



#### **Corporate Philosophy**

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

Our corporate philosophy expresses the business philosophy of our founder Naoji Iwatani, which is based on the principle that only companies capable of evolving and adapting to the world around them can survive in the marketplace.

After revolutionizing home fuel sources and dramatically reducing the amount of work required of homemakers in the kitchen, our core LPG business today supports domestic lifeline as a clean and reliable energy source for daily life, industries, and even in emergencies.

Hydrogen, for which our founder worked to develop a market from scratch since 1941, today is fast taking root in society beyond industrial applications, as the ultimate energy source for a decarbonized society.

Countless social challenges remain to be solved, including environmental issues such as global warming. Iwatani continues striving to achieve a sustainable, cyclical, and decarbonized society by constantly creating and providing the innovations and solutions needed by society.

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#### Medium-Term Management Plan "PLAN23" (FY2021-FY2023)

Iwatani has established its PLAN23 fifth medium-term management plan for the three-year period from fiscal 2021 to 2023.

The goal is to achieve a carbon-free society involving the entire Iwatani Group through joint gas and energy efforts involving the various Group businesses.

#### **Theme and Basic Policies**

Establishing a hydrogen energy-based society Assuming challenges beyond the boundaries of business frameworks

(Basic Policies) Enhancing strategic investment to establish a carbon-free society; promotion of digitization

#### **Key Issues (Materiality)**











#### **Basic Strategies**

- 1. Enhancing initiatives toward a carbon-free society
- 2. Evolving into a comprehensive energy lifestyle service provider
- 3. Expanding international businesses

#### **Management Targets**

Management Indicators	Targets (fiscal year ending March 2024)
Ordinary Income	¥40.0 billion
ROE (Return on Equity)	9% or higher







# Contributing to society as a trusted company by creating new value

Since our founding in 1930, Iwatani Corporation has provided a wide range of products and services for both daily life and industrial applications, including energy, industrial gases, materials, and food products, based on our corporate philosophy: Become a person needed by society, as those needed by society can prosper. These efforts are grounded in our desire to contribute to society by creating new value society will need in the future. This is the major driving force underlying the progress of our businesses.

In 1941, we identified hydrogen as the ultimate clean energy source. Since then, we have pushed for progress toward widespread use of hydrogen energy. Under the corporate slogan adopted in 1970 on the 40th anniversary of our founding—Creation of a more comfortable space on the Earth is what Iwatani wishes and strives for—we strive to deliver solutions to the social challenges posed by environmental issues, as well as help achieve the Sustainable Development Goals (SDGs), through contributing to create a carbon-free society based on hydrogen.

With the goal of realizing a hydrogen energy-based society as soon as possible, Iwatani Corporation works to promote the use of hydrogen on a global scale as a co-representative member of the Japan Hydrogen Association (established in December 2020) and lead member of the Hydrogen Council (organization formed by energy-related firms around the world).

To stimulate new hydrogen demand, we are developing hydrogen-refueling stations for fuel cell vehicles (FCVs), expanding our network of hydrogen-refueling stations in the US state of California (a pioneer in FCVs), and also considering producing liquid hydrogen in California at some point in the future.

Iwatani is moving ahead with various initiatives to secure sources of CO<sub>2</sub>-free hydrogen. Internationally, in addition to participating in a project involving the transport and storage of large volumes of liquid hydrogen produced in Australia, we are

considering commercializing green liquid hydrogen production in partnership with Australian electric power companies and iron ore producers.

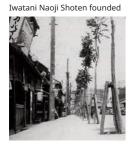
Selected by the New Energy and Industrial Technology Development Organization (NEDO) Green Innovation Fund, our Demonstration Project for the Commercialization of Liquefied Hydrogen Supply Chain will establish the world's first hydrogen liquefaction and transport technologies on the scale of tens of thousands of tons per year. The project will also demonstrate a large-scale international liquid hydrogen supply chain, from hydrogen production through liquefaction, shipping, sea transport, and receiving.

In Japan, we participate in the Fukushima Plan for a New Energy Society, which strives to produce green hydrogen through power generation by renewable energy. We are also considering practical implementation from multiple perspectives, including producing green hydrogen from biomass and liquid hydrogen from brown coal in Hokkaido.

At the same time, our LPG business, among our core enterprises, is built on a nationwide customer base of more than 3.3 million households. We create new services that help resolve social challenges by drawing on this base of real world users and our proprietary Iwatani GateWay IoT platform as central elements of a network of digital points of contact. We are making proactive efforts to decarbonize LPG, including reducing carbon by targeting the co-firing of LPG with hydrogen and other energy sources and achieving propanation. Through these efforts, we will evolve into an energy & living total service provider chosen by customers and communities.

As we advance toward our 100th anniversary and beyond, we remain firmly committed to achieving sustained growth as an evolving comprehensive energy service provider. To do so, we will continue to offer new value to all our customers, shareholders and investors, supply chain partners, local communities, and employees.

## 1930



1945 Iwatani Corporation established



1950

Shares listed on second section of Osaka Securities Exchange (in August) and Tokyo Stock Exchange (in December)

1965

1962

Shares listed on first sections of Osaka Securities Exchange and Tokyo Stock Exchange (both in April)

1960

#### 1972

Designated a friendly trading lwatani logo adopted company by China; start of Sponsorship of NHK Symphony full-scale trading with China Orchestra begins

1987



1980

2010

Osaka Head Office relocated



#### 2011

Companywide response to the Great East Japan Earthquake includes urgent shipment of relief supplies (e.g., portable gas cooking stoves



2013

Completion of Iwatani R&D Center as new technological



2017

Establishment of Iwatani Athletics Club with Hisakazu Hirose as head coach, with Mizuki Noguchi also joining in 2019 as advisor



2021

Iwatani Advanced Hydrogen Technology Center established to develop new hydrogen and decarbonization technologies

2020-

Association as co-representative

Iwatani GateWay service begins

"Demonstration project for the

commercialization of liquefied

as NEDO's Green Innovation

HySTRA feasibility testing for

shipping hydrogen derived from

brown coal between Australia

and Japan completed

hydrogen supply chain" selected

2020

member

2021

2021

Fund

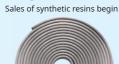
2022

Joins Japan Hydrogen

1930

begin

1940



1941 1952 Sales of hydrogen



1953 First in Japan to launch nationwide sales of propane gas for household use



1953 Sales of rutile sand (a coating material) begin



1958 In-house hydrogen production



1960

Import and sale of brooder poultry farming equipment



1964 Marui propane supplied for Tokyo Olympic Torch

1969 Sales of Cassette-Feu, Japan's first hose-free cooking stove,



1969 Sales of MIHARI gas leak alarms begin



1974

Sales of frozen foods begin

1970



1975 Cold Air Products Ltd. Entry established into the field of industrial gas production



1977 Agency agreement concluded with Yaskawa Electric Manufacturing (now Yaskawa Electric Corporation); first sales of welding robots



Operations commence at Japan's first large-scale commercial liquid hydrogen production plant



1980

Sakai LPG Terminal for LPG imports completed; direct imports begin from gas-producing countries



1982

Establishment of Iwatani Camborough Co., Ltd.; agreement concluded with Pig Improvement Company (PIC)



1985

Business partnership formed with Union Carbide Corporation

Establishment of Iwatani Agri Green Co., Ltd. 1988

Sales of MILLSER food mills



1989 Dalian Iwatani Gas Machinery Co., Ltd. established as joint venture with the City of Dalian,

China

1991

Launch of the Pacific Century, the first company-owned LPG tanker

1990

1993

Marui Propane rebranded Marui gas on its 40th anniversary



1994

Kitsuregawa Separate Gas Plant air-gas production facility begins operating

1994 Kashima LPG Joint Stockpiling Base begins operating



1995 The MaruiGas Disaster Relief Corps formed in response to the



1997 Doral Mineral Industries Ltd. (of Australia) acquired

2000

Entry into the LNG sales business in partnership with electric power companies

2000



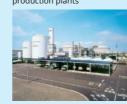
2002

Completion of Japan's first full-scale hydrogen-refueling station in Torishima, Osaka

2004

Entry into the water delivery business with Natural Mineral Water from Mt. Fuji

Hydro Edge Co., Ltd. commences operation of one of the world's largest liquid hydrogen production plants



First Iwatani Hydrogen Energy

2009 Saudi Aramco-Iwatani Emergency LP Gas Relief Program established

2009

Eastern Japan's first liquid hydrogen production plant opens at the Chiba Plant of Iwatani Industrial Gases Corporation

2010

Osaka Helium Center begins operating



Work begins on disaster-resistant



2012

Sales of eco-friendly bio-PET resins begin

2013 Sourcing of helium from Qatar begins



2014 Iwatani Hydrogen-Refueling Station Amagasaki, Japan's first

commercial hydrogen station

begins operating

2015

2010

Sales of PKS hiomass fuel h



2016 Entry into retail electricity

business 2017

Entry into city gas retail business

2017 Joins Hydrogen Council

2018 Joins Japan H<sub>2</sub> Mobility, LLC (JHyM)

2019 Completion of Tokyo Helium Center, one of Japan's largest helium filling capacities, and

start of opera

2019

Acquisition of



hydrogen-refueling stations and

start of operations at four

locations in California

2022 Acquisition of Tokico System Solutions, Ltd.

2022

Acquires stock of Tokyo Gas Group LPG companies and establishes Enelife Corporation



## **Iwatani in 5 Minutes**

#### What Kind of Company Is Iwatani?

As of March 31, 2022

**Founded** 



Founded as "Iwatani Naoji Shoten" by Naoji Iwatani in

The company began with sales of welding rods, carbide, and similar products.

Capital

¥35.096 billion



Capital increased from ¥20 billion to ¥35 billion in 2020.

#### Number of locations

In Japan



Overseas

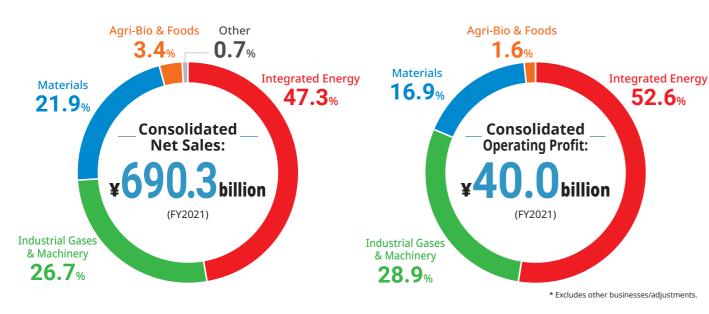
Iwatani is expanding business overseas to increase its presence globally in a wide range of fields.

