

Business Overview

Starting from the industrial gas supply, our business has expanded diversely in stable markets that are essential to manufacturing and people's daily lives. Our business portfolio is now able to generate sustainable and stable growth, regardless of changes in the business environment.

GLOBAL ENVIRONMENT

Digital & Industry

Supports various manufacturing industries by providing a stable supply of industrial gases through our nationwide network of bases. By leveraging our strength handling both industrial gases and chemical products, also supports the electronics industry with a wide range of products and services.

Industrial Gases

- Industrial gases (oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, etc.)

Electronics

- Large-scale nitrogen gas supply for semiconductors
- Specialty gases and chemicals
- Gas purifiers, equipment for semiconductor production processes
- Chemical products for semiconductor manufacturers

Functional Materials

- Electronic materials, circuit products, precision polishing pads
- O-rings
- Basic chemicals (e.g., organic acid products)
- Chemicals for food (sodium acetate)
- Magnesia

Energy Solutions

Retails LP gas for residential use mainly in Hokkaido and Tohoku areas. Also develops fuel conversion and LNG-related businesses amid growing demand for low-carbon and decarbonized energy. Furthermore, aims to establish a resource-recycling energy supply model that utilizes unused resources for local production for local consumption and to create new businesses such as CO₂ capture and reuse.

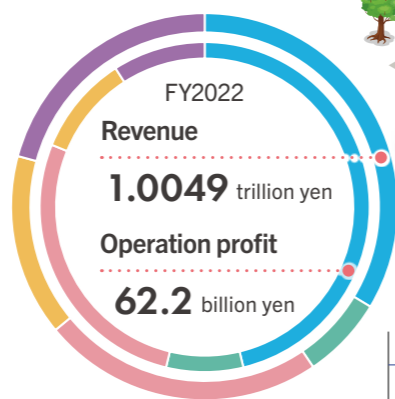
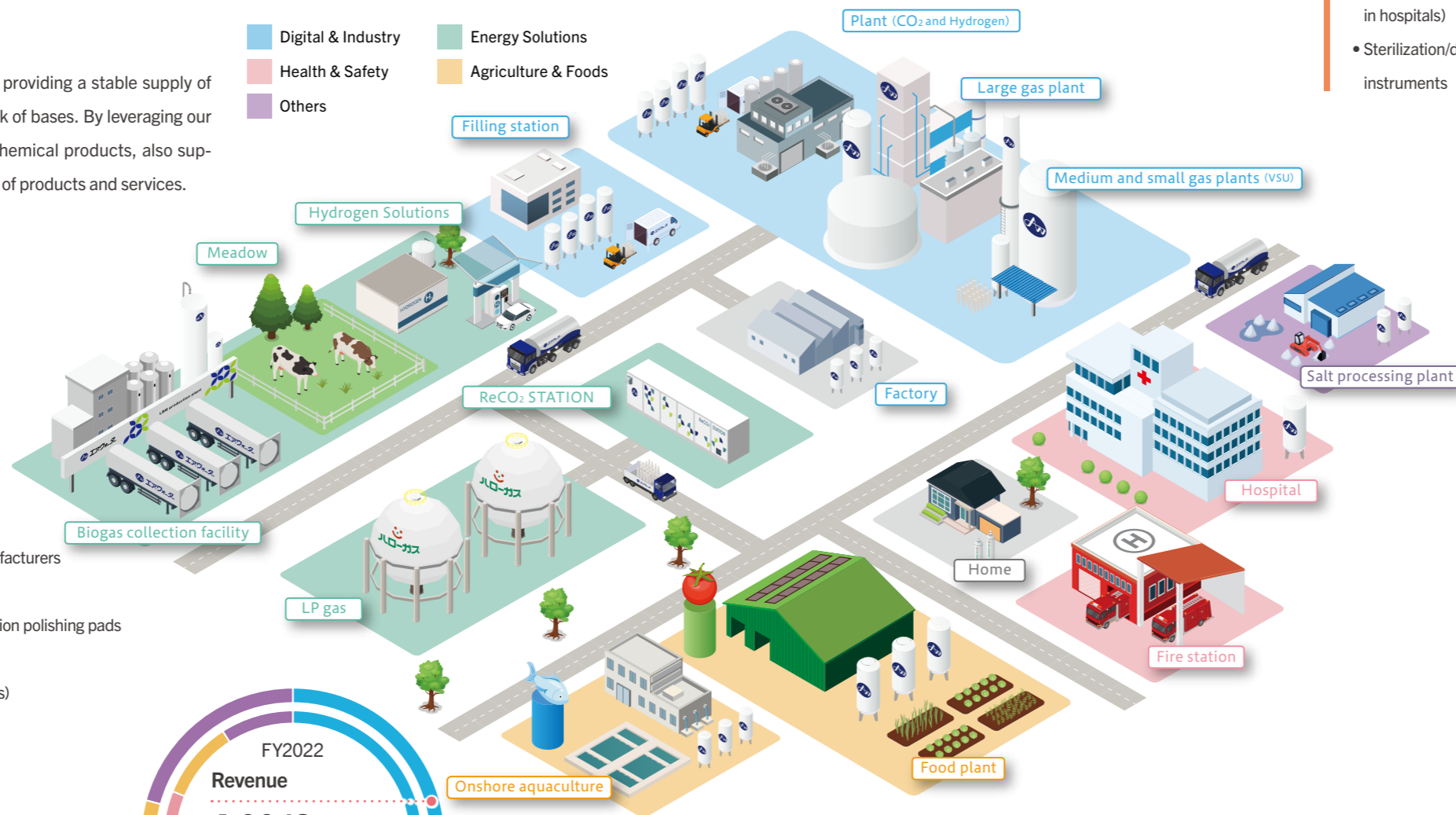
Energy

- LP gas and kerosene sales
- LP gas related equipment
- LNG related equipment

Green Innovation

- Low-carbon/decarbonization business development (CO₂ recovery, hydrogen energy, LNG, etc.)

