Board of Directors is viable and that its effective functioning has been ensured.

We will continue our efforts to enhance discussions at Board of Directors meetings by using the questionnaire results as a basis for making improvements and evaluating its effectiveness.

### Outside directors and corporate auditors

As of March 28, 2025, there are four outside directors and two outside corporate auditors within the company. Outside directors make up a majority of the Board of Directors, which includes two female outside directors. In order to strengthen the management supervisory capabilities of the Board of Directors and other corporate administrative bodies by ensuring that they receive informed and objective advice, our outside director appointments include; a corporate management expert with many years of first-hand knowledge and experience in the world of corporate management; an economist with expertise and a robust background in corporate governance and organizational management; a science expert who is specialized and highly

experienced in the field of agricultural sciences; and a technical expert with extensive experience and expertise in technology development and a proven track record in the technology development department of a global company and involvement in human resource development.

Outside corporate auditors consist of one certified accountant and tax accountant and one attorney at law, who are both independent from the company and are highly knowledgeable and experienced in their respective fields. They proactively perform their auditing duties and reinforce supervisory functions.

We base our determination of the independence of outside directors on the criteria established by the Tokyo Stock Exchange as well as on our own "Independence Standards for Outside Directors and Outside Corporate Auditors" described below.

No personal, capital, or business relationship, nor any other interest to which any of above-mentioned criteria apply, exists between NEG's outside directors and NEG, and, in light of the fact that they fulfill all of the requisite criteria, we have registered all our outside officers as independent directors/auditors with the Tokyo Stock Exchange.

**Related Information PDF** Independence Standards for Outside Directors and Outside Corporate Auditors  
[https://www.neg.co.jp/en/assets/independence\\_standards\\_en\\_20240304.pdf](https://www.neg.co.jp/en/assets/independence_standards_en_20240304.pdf)

### Training for Directors and Corporate Auditors

During Compliance Awareness Month, which is held in October of every year, we invite outside instructors to come and give lectures on compliance to our inside directors, full-time corporate auditors, and other executives. We also hold director training seminars every year, which provide our directors with a deeper understanding of current business conditions, including those surrounding corporate governance.

Our corporate auditors participate in seminars and information exchanges with outside organizations, through which they deepen their auditing-related expertise. For our outside directors and outside corporate auditors, prior to assuming

## Corporate governance

office, we provide them with explanations about our current corporate situation and systems. After they have assumed office, we provide them with opportunities to conduct interviews with directors and executive officers.

### Policy on deciding Directors' and Corporate Auditors' remuneration

Our executive compensation for directors (excluding outside directors) comprises a monthly retainer, performance-linked bonuses, and grants of restricted shares. For outside directors and corporate auditors, remuneration is limited to a monthly retainer. The total monthly remuneration and bonuses for directors is within the scope determined by the General Meeting of Shareholders. The amounts of the monthly retainer and bonus for individual directors are commensurate with those of other companies and are aligned with our business performance (in the case of inside directors only), the economic environment, and objective market research data on remuneration provided by outside specialized agencies. Bonuses are determined using consolidated operating income as an indicator and in consideration of economic conditions, business conditions, status of executed measures, and individual evaluations.

Specific content of monthly remuneration and bonuses are deliberated on and decided by the Nomination and Remuneration

Advisory Committee. Unless an equal number of Committee members differ in opinion, the decisions of the Committee are deemed to have been adopted by the Board of Directors.

Grants of restricted shares are determined by the Board of Directors after consideration of individual duties and responsibilities as well as the share price after deliberation by the Nomination and Remuneration Advisory Committee and are within the scope of the total amount determined by the General Meeting of Shareholders. The ratio of the monthly retainer, which is a fixed amount of remuneration, to the bonus and grants of restricted shares, which are variable amounts of remuneration, is generally 6:4 (fixed: variable) on a periodic payment basis.

Remuneration for corporate auditors is determined after consultation with the auditors within the scope of the total amount determined by the General Meeting of Shareholders after reference to what is offered by other companies as determined by surveys conducted by external specialized agencies.

### Cross-shareholdings policy

NEG does not hold cross-shareholdings except in cases where it recognizes the rationale for cross-shareholdings, such as business alliances and maintaining/enhancing business partnerships.

In addition, after taking into account factors such as changes in the business environment, we will verify the appropriateness of

holdings from a quantitative perspective based on cost of capital and from a qualitative perspective based on management strategy and other considerations before we proceed with further reductions.

NEG exercises voting rights relating to cross-shareholdings after comprehensively considering issues including whether or not a proposal effectively complies with the company's shareholding policy and whether or not it would be expected to increase the corporate value of the issuing company.