10,163

Number of group companies

Consolidated number of employees

#### **Net Sales and Operating Profit**



#### **Iwatani as Number One**

#### **Household LPG**

Retail

Wholesale

In 1953, Iwatani became Japan's first company to sell propane gas across the country for household use. Iwatani's MaruiGas LPG brand holds largest market share in Japan More than 3.3 million households across the country use MaruiGas

\* As of June 30, 2022 (Iwatani data)

#### Portable gas cooking stoves and cassette gas canisters

Portable gas cooking stoves Cassette gas canisters

Since the launch of its portable gas cooking stoves and cassette gas canisters in 1969, Iwatani has continued to support home cooking needs, and has responded to expanding demand from the home to the outdoor leisure market. \* As of March 31, 2022 (Iwatani data). Quantities include both Japanese and overseas sales volumes.

#### Hydrogen

Japanese share of compressed

and liquid hydrogen



Japanese share of liquid hydrogen

Some 80 years have passed since Iwatani began selling hydrogen in 1941. Iwatani remains committed to building and operating a global

liquid hydrogen supply chain to bring to reality a society based on hydrogen energy.

\* As of May 31, 2022 (Iwatani data);

#### **Bio-PET resin**

lapanese share



Eco-friendly PET resin manufactured from plant-based raw materials; Iwatani boasts the top share in Japan following the launch of related resin manufacture in 2010.

\* As of March 31, 2022 (Iwatani data)

#### LPG centers

Primary/secondary/tertiary terminals



To ensure a stable supply of LPG, indispensable for our daily lives, Iwatani has established a nationwide supply network, from import to home delivery.

\* As of August 1, 2022 (Iwatani data)

#### Helium

Japanese share



Helium is a rare resource essential for leading edge industries. Iwatani has established a stable supply system for helium procured from the US and Qatar.

\* Source: 2022 Gas Georama in Japan

#### Hydrogen-refueling stations -

In Japan



Iwatani is working to provide hydrogen-refueling stations in Japan and the US in response to growing use of fuel cell vehicles (FCVs) and fuel cell trucks. As of March 31, 2022

#### Pig breeding

lapanese share



Iwatani is the only total pig breeding supplier in Japan capable of supplying comprehensive solutions ranging from pig breeds to facilities and equipment and production technologies. Iwatani supports the growth of Japan's pig breeding production.

\* As of March 31, 2022 (Iwatani data)

# Low-/Zero-Carbon Solutions

Drawing on business foundations and technological capabilities established over the years, Iwatani provides low-carbon and zero-carbon solutions across a wide range of fields.



#### CO<sub>2</sub> visualization and valuation

#### CO<sub>2</sub> emissions calculation and visualization service

Iwatani offers customers, primarily in the manufacturing industry, the "Zeroboard Cloud Service" provided by Zeroboard Inc., which calculates CO<sub>2</sub> emissions and allows visualization of CO<sub>2</sub> emissions generated from their own business activities (Scopes 1 and 2) and from their entire supply chains (Scope 3) based on the GHG Protocol international standard



#### Iwatani J-Credit Project for environmental valuation of CO2 reductions

Allows CO<sub>2</sub> emissions reductions achieved by participating customers to be assessed by Iwatani and valuated environmentally in the form of J-Credits. Customers can participate without undertaking time-consuming or costly certification procedures and receive credits such as Iwatani services corresponding to their CO<sub>2</sub> reductions.





#### Fuel conversion to LPG and LNG

Switching to energy with low CO<sub>2</sub> emissions is the ideal way to achieve major CO<sub>2</sub> reductions.
Conversion from heavy oil and kerosene fuel to LPG and LNG can cut CO<sub>2</sub> emissions between 15% and 30%. It also provides access to subsidies via CO<sub>2</sub> reductions and energy savings.



#### Hydrogen energy usage

Iwatani was quick to see the potential of hydrogen and now boasts the largest share in the Japanese compressed hydrogen market. Iwatani is the only manufacturer of liquid hydrogen in Japan, giving it a 100% market share. Iwatani is also involved in activities such as supporting the



construction of hydrogen-refueling stations, proposing pure hydrogen fuel cell and hydrogen-powered boilers, and feasibility testing of combustion using LPG and hydrogen mixtures.

#### Ammonia supply

In addition to traditional industrial uses, ammonia is increasingly regarded as a future carbon-free fuel and as a medium for use in transporting hydrogen, a next generation energy source. Iwatani offers an extensive track record with ammonia denitrification facilities for use by Japanese electric power companies. It offers support for the design, construction, and safety management of ammonia supply facilities and can also provide industrial ammonia trailers and cylinders.

#### Renewable energy facility supply

Solar power generation plays a major role in carbon-free electricity. Used in conjunction with storage batteries, it can dramatically reduce daytime electricity use. Iwatani offers an extensive track record for proposals and solutions involving solar power generation and solar power generation in conjunction with storage batteries and air conditioning equipment.

#### Biomass fuel supply

Iwatani supplies biomass fuels, including PKS produced as a byproduct of palm oil production, and wood pellets produced from wood waste resulting from thinning lumber and lumber plants. We supply PKS collected from environmentally certified palm oil extraction plants and wood pellets granted FSC or PEFC certification.

## Raw materials

#### Bio-PET/bio-PP/bio-PE resin supply

Iwatani provides bio-PET resin constituting approximately 30% plantbased PET resin obtained from biomass MEG refined from molasses extracted from sugar cane. It also provides bio-PP/bio-PE resins that use bionaphtha obtained from waste materials, residue oil, and other recycled materials.



#### Recycle metal supply

As global economic growth steadily drains natural resources, waste reduction and recycling initiatives have grown increasingly important. Discarded electronic circuit boards and components contain significant amounts of metals such as gold, silver, and copper. Iwatani procures recycled resources from overseas for supply to material manufacturers in Japan.





#### Hydrocut® reduced-CO2 cutting gas

Hydrocut® hydrogen-based premixed fusing gas is a mixture of ethylene and hydrogen, a clean energy gas. It can be used in the same way as conventional acetylene and reduces CO<sub>2</sub> emissions by 84% compared to acetylene (comparison based on LCA\* calculations).



\* LCA (Life Cycle Assessment) is a method for quantitatively evaluating the environmental burdens generated by a product over the entire life cycle (from collecting raw materials to raw material production, product production, distribution, consumption, disposal, and recycling).

#### Reduced-CO<sub>2</sub> burners and industrial furnaces

Pure oxygen burners and oxygenenriched combustion enable the fuel energy to be used more efficiently compared to combustion in air, and they have a higher flame temperature, offering energy savings through increased productivity and time reductions. Iwatani offers a comprehensive service from burner system design to the supply of fuel.



## **Utilities**

#### Steam and hot water line energy savings

Compared to oil-fire boilers, highefficiency gas-fired steam boilers offer boiler efficiencies of up to 102%, while high-efficiency latent heat recovery type hot water boilers offer boiler efficiencies of up to 105%, reducing energy costs. Iwatani offers diagnostic and proposal solutions to minimize dissipated heat losses and improve overall system efficiency, including reassessments of steam and hot water lines.



## Air conditioning energy savings (GHP, absorption type refrigeration units, EHP)

Reassessing air conditioning is ideal for reducing electricity consumption during the summer. In particular, switching from electric air conditioning to gaspowered air conditioning in the form of GHP and absorption type refrigeration units can dramatically reduce electricity consumption. Iwatani offers optimal air conditioning equipment energy-saving solutions to suit customer



usage environments—for example, solutions based on the use of EHP in conjunction with gas-powered air conditioning and solutions involving reassessments of overall air conditioning arrangements.

#### Exhaust gas cleaning equipment energy savings

For many years, Iwatani has offered a wide range of equipment that supports environmental protection efforts by reducing atmospheric pollution and facilitating water purification and waste processing.

Regenerative thermal oxidizer (RTO) systems provide energy savings and CO<sub>2</sub> reductions based on honeycomb heat reservoirs with high heat exchange efficiency.



#### Compressed air energy savings (air compressors)

Iwatani offers unrivalled experience with a wide range of air compressors, including screw types and turbo types, both large and small, enabling us to offer solutions by selecting the optimum equipment, minimizing the number of units required for optimal operation, and offering energy saving



diagnoses and solutions to eliminate air wastage. Iwatani offers not just the compressors themselves, but also comprehensive energy-saving solutions encompassing efficiency improvements for peripheral dryer equipment.

#### Recycled fluorocarbon/natural refrigerant provision

In light of its high global warming potential of fluorocarbon, international environmental regulations have been implemented to gradually reduce its production and consumption. In response to proposals to achieve a 40% reduction (converted to CO<sub>2</sub>) by 2024 compared to 2017, attention has turned to the use of recycled fluorocarbons and natural refrigerants (high-purity carbon



dioxide and ammonia). Iwatani offers eco-friendly recycled fluorocarbons and eco-friendly natural refrigerants as replacements for fluorocarbons to help cut  $CO_2$  emissions.

## High-efficiency environmental control systems for livestock and plant factories

Iwatani offers equipment and total solutions that reduce environmental burdens. These solutions include cooling systems that use vaporization heat without relying on electricity; high thermal insulation panels; biodegradable planting pots; and support for switching to LPG for customers considering constructing or upgrading piggery facilities or agricultural production facilities



# Hydrogen Business



Hydrogen is used across a wide range of fields, including environmental and high tech, in fuel cells, semiconductor manufacturing, rocket fuel, among other application. With its pristine environmental characteristics, liquid hydrogen has the potential to replace fossil fuels and change our society.

Iwatani was the first company in Japan to supply liquid hydrogen for industrial use. Now, through various projects and social initiatives, we are promoting the development of an infrastructure for a hydrogen-based society, including feasibility testing of CO<sub>2</sub>-free hydrogen production, and working in anticipation of future growth in hydrogen demand.



#### The hydrogen pioneer

Since 1941, Iwatani has been quick to focus on hydrogen's potential, helping to expand hydrogen use in Japan by working on hydrogen production, constructing supply chains, and developing applications. Iwatani holds the largest domestic market share for compressed hydrogen, and as Japan's only manufacturer it holds a 100% share of the liquid hydrogen market. Iwatani's Hydro Edge, one of the world's largest liquid hydrogen production plants, began operating in 2006, and in 2009 Iwatani opened the first liquid hydrogen production plant in East Japan—in Ichihara, Chiba. In 2013, Yamaguchi Liquid Hydrogen, Japan's third liquid hydrogen production plant, came online in Shunan, Yamaguchi. The liquid hydrogen produced at these three plants is used as rocket fuel for space development and is provided to more than 100 customers in the electronics, chemical, metal, and glass industries in Japan. It is also used in pure hydrogen fuel cells, hydrogen boilers, and other applications and supplied to hydrogen-refueling stations nationwide.