- Digital & Industry
- Health & Safety
- Others
- Energy Solutions
- Agriculture & Foods



	FY2022(Results)		FY2023(Plan)	
	Revenue	Operating profit	Revenue	Operating profit
Digital & Industry	338	26.1	363	33.2
Energy Solutions	69.2	4.3	70	4.6
Health & Safety	236	15.5	245	17
Agriculture & Foods	152.8	5.5	173	7.2
Others	208.9	5.1	229	11.4
Adjustments		5.7		▲1.4
Total	1,004.9	62.2	1,080	72

*Adjustments: Elimination of intersegment transactions and profit/loss of the Company's headquarter divisions not allocated to each segment

Health & Safety

Provides solutions to the medical field by utilizing our diverse products and services, including medical gases, design, construction, maintenance, and inspection of hospital equipment, outsourcing of hospital operations, and sanitary materials. Also supports people's health and safety by developing businesses in home health care, oral care, consumer health, and safety services.

Medical Products

- Medical gas (oxygen, carbon dioxide, helium, etc.)
- Medical equipment
- Home healthcare
- Dental materials

Medical Services

- SPD (centralized supply, processing and distribution of medical supplies in hospitals)
- Sterilization/disinfection of medical instruments

Consumer Health

- Sanitary materials
- Aerosol
- Needles

Safety Services

- Design/construction/maintenance of medical gas piping, operating rooms, and ICUs
- Manufacturing/sale of fire extinction equipment and breathing apparatus

WELLNESS

Agriculture & Foods

Starting with the production and sale of frozen food using liquefied nitrogen, expanded our business from the wholesale, processing, and retail of fruits and vegetables to the production and sale of beverages and sweets. Continues to support safe and secure "food" in a variety of areas by leveraging our strong ties with producers through the procurement of raw vegetable ingredients, our product development capabilities, and the processing technology to realize them.

Foods

- Ham delicatessen
- Frozen food
- Sweets

Natural foods

- OEM of beverages such as vegetable and fruit-based

Agriculture

- Vegetable processing
- Farmer's markets, wholesale fruits/vegetables
- Manufacturing/sale of agricultural machinery

OTHERS

Includes (1) "Logistics," which operates a 3PL business utilizing cryogenic controlled transportation technology and medical logistics, (2) "Seawater," which expands its salt manufacturing technology to artificial seawater and environmental business, and (3) "Global & Engineering," which develops industrial gas business in North America and India and globally supplies high-power UPS (uninterruptible power supplies) used in data centers and other facilities.

Logistics

- Transportation (general logistics, chassis transport)
- Food logistics
- Medical & environmental logistics
- Vehicle modifications

Seawater

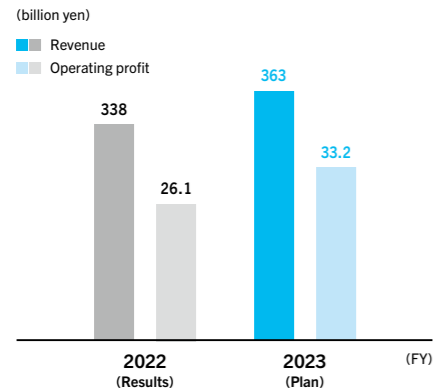
- Production/sale of commercial salt

Global & Engineering

- On-site gas supply for steel
- Lorry and cylinder supply
- Industrial gas equipment (cryogenic equipment, hydrogen, carbon dioxide gas, etc.)
- Engineering
- High-power UPS
- Electric power
- Wood biomass power generation

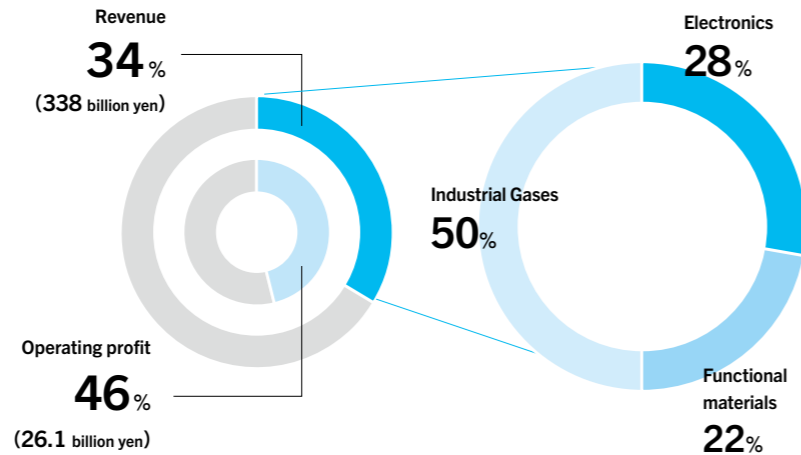
Digital & Industry

Revenue · Operating profit



Operating Profit Margin
FY2022 7.7% ▶ FY2023(Plan) 9.1%

FY2022 Revenue and operating profit composition (out of companywide results)



FY2022 Revenue composition ratio by unit

Competitive Edges

- Stable supply system through a network of manufacturing, storage, and distribution, including 22 VSUs optimally located nationwide
- Technologies for gas supply and engineering, such as air separators, hydrogen production, CO₂ recovery, etc.
- Product lineup that supports the semiconductor manufacturing value chain, such as chemical materials and related equipment in addition to industrial gases
- Specialty chemical products with top domestic market share (Magnesia for electromagnetic steel sheets, phthalic anhydride, sodium acetate)

External Environment

Opportunities

- Expanding demand for semiconductors and EV-related products driven by digitalization
- Expanding demand for CO₂ capture, hydrogen, and decarbonization-related products

Risks

- Impact on manufacturing and sales due to fluctuations in demand for semiconductors and other electronics-related products
- Impact on product costs due to changes in electricity costs
- Reduced carbon dioxide and argon sources through consolidation of refineries and blast furnaces

