



Iwatani

FY2023

Iwatani Corporation
Business Overview

Security code: 8088

Updated: May 24, 2023

Corporate Philosophy

Become a person needed by society,
as those needed by society can prosper.

Corporate Slogan

Creation of a more comfortable space on the Earth
is what Iwatani wishes and strives for.

Company Overview

*As of March 31, 2023

Established:	May 5, 1930
Paid-in-Capital:	35,096 million yen
Consolidated Net Sales:	906.2 billion yen (FY2022)
Affiliated Companies:	239 (including 106 consolidated subsidiaries)
Number of Group employees:	11,351 (consolidated)



Osaka Head Office



Tokyo Head Office

Our core businesses are Gas and Energy

Integrated Energy

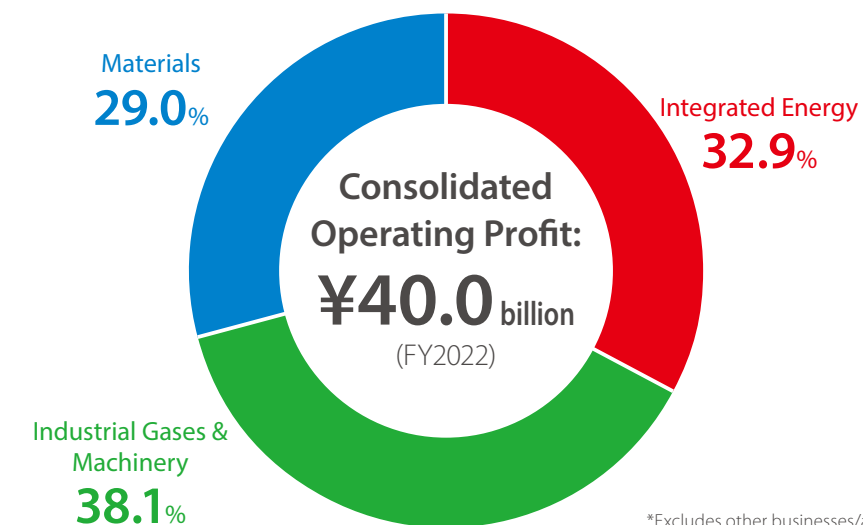
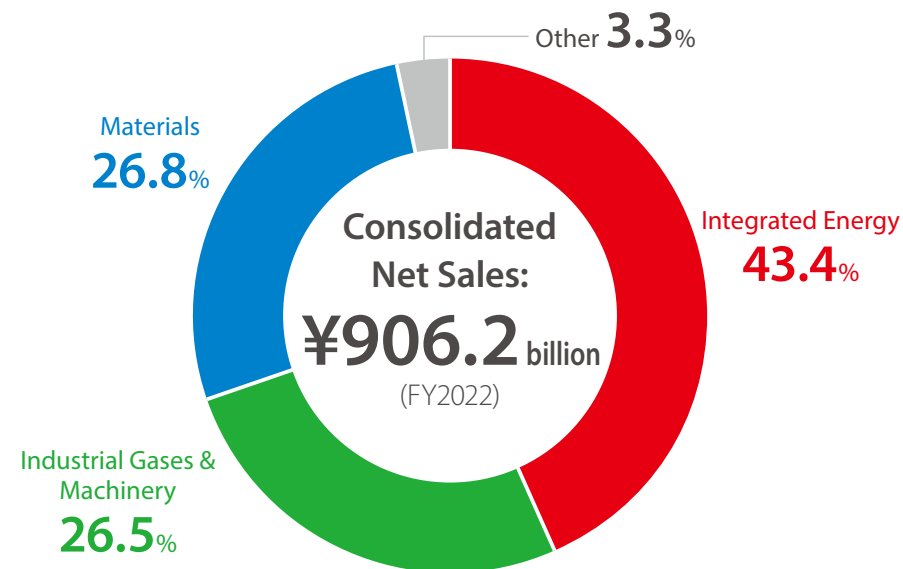
- LPG
- Electricity sales and city gas safety services
- Gas equipment, lifestyle products, health foods
- Portable gas cooking stoves and cassette gas canisters

Industrial Gases & Machinery

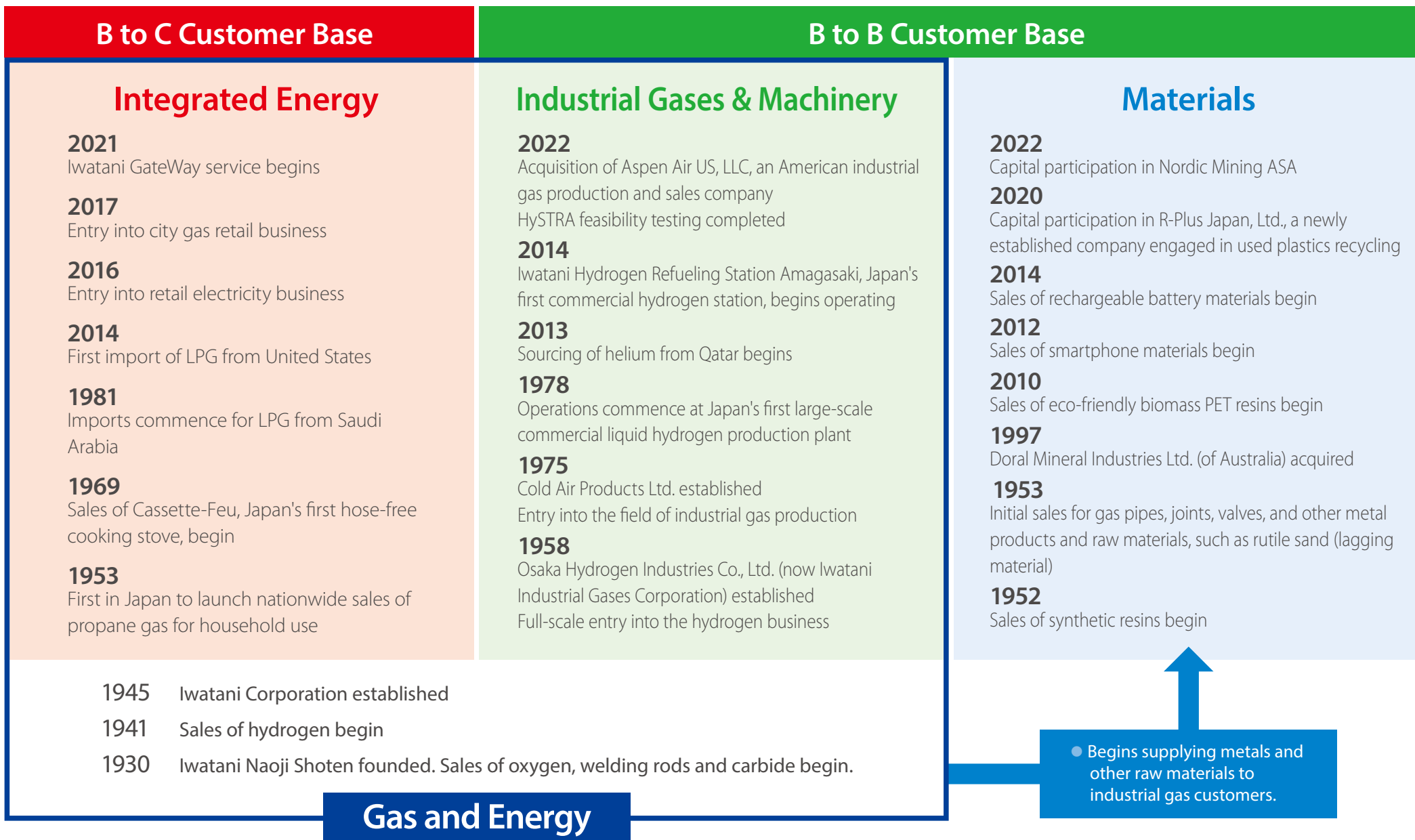
- Industrial gases (e.g., air separation gases, hydrogen, helium)
- Gas production and supply facilities and industrial machinery

Materials

- Functional plastic products
- Resources and advanced materials
- Metals ● Electronic materials

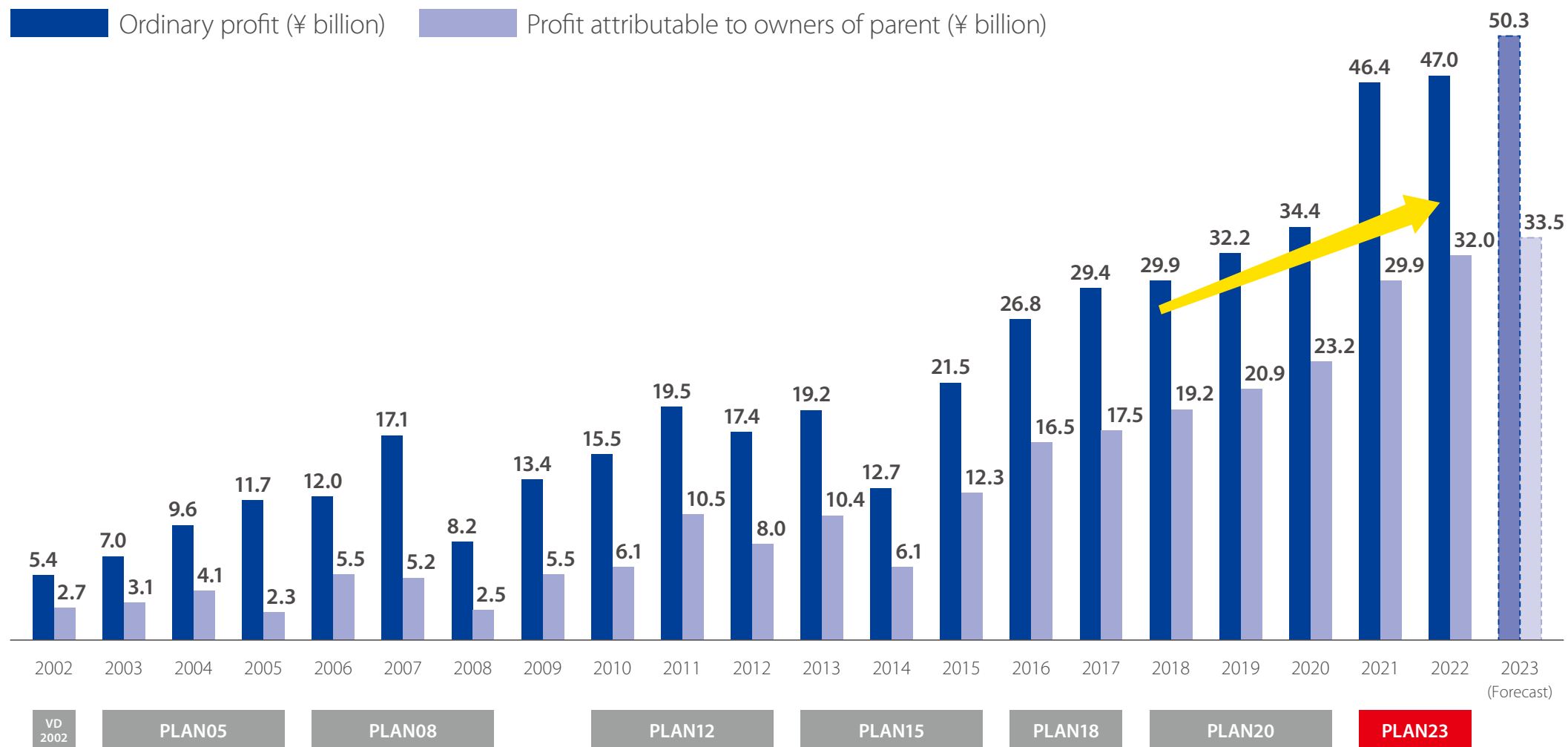


*Excludes other businesses/adjustments.