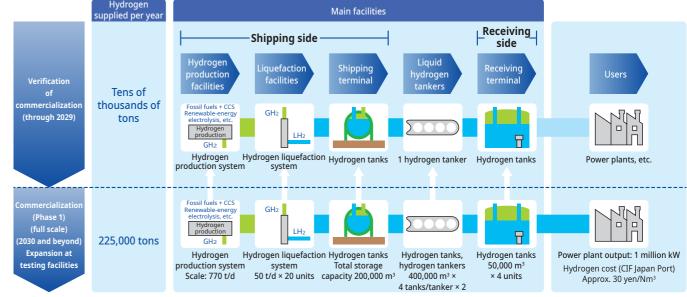


Panasonic Corporation Kusatsu Plant (power supplied by pure hydrogen fuel cells and solar panels)

#### Project evaluating the feasibility of commercial global liquefied hydrogen supply chain

Iwatani is pursuing initiatives to build a global supply chain for CO<sub>2</sub>-free hydrogen with the aim of establishing a carbon-free society based on hydrogen energy. One initiative is the Green Innovation Fund/Large-scale Hydrogen Supply Chain Establishment, launched by the New Energy and Industrial Technology Development Organization (NEDO) in conjunction with Japan Suiso Energy, Ltd.\* and ENEOS Corporation. As part of this project, Iwatani is undertaking commercialization feasibility studies to establish the world's first hydrogen liquefaction and transportation technologies on the scale of tens of thousands of tons annually to build an international liquid hydrogen supply chain encompassing hydrogen production, liquefaction, shipment, international transportation, and receiving. In these efforts, we are responsible for the overseas production of liquid hydrogen, examining terminals in Japan and abroad, and working with the demand side based on our customer base.

\* 100% owned subsidiary of Kawasaki Heavy Industries, Ltd.



Source: Japan Suiso Energy, Ltd.

#### CO<sub>2</sub>-free Hydrogen Energy Supply-chain Technology Research Association (HySTRA)

HySTRA\*, of which Iwatani is a member, is currently demonstrating technologies for manufacturing hydrogen by gasifying untapped brown coal (low-grade coal) locally in Australia, liquefying it, and then transporting it in bulk. Iwatani has constructed cargo handling facilities on Kobe Airport Island with HySTRA in charge of proving testing, and has conducted feasibility testing of cargo handling technology for liquid hydrogen. In February 2022, using a liquefied hydrogen carrier, Iwatani completed the world's first feasibility test of marine transportation and cargo handling between Australia and Japan. The know-how and technology gained from work on this project will subsequently be applied to build a CO<sub>2</sub>-free hydrogen supply chain.

\* Made up of seven companies: Iwatani, Kawasaki Heavy Industries, Ltd., Shell Japan Ltd., Electric Power Development Co., Ltd., Marubeni Corporation, ENEOS Corporation, and Kawasaki Kisen Kaisha, Ltd.



The *Suiso Frontier*, a liquefied hydrogen carrier

#### Feasibility study into building large-scale green liquefied hydrogen supply chain between Australia and Japan

Since 2019, Iwatani and Stanwell have examined the large-scale production and exports of green liquid hydrogen to Japan. Based on the results, six Japanese and Australian companies\* have launched full-scale feasibility testing. This feasibility testing primarily examines green hydrogen production technology, the design and construction of hydrogen liquefaction plants and tankers, and commercialization modeling. To achieve stable and low-cost long-term hydrogen production and supply, hydrogen production is envisaged to be on a scale of at least 100 tons per day by around 2026 and at least 800 tons per day in 2031 and beyond.

\* The six companies are Iwatani, Kawasaki Heavy Industries, Ltd., Kansai Electric Power Co., Inc., Marubeni Corporation, and the Australia-based energy and infrastructure companies Stanwell Corporation Limited and APT Management Services Pty Ltd.



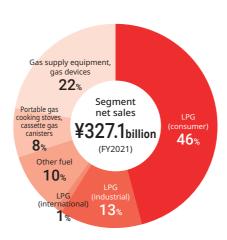
Hydrogen production facility planned for site in Aldoga, Australia (illustrative image)

#### Fukushima Hydrogen Energy Research Field (FH2R)

In the town of Namie in Fukushima, hydrogen will be produced, stored, and supplied by electrolyzing water using a hydrogen production system that uses electricity generated by solar power. Hydrogen produced at FH2R is supplied to facilities in Fukushima and has also been used in hydrogen-powered vehicles entered into endurance races by Toyota Motor Corporation.

# **Integrated Energy Business**

As a leading LPG company, Iwatani has established an integrated system from import to supply and provides total services ranging from facilities construction to maintenance. Iwatani is also developing products and services to enrich people's lives, including portable gas cooking stoves and cassette gas canisters, Natural Mineral Water from Mt. Fuji, and Iwatani GateWay.





#### **Decarbonization Initiatives**

#### Promoting fuel conversion

Conversion from heavy oil and kerosene fuel to LPG and LNG can cut  $CO_2$  emissions between 15% and 30%. It also provides access to subsidies via  $CO_2$  reductions and energy savings. Iwatani has been involved with approximately 100 fuel conversion projects nationwide every year. We offer one-stop support from proposals to construction, gas supply, and maintenance.





oiler facility

#### Services utilizing the J-Credit scheme

The Iwatani J-Credit Project was established through using the J-Credit scheme administered by the Japanese government. This project targets customers who adopt high-efficiency boilers and/or use LPG, LNG, or city gas as boiler fuel, and involves Iwatani keeping track of the CO<sub>2</sub> emission reductions by participating customers and allowing them to be converted into environmental value in the form of J-Credits. Customers can participate in the system without undertaking time-consuming and costly certification procedures and can be reimbursed with Iwatani services as compensation based on the scale of the CO<sub>2</sub> reductions.



#### **LPG Business**

#### Establishing the only integrated supply system in Japan covering import to home delivery

As a leading supplier of LPGs for home, commercial, and industrial use, Iwatani operates its own import terminals and ocean tankers and has established an integrated system spanning import to supply to maintain a vital stable supply of LPG. Iwatani operates some 400 sales and delivery bases across the country and provides finely-tuned high-quality services nationwide based on this sales, distribution, and security system.









#### Top Japanese business base\*

Iwatani's LPG brand Marui Gas is used by more than 3.3 million households across Japan. Of these, 1.09 million households are direct sales customers. Iwatani boasts the highest share in the domestic retail and wholesale sectors.

\* As of June 30, 2022 (Iwatani data)

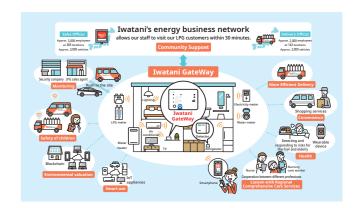
#### Providing a total service

Iwatani delivers LPG in various forms, including cylinders, bulk, and tank trailers, and offers a one-stop service encompassing aspects from installation to maintenance of LPG supply facilities and consumer equipment that use LPG. Iwatani also operates a staffed monitoring center 24 hours a day, 365 days a year, to provide gas safety monitoring services such as responding to gas leaks.

#### **Iwatani GateWay IoT Platform**

#### Next generation services led by Iwatani GateWay

In July 2021, Iwatani launched the Iwatani GateWay IoT platform service. This adds information network functions to household gas alarms and connects various "things" to the Internet. Iwatani GateWay allows Iwatani to provide new services to resolve regional issues by combining Iwatani's nationwide LPG business base with digital technology. In addition to providing gas monitoring services, it offers child monitoring and shopping services, and Iwatani is also working on new initiatives such as services to evaluate CO<sub>2</sub> reductions embedded within the home and detecting frailty risk factors in customers before they are at a stage requiring nursing care.



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#### **LNG (Liquefied Natural Gas)**

Iwatani works in partnership with electric power and city gas companies across Japan to supply LNG nationwide. LNG sales total approximately 300,000 tons per year, among the largest sales volumes in Japan. Iwatani operates tank trailers in each region to provide backup from other areas in the event of an emergency or disaster.



## LNG Regional Pipeline Business (City Gas Business)

Iwatani is involved in an LNG regional pipeline business that utilizes the potential of LNG in the form of regional energy infrastructure. Iwatani group company Koga Energy Co., Ltd. mixes LNG and LPG transported from the Sakai LNG Center of Kansai Electric Power Co., Inc. to produce city gas and supplies this to residential and industrial customers.



#### LPG-Powered Emergency Generators

LPG-powered emergency generators generate electricity using LPG, a distributed energy source that is resilient in the event of disasters, and these automatically supply electricity if a power outage occurs. As a fuel that is not susceptible to degradation and can be stored for extended periods, LPG is being introduced as a measure to cope with power outages in places such as public facilities, welfare facilities, hospitals, schools, and factories.



#### **Cassette Gas Products**

Launched in 1969, the Cassette-Feu portable gas cooking stove has grown to become a long-selling product that has expanded from home use to leisure use. It is also sold overseas, mainly in the US, China, and Taiwan. To further expand the product's potential, Iwatani offers a lineup of barbecue grills, takoyaki cookers, robatayaki cookers, and mini-maru hot plates with an unobtrusive color scheme. Iwatani has developed a varied range of cassette gas-based products to meet changing lifestyles and needs and to support home dining needs.









#### **GHPs (Gas Heat Pumps)**

GHPs are air conditioning units that use a gas engine to drive the exterior compressor and heat or cool using a heat pump. Power consumption is approximately 10% of EHPs, making them ideal for reducing electricity demand. GHPs with an autonomous power supply can operate on battery power in the event of a power outage for uninterrupted use of air conditioning and lighting.



#### Cogeneration

This produces multiple forms of energy from a single energy source. Gas cogeneration uses LPG, LNG, or other fuel to power engines and turbines to generate electricity, while at the same time recovering the waste heat generated to produce hot water and steam. This technology is suitable for response to power outages and power shortages.



#### **ENE-FARM**

This household fuel cell system generates electricity using a chemical reaction between hydrogen extracted from LPG or city gas and oxygen in the air. The heat produced when generating electricity can also be used to heat water, thus this technology offers high energy efficiency and achieves significant reductions in CO2 emissions. Hot water storage tanks can also be used as a source of domestic water if the water supply is cut off.



#### **FORE WINDS**

Launched in 1995, Iwatani's outdoor leisure brand FORE WINDS was renewed and relaunched as a global brand in Japan and overseas. The range includes outdoor gear with refined functional beauty that adds functional and high-quality design to the original concept of fusion with nature.