Mid-to Long-Term Policy / Growth Strategy

1 Strengthening Profitability

- Ensuring price management for the higher value of products and services
- Responding to gas demand by expanding and optimally locating facilities, including carbon dioxide sources and argon production facilities
- Improving operational efficiency through integration and reorganization of group companies in the electronics and logistics fields
- Reallocating personnel to growth areas such as the environment and electronics

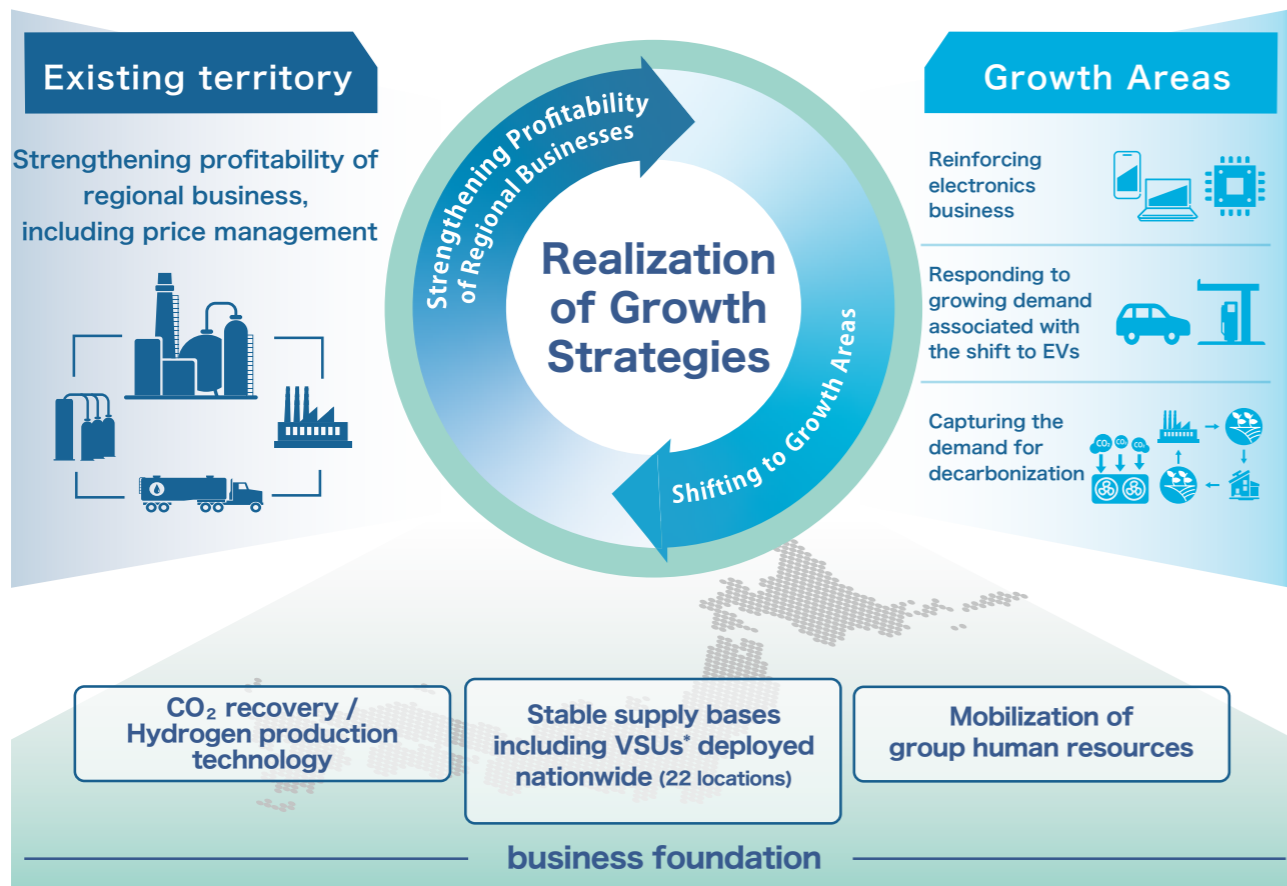
2 Reinforcing Electronics B.U.

- Adding on-site gas supply plants to accommodate factory expansion by major semiconductor device manufacturers
- Boosting sales of chemical materials and supply equipment along the expanding on-site gas supply
- Developing semiconductor and electronic materials by integrating expertise in the electronics and functional materials fields

3 Bolstering Carbon Neutrality

- Developing a stable supply system for hydrogen unaffected by trends in raw material sources, utilizing the high-efficiency hydrogen generator "VHR2"
- Installing a CO₂ recovery system to recover the CO₂ generated during the production of hydrogen from city gas to achieve clean hydrogen production
- Producing and selling oxygen, nitrogen, and argon using green power

Business Development Outline



*High-efficiency compact liquefied oxygen/nitrogen generator

TOPICS

Manufacturing base strategy with our hydrogen gas generator, "VHR"

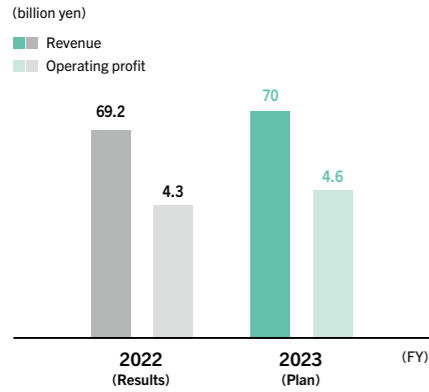
Our Group has a production and supply network with nine on-site hydrogen gas supply sites and eleven compressed hydrogen production sites, which are among the best in Japan. We also develop our own hydrogen gas generator "VHR", which achieves the world's highest level of generation efficiency and reduces environmental impact. Currently, we are installing VHR when renewing or building new production facilities. We are building

a stable supply system that is less susceptible to trends in raw material sources, and at the same time, we are promoting a manufacturing base strategy to capture the growing demand for hydrogen against the backdrop of decarbonization. In addition, since VHR utilizes steam reforming process of natural gas, we plan to install a CO₂ recovery system in the future to make hydrogen cleaner and expand our carbon dioxide gas production bases.