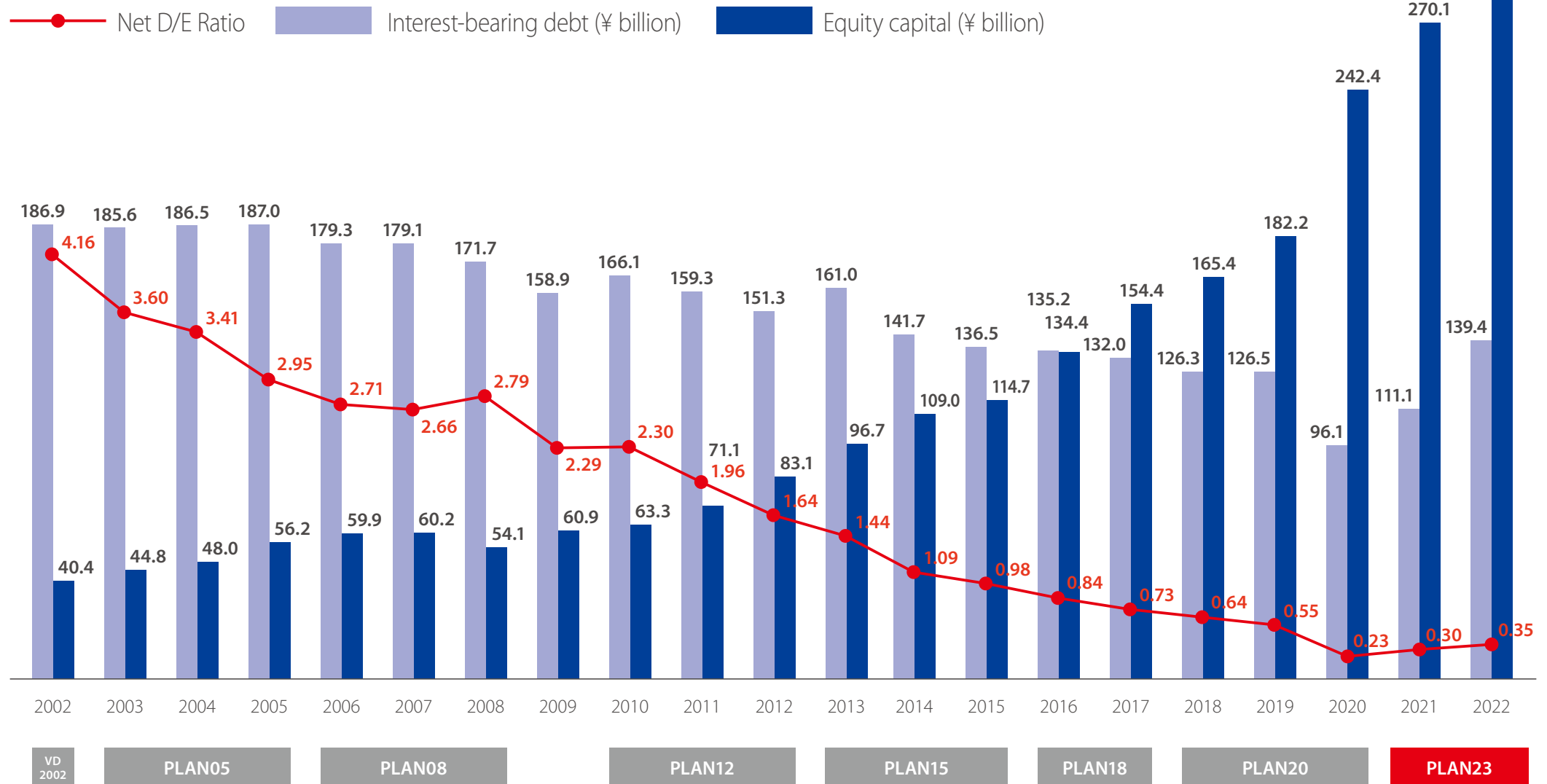
Steady income growth

Eight consecutive years of record profits



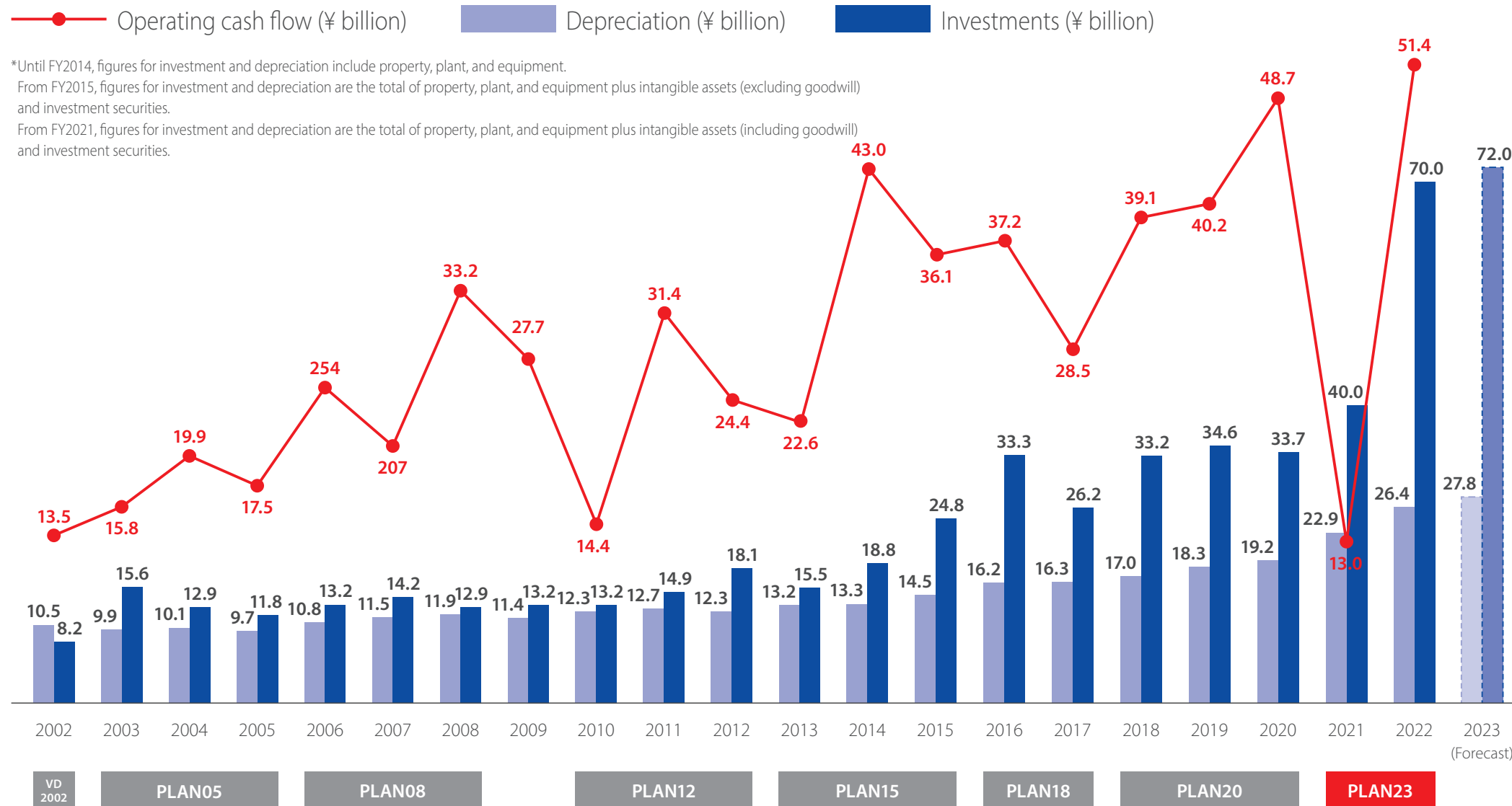
* Beginning in FY2021 figures reflect the application of Accounting Standards for Revenue Recognition, etc.

Improved financial standing with a net D/E ratio of 0.35



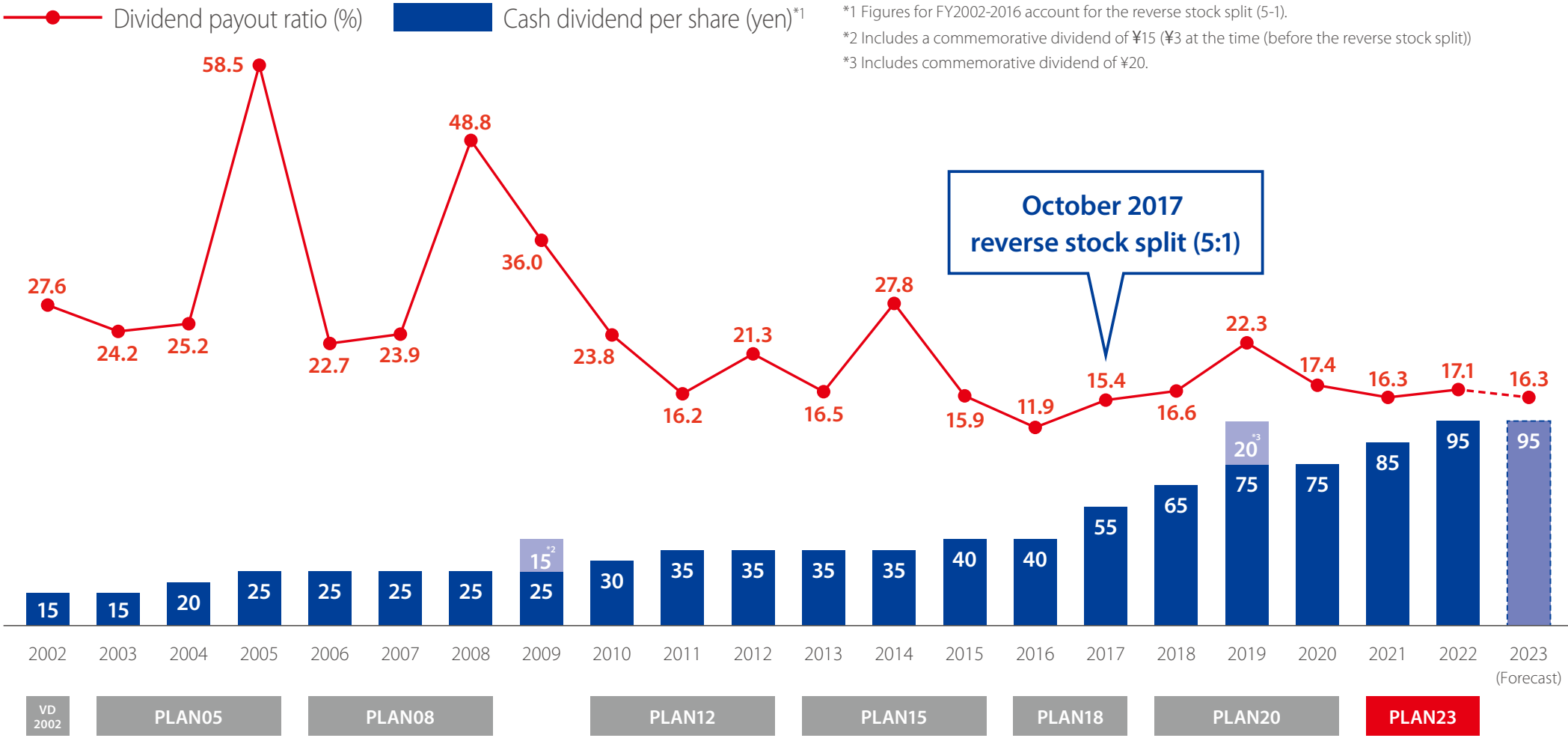
* Beginning in FY2021 figures reflect the application of Accounting Standards for Revenue Recognition, etc.

State of Company's investments: made active investments based on growth strategy



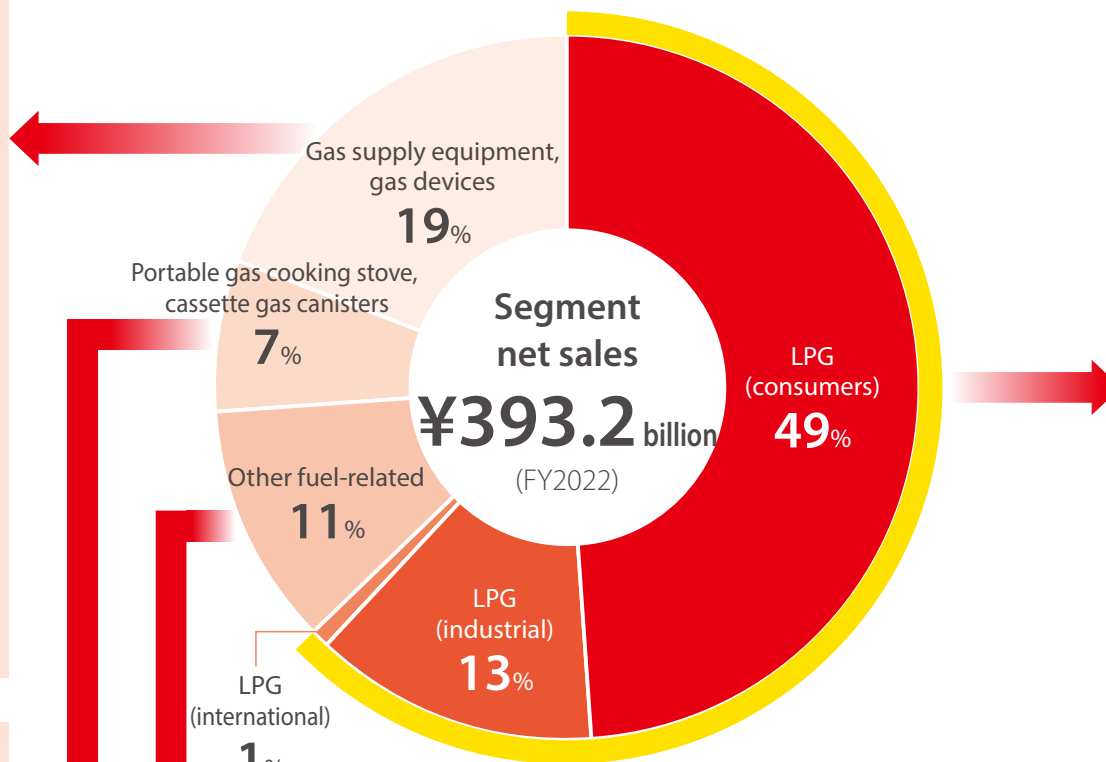
Returns to Shareholders

Dividend policy: The fundamental policy is to make stable, continuous dividend payments. Implemented appropriate returns of earnings considering company performance and the business environment.



* Beginning in FY2021, the figures reflect the application of Accounting Standards for Revenue Recognition, etc.

<Breakdown of sales>



Energy-related equipment



Gas stove



Ene-Farm system



LPG supply equipment

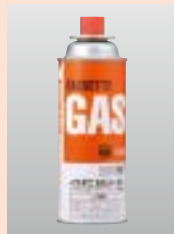


LPG-powered emergency generator

Cartridge gas products



Portable gas cooking stove



Cassette gas canister

Non-LPG

- LNG
- Kerosene



LPG

From LPG import to delivery to households

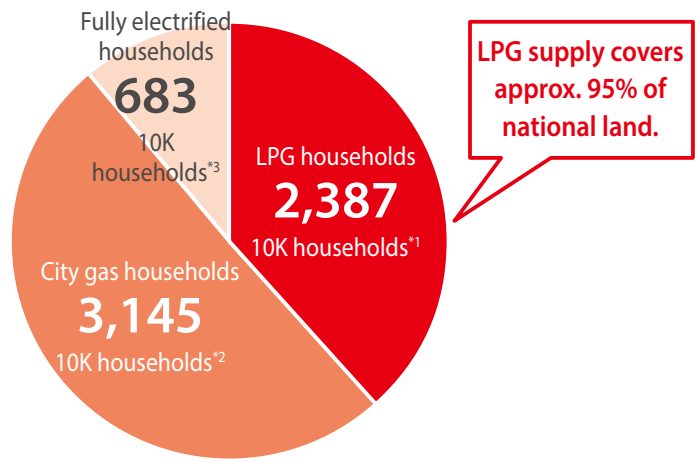


Integrated Energy Business (LPG business overview)

LPG used by approx. 40% of households

Iwatani is number one in LPG

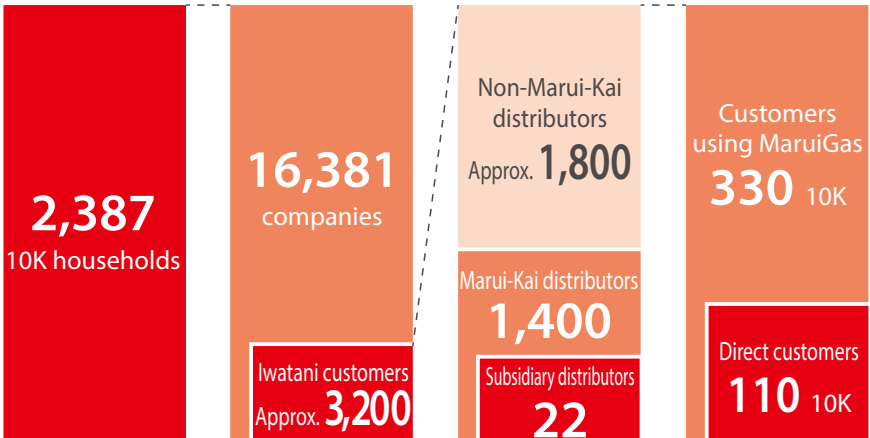
<Percentage of Japanese households using LPG>