#### **MILLSER**

Launched in 1988 and one of Iwatani's long-selling products, the MILLSER home cooking appliance processes dried foods into powder. The product is used in a variety of applications, including grinding dried fish and vegetables that are difficult to eat as they are, as well as for preparing baby food, pastes, soups, and juices.



## **ALALA Household Detergent**

ALALA is a household detergent range containing cleaning ingredients derived from natural palm oil, making it kind to both humans and the environment. Gentle on the skin, this natural brand has expanded into a lineup that includes hand soap, dishwashing detergent, body soap, and medicated bathing liquid.



#### **Delivery Station**

This LPG-powered meal preparation system allows tasty meals to be safely prepared in all kinds of scenarios, based on the "easy full-scale cooking anywhere with a single unit" concept. Capable of cooking rice and soup simultaneously for approximately 100 people, it is an ideal solution in the event of disasters, as well as at events and outdoor leisure activities.



#### **Electric Power Business**

Following the complete deregulation of the electricity retail market in April 2016, Iwatani entered the household electricity retail market under the Iwatani Denki brand. Iwatani targets MaruiGas customers, primarily in the Tokyo metropolitan and Kanto areas, offering attractive plans such as discounts in conjunction with LPG.

#### **City Gas Business**

Following the complete deregulation of the city gas retail market in April 2017, customers are now free to choose their city gas supplier. Iwatani draws on its nationwide LPG network and gas appliance safety expertise cultivated over the years, and works in partnership with major electric power companies to carry out safety inspections, repairs, and sales of gas appliances.

#### Tele-Safe 24-Hour Monitoring System

The Iwatani Call Center provides staffed monitoring 24 hours a day, 365 days a year for gas leaks and use of gas appliances for extended periods in the home. When an emergency situation is detected, the system notifies the MaruiGas distributor and contacts the customer to prevent accidents occurring in the home.

#### **MIHARI Gas Leak Alarm**

Iwatani's original MIHARI brand gas leak alarm has been installed in numerous homes to monitor gas safety in the more than 50 years since its launch in 1969. Iwatani offers optimal gas alarm solutions to customers to suit individual gas types, detection methods, and installation locations.

#### Natural Mineral Water from Mt. Fuji Home Delivery

Natural Mineral Water from Mt. Fuji, natural spring water collected from the rich natural areas at the northern foot of Mt. Fuji, contains higher concentrations of vanadium. Stringent quality control at our state-of-the-art manufacturing plant and single-use D-pack containers that prevent exposure to air enable Iwatani to deliver delicious natural spring water with assured safety. The product has a shelf life of two years, making it ideal for use as water stockpiles in case of a disaster.



#### **Health Foods**

Iwatani offers superlative food ingredients to help ensure healthy lives, including Suporiki and Goma Tofu no Moto, which use ultra-low temperature freezing technology using liquid nitrogen to retain the goodness of their ingredients, Manuka Honey from Australia, Jabara citrus from Wakayama, black vinegar, and green vegetable juice.



#### Iwatani Outdoor Shop BASE

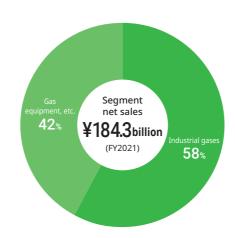
Iwatani's first directly managed store opened in Honmachi, Osaka, in October 2021. This is the only store in Japan that offers all of our portable gas cooking stoves and a full lineup of our group's B-to-C products. The store is also used as a place for interaction with consumers through various events and initiatives.





# **Industrial Gases & Machinery Business**

Iwatani is developing its industrial gas business, comprising air separation gases (oxygen, nitrogen, argon), carbon dioxide, helium, hydrogen, semiconductor material gases, and medical gases together with its machinery business comprising gas production and supply facilities, welding robots, FA systems, welding equipment, electronic component manufacturing equipment, and environmental equipment. Iwatani offers optimal solutions to our customers based on an extensive lineup of gases and machinery.





#### Helium

#### No. 1 helium supplier in Japan\*1 with reliable procurement capabilities

Helium is a rare natural resource vital to advanced technology and medical care applications due to its extremely low boiling point of -269°C and its inertness, even at high temperatures. Iwatani has established a stable supply system for helium procured from Qatar and the US, for which we have direct import rights. In addition to our two bases in Japan, the Tokyo Helium Center and the Osaka Helium Center, Iwatani is expanding bases in China and Southeast Asia to ensure a stable and efficient supply of helium, for which demand continues to be strong.







#### **Initiatives for New Gases, New Fields, and New Markets**

#### The quest for new gas development

Iwatani's outlook on new gas development is to achieve the impossible by fully grasping customer issues based on the motto "If it is necessary, find it; if it does not exist, make it." In the field of high-concentration ozone, Iwatani successfully established technology for producing and storing ozone water with a high-concentration of over 50%, something that was previously considered impossible, and has applied this to fields such as semiconductor manufacturing. Non-plasma cleaning using CIF3 (chlorine trifluoride), which has become the standard cleaning gas used in semiconductor manufacturing, is another technology developed independently by Iwatani.

#### Initiatives in the field of regenerative medicine

Iwatani has made full-scale entry into the field of regenerative medicine by drawing on its strengths in industrial, medical, and food related gas handling technology. Life Science Research Laboratory has been established within the Iwatani R&D Center. We are working to build a cold chain for the storage and transportation of cells through joint research with universities and business partnerships with venture companies.



#### **Providing Optimal Solutions with Gas and Robots**

#### Expanding business from the machinery business

Iwatani's machinery business offers an extensive lineup not just of equipment related to industrial gases, but also semiconductor manufacturing equipment and robots. Iwatani expands business that other companies cannot offer by providing optimal solutions for aspects such as gas supply, maintenance, and material supply in conjunction with machinery and equipment in response to customer production process needs.



#### **Global expansion**

Iwatani is expanding its business not just in Japan but overseas, drawing on the technologies, expertise, and overseas network it has established over the years. Iwatani is expanding its manufacturing capabilities through gas manufacturing plants primarily in China, Southeast Asia, and the US, as well as working to strengthen its sales organization in the field of machinery, including machinery for FA systems.



#### **Air Separation Gases**

Oxygen, nitrogen, and argon are widely used in various fields, including semiconductor manufacturing and medicine. They are extracted from liquefied air by leveraging the difference between their respective boiling points. To date, Iwatani has established a stable supply system by expanding its gas production and supply system nationwide. Iwatani also provides a range of application technologies that draw on the properties of these gases.



#### **On-Site Supply**

An on-site supply system is a gas plant installed directly on customer premises to produce and supply gas. Installing facilities within the plant tailored to meet customer requirements and usage conditions makes it possible to build more efficient production



#### **Cryogenic Equipment**

Iwatani is currently expanding manufacturing and sales operations for cryogenic equipment, including cryogenic liquefied gas storage tanks and tank trailers. Drawing on cryogenic technologies accumulated as a manufacturer of liquid hydrogen and other ultra-low-temperature gases, Iwatani provides customers with optimal supply facilities and transportation and storage methods.



**Welding and Cutting** 

Iwatani offers a wide range of high-quality

A wide range of shielding gases, welding

welding solutions, including arc welding, laser

machines, and welding wire are available at the

Iwatani R&D Center Welding Demonstration

Room. Iwatani is ideally positioned to offer a

comprehensive array of welding solutions.

welding, resistance welding, and plasma welding.

**Technologies** 

#### **Robot Systems**

Iwatani provides robot systems tailored to a wide range of manufacturing processes, as well as ancillary equipment such as hand tools and peripherals. In the ever-expanding industrial robot market, Iwatani draws on its unique expertise to help customers streamline and improve efficiency at their manufacturing sites.



## **Manufacturing Equipment** Iwatani offers a lineup of equipment suited to

**Electronic Component** 

virtually all manufacturing processes, from upstream to downstream. For example, for ceramic chip components, a wide range of equipment is available to handle tasks from green sheet manufacture to final product inspections. Iwatani offers optimal equipment solutions for digital product manufacturing facilities worldwide.



#### **Carbon Dioxide Gas and Dry Ice**

Iwatani liquefies, refines, and sells high purity carbon dioxide produced as a byproduct at chemical plants, such as those involved in oil refining and ammonia production. Carbon dioxide gas has many applications, including welding, beverages, and, in recent years, promoting photosynthesis in plants. Dry ice is used for food cooling, refrigerated transportation, blast cleaning, for COVID-19 vaccine transportation, and other such applications. The declining production of petrochemical products in recent years has made it increasingly difficult to secure the raw materials needed to generate liquefied carbon dioxide, particularly in the summer, when demand rises. In 2021, Iwatani doubled the capacity of liquefied carbon dioxide production facilities at Chiba Plant of Iwatani Industrial Gases Corporation, in order to reinforce its stable supply system for this gas.





#### **Deuterium Gas**

Composed of a stable isotope of hydrogen, deuterium gas is used across a wide range of industries, including semiconductors and other electronics, optical fibers, and chemicals. To ensure a stable supply of this gas, Iwatani became Japan's first company to produce deuterium commercially, and subsequently established a new mass production site in 2021. Iwatani's quality control system meets the rigorous requirements of the semiconductor industry.



#### Semiconductor and **Automation Equipment**

In addition to semiconductor manufacturing equipment and materials, Iwatani offers total systems solutions to help automate and optimize entire plants. Drawing on its extensive information-handling capabilities and expertise established over the years, Iwatani develops total systems and services in response to technological innovations in the fields of semiconductors and electronic components.



#### **Environmental Equipment**

Over the years, Iwatani has provided a wide range of equipment for managing atmospheric pollution, water purification, waste treatment, and environmental conservation needs. Iwatani offers total service solutions for a carbon-free society, centering on the latest exhaust gas treatment, wastewater treatment, and recycling related equipment—solutions that help conserve energy and reduce greenhouse gas emissions.



#### **Pharmaceuticals Manufacturing Equipment**

Iwatani provides machinery, materials, engineering, and services necessary for manufacturing and packaging pharmaceuticals and cosmetics not only in Japan, but also in Indonesia, Vietnam, and other Asian countries. Iwatani is customer-focused and provides high-quality, state-of-the-art products and services to improve the manufacturing process



#### **Integrated Plant Disaster Prevention System**

In its role as a gas safety expert, Iwatani operates an integrated plant disaster prevention system that monitors safety of respective areas of a plant. Iwatani provides systems that make effective use of its crisis management expertise, ranging from multifaceted sensor-based safety monitoring, extinguishing/preventing chemical and combustible gas fires, to counter-terrorism systems.