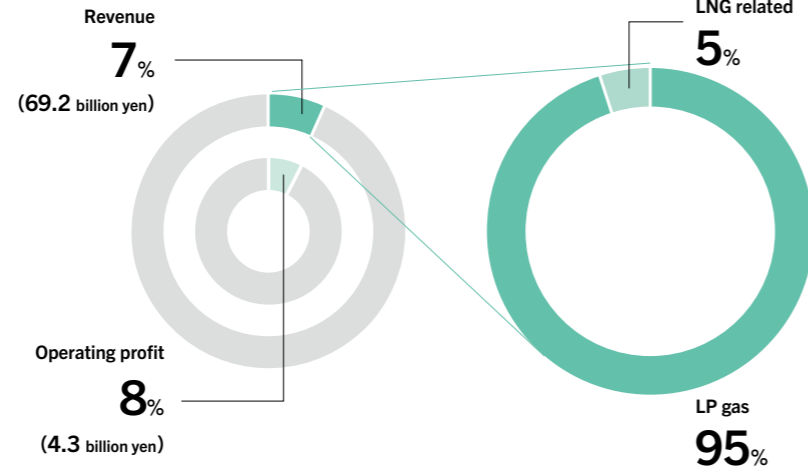
Energy Solutions

Revenue · Operating profit



Operating Profit Margin
 FY2022 6.2% ▶ FY2023(Plan) 6.6%

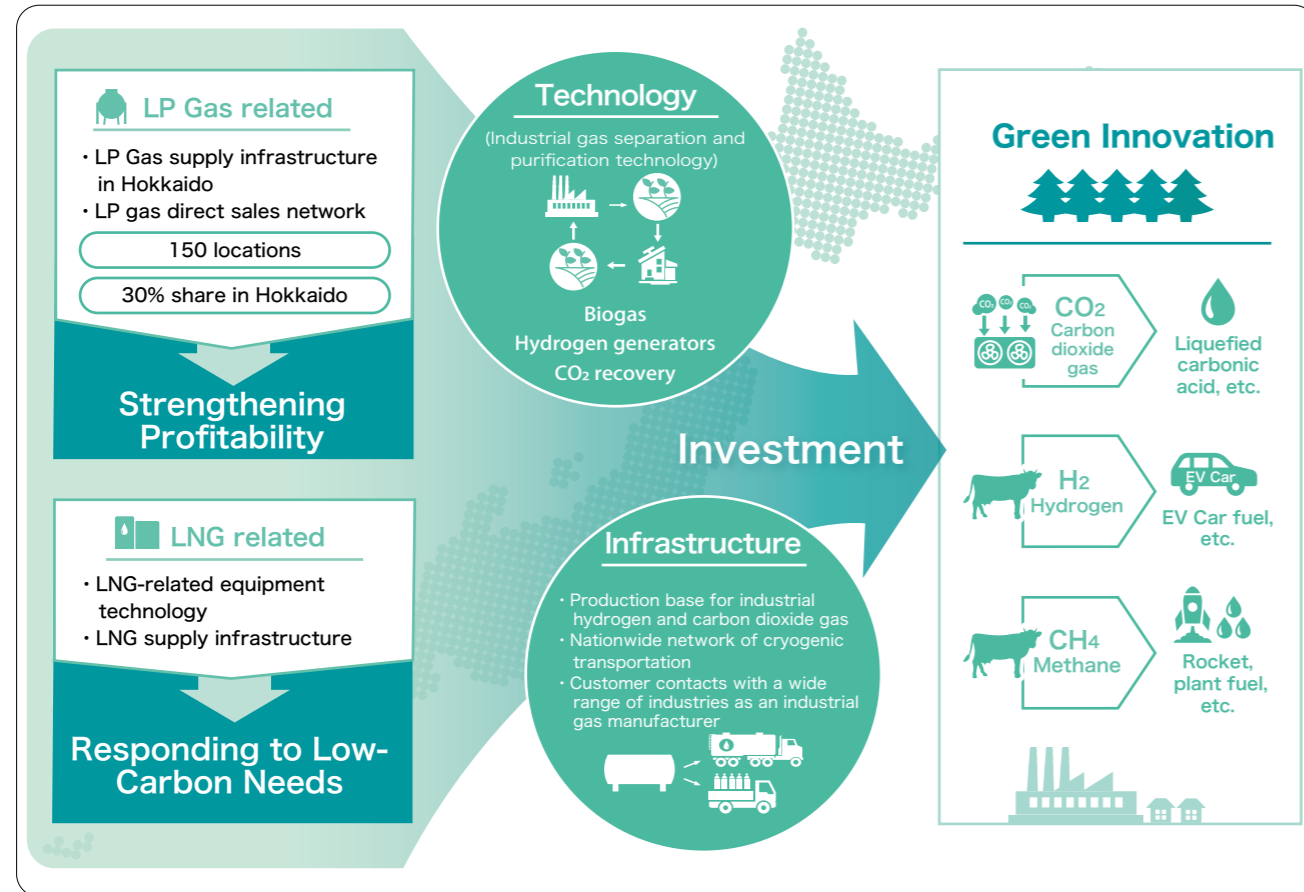
FY2022 Revenue and operating profit composition (out of companywide results)



FY2022 Revenue composition ratio by unit



Business Development Outline



Competitive Edges

Low-carbon technologies such as LNG lorries and LNG-related equipment

Decarbonization technologies, such as CO₂ capture and hydrogen, cultivated in the industrial gas business

Supply infrastructure of LP gas covering 99% of Hokkaido area (filling, distribution, sales offices)

External Environment

- Opportunities**
 - More opportunities for carbon-neutral energy business amid the accelerating shift to a low-carbon and decarbonized society
 - More opportunities for potential M&A, such as lack of successors for LP gas dealers
- Risks**
 - Decreasing demand for LP gas and kerosene due to shrinking population and global warming