<Iwatani's LPG sales>

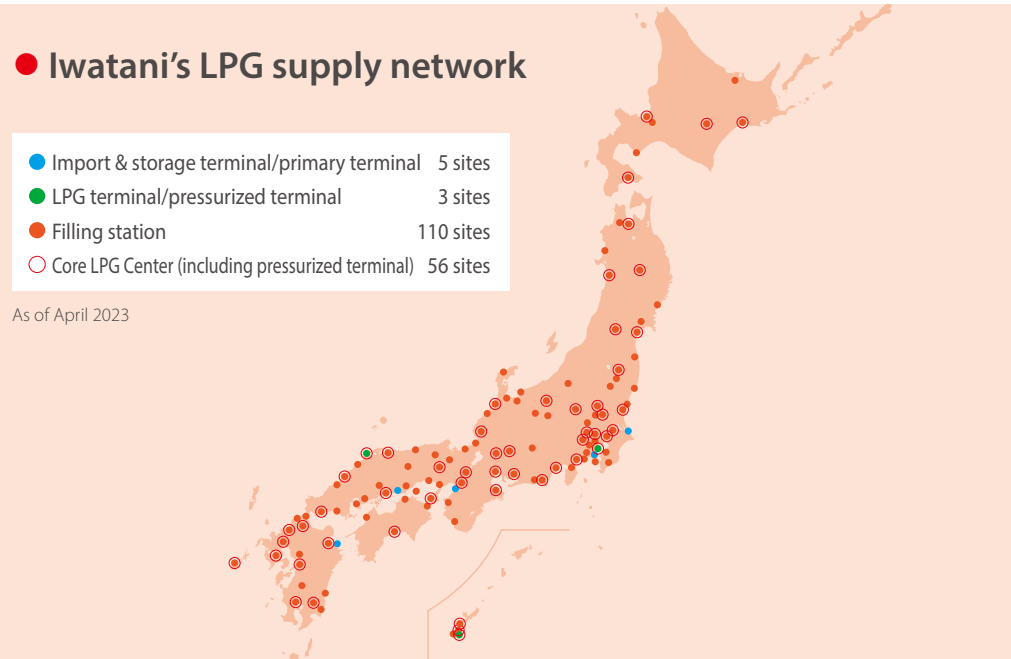
	Retail	Wholesale
Industry ranking	No.1 / 16,381 companies	No.1 / 1,100 companies
Market share	4.6%	13.8%
Households using MaruiGas	110 10K	330 10K

(As of March 31, 2023)



No. of LPG households Nationwide retailers

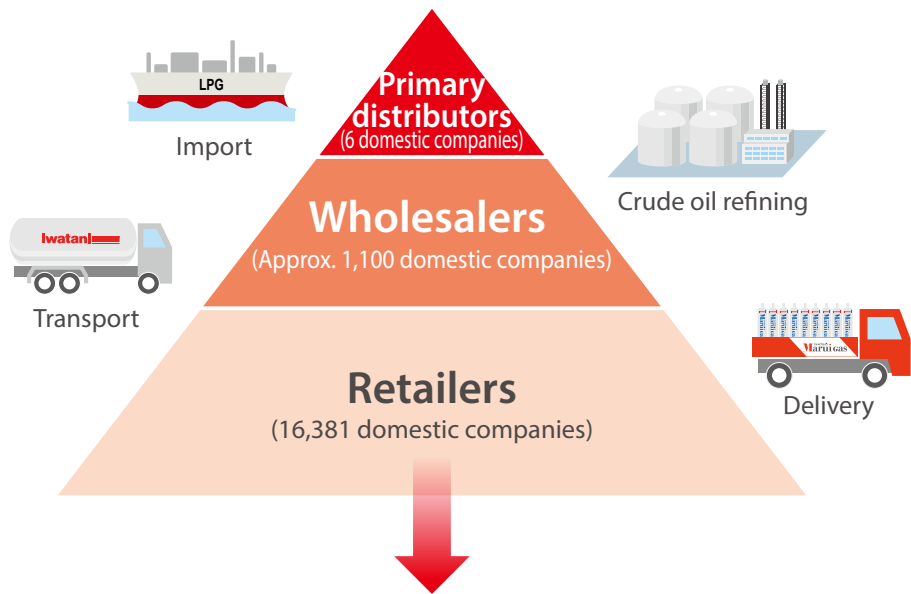
*1 Source: Sangyoudoushuppan.Co.,Ltd. (FY2021), Agency for Natural Resources and Energy (March 2022)
 *2 Source: Agency for Natural Resources and Energy (March 2022)
 *3 Source: Fuji Keizai Co., Ltd.



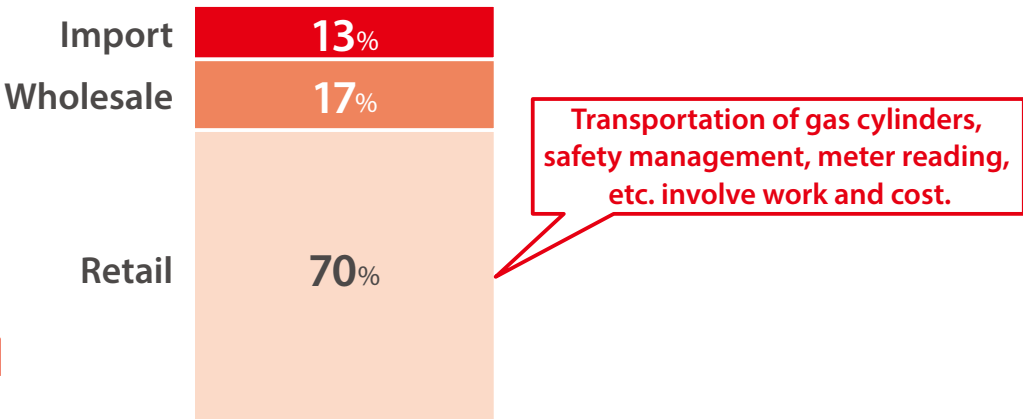
Integrated Energy Business (LPG business overview)

The industry has a three-tiered hierarchical structure: primary distribution, wholesale and retail. Retail comprises numerous companies, leaving significant room for rationalization.

<LPG industry structure>

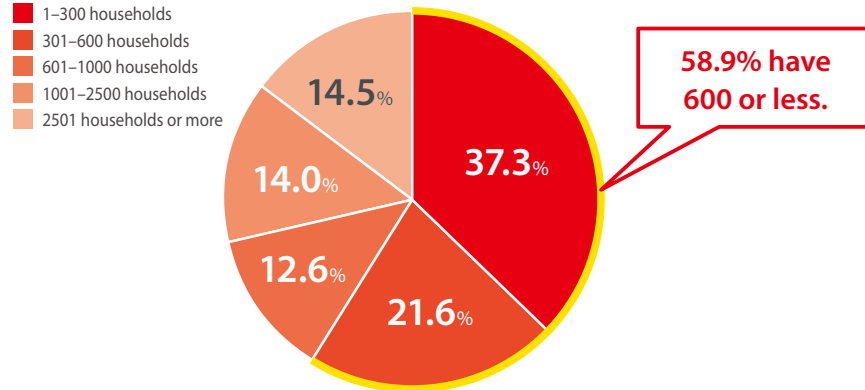


<Cost structure of household LPG>



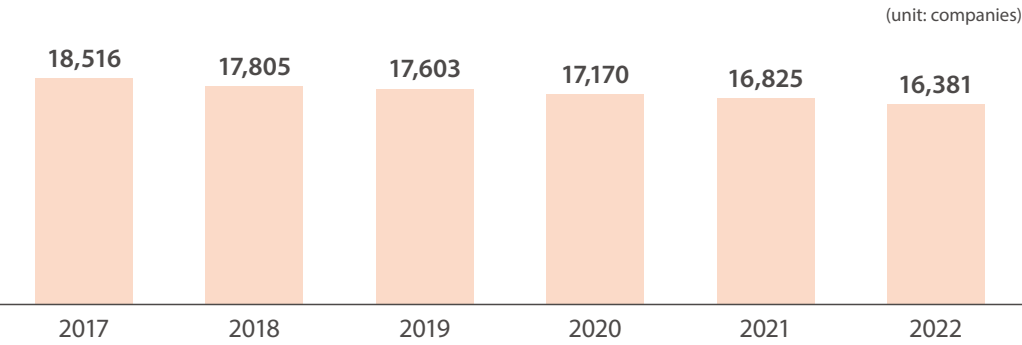
Source: Company based on the Agency for Natural Resources and Energy's "Amended Liquefied Petroleum Gas Law-related Ministerial Ordinance, briefing materials for Trade Practices Optimization Guidelines"

<Distribution of companies by number of customers>



Source: "FY2019 Petroleum Products Supply and Demand Optimization Survey: Oil and Gas Distributor/Retailer Business Conditions Survey Report"

<Historical number of retailers>



Source: Ministry of Economy, Trade and Industry, "Retailers and Safety Agencies in Japan"

Integrated Energy Business (LPG business strategy)

Strength Nationwide platform

Distribution



Safety management



Sales network



Delivery Base



● 142 bases ● 2,000 persons ● 2,000 vehicles

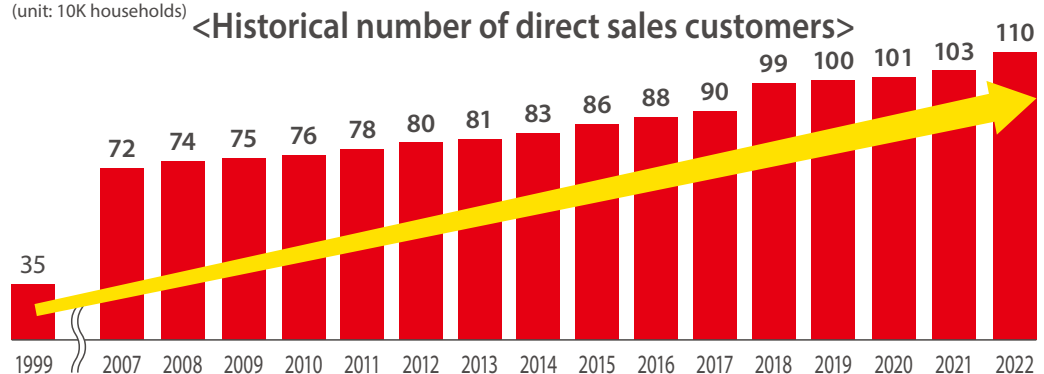
Sales offices



● 285 offices ● 3,000 persons ● 3,000 vehicles

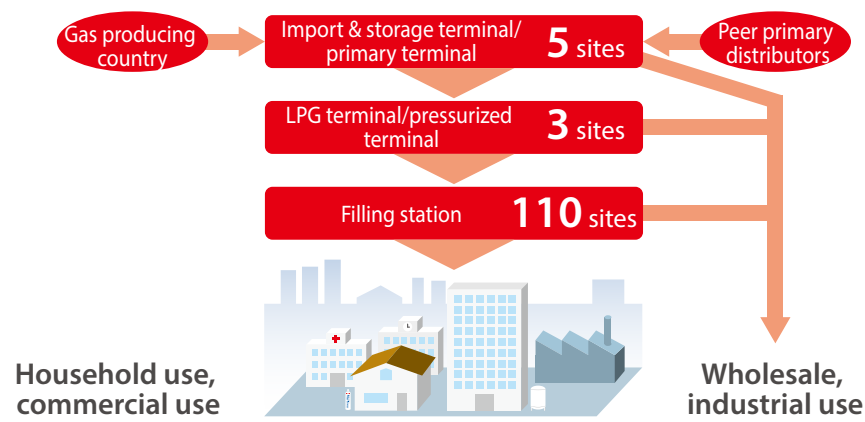
Initiative Increasing direct sales customers

Strengthening earning power through retail rationalization using M&A and other means



Strength Integrated from primary distributor to retailing

<Structure of LPG procurement and supply>



Initiative Drawing on the supply infrastructure to grow the wholesale business

Growing the customer base through our supply infrastructure and proprietary services