### Internal control policy

The Board of Directors has established a basic policy for the internal control system, which is based on the Companies Act, and the company is constructing a system to ensure proper business operations. We also have a system for ensuring appropriate financial reporting in compliance with the internal control reporting system, which is based on the Financial Instruments and Exchange Act. The status of financial reporting internal controls is evaluated by the internal control department of the Auditing Division, which reports directly to the President.

In the Internal Control Report released in March 2025, our financial reporting-related internal controls for fiscal 2024 were assessed as "effective." A report by an outside auditing company also assessed the controls as being appropriate in all key aspects.

### Total amount of directors' and corporate auditors' remuneration in fiscal 2024

Category	Total amount of remuneration (million yen)	Total amount for each type of remuneration (million yen)			Number of eligible officers
		Fixed remuneration	Performance-linked remuneration	Non-monetary remuneration	
Directors (Number of outside directors)	338 (37)	242 (37)	60 (—)	35 (—)	9 (4)
Corporate auditors (Number of outside corporate auditors)	60 (14)	60 (14)	— (—)	— (—)	4 (2)
<b>Total</b> (Number of outside directors and corporate auditors)	<b>398</b> (51)	<b>302</b> (51)	<b>60</b> (—)	<b>35</b> (—)	<b>13</b> (6)

Additional major initiatives are reported on the website.

<https://www.neg.co.jp/en/sustainability/governance/>

- Cross-shareholdings policy
- The Basic Policy regarding Internal Control

## Compliance and risk management

To maintain public trust and to achieve sustainable growth, every employee and executive of our Group is expected to comply with laws and international rules, and consistently act in accordance with our organization's high ethical standards.

### Compliance system

We established our Compliance Committee as a specialized body that ensures our Group members continue to comply with laws and regulations. The Committee also provides information on corporate ethics and is primarily focused on the items listed below.

- Drafting revisions to the Group Code of Conduct and Principles of Activities
- Collecting and analyzing information on compliance and providing compliance training
- Operating the whistleblowing system (NEG Hotline)

### Compliance program

#### Group Code of Conduct and Principles of Activities

To ensure that all employees are informed on compliance matters, we have established the Group Code of Conduct and Principles of Activities. Wallet-sized cards printed with the Corporate Philosophy Structure, Code of Conduct, Principles of Activities, and an introduction to the NEG Hotline are distributed to employees of group companies in Japan.

### Whistleblowing system

A whistleblowing system called the NEG Hotline has been established to help prevent any illegal violations, wrongdoings, or unethical acts and to promote early detection and quick resolution should such acts occur. We have established two consultation hotlines, one that connects employees to the Compliance Committee (internal contact point) and another that connects to an attorney's office (outside contact point). The confidentiality of the informants is strictly protected at both contact points, so that no unfair treatment will occur.

This whistleblowing system has been set up at all subsidiaries

in Japan and overseas. We will continue raising awareness of the system and verifying that it continues to function properly.

### Ensuring compliance

To raise compliance awareness (for example, for high ethical standards and respect for human rights) throughout our Group, each year we carry out compliance training as a part of an education program for newly hired employees and antitrust seminars for employees engaged in sales activities. We also ensure awareness among management by holding workshops for directors and executive officers. At these sessions, participants take the opportunity to discuss themes such as governance and compliance.

In addition, we have designated October as the month for strengthening compliance. We conduct compliance-related lectures and workshops throughout our Group companies both in Japan and overseas, and also put up compliance awareness posters throughout our facilities. Moreover, we ask all executives and employees in Japan and overseas to provide the company with signed declarations each year promising that they will abide by the Principles of Activities. This gives them the opportunity to reflect on how they carry out their work in terms of compliance.

### UK Modern Slavery Act

Subsidiary Electric Glass Fiber UK, Ltd. has issued a statement pursuant to the UK Modern Slavery Act 2015.