Mid-to Long-Term Policy / Growth Strategy

1 Strengthening Profitability

- Improving efficiency of LP gas delivery, filling, and metering operations through IoT
- Optimizing prices for delivery fees, filling fees, etc.
- Improving operational efficiency through integration and reorganization of delivery and filling bases and group companies

2 Responding to Low-Carbon Needs

- Promoting fuel conversion and expanding sales of LNG-related equipment against the backdrop of low-carbon and decarbonization trends

3 Switching to a Carbon-Neutral Energy Business

- Creating new businesses responding to climate change issues, such as CO₂ capture/reuse, biogas, and liquefied biomethane
- Establishing a resource-recycling energy supply model of local production for local consumption based on LP gas supply network and industrial gas customer contacts
- Boosting sales of vertical solar power system "VERPA"

TOPICS

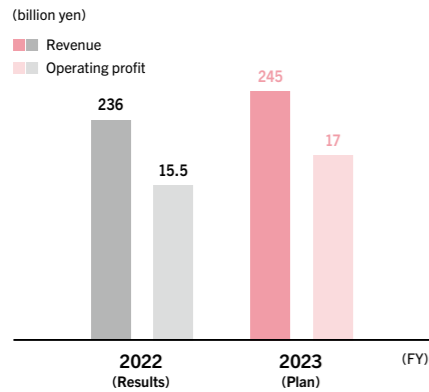
Pioneered the world's first vertical solar power system "VERPA," installable in parking areas, etc.
 - vertical type, space saving, and even fits heavy snow areas -

We have developed the vertical solar power system "VERPA" in cooperation with Luxor Solar (Germany). This is the world's first innovative system that can be used in conjunction with other applications such as parking lots, since it requires less installation area than the usual flat or sloped type and has a height of more than 2 meters from the ground surface to the bottom of the module. Besides, the double-sided power generation makes the output almost the same as that of the sloped type, and its vertical position makes it resistant to snow.



Health & Safety

Revenue · Operating profit



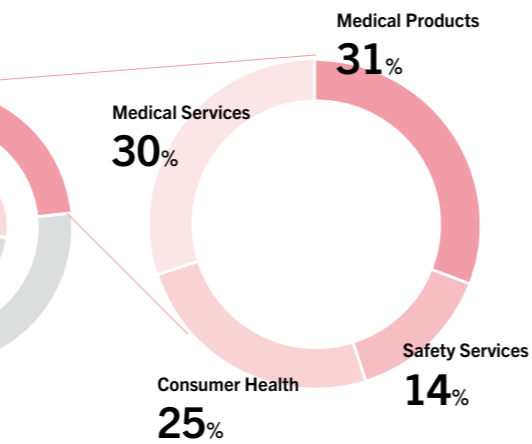
Operating Profit Margin

FY2022 6.6% ▶ FY2023(Plan) 6.9%

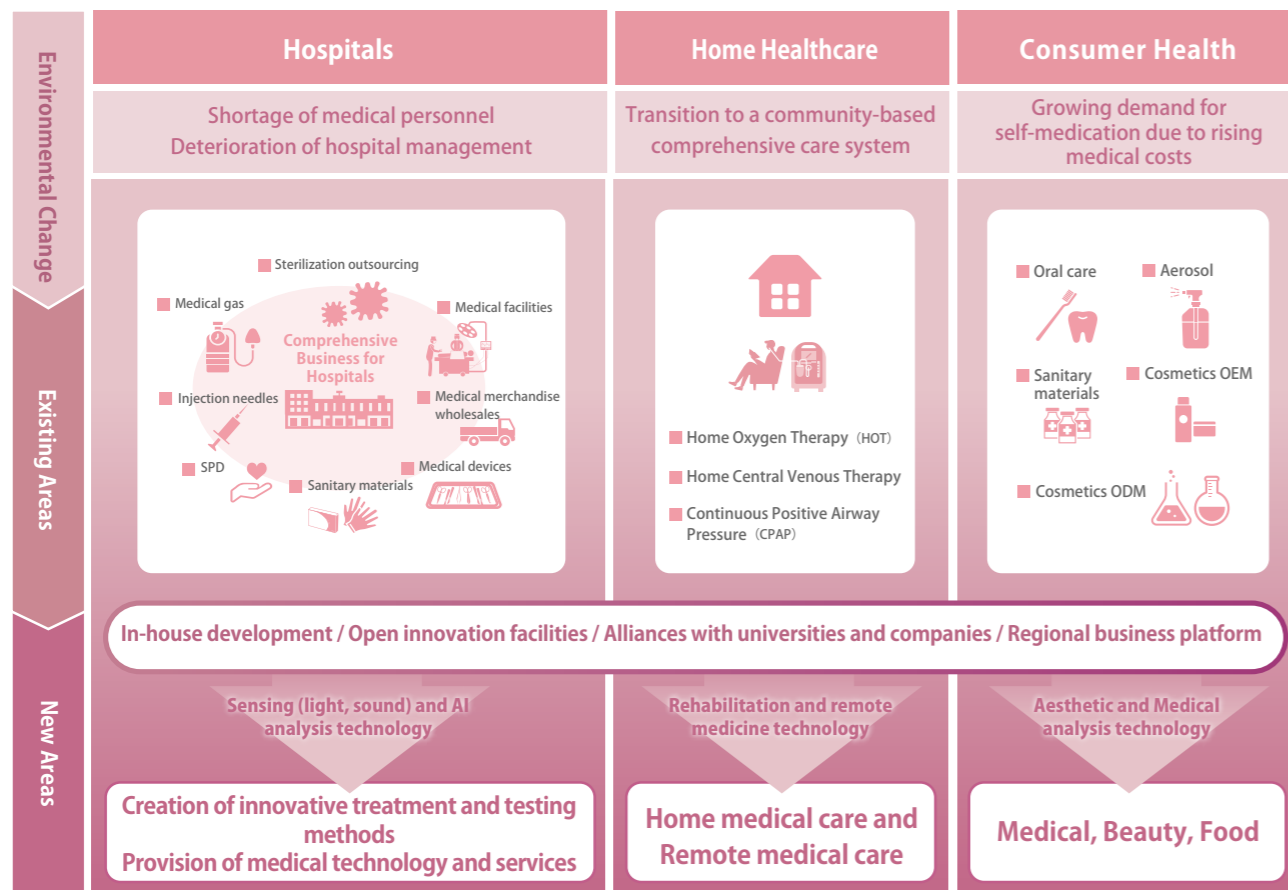
FY2022 Revenue and operating profit composition (out of companywide results)