Building relationships with dealerships





Networking meeting
Information provision



Stable supply
Disaster relief



HR training
Sales support

Terminals



110 filling stations nationwide

Delivery

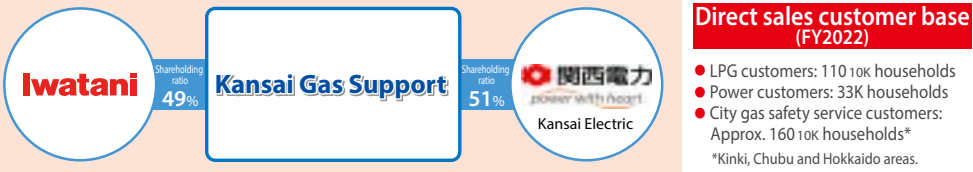


High-quality delivery backed by some 2,000 vehicles nationwide

Gas equipment, lifestyle products, service businesses

Strength Sales and safety management networks developed by LPG business

Initiative 1 Expanding the customer base
Strengthening the city gas business

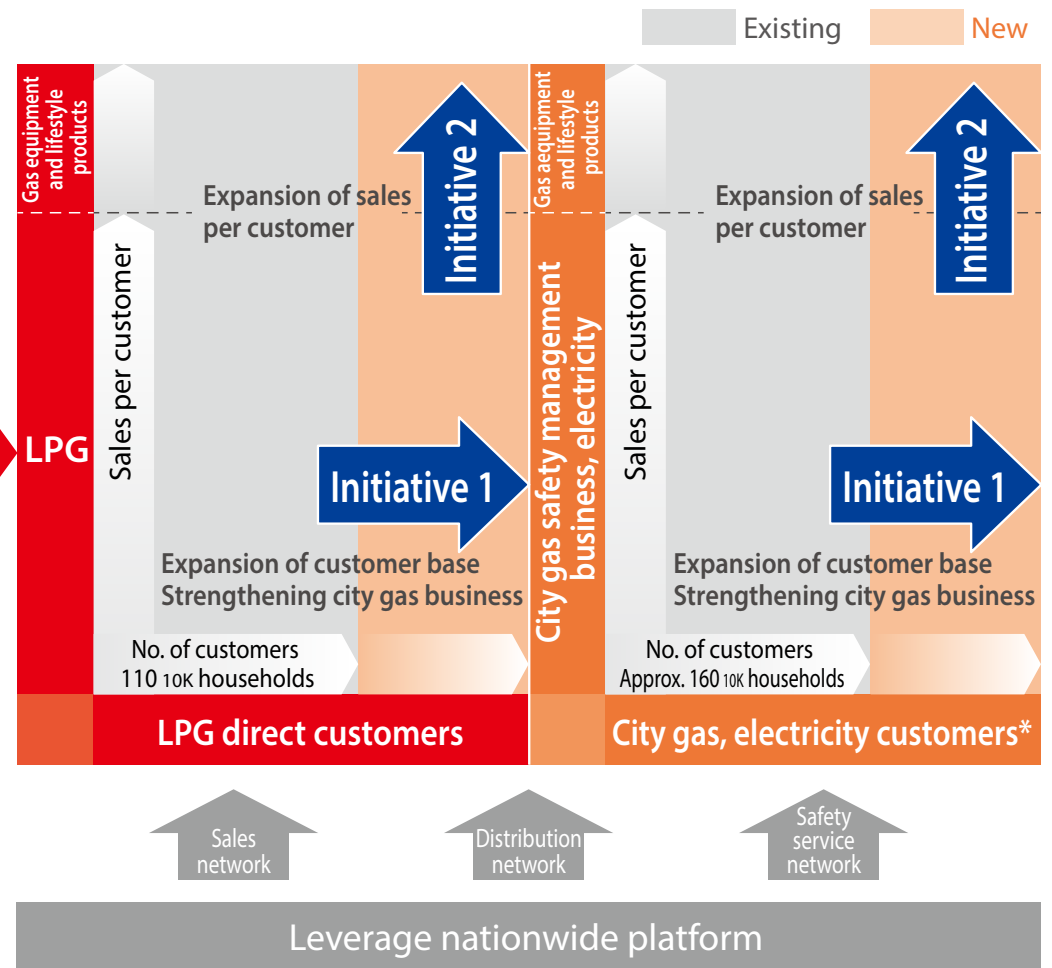


Strength Products and services tailored to customer needs

Initiative 2 Expanding sales per customer



<Conceptual illustration of expansion of sales level>

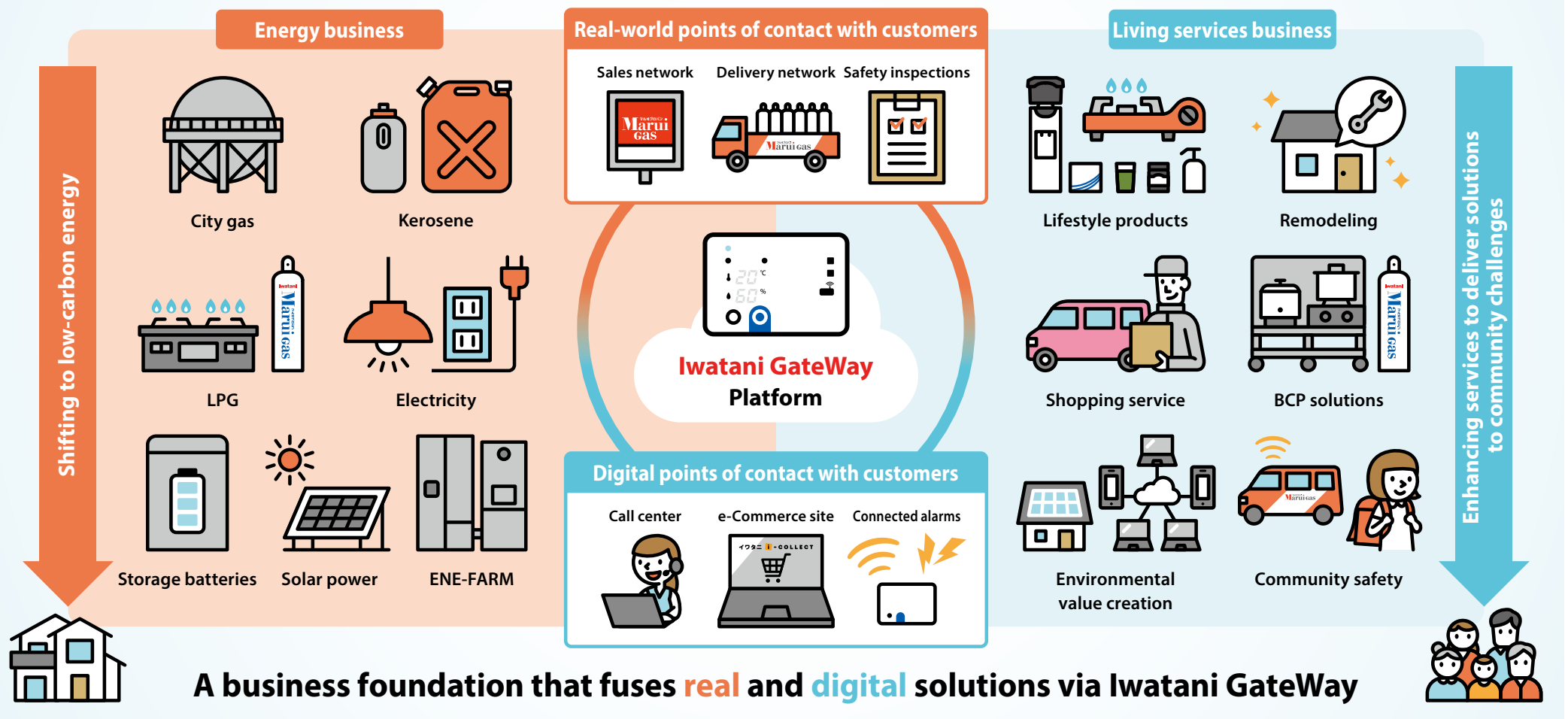


* Calculated by Company based on number of city gas customer acquisitions and published plan figures of power companies

Integrated Energy Business (B to C business strategy)

Iwatani GateWay Plan

Iwatani GateWay helps solve community challenges by creating a new business foundation that fuses efficient multifaceted customer services with real and digital points of contact with customers.



Integrated Energy Business (Cartridge gas business strategy)

Cartridge gas business

Strength Quality and brand power achieved through the integration of production and sales

Initiative Expanding sales in Japan and China / Enhancing stable supply structures through expanded production facilities

Strength Product development capability

Initiative Driving demand through new product launches



<Recent new products>

Iwatani "Yakimaru II" cassette gas smokeless barbecue grill



Iwatani "Tatsujin Slim Plus" Cassette-Feu



① Promoting fuel conversion



Promoting conversion from heavy oil and kerosene to LPG and natural gas

Total support for fuel conversion to low-CO₂ emitting LPG and natural gas: from stable supply to facilities improvement and safety management.



Cogeneration system



GHP (Gas heat pump air conditioning system)



- ① Ability to supply LPG and LNG nationwide
- ② Provision of one-stop service, from proposal to construction and maintenance
- ③ Professionals in energy
- ④ Remote monitoring 24 hours, 365 days
- ⑤ Centrally managed within the Iwatani Group

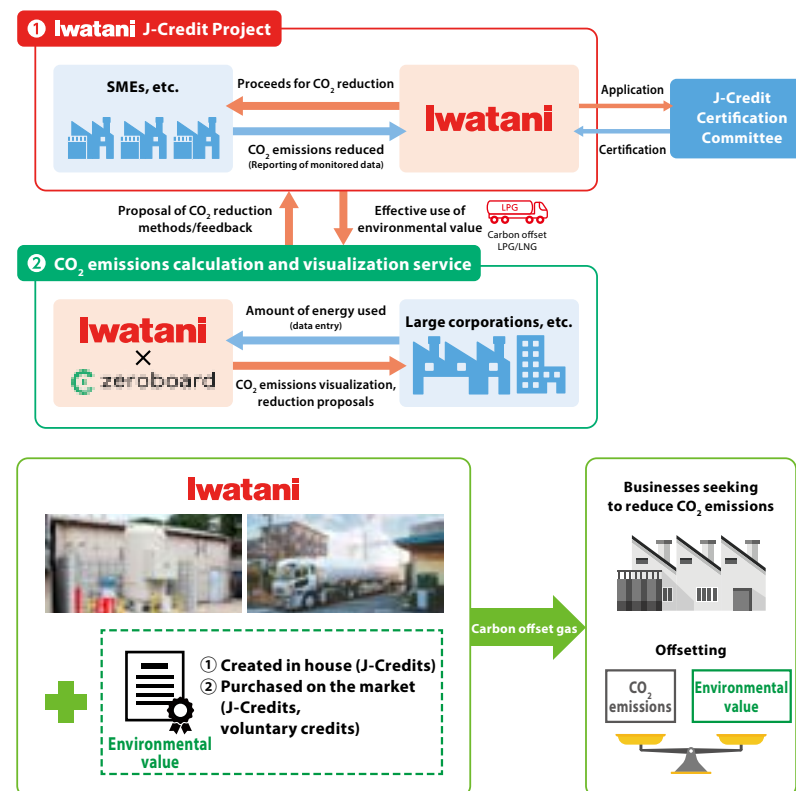
② Creation of new services utilizing the J-Credit Scheme



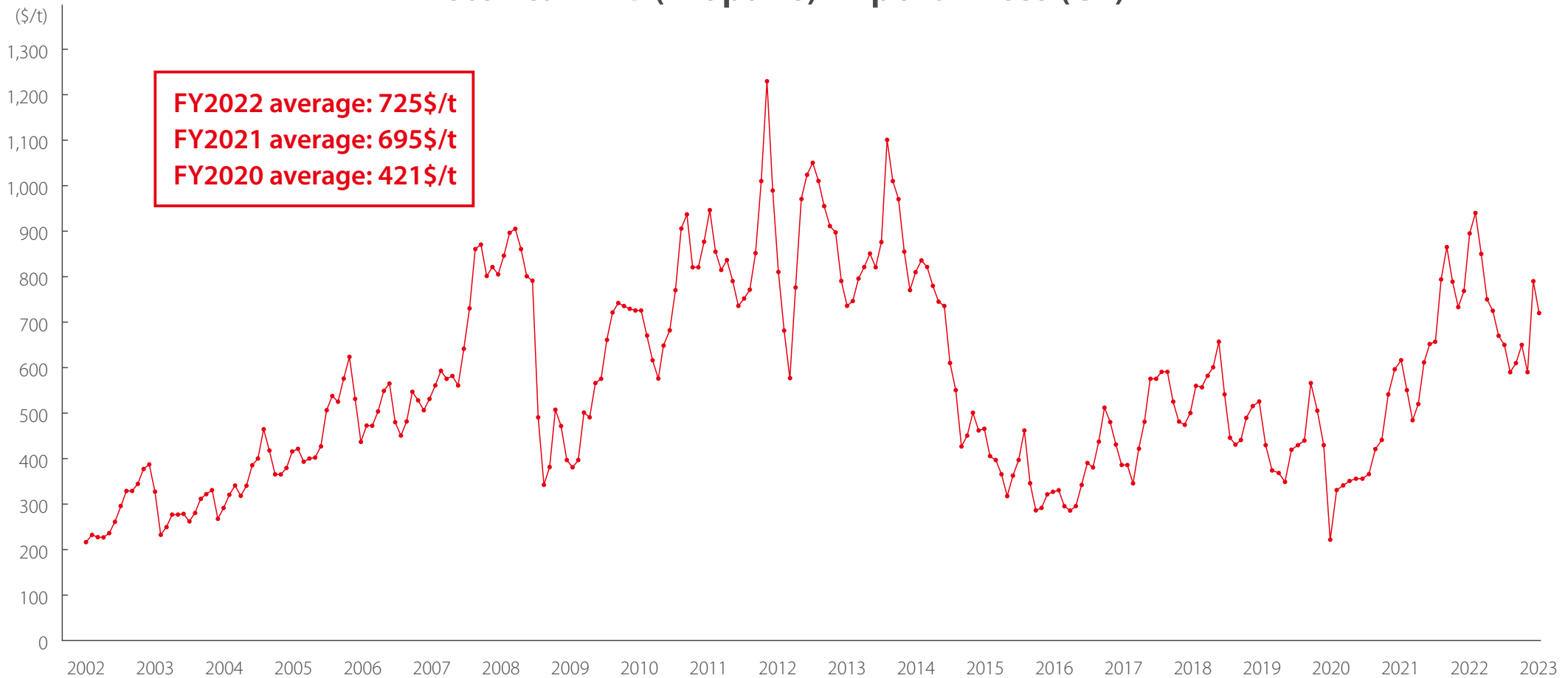
Advancing initiatives to provide total support to low/carbon-free business management of customers

Further contributing to decarbonization activities by converting the CO₂ reduction activities of small and medium-sized businesses (“SME”) into environmental value and using it as J-Credit.

We began supplying carbon offset gas utilizing the J-Credit Scheme in 2022.



<Historical LPG (Propane) Import Prices (CP)>



Regarding CP (contract price)

- Saudi Aramco new price method (“CP system”) applied from October 1994
- Tendency to rise in winter (a high demand season)

For Reference ②: Impact of LPG Import Prices

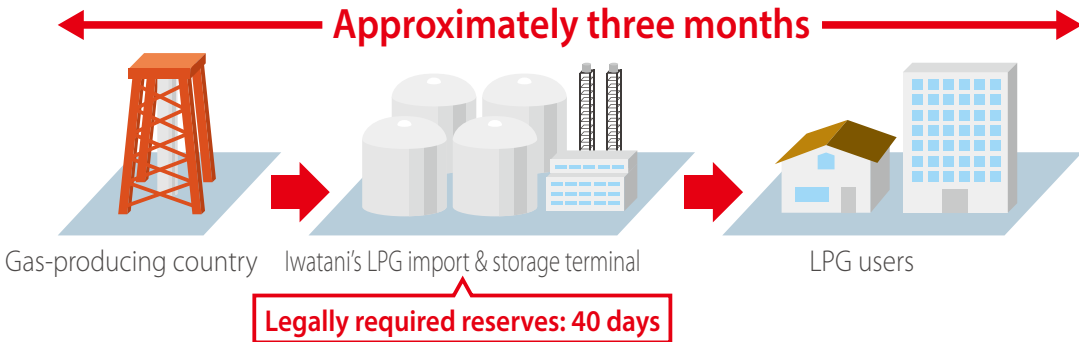
Assumption ①

Wholesale price is linked to LPG import price.



Assumption ②

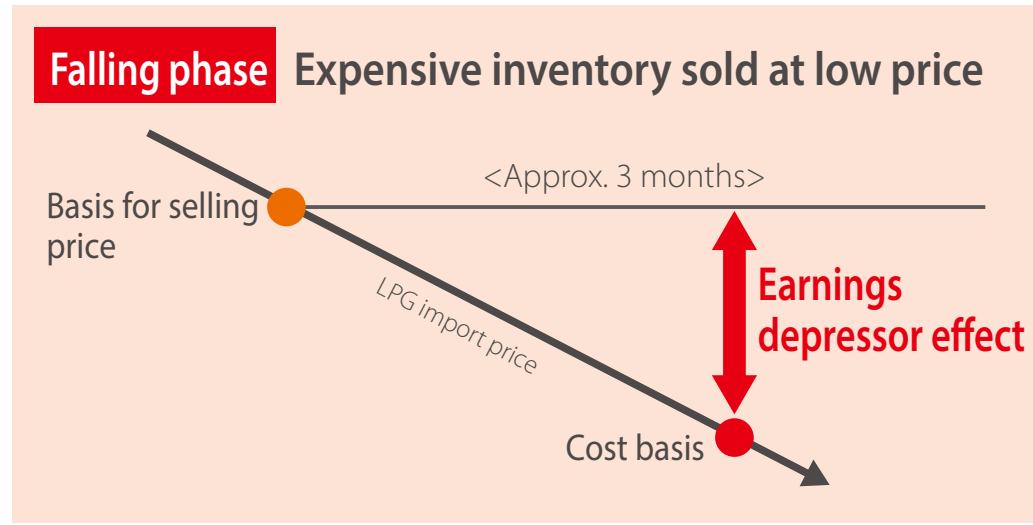
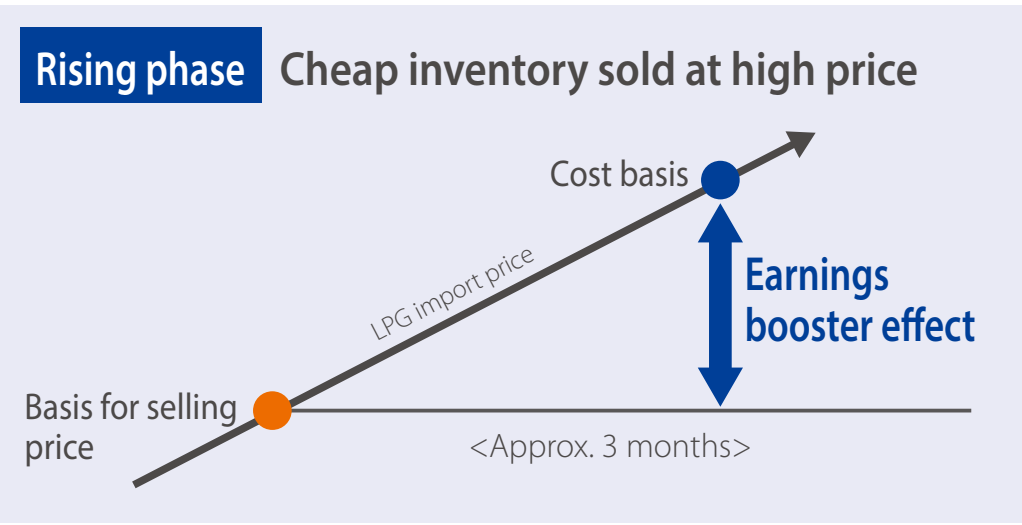
Time from import to sale is approximately three months.