#### **Developing and Proposing Eco-Friendly Products**

Iwatani develops and provides eco-friendly products that draw on the potential of gases in various ways. Examples include ECO FREEZE natural refrigerant, a replacement for fluorocarbon gas; a new HFO-1234yf refrigerant for automotive air conditioners; and beaded dry ice, made by processing dry ice into beads approximately 6mm in diameter to increase cooling efficiency. Iwatani also provides Hydrocut®, a hydrogen gas based mixed gas that dramatically reduces CO2 emissions compared to conventional LPG and acetylene. Hydrocut® also reduces the risk of flashback and improves workability due to its low radiant heat, characteristics that have drawn praise. Iwatani has developed a Hydrocut Trailer for customers who use large volumes of this product.





#### **Powder Molding Equipment**

Iwatani Group company KOHTAKI PRECISION MACHINE Co., Ltd. responds to a wide range of powder molding needs based on years of experience and a broad range of expertise and technologies. The products offered include a range of pressing machines, including powder molding presses, sizing presses, multilayer molding presses, large-scale hot presses for molding seismic isolation rubber, and vacuum hot presses.



#### **Machinery Business Technological Development**

Shield Master® Series, the No.1 mixed welding gas brand, was developed to meet the requirements of various applications and base materials. With a wide lineup, we have improved welding quality and reduced costs by improving efficiency. We also design tailored mixing ratios and on-site mixing to meet customer challenges. Iwatani is currently working on the development of devices such as hydrogen cutting equipment and a mixed-combustion type hydrogen burner to permit the easy adjustment of hydrogen mixture combustion ratios. Iwatani combines gas and machinery technologies developed over many years to create solutions that meet the diverse needs of its customers.

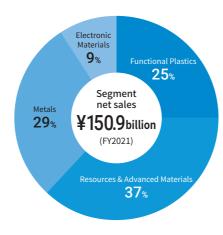




## ss 🔾

# Materials Business

A pioneer in developing mineral resources (including mineral sands) and related applications, Iwatani is active in procuring and developing raw materials essential in the development of functional resins, high-performance metals, and other applications in the environmental, electronics, and automotive industries. Iwatani is also helping to achieve carbon neutrality by offering eco-friendly products and biomass fuels that move us closer to a recycling-based society.





#### Mineral Sands (Zircon, Titanium Ore)

For many years, Iwatani has claimed Japan's leading share\* of sales of zircon, a mineral used as an abrasive in the semiconductor, ceramics, and refractories industries, as well as for titanium ore, which is used in applications related to pigments, titanium metal, and welding materials. In addition to trading mineral sands imported from South Africa and Canada through a leading global supplier, Iwatani operates its own mines in Western Australia. To ensure multiple sources and stable procurement, Iwatani has also invested in a new titanium ore project in Norway.

\*As of March 31, 2022 (Iwatani data)



## Ceramic Raw Materials And Molded Products

Iwatani supplies zirconium compounds, Rare Earth metals, and other ceramic raw materials for customers active primarily in fields related to catalysts and electronics. It also sells molded products made from ceramic raw materials. Iwatani is active in developing new nano-scale materials, a field where growth is anticipated.



#### **PKS (Palm Kernel Shells)**

From Indonesia and Malaysia, Iwatani imports PKS, a wood-based biomass fuel attracting interest as a coal alternative, to supply biomass power plants in Japan. Stringent quality controls assure high-quality PKS, with the Iwatani R&D Center analyzing products for calorific and moisture values and other factors.



#### **Bioplastics**

Iwatani plays an active role in the bio-PP, bio-PE, and bio-PS resin markets, including the market for bio-PET resin, which is used as a material for plastic bottles. For bio-PP in particular, Iwatani is strengthening its position as the world's only supplier to offer segregation grade products. Iwatani is also focusing its efforts on highly recyclable PET resin (aluminum catalyst based PET resin).



## Synthetic Resin Materials and Functional Plastic Products

Drawing on a network spanning China and Southeast Asia, Iwatani is expanding the business of synthetic resin raw materials and resin products both in Japan and overseas. Iwatani is actively pursuing the development of various products, including bio-PET resin derived from plants and functional films based on an understanding of rising consciousness of the global environment and changing market needs.



## Stainless Steel, Aluminum, and High Alloy Steels

Within Japan, Iwatani has established a nationwide processing, warehouse, and distribution network centered on the Iwatani Stainless Steel Association and systems offering mobility to meet specific customer requirements. Overseas, Iwatani is focusing its attention on sales to growth markets, including markets for smartphones and automotive components.



## **Processed Metal Components**

Iwatani has established manufacturing plants in China and Southeast Asia to expand its standing as a manufacturer and is developing, proposing, and supplying processed metal components to customers active across a wide range of fields, including the growing automotive, air conditioning, and electronic component industries.



## Electronics and Display Business

Iwatani's functional films and electronic materials are widely used in smartphone displays and components. Iwatani is developing new materials for the vehicle display market, which is expected to grow.



#### **Battery Material Business**

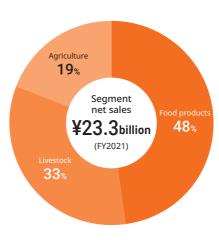
Rechargeable batteries are drawing growing attention for use in next generation vehicles. Iwatani procures and sells lithium, cobalt, manganese, and other raw materials obtained overseas for use as cathode materials. Iwatani also develops various other unique products, including stress relief pads positioned between battery cells, fire extinguishing sheets, bus bar components, and processed metal components.



## s O

# Agri-Bio & Foods Business

Iwatani is a safe and reliable source for a wide range of frozen foods, including vegetables, seafood, and meat products from around the world. Additionally, Iwatani contributes to food production as a source of the latest agricultural equipment/materials and livestock facilities/machinery, as well as for pig breeding stocks.





#### Frozen Foods for Commercial and General Consumer Markets

Iwatani's food products make life more flavorful. Iwatani delivers carefully selected, safe and reliable ingredients, as well as outstanding seasonal foodstuffs from Japan and around the world. Starting with sales of frozen precut vegetables, this business has now expanded to offer an extensive lineup of products, including frozen Japanese side dishes, frozen seafood, frozen meat products, and even bread and dessert based frozen foods, primarily targeting commercial customers. Iwatani is currently expanding its business in the general consumer frozen foods market, which is growing against a backdrop of changing social structure and personal values, through the development and sales of low-volume retail-packaged frozen precut vegetables and frozen side dishes.





**Piggery Facilities and** 

**Livestock Equipment** 

Iwatani supplies state-of-the-art piggery

the genetic potential of Camborough pigs.

facilities and livestock equipment to maximize

Additionally, Iwatani offers farm management

guidance by veterinarians and other staff to

help produce low-cost, high-quality pork.

#### Logistics

In addition to sales of commercial-use frozen foods for restaurants, a business cultivated over the years, the Iwatani Group sells and delivers refrigerated foods for commercial use and to supermarkets to meet the demand for pre-prepared and home-prepared meals.



## Pig Breeding

Iwatani sells Camborough pigs bred and raised at the Tashiro and Tohoku farms operated by Iwatani Camborough Co., Ltd. to pig producers across Japan. These pigs combine high fertility with profitability, and produce pork that is popular with consumers.



#### **Quality Assurance**

Iwatani strives to maintain and manage quality and reliability through a quality assurance system managed by an independent Quality Assurance Management Department, under which a section in charge oversees food products in accordance with Iwatani quality policies, based on its mission to safeguard food safety and security through a reliable quality assurance system.



#### **Agricultural Equipment**

Iwatani makes possible clean, high-productivity working environments, and provides agricultural greenhouses ideal for growing vegetables and seedlings via cultivation systems tailored to specific cultivars, control of carbon dioxide concentrations required for optimal photosynthesis, and temperature control using LPG and heat pumps.



#### **ALFLOC Trolleys**

To eliminate the frequent reshipment entailed by the distribution of flowering plants, Iwatani introduced a new ALFLOC intermodal transportation concept, which relies on dedicated plant logistics trolleys to supply plants rapidly from production areas to markets, free of damage. Iwatani is working to standardize flowering plant logistics based on some 25,000 ALFLOC trolleys currently operating around the country.



## **Iwatani R&D Center**

The Iwatani R&D Center was founded by Iwatani, which has developed diverse businesses centered on gas and energy, to create elemental technologies for tomorrow in partnership with its customers. Iwatani provides state-of-the-art analytical equipment and testing environments, and integrates both its information capabilities for identifying the needs of society with its unique technical capabilities, which have been cultivated over the years based on its advanced gas technologies. Iwatani creates new technologies and products in joint efforts with its customers and partner companies, as well as universities, public institutions, and government agencies.



#### Welding

Iwatani operates Welding Demonstration Room featuring wire products made of mild steel, stainless steel, aluminum, and other materials from manufacturers in Japan and overseas, as well as state-of-the-art welding machines and robots. Iwatani provides optimal welding solutions by identifying the perfect combination of welding machines, welding wire, and shielding gases to meet the wide-ranging needs of its customers.



## Semiconductor and Electronic Components

In addition to its proprietary product CIF3 (chlorine trifluoride), which is used around the world as a cleaning gas in semiconductor manufacturing, Iwatani is contributing to the manufacture of semiconductors and electronic components with its unique gas technologies, including high concentration ozone manufacturing and storage, deuterium gas manufacturing, and metal nanoparticle manufacturing.



#### **Regenerative Medicine**

Iwatani is working to expand the use of cell storage and transportation systems based on the fundamental analytical and cryogenic management technologies cultivated over the years. In April 2020, in partnership with Osaka University, Iwatani founded the Joint Research Laboratory for Cell Storage and Transport Technology. In February 2022, a cleanroom was installed at the Iwatani R&D Center to reproduce and evaluate the series of processes performed at cell manufacturing plants—from cell culture, freezing, storage, to transportation. Iwatani is currently developing technologies and equipment for cell storage and transportation, with the ultimate goal of commercializing regenerative medicine technologies.

#### Analysis and Quality Evaluation

The center offers a multifunctional, multipurpose experimental environment equipped with large laboratories, environmental testing rooms, and cleanrooms, as well as precision analytical instruments for various fields from nanoscale material analysis to ultraprecise gas analysis. Its cutting-edge analytical and experimental environments help create new technologies for the next generation.





# Iwatani Advanced Hydrogen Technology Center

In October 2021, to realize its goal of building a hydrogen energy-based society, Iwatani founded the Iwatani Advanced Hydrogen Technology Center. The center will accelerate the development of new and proprietary technologies related to decarbonization, including the manufacture of green hydrogen and green LPG, as well as the hydrogen-related technologies Iwatani have developed to date. In addition to conducting technological development and commercialization feasibility testing related to hydrogen applications in Japan and overseas, Iwatani is also involved in the development of manufacturing technologies for a wide range of fuels to achieve a decarbonized society, including biogas technology and research into synthesizing hydrocarbons.