FY2022 Revenue composition ratio by unit



Business Development Outline



Competitive Edges

- Comprehensive strength covering across diverse fields from acute care to consumer health
- Stable supply system of medical oxygen through the VSU network
- Solid revenue base with a high market share in medical gases and hospital facility construction
- Infrastructure and network for home healthcare (home oxygen therapy), including its equipment manufacturing, delivery, and maintenance
- Products with a high market share in the Safety Services, such as breathing apparatus and gas extinguishing systems

External Environment

- Opportunities**
 - Growing needs for more advanced medical equipment at medical institutions and more efficient hospital operations
 - Spreading needs for community-based comprehensive care and home medical care
 - Growing needs for nursing care and preventive medicine
- Risks**
 - Ongoing digital transformation in medical
 - Curbing of medical costs in Japan

Mid-to Long-Term Policy / Growth Strategy

1 Strengthening Profitability

- Adjusting prices to reflect rising costs of materials and labor, including medical gas and equipment construction
- Reducing costs through self-manufacturing in consumer health (injection needles, sanitary materials)
- Improving productivity through labor-saving investments in safety services and aerosols
- Streamlining business sites for hospitals by integration/reorganization

2 Bolstering the hospital business by reorganizing group companies

- Integrating development, manufacturing, sales, and maintenance of medical equipment and nursing care products, etc.
- Developing medical equipment using digital technology

3 Expanding home healthcare & consumer health

- Creating new services for home rehabilitation
- Expanding OEM in injection needles
- Expanding OEM/ODM in cosmetics

4 Reinforcing the Safety Services

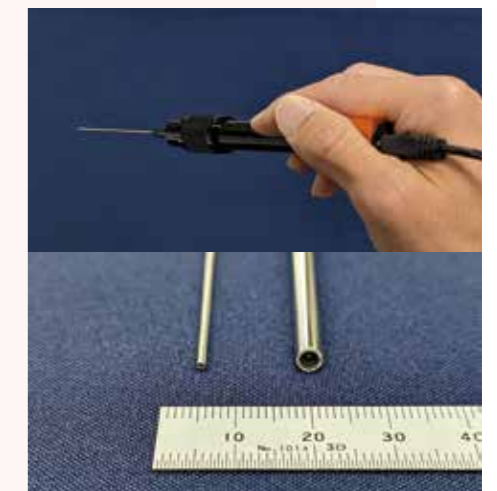
- Responding to strong demand for data centers and shipbuilding in the gas fire extinguishing field

TOPICS

Established an integrated system for development, manufacturing, sales, and maintenance of medical equipment. Now advancing more needs-driven development, such as ultra-fine rigid endoscopes.

In July 2023, we have concentrated the medical business resources in our Group, including personnel and technology, into Air Water Medical Inc. Positioning it as a core company in the medical business, we have built an integrated structure from development to manufacturing, sales, and maintenance in order to en-

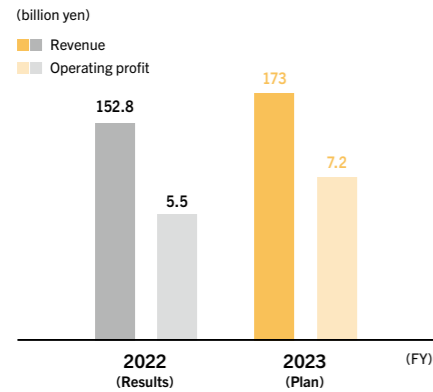
hance our manufacture's capabilities. It allowed us to better capture various needs of the medical field. Working with the Healthcare Development Center and the Healthcare Imaging Division, we continue to create products such as the ultra-fine rigid endoscope that was jointly developed with Keio University.



*The photo below shows a comparison with a conventional rigid endoscope (right)