LPG import price fluctuation



Produces short-term impact on performance (due to market fluctuations).
 (If LPG import prices return to original levels, impact will be zero.*)



*Actual impact on performance varies depending on inventory volume, time of sale, sales volume, etc.

● Top market shares in wholesale and retail segments

LPG Import Ranking (FY2021)

Rank	Importer	Import volume (k tons)	Import share
1	ENEOS Globe	2,894	28.5%
2	Astomos Energy	2,602	25.7%
3	Gyxis	1,555	15.3%
4	Japan Gas Energy	1,468	14.5%
5	Iwatani Corporation	904	8.9%

Source: Sekiyu Kagaku Shimbun Sha (2022)

LPG Wholesaler Annual Sales Volume Ranking (FY2021)

Rank	Wholesaler	Sales volume (k tons)
1	Iwatani Corporation	1,471
2	Itochu Enex	636
3	Sinanen HD	499
4	Toho Liquefied Gas	483
5	Mitsuuroko Vessel	400

Source: Sekiyu Kagaku Shimbun Sha (2022)

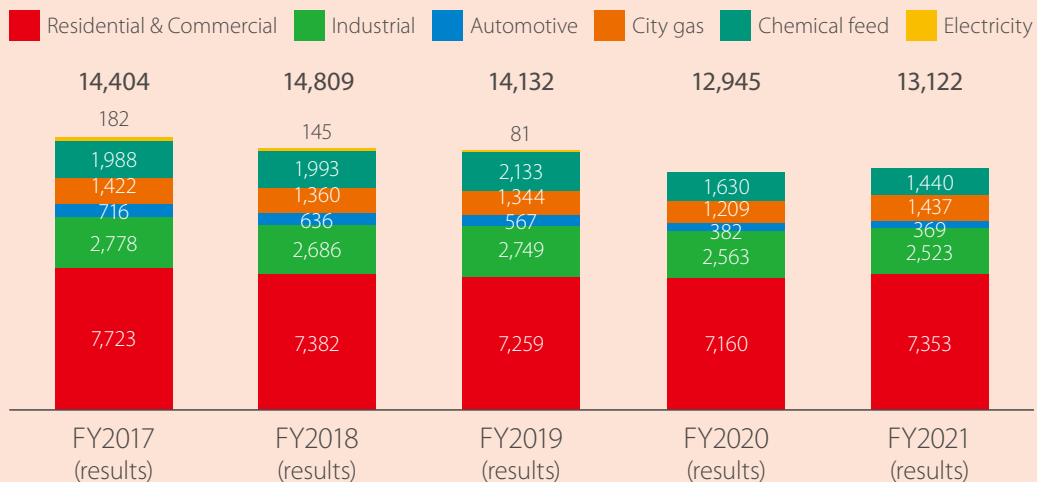
LPG Retailer Direct Sales Customers Ranking (FY2021)

Rank	Retailer	LPG customer homes
1	Iwatani Corporation	Approx. 1,030,000
2	Nippon Gas	Approx. 946,000
3	Tokai	Approx. 715,000
4	Itochu Enex	Approx. 557,000
5	Gaspal Corporation	Approx. 396,000

Source: Sekiyu Kagaku Shimbun Sha (2022)

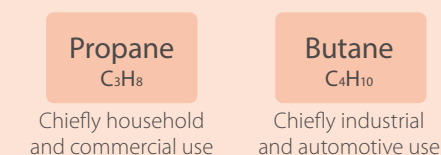
● Residential, commercial and industrial uses are the mainstays of demand.

<LPG demand by use (k tons)>

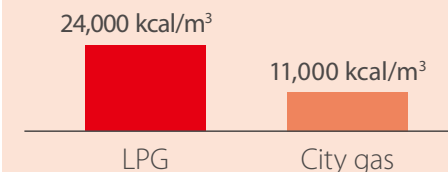


Source: Japan LP Gas Association

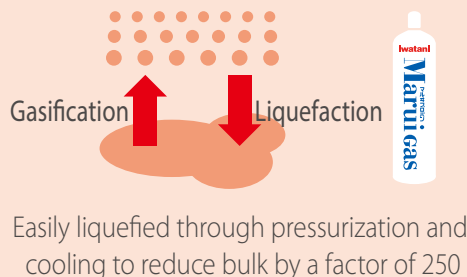
● LPG is primarily composed of propane and butane.



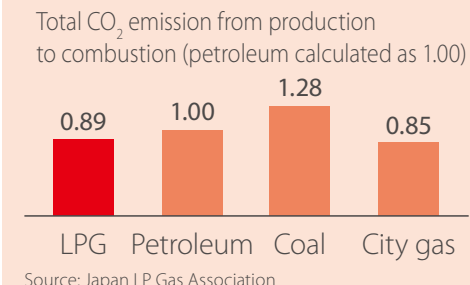
● High calorific value



● Superior portability



● Clean



Gas facilities and other



High-pressure gas supply facilities



Welding equipment



Liquid gas trucks



Welding robots



Sheet-metal welding machines



Semiconductor manufacturing equipment

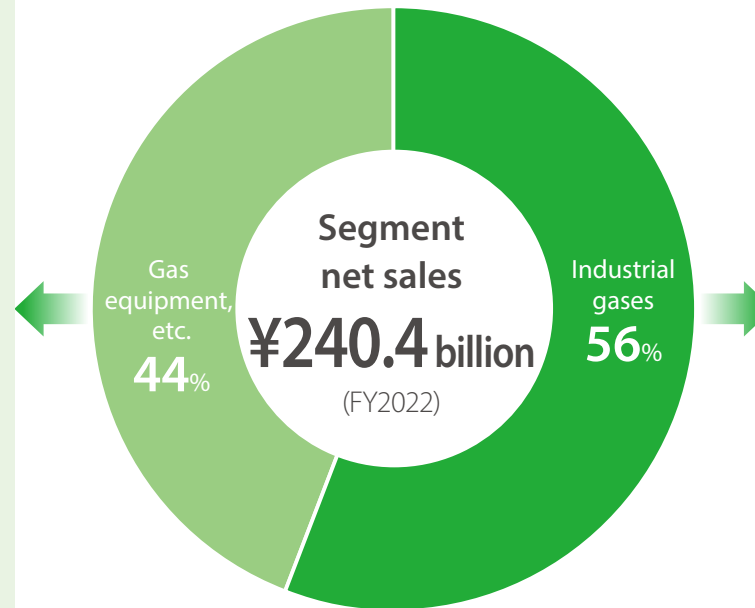


Welding materials



Pharmaceutical manufacturing equipment

Sales Breakdown



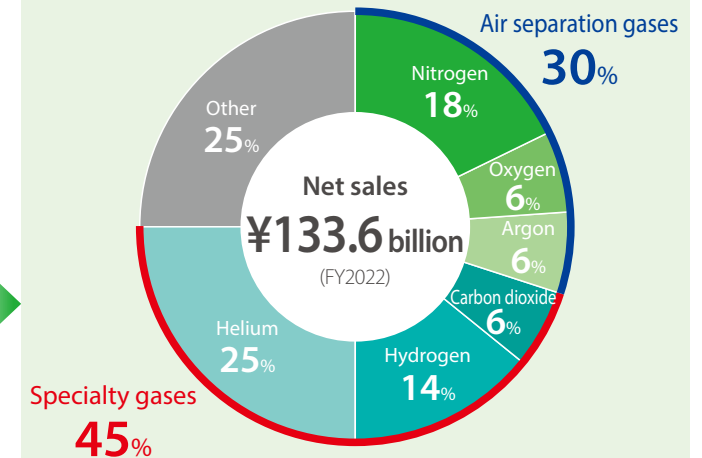
Overseas sales ratio **25%**

Market share of specialty gases

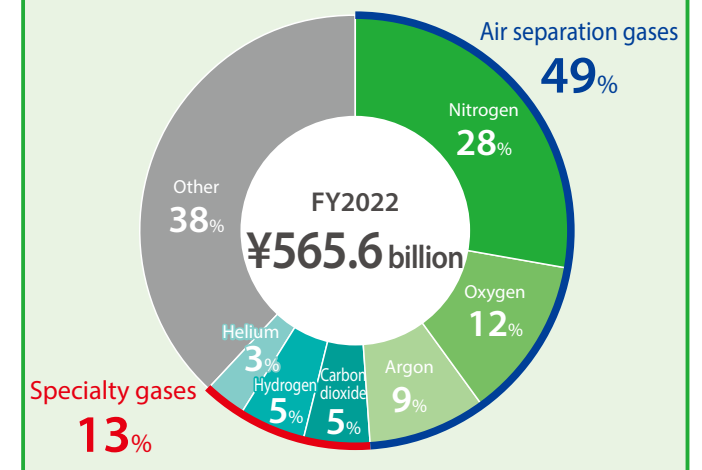
- Hydrogen (incl. liquid hydrogen) approximately **70%** **No. 1 in industry**
- Liquid hydrogen **100%** **No. 1 in industry**
- Helium approximately **50%** **No. 1 in industry**