#### Liquid Hydrogen and Ultra-High-Pressure Hydrogen Technologies

Iwatani carries out studies aimed at reducing construction costs of hydrogen-refueling stations, enhancing their safety, and promoting revisions to related regulations through evaluating hydrogen compatibility with metal materials and equipment durability using its facilities for liquid hydrogen testing and ultra-high-pressure hydrogen gas testing, rated as top-level facilities in Japan. Iwatani is also focusing its efforts into the development of equipment and new technologies for the coming era of mass hydrogen supply.



## Hydrogen-Refueling Station Inspection Technology

Iwatani has established a simple and low-cost inspection method ("master meter method") for inspecting measuring equipment at hydrogen-refueling stations using a standard flowmeter. Iwatani has also developed hydrogen gas sampling systems and simple hydrogen gas purity analyzers as ways to measure impurities contained in hydrogen gas. Iwatani is developing technology to simplify inspections for hydrogen-refueling stations.



#### Decarbonization Technologies

Iwatani is aiming to establish hydrogen manufacturing technologies based on waste plastics and woody and various other biomass, including green hydrogen manufacturing technologies based on renewable energy. In addition to hydrogen energy, we are developing manufacturing technologies for a wide range of clean energy sources, including the manufacturing of green hydrogen and LPG from livestock waste from our pig breeding business.





#### **Raising Awareness of Hydrogen**

To raise awareness of hydrogen energy as the source of clean energy for the next generation, the Iwatani Advanced Hydrogen Technology Center has been holding Hydrogen Energy Classes. Here, children can experience the appeals of hydrogen energy using handmade experiment kits for water electrolysis experiment, model cars powered by fuel-cells, and rocket launch experiment.





#### **Iwatani Code of Corporate Ethics**

- We will create new values sought by our 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.

#### **Environmental Initiatives**

#### **Environmental Management**

Iwatani is building, maintaining, and operating an environmental management system under the Iwatani Group Environmental Charter and the Iwatani Environmental Policy.

Transition to a Hydrogen Energy-Based Society Climate Change / Conservation of

Resources
Conservation of Biodiversity and Ecosystem
Green Procurement and Quality Assurance
Environmental Data

#### **Social Initiatives**

#### Social Contribution Activities

Through its support for cultural activities, research and development, international exchange, and technological aid, Iwatani contributes to society.

Human Rights / Occupational Health and Safety / Human Resources Development Diversity & Inclusion Enhanced Workplace Environment /

Personnel Data Building Energy Infrastructure to Support Local Communities

Response to Natural Disaster / Consumer Protection

#### Governance Initiatives

#### Corporate Governance

Based on the corporate philosophy, Iwatani strives to reinforce corporate governance by enhancing the soundness, transparency, and efficiency of management.

Risk Management and Compliance

View here for further details on sustainability



#### Sponsorship of the NHK Symphony Orchestra

Iwatani has been assisting the NHK Symphony Orchestra with its regional and overseas performances, primarily the NHK Symphony Orchestra summer concerts, as a special sponsor since 1987, endorsing its aim: "To augment Japan's music and artistic standards through symphonic music performances and to achieve its social and cultural mission." Iwatani helps increase the interaction between local communities and culture through music.



#### Toward Achieving a Hydrogen Energy-Based Society

Iwatani is expanding its hydrogen production and supply infrastructure, including Hydro Edge, to promote the spread of hydrogen-based energy. At the same time, Iwatani is also driving the future of a hydrogen energy-based society through multifaceted initiatives such as the provision of hydrogen-refueling stations, studying ways to procure large quantities of low-cost CO2-free hydrogen, and awareness-raising activities through events.



## Marui Gas Disaster Relief Corps

Established jointly with some 1,400 MaruiGas distributors to ensure rapid LPG recovery in response to disasters, the MaruiGas Disaster Relief Corps is Japan's only nationwide disaster prevention organization founded by a private sector energy company. Since its establishment in 1995, the MaruiGas Disaster Relief Corps has been deployed 31 times. Currently, some 3,600 qualified gas technicians from different companies are members of the MaruiGas Disaster Relief Corps. The organization strives to maintain and strengthen its capacity to respond to disasters through annual nationwide drills conducted simultaneously.



#### **Iwatani Athletics Club**

In 2021, under the guidance of coach Hisakazu Hirose and Mizuki Noguchi, the Iwatani Athletic Club placed 12th out of 31 teams in the Princess Ekiden, qualifying to participate in the All Japan Industrial Teams Women's Ekiden (Queen's Ekiden) for the first time. Based on its cornerstone interests in contributing to society and communities through athletic activities and the training of some of Japan's leading athletes, the Club is working hard to achieve its goal of first place in the Queen's Ekiden.



#### Sponsorships of the Japan International Birdman Rally

Since 2010, as a program to commemorate our 80th anniversary, we have sponsored the Japan International Birdman Rally. This support reflects our belief that the concept underlying this contest (to see which human-powered aircraft can fly the farthest) coincides with our ambitions to realize a clean energy society. Iwatani is also actively involved in supporting various initiatives and events whose goal is to reduce environmental impact.



#### Saudi Aramco-Iwatani Emergency LP Gas Relief Program

In 2009, Iwatani and Saudi Arabia's state-run oil company Saudi Aramco established the Saudi Aramco-Iwatani Emergency LP Gas Relief Program, which provides free portable gas stoves and cassette gas canisters to locations affected by major natural disasters as emergency relief supplies. This fund provided relief in response to typhoons in August 2021, when Iwatani delivered portable gas stoves, cassette gas canisters, and Natural Mineral Water from Mt. Fuii.



#### Comfortable Earth - All Japan Elementary School Essay Contest

The "Comfortable Earth" All Japan Elementary School Essay Contest was started in 2010 as a project to commemorate the 80th anniversary of Iwatani's foundation, and it forms an initiative to prompt the children who will bear the responsibility of the Earth's future to think about Iwatani's wish, depicted in its slogan, "Creation of a more comfortable space on the Earth is what Iwatani wishes and strives for." Iwatani will carry the words written by children filled with awareness and discovery into the future.



#### The Iwatani Naoji Foundation

The Iwatani Naoji Foundation was established in 1973 by founder Naoji Iwatani, who sought to encourage the development of science and technology and to improve lives of the public. The foundation promotes social contribution activities, with a focus on support for research, as well as awards, in the energy and environmental fields, and support for international students from Asia. Through grants for science and technology research and scholarships for international students, including the Iwatani Naoji Commemorative Award, the foundation contributes to people and to society.

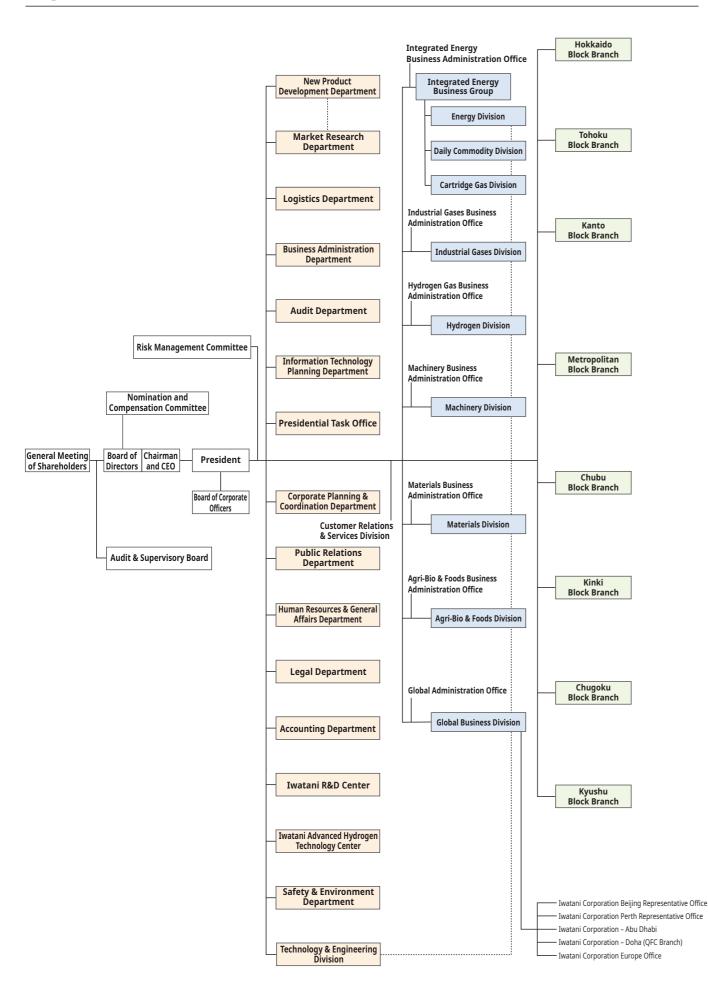


## Improving and Promoting Welding Skills in Asia

Iwatani has helped organize welding technology seminars and welding competitions in Dalian, China, for 10 years, starting in 1997, with the goal of strengthening welding skills in rapidly growing Asian countries. Iwatani has been actively involved in this program, organizing welding seminars and contests held in Hanoi, Vietnam, in 2007, and in Jakarta, Indonesia, from 2013.



Organizational Chart Corporate Profile Corporate Profile



#### ■ Trade Name: Iwatani Corporation

■ Established: May 5, 1930 ■ Incorporated: February 2, 1945

■ Representatives: Chairman and CEO Akiji Makino

Vice Chairman Toshio Watanabe President Hiroshi Majima

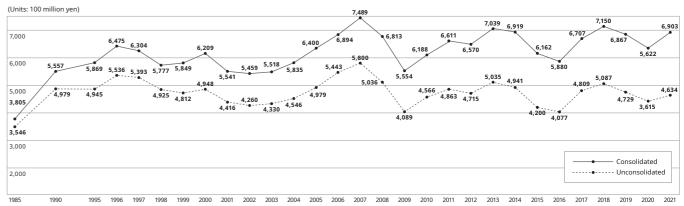
■ Paid-in Capital: 35,096 million yen

■ **Net Sales:** 690.392 billion yen (FY2021 consolidated results)

■ Number of Employees: 1,319 (as of March 31, 2022)
■ Number of Offices: 50 (Domestic: 45, Overseas: 5)
■ Number of Shareholders: 35,413 (as of March 31, 2022)

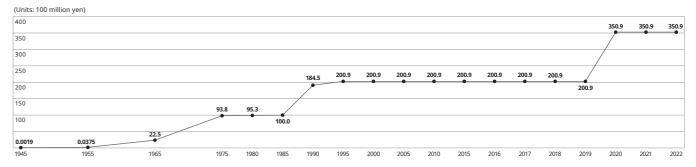
■ Accounting Period: March 31

#### ☐ Net Sales Trends



Note: The Accounting Standard for Revenue Recognition (Corporate Accounting Standards No. 29, March 31, 2020) and other accounting standards have been applied since FY2021.