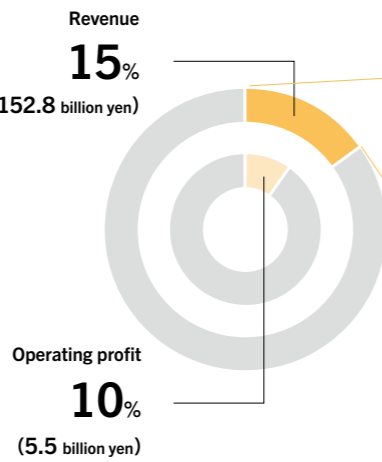
Agriculture & Foods

Revenue · Operating profit

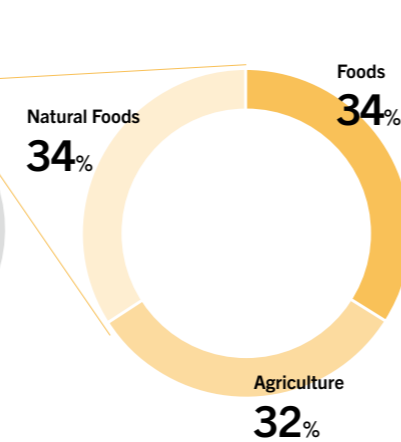


Operating Profit Margin
 FY2022 3.6% ▶ FY2023(Plan) 4.2%

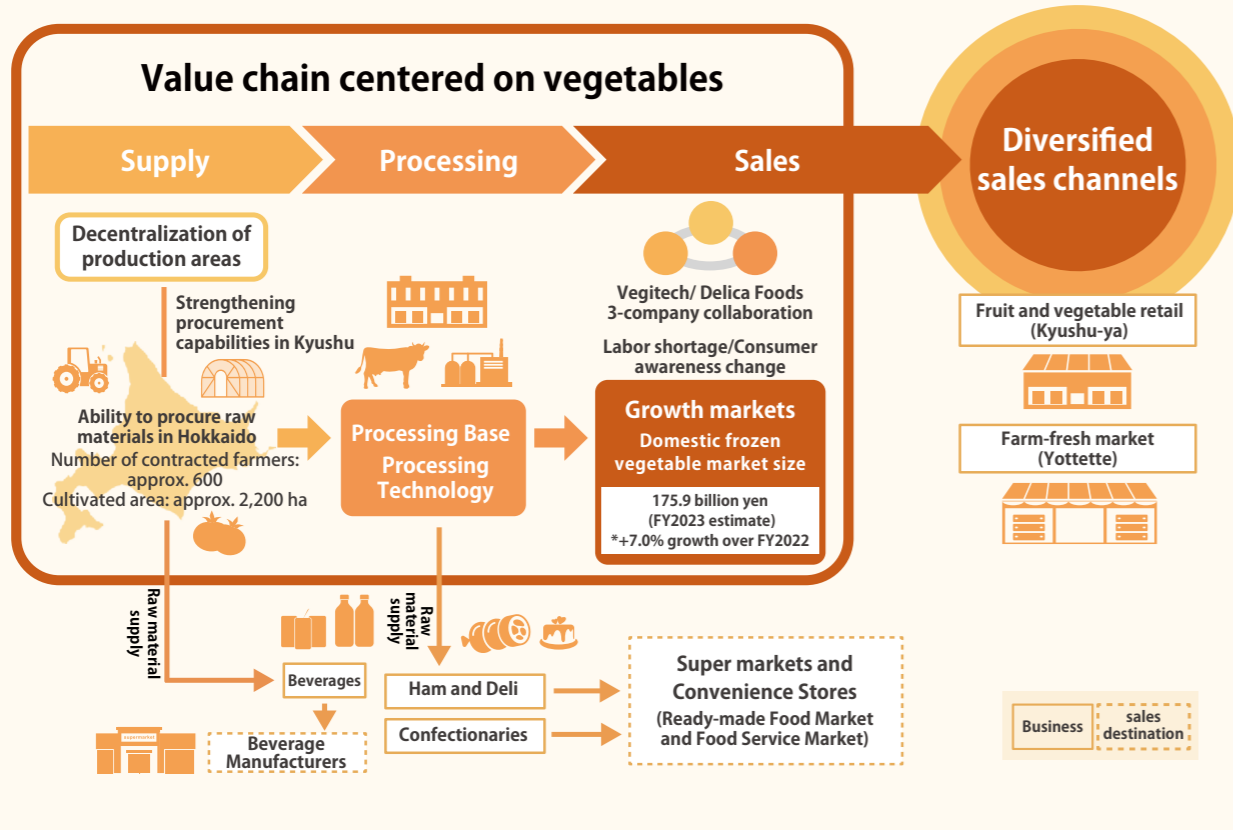
FY2022 Revenue and operating profit composition (out of companywide results)



FY2022 Revenue composition ratio by unit



Business Development Outline



Competitive Edges

- Stable procurement of raw vegetables through contract farming mainly in Hokkaido
- Nationwide logistics of fruits & vegetables and cryogenic transportation technology
- Extensive production and processing technologies for various food needs, from agricultural products to ham and sweets
- Value chain from farming to procurement, processing, logistics, and retailing
- Effective use of the “Hokkaido brand” where our contract farms and processing plants are concentrated

External Environment

- Opportunities**
- ★ Changing consumers’ awareness of food (more healthy and quick)
 - ★ Farmer shortage amid the aging population and declining birthrate
 - ★ Expansion of the ready-meal and restaurant market
- Risks**
- Shortage of raw material vegetables due to weather and fluctuating price
 - Cost fluctuations in raw materials and logistics

Mid-to Long-Term Policy / Growth Strategy

1 Strengthening Profitability

- Optimizing production system (bases and items) in the Foods field
- Optimizing production lines in the Beverages field (integrate, build new)
- Improving procurement to reduce wasted fruits and vegetables in the Retail
- Lowering logistics costs by leveraging the Group’s logistics infrastructure
- Adjusting prices in response to rising raw material prices

2 Stronger platform of the fruit and vegetable distribution/processing through capital alliances with two industry giants

- Utilizing three contract farmers and procuring channels. Also sourcing raw veggies by spreading production areas to Kyushu
- Selling the products of the three companies to each other and gaining more business partners, especially in the restaurant and ready-meal market
- Enhancing the fruit vegetable distribution and infrastructure business by the three’s logistics networks and bases
- Jointly developing freshness and food processing technologies

3 Delivering products that address needs and challenges of “food”

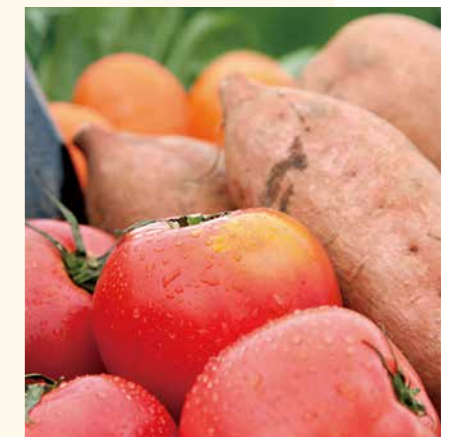
- Expanding products for home like packaged meals and frozen veggies for convenience stores
- Full-scale entry into the frozen sweets business
- Responding to environmental needs of customers by expanding circulating containers and paper container lines

TOPICS

From farm to table, three companies collaborate to enhance distribution and processing platform for fruits & vegetables