Source: Gas Georama in Japan 2023, Company estimates

Breakdown by gas type

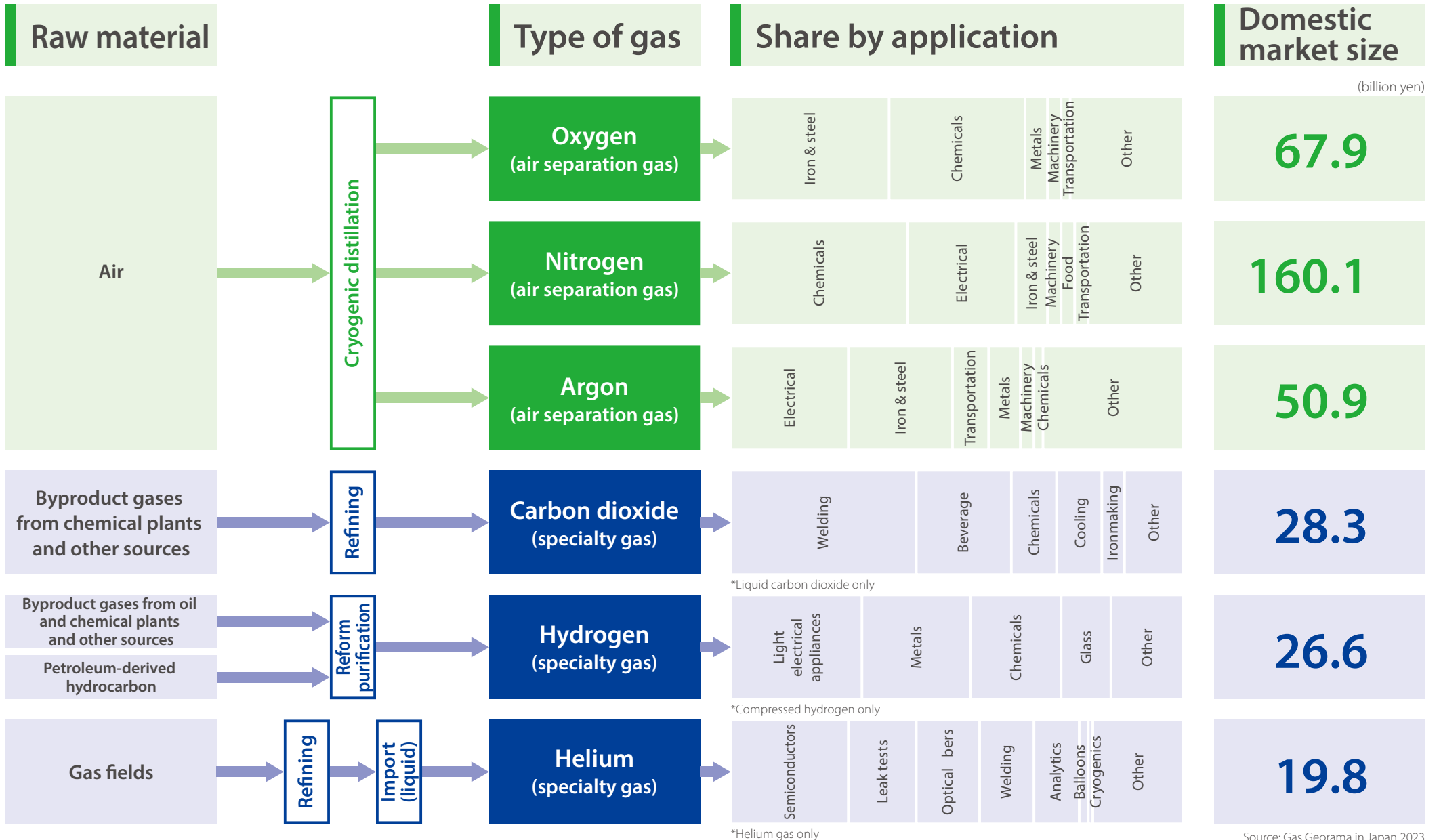


Breakdown of industry-side sales by gas type



Source: Gas Georama in Japan 2023

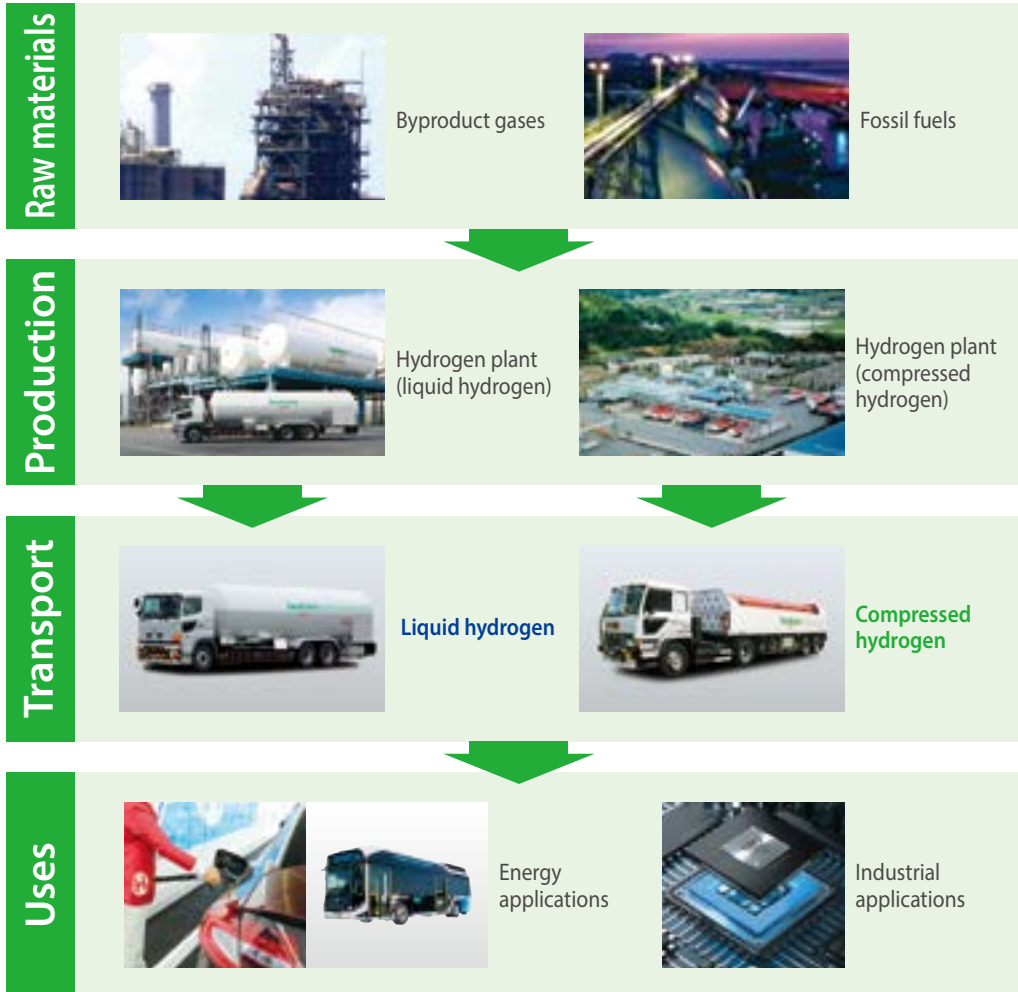
Industrial Gases & Machinery Business (Overview)



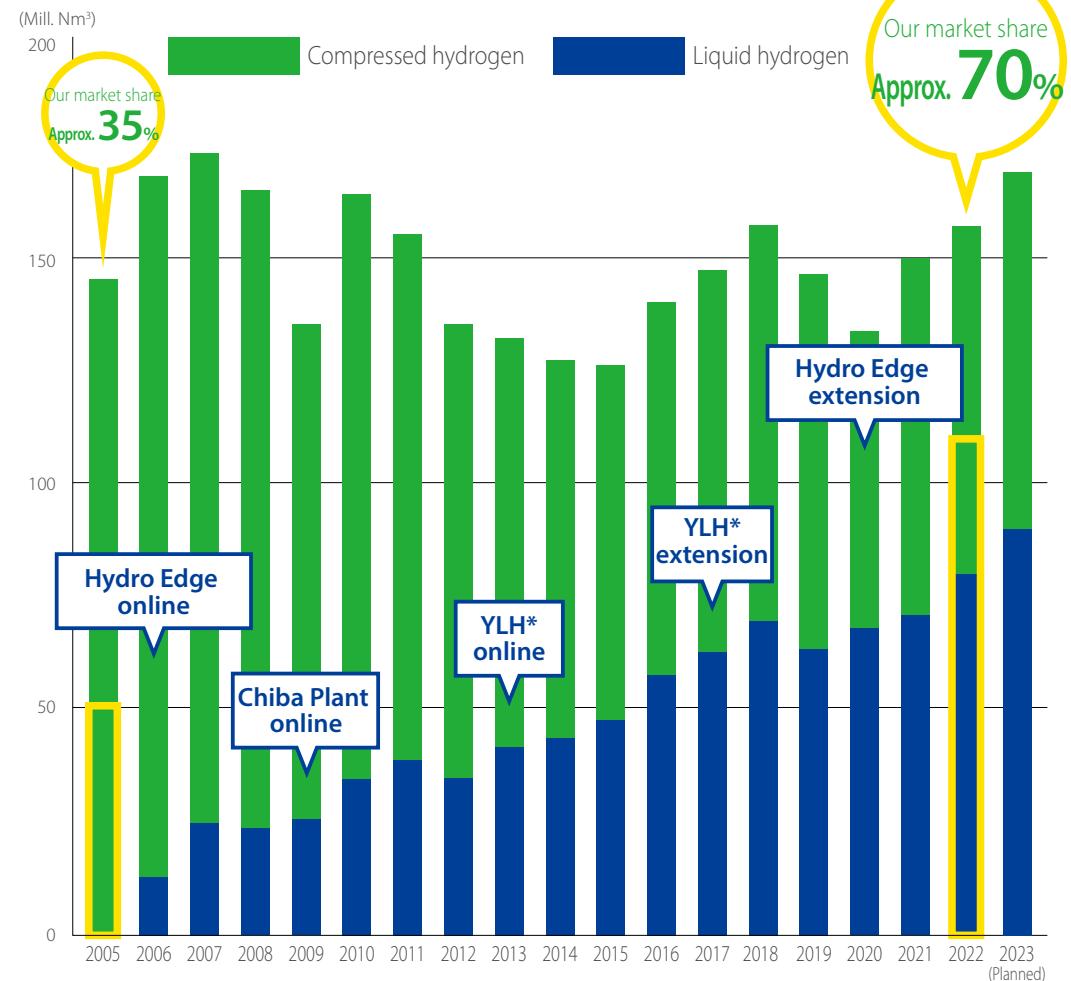
Source: Gas Georama in Japan 2023

Strength Top domestic market shares and only supplier of liquid hydrogen

Iwatani's hydrogen business



Historical sales volume of hydrogen in Japan



Source: Gas Georama in Japan 2023

* Yamaguchi Liquid Hydrogen Corporation

Industrial Gases & Machinery Business (Overview of hydrogen business)



Expanding sales with liquid hydrogen as core

Industrial applications

- Leveraging the advantages of liquid hydrogen to grow our customer base

Liquid hydrogen characteristics

Enables largescale transport and storage

Transport efficiency
Approx. 12 times
(relative to compressed hydrogen)

High purity

Purity
99.9999%

Energy applications

- Building a new energy market

Growing decarbonization demand

Responding to demand to implement decarbonization in business activities



H₂ KIBOU FIELD
Photo: Panasonic Corporation



HYBARI hydrogen hybrid train
Photo: East Japan Railway Company



Hydrogen cutting machine, mixed-combustion type hydrogen burner

Hydrogen applications

Glass manufacturing
(optical fibers, quartz glass)



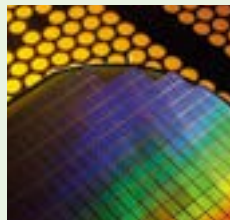
* Oxyhydrogen burners for clearglass free of clouding

Heat-treating metals



* Used as an additive in bright annealing for smooth metallic surfaces

Semiconductors, electronics



* Dilution of raw material gases, ambient use, etc.

Space development
(rocket fuel)



* Liquefied hydrogen only

Development initiatives for hydrogen-refueling stations

Development initiatives for hydrogen-refueling stations

Promoting the construction of hydrogen-refueling stations in Japan and around the world



US hydrogen-refueling station



FC bus -adapted hydrogen-refueling station



Hydrogen-refueling stations for FC forklifts

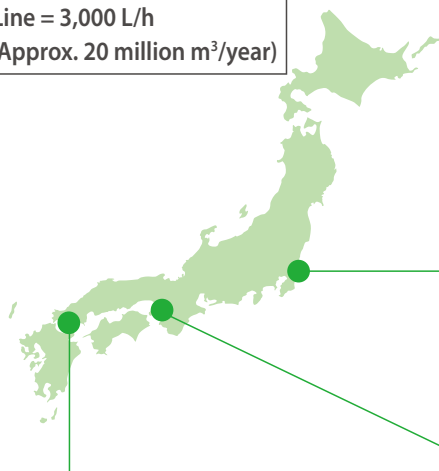


Developing a liquid hydrogen supply chain

Liquid hydrogen production bases

- Increase production capacity in line with increased sales of liquid hydrogen

1 Line = 3,000 L/h
(Approx. 20 million m³/year)



Chiba Plant of Iwatani Industrial Gases (Ichihara City, Chiba Prefecture)

1 Line

- Operating since 2009



Yamaguchi Liquid Hydrogen (Shunan City, Yamaguchi Prefecture)

2 Lines

- 1 line operating since 2013
- 1 line added in 2017



Hydro Edge (Sakai City, Osaka Prefecture)

3 Lines

- 2 lines operating since 2006
- 1 line added in 2020



Hydrogen project

- Acquire competitive, CO₂-free hydrogen sources

Securing multiple supply chains for obtaining CO₂-free hydrogen from overseas

Studying green hydrogen production in Gladstone, Queensland, Australia

Commercialization studies undertaken by six Japanese and Australian companies, including Stanwell Corporation Limited, Kawasaki Heavy Industries, Ltd., The Kansai Electric Power Co., Inc., Marubeni Corporation, and APT Management Services Pty Ltd.



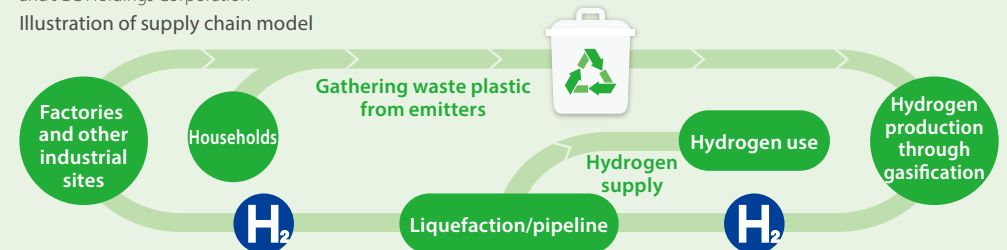
Artist's depiction of hydrogen production facility in Queensland, Australia

Hydrogen production from waste plastic in Japan

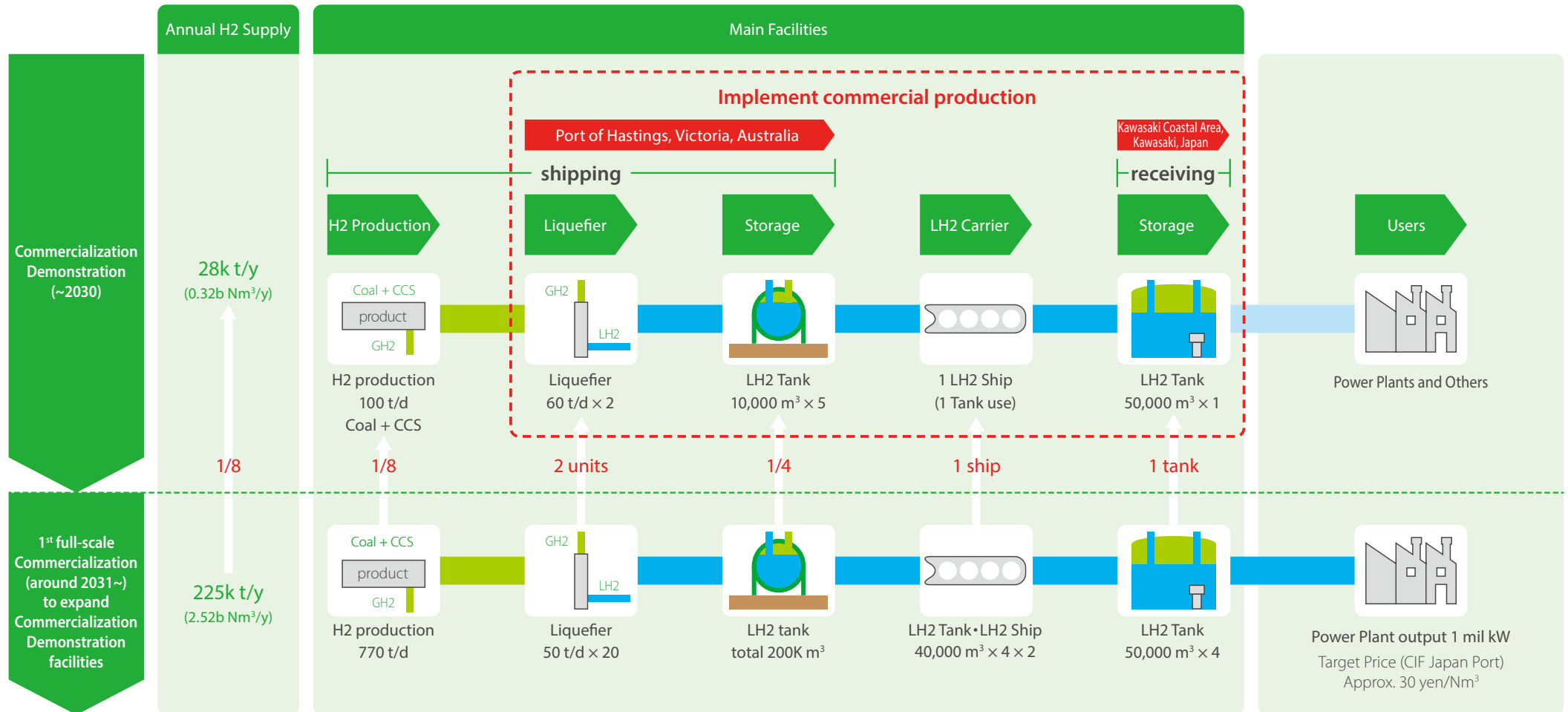
Commercializing production of hydrogen from waste plastic by the mid-2020s

Study involving project near the Port of Nagoya in Aichi Prefecture undertaken in partnership with Toyota Tsusho Corporation and JGC Holdings Corporation

Illustration of supply chain model



Green Innovation Fund Commercialization Demonstration Project



● Project objectives and overview

With the goal of achieving a hydrogen supply cost of 30 yen/Nm³ in 2030, this project will carry out a feasibility study to determine the commercial viability of building a liquid hydrogen supply chain.