### Risk management

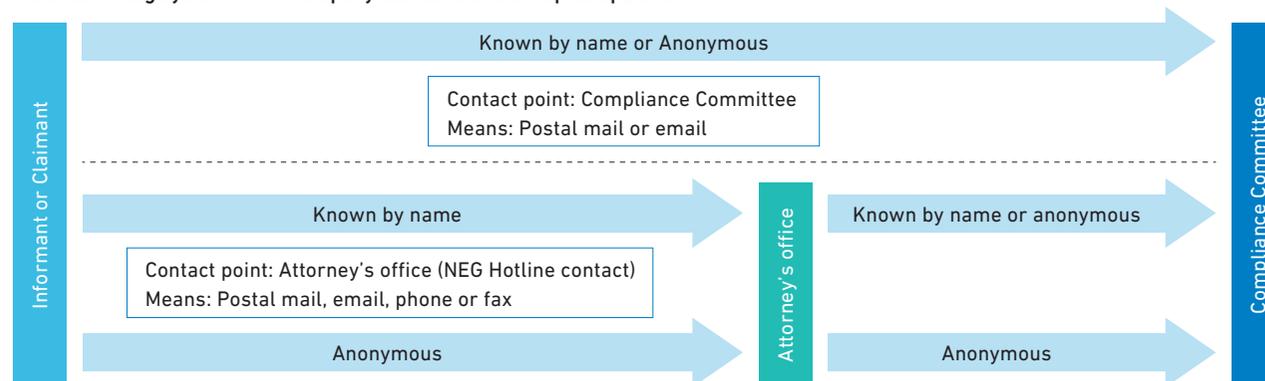
Our Group reviews business risks on a periodic basis, based on our policy on internal control, and takes the necessary steps to manage such risks. In cases involving any business risks that are deemed significant, responsible divisions or specialized committees formulate regulations and guidelines, conduct training, prepare manuals, and undertake additional activities as deemed necessary.

Additional major initiatives are reported on the website.

<https://www.neg.co.jp/en/sustainability/governance/>

- Compliance education and training
- Business risks
- Attitude towards taxation
- Business continuity plan

### Whistleblowing system of the company and domestic Group companies



# Consolidated financial data from the past 10 years

Nippon Electric Glass Co., Ltd. and consolidated subsidiaries

Fiscal years ended December 31  
(Millions of yen unless otherwise specified)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Results of operations</b>										
Net sales	¥ 251,177	¥ 239,411	¥ 282,447	¥ 300,326	¥ 257,511	¥ 242,886	¥ 292,033	¥ 324,634	¥ 279,974	¥ 299,237
Operating profit (loss)	22,034	19,571	32,201	24,865	16,258	17,660	32,779	26,184	(10,420)	6,120
Profit (loss) attributable to owners of the parent	9,636	4,968	27,184	15,199	(33,669)	15,252	27,904	28,167	(26,188)	12,091
Depreciation and amortization	37,153	31,255	28,734	29,775	28,576	24,931	26,721	28,962	37,185	28,937
Capital expenditures	49,211	46,429	52,913	49,339	20,160	23,447	44,894	68,024	34,402	36,951
Research and development	6,183	6,657	6,897	6,958	6,901	6,258	6,598	7,266	8,094	7,881
<b>Financial position</b>										
Total assets	¥ 726,937	¥ 693,917	¥ 764,420	¥ 725,320	¥ 664,800	¥ 658,139	¥ 698,129	¥ 747,907	¥ 703,917	¥ 695,163
Current assets	267,429	254,870	262,932	247,741	241,482	246,399	264,512	271,680	253,104	285,495
Net property, plant, and equipment	386,012	367,399	393,817	386,540	358,682	355,727	380,280	425,629	392,968	353,854
Current liabilities	105,399	86,024	103,835	112,992	96,485	103,576	117,934	131,665	109,042	123,007
Interest-bearing debt	109,730	101,997	120,660	112,004	100,478	103,687	96,821	105,525	120,343	113,265
Net assets	519,801	509,564	543,789	521,547	477,154	476,920	499,742	528,912	490,130	487,559
<b>Cash flows</b>										
Cash flows from operating activities	¥ 46,797	¥ 48,261	¥ 46,159	¥ 52,002	¥ 21,637	¥ 47,861	¥ 69,881	¥ 31,563	(¥ 1,360)	¥ 52,200
Cash flows from investing activities	(32,638)	(36,138)	(68,644)	(19,551)	(14,316)	(19,759)	(31,754)	(57,155)	(20,777)	42,601
Cash flows from financing activities	(7,892)	(17,624)	9,797	(28,503)	(21,976)	(7,739)	(29,178)	(5,874)	(11,572)	(48,832)
Cash and cash equivalents at end of year	133,856	126,167	113,835	116,248	100,977	121,215	134,723	106,862	75,083	123,582
<b>Per share of common stock (yen)</b>										
Net income (loss)	¥ 96.88	¥ 49.95	¥ 273.29	¥ 154.26	(¥ 348.50)	¥ 157.84	¥ 290.98	¥ 302.76	(¥ 282.90)	¥ 141.67
Net assets	5,159.30	5,069.60	5,416.93	5,346.03	4,885.50	4,886.10	5,321.77	5,635.52	5,463.53	5,996.61
Cash dividends	80.00	80.00	90.00	100.00	100.00	100.00	110.00	120.00	120.00	130.00
<b>Financial indicators (%)</b>										
Operating margin	8.8	8.2	11.4	8.3	6.2	7.3	11.2	8.1	(3.7)	2.0
Equity ratio	70.6	72.7	70.5	71.2	71.0	71.7	70.9	70.1	69.2	69.6
Return on equity	1.9	1.0	5.2	2.9	(6.8)	3.2	5.8	5.5	(5.2)	2.5

Notes: 1. Net income (loss) per share and net assets per share are calculated based on the average number of shares outstanding during each year and the number of shares outstanding at the end of each year, respectively.