#### ☐ Capital Trends



#### ☐ Corporate Officers

#### 

Chairman and CEO		Akiji Makino	Senior Managing Officer	Takashi Kamekura	Executive Officer	Tomohiko Takehana
Vice Chairman		Toshio Watanabe	Senior Managing Officer	Yasuhisa Ueda	Executive Officer	Atsuhisa Saito
President		Hiroshi Majima	Senior Managing Officer	Tetsuo Matsuo	Executive Officer	Takeshi Nakada
Vice President		Makoto Horiguchi	Managing Officer	Yasushi Sakai	Executive Officer	Hirofumi Uchida
Senior Managing Officer, Member of the Board		Itaru Okawa	Managing Officer	Yasushi Onuki	Executive Officer	Isamu Yoshida
Senior Managing Officer, Member of the Board		Manabu Tsuyoshi	Managing Officer	Kouji Kobayashi	Executive Officer	Kunihiko Koike
Senior Managing Officer, Member of the Board		Hiroshi Fukushima	Managing Officer	Hiroyuki Yano	Executive Officer	Naoki Wada
Senior Managing Officer, Member of the Board		Hirozumi Hirota	Managing Officer	Kenji Motoori	Executive Officer	Kazutaka Yokoya
Member of the Board	×	Shinji Murai	Managing Officer	Masato Nishimura	Executive Officer	Yoshikuni Yamada
Member of the Board	*	Shosuke Mori	Managing Officer	Hisayuki Shimizu	Executive Officer	Katsumi Nakahata
Member of the Board	×	Hiroshi Sato	Managing Officer	Wataru Isshiki		
Member of the Board	*	Hiroyuki Suzuki	Managing Officer	Joseph. S. Cappello		
Audit & Supervisory Board Member		Toyofumi Ohama	Managing Officer	Naotami Miyagaki		
Audit & Supervisory Board Member		Naoki Iwatani	Managing Officer	Masao Hirashima		
Audit & Supervisory Board Member	**	Yoshinori Shinohara	Managing Officer	Kenji Takayama		
Audit & Supervisory Board Member	**	Yasushi Yokoi	Managing Officer	Jun Matsubara		

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Note: Members of the Board marked with \* are Outside Directors. Audit & Supervisory Board Members marked with \*\* are Outside Audit & Supervisory Board Members.

## Domestic Network and Major Domestic Affiliated Companies As of September 30, 2022

[Head Offices]	
Osaka Head Office · · · · · · · · · · · · · · · · · · ·	TEL: 81-6-7637-3131
Tokyo Head Office · · · · · · · · · · · · · · · · · · ·	TEL: 81-3-5405-5711
[Block Branches & Branch Offices]	
Hokkaido Block Branch·····	
Sapporo Branch	TEL: 81-11-726-1511
Hakodate Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-138-49-3141
Doto Branch	TEL: 81-154-53-2111
Tohoku Block Branch·····	TEL: 81-22-262-2040
Sendai Branch	TEL: 81-22-262-2021
Kitatohoku Branch 9-1, Morioka-eki Nishidori 2-chome, Morioka-shi, Iwate 020-0045, Japan	TEL: 81-19-623-2861
Akita Branch	TEL: 81-18-847-1173
Kanto Block Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-48-646-7020
Kanto Branch	TEL: 81-48-646-7020
Niigata Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-25-283-6001
Maebashi Branch · · · · · · 29-1, Minamicho 4-chome, Maebashi-shi, Gunma 371-0805, Japan	
Utsunomiya Branch · · · · · · · · · · · · · · · · · · ·	
Ibaraki Branch······7-23, Minatomachi 1-chome, Tsuchiura-shi, Ibaraki 300-0034, Japan	TEL: 81-29-823-3691
Chiba Branch····21-8, Nobuto 1-chome, Chuo-ku, Chiba-shi, Chiba 260-0032, Japan	TEL: 81-43-245-8477
Metropolitan Block Branch· · · · · · · · · · · · · · · · · · ·	
Metropolitan Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-45-474-3960
Tokyo Branch····· 8-10, Harumi 1-chome, Chuo-ku, Tokyo 104-6017, Japan	TEL: 81-3-3520-8675
Atsugi Branch	
Yamanashi Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-55-268-7611
Shizuoka Branch······ 373, Nanatsushinya, Shimizu-ku, Shizuoka-shi, Shizuoka 424-0066, Japan	TEL: 81-54-348-2000
Chubu Block Branch · · · · · · · · · · · · · · · · · · ·	
Nagoya Branch	
Toyota Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-565-74-1766
Mie Branch	
Hokuriku Branch····································	TEL: 81-76-263-1770
Kinki Block Branch·····	
Osaka Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-6-7639-0048
Keiji Branch · · · · · · · · · · · · · · · · · · ·	TEL: 81-77-511-3710

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#### [Laboratories and Others]

Iwatani R&D Center		
3-16, Tsugiya 3-chome, Amagasaki-shi, Hyogo 661-0965, Japan  Biwako Conference Center · · · · · · · TEL: 81-749-43-3000  1-1, Shinkaihama 2-chome, Hikone-shi, Shiga 521-1136, Japan		TEL: 81-6-7632-1177
1-1, Shinkaihama 2-chome, Hikone-shi, Shiga 521-1136, Japan		TEL: 81-6-7632-1181
Shiga Training Center · · · · · TEL: 81-749-43-3000	Diffusio comercine conten	TEL: 81-749-43-3000
	Shiga Training Center · · · · · · · · · · · · · · · · · · ·	TEL: 81-749-43-3000

#### [Major Affiliated Companies in Japan] I.TECH.SERVICE Corporation IWATANI-I-COLLECT Co., Ltd. Iwatani Agri Green Co., Ltd. Iwatani Liquefied Gas Terminal Co., Ltd.

Iwatani Cartridge Gas Corporation

Iwatani Industrial Gases Corp.

Iwatani Kanto Co., Ltd.

Iwatani Nagano Co., Ltd.

Iwatani Yamanashi Co., Ltd. Iwatani Tokai Co., Ltd.

Iwatani Mie Co., Ltd.

Iwatani Kinki Co., Ltd.

Iwatani Shimane Co., Ltd.

Iwatani Sanin Co., Ltd.

Iwatani Sanyo Co., Ltd.

Iwatani Kyushu Co., Ltd.

Iwatani Kagoshima Co., Ltd.

Iwatani Creative Corporation

Iwatani Camborough Co., Ltd.

Iwatani Kosan Corporation



KINSEI SERAMICS Co., Ltd. KINSEI MATEC Co., Ltd. Kouka Energy Company Incorporated KOHTAKI PRECISION MACHINE Co., Ltd. Kokusai Eisei Co., Ltd. SANYO AIR-CHEMICALS CORPORATION Shikoku Iwatani Sangyo Co., Ltd. Central Gas Center Co., Ltd. CENTRAL SEKIYU GAS CORPORATION Taniguchi Oxygen Industry Corporation Tango Gas Corporation Tokai Sangyo Co., Ltd. Tokico System Solutions, Ltd. Nishi-Nippon Iwatani Gas Corporation Nippon Gas Chemi Co., Ltd. Hydro Edge Co., Ltd. Higashi-Nippon Iwatani Gas Corporation FUIINOYUSUI CORPORATION Home Energy Hokkaido Co., Ltd. Home Energy Tohoku Co., Ltd. Home Energy Shutoken Co., Ltd. Home Energy Niigata Co., Ltd. Home Energy Nishi Kanto Co., Ltd. Home Energy Higashi Kanto Co., Ltd. Home Energy Nagano Co., Ltd. Home Energy Shizuoka Co., Ltd. Home Energy Tokai Co., Ltd. Home Energy Hokuriku Co., Ltd. Home Energy Kinki Co., Ltd. Home Energy Shikoku Co., Ltd. Home Energy Sanyo Co., Ltd. Home Energy Sanin Co., Ltd. Home Energy Kyushu Co., Ltd. Home Energy Minami Kyushu Co., Ltd. Marui Sangyo Co., Ltd. Minami-kyushu Marui Co., Ltd. YAMAGUCHI LIQUID HYDROGEN CORPORATION **UM System Corporation** YOKOHAMA LIQUEFIED GAS TERMINAL Co., Ltd., etc.

## Global Network As of September 30, 2022







#### [Asia]

£ 15.15.1
Iwatani Corporation Beijing Representative Office······TEL: 86-10-6590-6078
Iwatani (China) Ltd
Iwatani (China) Ltd. Shanghai Branch····· TEL: 86-21-6841-0899
Iwatani (China) Ltd. Guangzhou Branch······TEL: 86-20-3883-8998
Dalian Iwatani Trading Co., Ltd.·····TEL: 86-411-8369-1810
Dalian Iwatani Trading Co., Ltd. Tianjin Branch······TEL: 86-22-8319-1910
Shanghai Iwatani Co., Ltd
Shanghai Iwatani Co., Ltd. Beijing Branch · · · · · · · TEL: 86-10-6590-6078
Shanghai Iwatani Co., Ltd. Changzhou Branch · · · · · · TEL: 86-519-8333-7850
Shanghai Iwatani Co., Ltd. Wuxi Branch······TEL: 86-510-8050-2956
Wuxi Iwatani Trading Co., Ltd. · · · · · · · · TEL: 86-510-8050-2956
Wuhan Iwatani Commercial Trade Co., Ltd.····· TEL: 86-27-8761-7557
Xiaogan Iwatani Industrial Gases Co., Ltd.
Guangzhou Iwatani Trading Co., Ltd. · · · · · · · TEL: 86-20-3883-8998
Guangzhou Iwatani Trading Co., Ltd. Shenzhen Branch · · · · · · TEL: 86-755-8254-8452
Dandong Iwatani Toyo Gas Meter Co., Ltd. · · · · · · TEL: 86-415-425-0168
Iwatani Gas Appliances (Zhuhai) Co., Ltd. · · · · · · · TEL: 86-756-338-3200
Iwatani Gas Appliances (Zhuhai) Co., Ltd. Shanghai Branch · · · TEL: 86-21-6282-8852