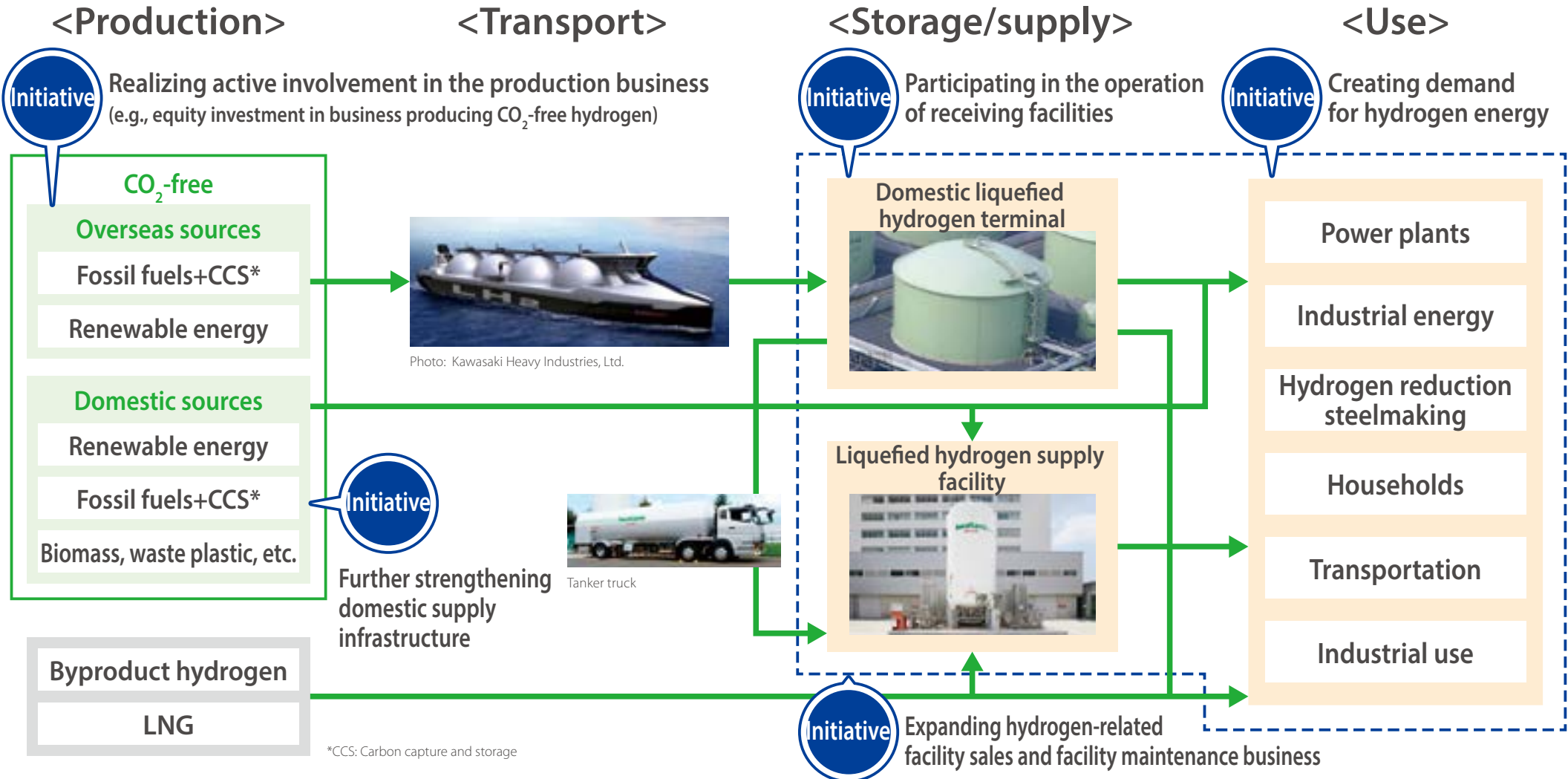
● Business period

FY2021-2030 (ten years)

● Involved companies

Japan Hydrogen Energy Co., Ltd. (lead partner)*, ENEOS Corporation, Iwatani Corporation

Industrial Gases & Machinery Business (Future vision of hydrogen business)



<Research and development>

Entities

- Hydrogen Division
- Iwatani Hydrogen R&D Center
- Technology & Engineering Division
- External partner companies

Target

Improving efficiency of hydrogen production, storage and transport; developing applications; improving safety management technologies; improving energy efficiency

Industrial Gases & Machinery Business (Helium business overview)



Procurement capacity, top domestic share

Procurement structure

- Procurement from two sources : Qatar and the United States



Supply structure (domestic)

- Reduction of loss during filling through introduction of high-efficiency equipment
- Realization of stable supply through investment in containers



Osaka Helium Center



Tokyo Helium Center



Helium container

Primary uses of helium

- Used in advanced areas with growth potential

Gas helium

Optical fiber Semiconductors

Liquid helium

MRI Cryogenics

Supply structure (overseas)

- Stable supply to Asian markets leveraging transportation advantages



Malaysia (Senai)



Thailand

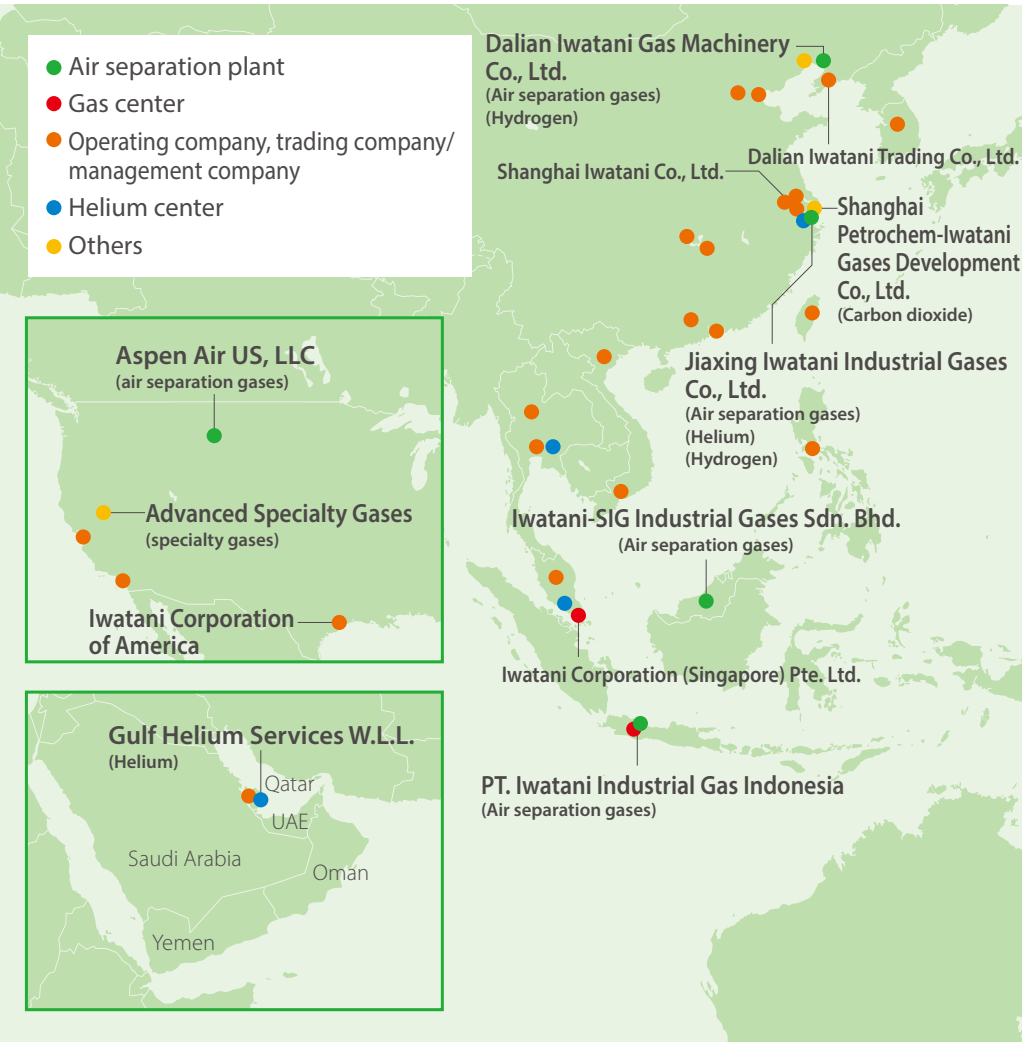


China (Jiaxing)

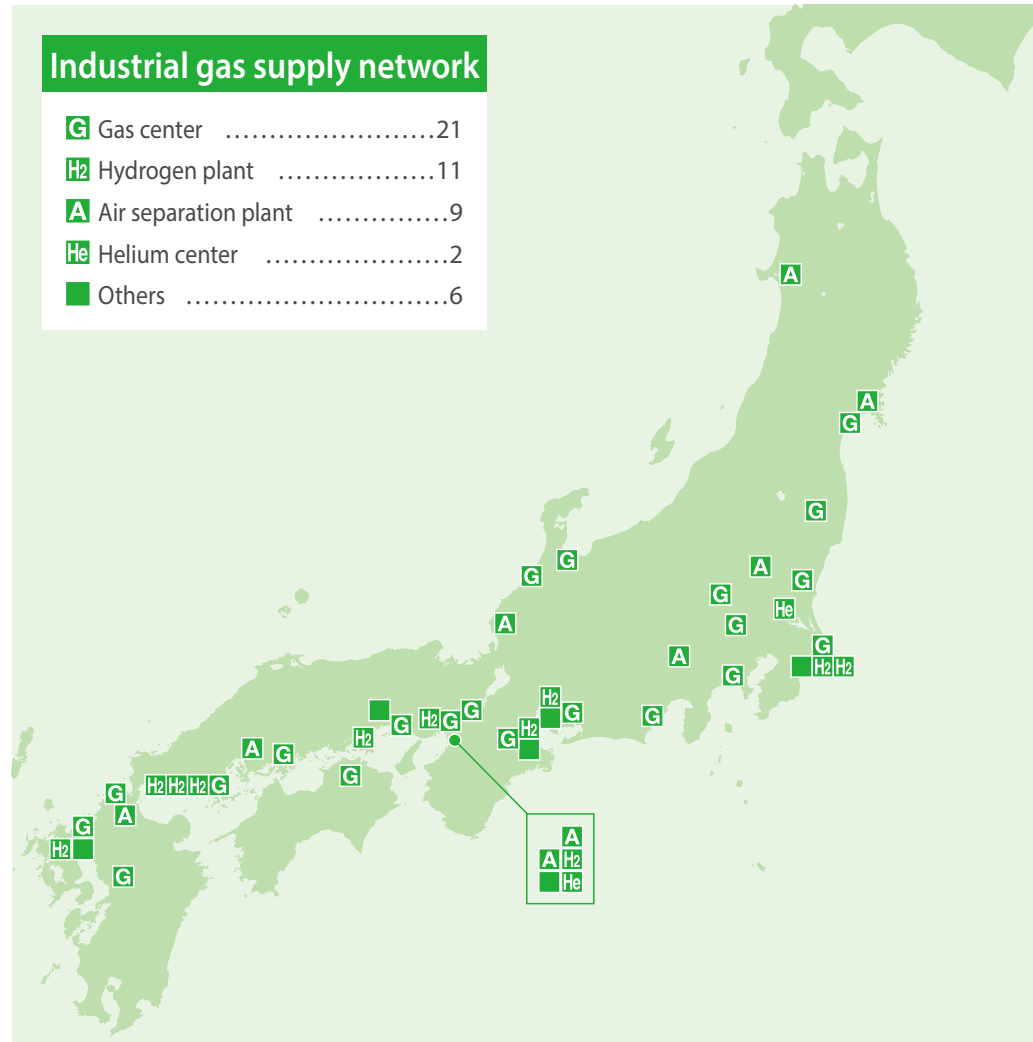
Industrial Gases & Machinery Business (Network)

Our businesses are also expanding in China, Southeast Asia, and US.

Global network



Domestic network



Materials Business (Overview)

Functional Plastics

- Resin raw materials (PET resin, polypropylene, etc.)
- Resin molding products, films, sheets

Related industries: Food and beverage, daily household goods, home electrical appliances, etc.



Air conditioner panel PET resins Film (protective tape)

Metals

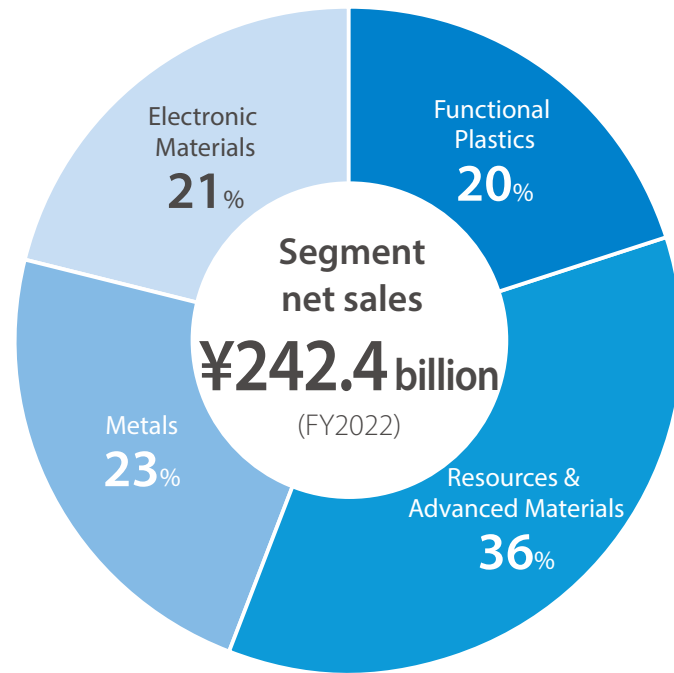
- Stainless steel ● Precision stainless steel
- Aluminum ● Non-ferrous materials
- High alloys ● Metalworking products

Related industries: Electronic components, air conditioning equipment, etc.



Wire processing Stainless steel

Breakdown of sales



Overseas sales ratio **20%**

Market share

- Biomass PET resins approximately **70%** **No. 1 in industry**
- Titanium ore (high-grade) approximately **40%** **No. 1 in industry**

Source: Company estimates

Resources & Advanced Materials

- Mineral sands (zircon, titanium raw materials)
- Ceramic raw materials (Rare Earth metals, zirconium compounds)
- Refractory raw materials
- Biomass fuels ● Electronic materials

Related industries: Chemicals, ceramics, automotive, semiconductors, etc.



Resource business Ceramic raw materials

Electronic Materials

- Battery-related materials
- Display materials

Related industries: Electronics, automotive batteries, etc.