2. As there was no dilutive stock outstanding during these years, diluted net income per share was not calculated.

3. As of December 31, 2024, Nippon Electric Glass Co., Ltd. had 24 consolidated subsidiaries and 1 affiliated company accounted for by the equity method.

4. Per share of common stock amounts are retroactively adjusted for subsequent stock consolidation. On July 1, 2017, common shares were consolidated at a ratio of 5 to 1 based on the number of shares held by shareholders of record as of June 30, 2017.

5. NEG and its consolidated subsidiaries have applied the "Partial Amendments to Accounting Standard for Tax Effect Accounting" (Accounting Standards Board of Japan [ASBJ] Statement No. 28, February 16, 2018) from the fiscal year ended December 31, 2019. Accordingly, total assets and current assets for the fiscal year ended December 31, 2018 reflect the retroactive application of this standard.

6. NEG and its consolidated domestic subsidiaries have applied the "Accounting Standard for Revenue Recognition" (Accounting Standards Board of Japan [ASBJ] Statement No. 29, March 31, 2020) and the relevant revised ASBJ regulations from the beginning of the fiscal year ended December 31, 2022. Accordingly, consolidated financial statements for that fiscal year reflect the application of this standard and the relevant revised ASBJ regulations.

# Corporate profile

## Corporate information

(as of December 31, 2024)

Company name	Nippon Electric Glass Co., Ltd.
Head office	7-1, Seiran 2-chome, Otsu, Shiga 520-8639, Japan Tel: +81-77-537-1700
Founded	December 1, 1949
Plants (in Japan)	Otsu, Shiga-Takatsuki, Notogawa, Precision Glass Center
Sales headquarters	Osaka, Tokyo
Capital	¥32,155 million
Number of employees	5,498 (consolidated) 1,746 (non-consolidated)

## Stock information

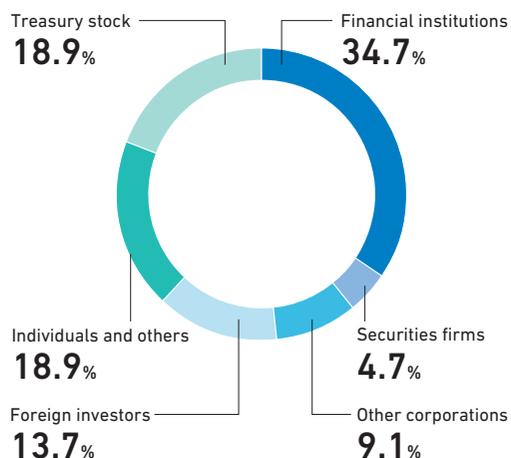
(as of December 31, 2024)

Stock exchange listings	Tokyo Stock Exchange Prime Market
Securities code	5214
Fiscal year	January 1 to December 31 of each year
Ordinary general meeting of shareholders	Held each year in March
Transfer agent for common stock	Sumitomo Mitsui Trust Bank, Limited

## Information about NEG stock

Total number of shares authorized to be issued	240,000,000 shares
Total number of shares issued	99,523,246 shares
Shares per unit	100 shares
Total number of shareholders	37,603

## Distribution of shares by shareholder type



## Major shareholders

Shareholder	Number of shares held (thousand shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	14,911	18.5
Custody Bank of Japan, Ltd. (Trust Account)	6,844	8.5
Nipro Corporation	4,644	5.8
The Nomura Trust and Banking Co., Ltd. (Investment Trust Account)	2,186	2.7
Aya Nomura	1,997	2.5
The Shiga Bank, Ltd.	1,617	2.0
JP Morgan Securities Japan Co., Ltd.	1,366	1.7
Nippon Electric Glass Business Partner Shareholding Association	1,355	1.7
Japan Securities Finance Co., Ltd.	1,317	1.6
Nippon Electric Glass Employee Shareholding Association	1,013	1.3

Notes:

1. NEG holds 18,807,549 treasury stock, and these are excluded from the major shareholders indicated above.
2. The ratio of shareholding is calculated by excluding treasury stock.

**NeG**

*GLASS FOR FUTURE*

**Nippon Electric Glass**