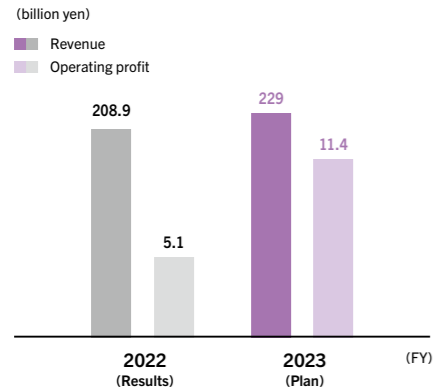
In February 2023, we started a three-company collaboration with VEGETECH Co., Ltd. and DELICA FOODS HOLDINGS CO., LTD. Vegetech is a trading company specialized in fruits and vegetables for the processing and intermediate wholesaling. Delica Foods Holdings sells whole- and cut- vegetables for commercial use. With strengths of the three companies together, we will be enhancing the raw materials

procurement and streamlining logistics. Through the three’s sales channels, we will bring the “food” of Hokkaido to the whole country. We will make the stronger distribution and processing platform of fruits & vegetables that connects producing areas and tables. Thereby we aim to provide a one-stop solution for food safety and security, as well as contribute to promoting local agriculture and reducing food loss.



Logistics / Seawater / Global & Engineering / Electric Power

Revenue - Operating profit



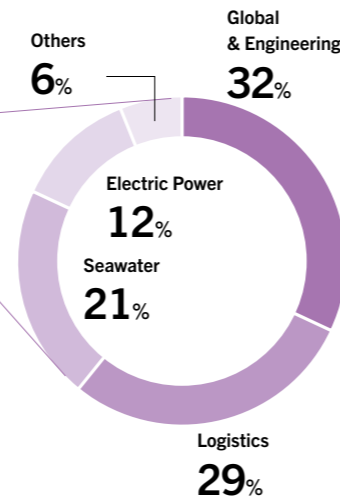
Operating Profit Margin

FY2022 2.5% ▶ FY2023(Plan) 5.0%

FY2022 (out of companywide results) Revenue and operating income composition



FY2022 Sales composition ratio by unit



Business Fields (Value Chain)

Logistics

Operates a wide range of business by utilizing cryogenic transport technology gained through our in-house delivery of industrial gases; including 3PL food logistics, blood transportation, general cargo, chassis, and even design/building of truck bodies.

Our nationwide logistics network

Seven group companies

- 3,891 employees
- 102 sales offices
- 2,304 vehicles
- 44 warehouse sites



Global & Engineering (G&E)

Develops industrial gas-related businesses in India and North America, manufactures/sells equipment for industrial gases, as well as conducts engineering business. Also provides high-power UPS (uninterruptible power supplies) that is essential for data centers and semiconductor factories. See p.44 for more details.

Seawater

Manufactures and sells industrial and household salt, boasting the top share in Japan. Also involved in environmental products such as magnesium hydroxide and adsorbents for water treatment, water supply and sewage facilities, investment in aquariums, and supply of artificial seawater there.



Electric Power

Undertakes wood biomass power generation business in Iwaki City, Fukushima Prefecture, using the renewable energy feed-in tariff (FIT) system. Drives low-carbon and recycling-oriented society with less environmental impact.

Competitive Edges

Logistics

- In-house logistics network across Japan
- Diverse service lineup including chassis transportation, 3PL, medical/environmental logistics, and vehicle body modification

Seawater

- High share of industrial salt in Japan
- Stable earnings base through a diversified business portfolio derived from salt manufacturing

G&E

- Production system of cryogenic equipment (North America, Malaysia) and technology of plant engineering (India, North America)
- Rotary-type UPS with high market share and global maintenance system

External Environment

Opportunities

- (Logistics) Increasing cargo volume with growing demand for e-commerce and recycling
- (Seawater) Expanding need to renew social infrastructure such as water/wastewater
- (G&E) Growing demand in India for industrial gases, including for steel production
- (G&E) Growing demand for hydrogen and carbon dioxide gas equipment for decarbonization
- (G&E) Expanding demand by more data centers and semiconductor plants

Risks

- (Logistics) Japan's 2024 problem (work hour regulation, driver shortage, etc.)
- (Seawater/E-power) Rapid market fluctuations in power generating fuel and maritime transportation costs
- (G&E) Differences in laws, regulations, and business practices in the local country

Mid-to Long-Term Policy / Growth Strategy

1 Expanding overseas business

India

- Acquiring new onsite projects for steel. Also establishing a supply chain including manufacturing and logistics infrastructure through expansion of sites

North America

- Building a network of gas production and sales bases by promoting M&As and JVs of industrial gas distributors in North America
- Building a foundation for decarbonization-related businesses such as liquefied hydrogen, carbon dioxide gas, etc.

High-Power UPS

- Developing high-power UPS with greater environmental performance to meet growing data center demand
- Expanding business areas to ASEAN, Taiwan, Japan, and other Asian demand areas by leveraging our engineering expertise in power systems

2 Reinforcing the foundation of the logistics business

- Establishing a cold chain by networking trunk line transportation
- Streamlining operations through IOT, such as dispatching and package sorting

3 Reinforcing the stable earnings structure of Nihonkaisui

- Strengthening profitability of existing businesses, including salt manufacturing, mainly by strict price management
- Expanding urban infrastructure business, primarily by upgrading sewer pipes
- Reducing the risk of market price volatility by more weighting domestic materials for biomass power generation and enhancing procurement

4 Reinforcing the earnings base of the wood biomass power business

- Reducing procurement costs and maintaining stable operations

TOPICS

Advanced engineering structure in place for expanding overseas business and electronics

To strengthen our engineering structure, which is indispensable for industrial gas supply, we will establish a new general engineering center at the Sakai Plant. The center will integrate the development, design, fabrication, operation, and maintenance of industrial gas plants. We are also expanding our plant fabrication plants to approximately double our production capacity. We aim

at elevating our engineering technology to make a full range of deep-cooled air separation plants, from small to large scale, and enable our engineering system to handle larger equipment. That will allow us to accelerate the expansion of our industrial gas business in India and other overseas countries, as well as boost the production of our Group's major semiconductor device manufacturers.



Sakai Plant perspective drawing