Smartphone materials Automotive battery materials

Growing the environmental solutions business



- Expanding bioplastics sales (PET, PP, PE)
- Expanding biomass fuel sales
- Expanding battery materials sales
- Resource recycling (PET, metals, battery materials)
- Generating carbon credits

Expansion of resource business



- Expansion of mineral sands business
 - Acquisition of new mining sites
 - Development of next mining sites
- Participation in new projects (Securing rights to manganese, cobalt, and Rare Earth elements)

Enhancing the metals business



- Strengthening of overseas metal processing business
 - Strengthening/expansion of metal wire product business
 - Strengthening entry into growth areas of metal slitting business
 - Expansion of automotive materials business

Sales expansion and development of advanced materials



- Functional films for displays
 - Impact absorbent acrylic foam
- Development of advanced electronic materials
 - Nano nickel
 - Gallium oxide

Highly eco-friendly PET resins

Strength Products realizing smaller environmental impact



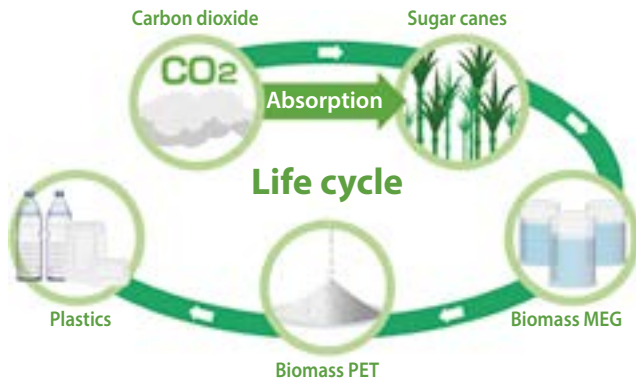
<Biomass PET resins>



Raw materials: sugar cane



- 30% of ingredients derived from plants



<Aluminum catalyst PET resins>

Results of heat degradation tests	Al	Ti	Sb	Ge
	Transparency preservation	Coloration: positive (significant)	Coloration: positive	Coloration: positive (minimal)

Highly recyclable

Biomass fuels (PKS, wood pellets)

Strength Ability to procure PKS through partnership with a major Southeast Asian supplier



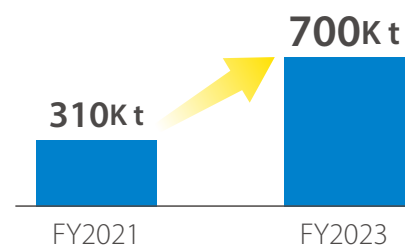
PKS (palm kernel shells)

<Wood pellets>

Plan to start selling a new biomass fuel (biomass pellets)



<Iwatani's sales plan>



- Power generated by burning plant-derived organic resources (biomass)
- Although plants emit CO₂ when burned, they absorb CO₂ through photosynthesis while growing ⇒ carbon neutral
- High-quality fuel is supplied through rigorous quality management.



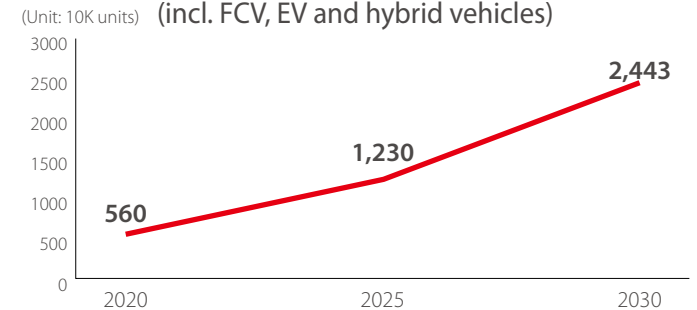
Battery-related materials for next-generation vehicles

Strength Ability to procure raw materials through partnership with a major Chinese supplier

Growth of next generation automobile-related demand

- Expand sales of cobalt, lithium, nickel, aluminum foil and other battery-related materials

<Worldwide use of next-generation vehicles: forecast> (incl. FCV, EV and hybrid vehicles)



Source: Yano Research Institute Ltd.



- Participation in Battery Association for Supply Chain (BASC), which aims to achieve a sound development of the battery industry

Materials Business (Resources business)



Overseas demand captured through in-house operation (extraction)
 Stable supply to Japanese customers through procurement from key resource suppliers

Titanium ore (TiO₂) Uses: Titanium dioxide pigments, ferrotitanium, welding materials

Zircon sand (ZrSiO₄) Uses: Refractory, ceramics, zirconia, grinding materials, casting

Iwatani Australia Pty. Ltd.

- 100% subsidiary of Iwatani Corporation

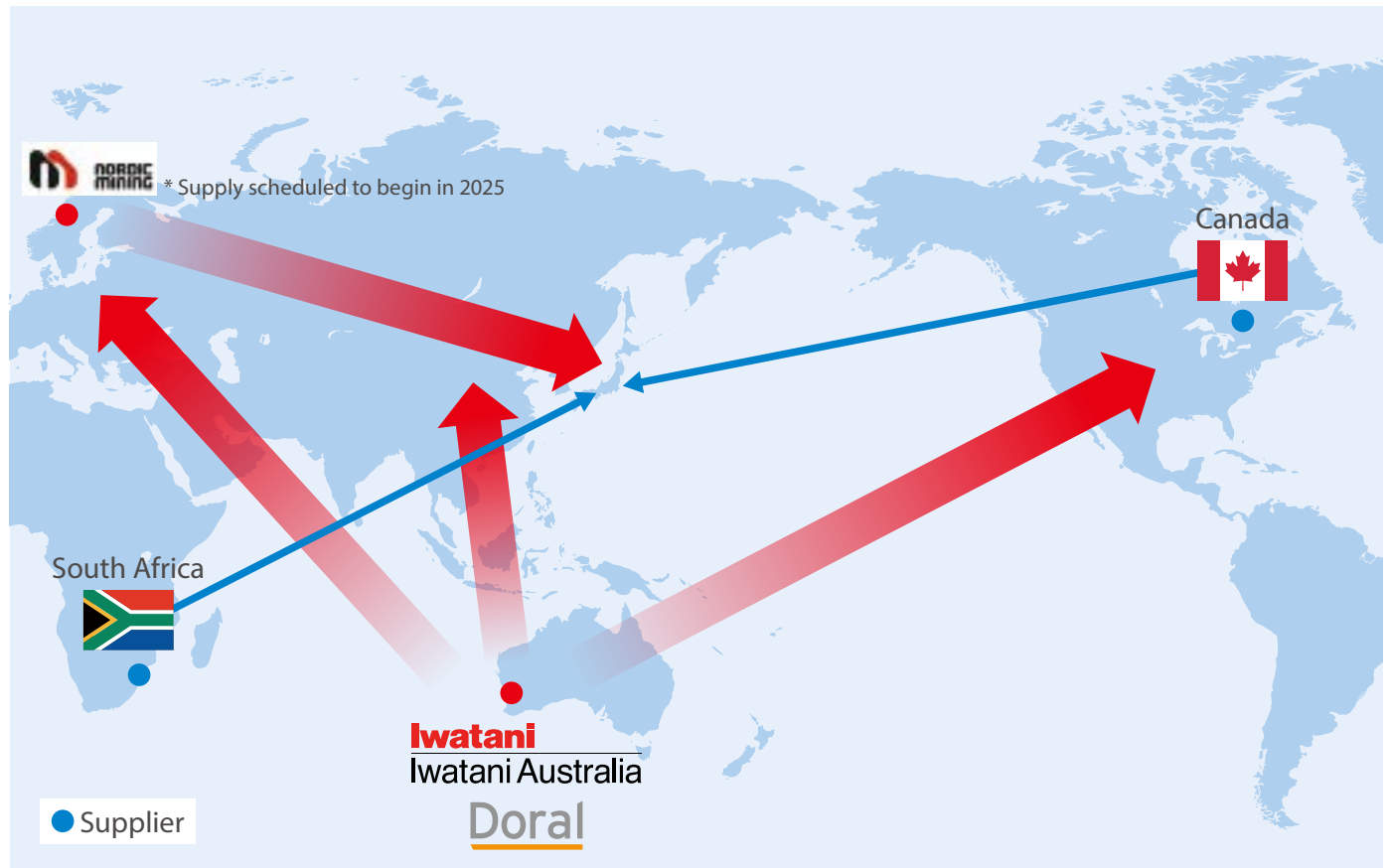


Nordic Mining ASA

- Investee company of Iwatani Corporation



* Planned mining site



Materials Business (Advanced materials)

Functional films for displays

Strength Proprietary shock absorption materials



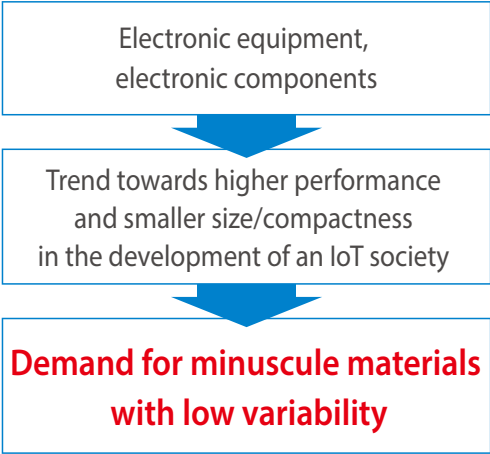
High adoption rate for **organic EL smartphones** requiring shock absorption

Development of advanced electronic materials

Strength Nano nickel
Materials pulverization technology
Production of uniform nano particles

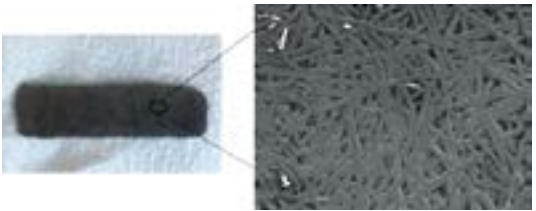


Nano nickel



Development of titanium artificial bone materials

Strength Titanium materials using our patented compression technologies
(High bone conductivity, form modifiability during surgery)



Material made of titanium fiber



Use anticipated in implanted medical devices

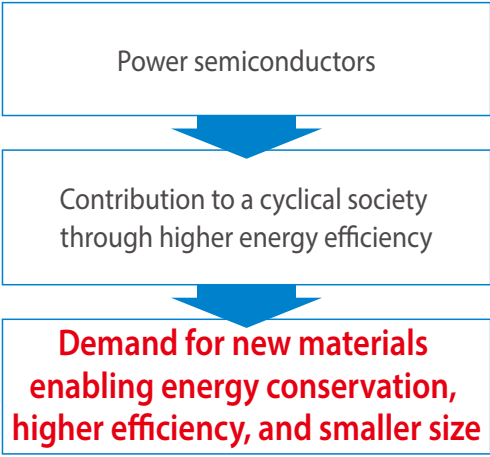
Applications as material for medical devices currently under development

• Gallium oxide materials for semiconductors

Strength High-purification technology



Gallium oxide for semiconductors



Iwatani's views on sustainability

Under the slogan "Creation of a more comfortable space on the Earth is what Iwatani wishes and strives for," Iwatani is striving to tackle environmental problems through the realization of a CO₂-free society and pursuing initiatives to achieve the SDGs.



Iwatani Corporation sustainability page:
<https://www.iwatani.co.jp/eng/sustainability/>

● Iwatani Code of Corporate Ethics

- 1 We will create new values sought by customers, thereby contributing to society.
- 2 We respect compliance with the related laws and ordinances and their spirit, and fulfill our social responsibility through fair and free competition.
- 3 We will proactively disclose our corporate information and have a dialogue with society in order to obtain wide support and mutual understanding from society.
- 4 We will respect diverse values and create an environment where abilities can be fully demonstrated irrespective of the race, nationality, gender, and age to flexibly respond to changes in business environment.
- 5 We will conduct corporate activities aimed at realization of a decarbonized society and coexisting with the environment in accordance with the idea embodied in the phrase "Creation of a more comfortable space on the Earth is what Iwatani wishes and strives for."
- 6 We will conduct corporate management from an international perspective.

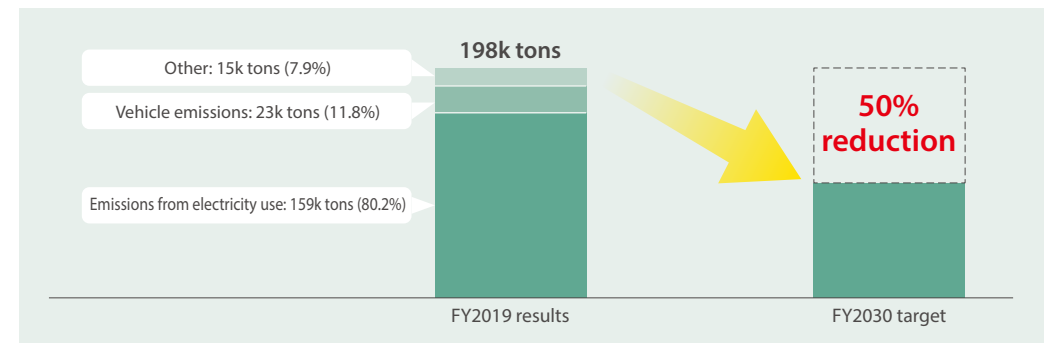
● The Iwatani Group Environmental Charter



CO₂ reduction target

We have declared our aim of achieving carbon neutrality by FY2050. As a milestone towards this goal, we aim to reduce Iwatani Group's FY2030 domestic CO₂ emissions* to 50% of FY2019's level.

* Total of Scope 1 and Scope 2 emissions of domestic group companies.



● Key reduction initiatives

Hydro Edge Co., Ltd.

Promoting electricity conservation through use of LNG cold energy power generation



Iwatani R&D Center and Iwatani Advanced Hydrogen Technology Center

Installation of pure hydrogen fuel cells



Development of an energy infrastructure that supports communities (Safety and security)

Developed a supply structure capable of responding to disasters

- Developed 56 core centers* nationwide
* Permanent installation of emergency generators and other equipment, enhanced earthquake resistance
- Developed a structure capable of continuing supply in the event of disaster

Rigorous safety management system

- Safety management of LPG terminals under uniform group-wide standards



Organized rescue unit for emergencies

- Organized MaruiGas Disaster Relief Corps comprising qualified LPG personnel (approx. 3,600 members)
- Deployed to restore service in the event of emergency
- Simultaneous nationwide training conducted in October every year



Social contribution activities

- We are focusing on cultural, sports and academic activities.



NHK Symphony Orchestra



Iwatani Corporation Athletics Club



Iwatani Naoji Foundation

Well-developed workplace environment

Flexible work styles

Various programs have been introduced to improve employee satisfaction, enthusiasm, and work-life balance by offering flexible work styles and broader options for ongoing employment.

- Remote working program
- Program for taking leave in hourly units
- Changing patterns of employment
- Re-employment program for former employees who left for personal reasons
- Leave program for a spouse's transfer

Diversity & Inclusion

We believe that by adopting a management style that values diversity and fully taps into the abilities of diverse employees, we can better respond to the needs of society. We have therefore implemented multiple initiatives to promote diversity and inclusion.

External assessments



For details on our ESG activities, please see our Integrated Report. https://www.iwatani.co.jp/eng/ir/pdf/integrated-report/integrated_report_eng.pdf

Iwatani

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Please use this material with the understanding that actual results may differ
from those that have been forecast.