Iwatani Gas Appliances (Zhuhai) Co., Ltd. Guangzhou Branch···TEL: 86-20-8765-8885 Iwatani Gas Appliances (Zhuhai) Co., Ltd. Wuhan Branch · · · · · · TEL: 86-27-8544-8830 Dalian Iwatani Gas Machinery Co., Ltd. · · · · · · TEL: 86-411-8761-1560 Shanghai Petrochem-Iwatani Gases Development Co., Ltd. · · · · · TEL: 86-21-5882-3300 Sydek Hang Fung Precise Package (Shanghai) Co., Ltd.·····TEL: 86-21-5866-6009 Sydek Hang Fung Precision (Suzhou) Co., Ltd.·····TEL: 86-512-6636-6806 Suzhou Iwatani Metal Products Co., Ltd. · · · · · · · TEL: 86-512-5311-8570 Tangshan Kinsei Matec Co., Ltd. · · · · · · · · · TEL: 86-315-385-3861 Suzhou Kinsei Matec Co., Ltd. .....TEL: 86-512-6665-7995 Zhongshan Iwatani Co., Ltd.·····TEL: 86-760-2361-8600 Zhongshan Iwatani Trading Co., Ltd. · · · · · · · · TEL: 86-760-2361-8600 Zhongshan Kasatani Co., Ltd.·····TEL: 86-760-2361-8608 Iwatani Corporation (Hong Kong) Ltd. · · · · · · · · TEL: 852-2199-7727 Sydek Hang Fung Trading Co., Ltd. · · · · · · TEL: 852-2635-9208 Iwatani Corporation (Taiwan) Ltd. · · · · · · · · · TEL: 886-2-2506-6955 Iwatani Corporation (Korea) Ltd. · · · · · · · · TEL: 82-2-753-8381 Iwatani Philippines, Inc. .....TEL: 63-917-838-1645 Iwatani Trading Philippines Inc.·····TEL: 63-917-838-1645

Iwatani Corporation (Singapore) Pte. Ltd. · · · · · · TEL: 65-6220-8347 Iwatani Corporation (Singapore) Pte. Ltd. Jurong Factory · · · TEL: 65-6862-2111 Iwatani Malaysia Sdn. Bhd. · · · · · · · · TEL: 60-3-2164-8660 Iwatani-SIG Industrial Gases Sdn. Bhd. · · · · · TEL: 60-86-255-339 Iwatani Corporation (Thailand) Ltd.·····TEL: 66-2-231-1764 Iwatani Corporation (Thailand) Ltd. Lamphun Branch · · · · · · TEL: 66-53-552-451 Iwatani Tomoe (Thailand) Co., Ltd. · · · · · · · TEL: 66-2-231-1764 Iwatani Gas and Machinery (Thailand) Ltd. · · · · · TEL: 66-2-231-1764 Iwatani Vietnam Co., Ltd. Ho Chi Minh City Branch · · · · · · TEL: 84-28-3821-7245 PT. Iwatani Indonesia····· TEL: 62-21-252-3450 PT. Iwatani Industrial Gas Indonesia······TEL: 62-21-890-4373 Iwatani India Pvt. Ltd. ..... TEL: 91-124-4555-666

Iwatani Corporation Perth Representative Office · · · · · · · TEL: 61-8-9439-8815

Iwatani Australia Pty. Ltd. Brisbane Office
Doral Mineral Sands Pty. Ltd. · · · · · · · TEL: 61-8-9725-5411
Doral Fused Materials Pty. Ltd.·····TEL: 61-8-9439-2236
Keysbrook Leucoxene Pty. Ltd.·····TEL: 61-8-6557-5340
[North America]
Iwatani Corporation of America······TEL: 1-713-965-9970
Iwatani Corporation of America California Branch · · · TEL: 1-669-236-4450
Advanced Specialty Gases·····TEL: 1-775-356-5500
[Europe]
Iwatani Corporation Europe Office · · · · · · · · TEL: 49-89-2370808-0
[Middle East]
Iwatani Corporation-Abu Dhabi·····TEL: 971-2-658-5701

Iwatani Corporation-Doha (QFC Branch) · · · · · · · TEL: 974-4431-3140

Gulf Helium Services W.L.L.·····TEL: 974-4427-1780

Iwatani Australia Pty. Ltd. · · · · · · · TEL: 61-8-9439-8815

## Gas Supply Network As of September 2, 2022

#### **LPG**

Primary terminals (import and storage terminals) 5 locations

Kashima L.P.G. Joint Stockpiling Co., Ltd. Kashima Plant Negishi Liquefied Gas Terminal Sakai LPG Terminal Nikko Liquefied Gas Co., Ltd. Mizushima Terminal Oita L.P.G. Joint Stockpiling Co., Ltd. Oita Plant

▲ Secondary terminals (LPG terminals) 3 locations

Yokohama Liquefied Gas Terminal\* Hirata LPG Terminal\* Okinawa LPG Terminal\*

Tertiary terminals (filling stations) 96 locations (locations marked with an \* are core LPG centers [56 locations])

Kitami LPG Center Kushiro LPG Center\* Tokachi LPG Center\* Ishikari LPG Center\* Hakodate LPG Center\* Goshogawara LPG Center Izu LPG Center Aomori LPG Center\* Noshiro LPG Center Akita LPG Center\* Morioka LPG Center\* Yamagata LPG Center\* Kesennuma LPG Center Furukawa LPG Center Sendai LPG Center\* Haramachi LPG Center Koriyama LPG Center\* Iwaki LPG Center Muikamachi LPG Center Kanuma LPG Center\* Oyama LPG Center\* Ibaraki LPG Center\*

Ryugasaki LPG Center\*

Sodegaura LPG Center\*

Maebashi LPG Center\*

Kawagoe LPG Center\*

Iwatsuki LPG Center\*

Tokyo LPG Center\*

Gyoda LPG Center\*

Chiba LPG Center\*

Odawara LPG Center\* Nagano LPG Center\* Matsumoto LPG Center Ueda LPG Center Iida LPG Center Shizuoka LPG Center\* Kakegawa LPG Center\* Kurobe LPG Center Toyama LPG Center Tono LPG Center\* Gifu LPG Center\* Okazaki LPG Center\* Yokkaichi LPG Center\* Ise LPG Center\* Wajima LPG Center Kanazawa LPG Center\* Komatsu LPG Center Fukui LPG Center\*

Akashi LPG Center

Himeji LPG Center Awaji LPG Center\* Tottori LPG Center Yonago LPG Center\* Tsuyama LPG Center Okayama LPG Center Bingo LPG Center Fukuyama LPG Center\* Higashihiroshima LPG Center Itoman LPG Center Etajima LPG Center Oda LPG Center Hamada LPG Center\* Masuda LPG Center Kudamatsu LPG Center Yamaguchi LPG Center\* Shodoshima LPG Center Sakaide Gas Center Tokushima LPG Center Kochi LPG Center\* Tsuruga LPG Center Matsuyama LPG Center Obama LPG Center Kokura LPG Center Kyoto Kita LPG Center Fukuoka Kita LPG Center Kyoto LPG Center\* Chikuho LPG Center\* Osaka Higashi LPG Center\* Fukuoka LPG Center\* Oita LPG Center\* Wakayama LPG Center Tanabe LPG Center Saga LPG Center\* Wadayama LPG Center Omura LPG Center\* Higashi Harima LPG Center\* Goto LPG Center\*

Kumamoto LPG Center\* Hitoyoshi LPG Center Miyazaki LPG Center\* Miyakonojo LPG Center\* Nichinan LPG Center Kagoshima LPG Center\* Chubu LPG Center\* Nishihara LPG Center\*

▲ Air separation plant Other ■ Liquid hydrogen production plants ▲ Compressed hydrogen production plants

Primary terminal

Tertiary terminal

▲ Secondary terminal

Integrated gas center

## **Industrial Gases**

▲ Air separation plants 9 locations

Akita Liquid Oxygen Industry Co., Ltd. Sendai Sanso Center Co., Ltd. Air Chemicals Corporation Kitsuregawa Plant Iwatani Industrial Gases Corporation Kofu Plant Hokuriku Air Chemicals Corporation Hydro Edge Co., Ltd. Cold Air Products Co., Ltd. Sanyo Air Chemicals Corporation Kyushu Cryogenics Co., Ltd.

Facilities, other 8 locations

Iwatani Industrial Gases Corporation Tokyo Helium Center Iwatani Industrial Gases Corporation Chiba Plant UBE Corporation Nagoya Ammonia Center Iwatani Industrial Gases Corporation Mie Plant Iwatani Industrial Gases Corporation Yokkaichi Plant Iwatani Industrial Gases Corporation Osaka Helium Center Sakai Carbonics

Iwatani Industrial Gases Corporation Himeji Plant

### Hydrogen

Liquid hydrogen production plants 3 locations

Iwatani Industrial Gases Corporation Chiba Plant Hydro Edge Co., Ltd. Yamaguchi Liquid Hydrogen Co., Ltd.

▲ Compressed hydrogen plants 8 locations

Chiba IS Suiso Co., Ltd.

Iwatani Industrial Gases Corporation Nagoya Plant Toso Daisui Co., Ltd. Yokkaichi Plant

Iwatani Industrial Gases Corporation Amagasaki Plant Iwatani Industrial Gases Corporation Mizushima Plant Iwatani Industrial Gases Corporation Nanyo Plant

Nanyo II Suiso Co., Ltd. Iwatani Industrial Gases Corporation Saga Plant

#### **Industrial Gases**

#### ■ Integrated gas centers 21 locations

Sendai Gas Center Korivama Gas Center Tsukuba Gas Center Tatebavashi Gas Center Kawagoe Gas Center INJ Gas Center Co., Ltd. Tokai Sangyo Co., Ltd. Shonan Gas Center Shizuoka Gas Center Co., Ltd. Iwatani Hokuriku Gas Center Co., Ltd. Iwatani Industrial Gases Corporation Komatsu Plant Iwatani Industrial Gases Corporation Okazaki Plant Iwatani Industrial Gases Corporation Uii Plant Iwatani Industrial Gases Corporation Amagasaki Plant Hyogo Gas Center (Oookasansosyokai Corporation Himeji Plant) Iwatani Industrial Gases Corporation Hiroshima Plant Ube Gas Center Shikoku Iwatani Sangyo Co., Ltd. Sakaide Plant Iwatani Industrial Gases Corporation Kitakyushu Plant Iwatani Fukuoka Gas Center Co., Ltd.

Iwatani Kumamoto Gas Center Co., Ltd

Yamaga LPG Center

Iwatani Industrial Gases Corporation Mie Plant



home, Chuo-ku, Osaka 541-0053, Japan TEL:81-6-7637-3131 shi 3-chome, Minato-ku, Tokyo 105-8458, Japan TEL:81-3-5405-5711

Iwatani Corporation Website





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