

Challenge and Support for GX in Sapporo and Hokkaido

~ With an entrepreneurial spirit ~

Meeting society's needs with nature's blessings.



2024.10.9
AIR WATER INC.

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Corporate Director, Senior Managing Executive Officer
In Charge of Gas manufacturing and Engineering
Shigeki Otsuka

Date of birth

Born on October 12, 1961 .

Career Summary

April 1984 Joined Kansai Electric Power Co.

May 2020 Advisor, AIR WATER SAFETY SERVICE INC.

June 2021 President, AIR WATER CRYOPLANT,LTD.

June 2023 Corporate Directors, Managing Executive Officer, AIR WATER INC.

In Charge of Gas manufacturing and Engineering, Global & Engineering
General Manager, Engineering Center,
President, AIR WATER ENGINEERING INC.

June 2024 Corporate Director, Senior Managing Executive Officer
In Charge of Gas manufacturing and Engineering, Global & Engineering
General Manager, Engineering Center

Company Profile/History

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(As of March 31, 2024)

Company name	AIR WATER INC.
Listed exchanges/ stock code	TSE Prime and Sapporo Securities Exchange (4088)
Established	September 1929
Head Office Location	Chuo-ku, Osaka
Capital stock	55.9 billion yen
Revenues (Consolidated)	1,024.5 billion yen
Number of consolidated companies	185 companies
Number of employees (Consolidated)	20,348 Employees
Number of shares per unit	100 shares
Corporate Bond Rating	AA- (JCR)



1929 Hoxan

Established:
Sapporo City

Company name was
changed from "Hokkai
Sanzo" to "Hoxan" in 1962.



1933 Daido Sanzo

Established:
Osaka City

※ "Sanzo" means oxygen in Japan



**1962 Kyodo
Oxygen**

Established:
Wakayama City
(Established as an
oxygen manufacturing
company for Sumitomo
Metal Industries)

1993 Daido Hoxan

2000 Air Water Inc.

We are the second largest company
in Japan's industrial gas industry.



Performance since the inception of Air Water

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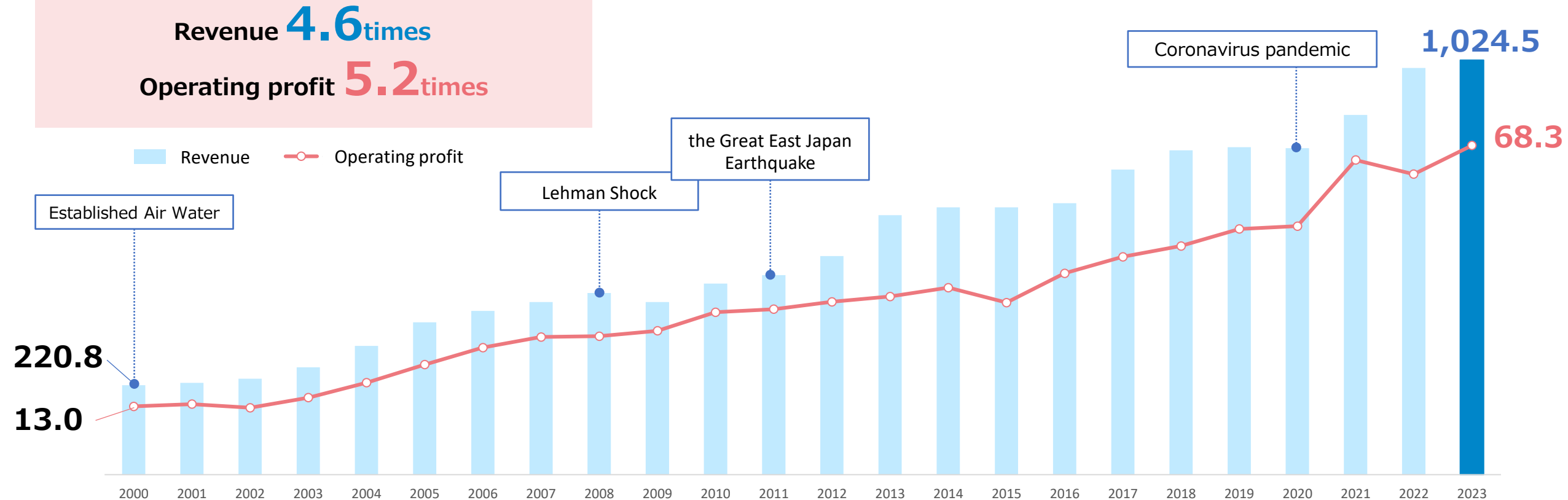


From Air Water's inception to FY 2023

Revenue **4.6times**

Operating profit **5.2times**

(Unit : Billion yen)



*IFRS accounting has been applied since FY2019. Up to FY2018, net sales and ordinary income (Japanese GAAP) is shown

What is Industrial Gas ?

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Industrial gas manufacturing



Gas manufacturing plants
(Located all over Japan)



Industrial gas supply

On-site supply

Connect the pipes directly and send the gas to the factory.



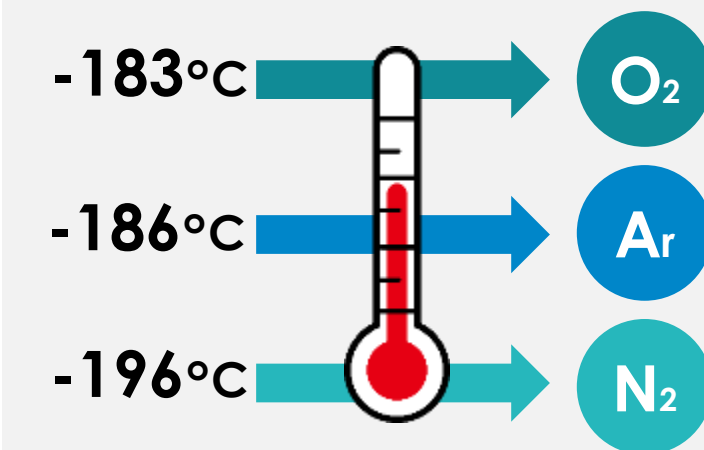
Lorry supply

Transport gas to the factory by tank lorry.



Cylinder supply

Fill gas into gas cylinders and transport.



Using the difference in the boiling points taking out oxygen, nitrogen, and argon

Portfolio and our Goals

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Global environment



Social Issues Solving Company

New fields driving future growth

(Climate change)

(Change in food situation)

Wellness



Developing business related to industrial gases

Digital & Industry

Health & Safety



Energy Solutions

Agriculture & Foods



(The roots of our business)

Industrial gases

Strengthening overseas and in semiconductors

A large, dark blue geometric shape, resembling a stylized arrow or a folded piece of paper, points from the top left towards the bottom right. It features a fine, light blue dot pattern. The shape has multiple overlapping layers, creating a sense of depth. The text is written in white on the upper part of this shape.

Toward Achieving Sustainable Society -Effort to GX -

Hydrogen-Related Business Utilizing Technology and Expertise

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Efforts in the U.S.

- Developing a manufacturing and sales business of hydrogen-related equipment in the U.S.
- Aiming to establish a hydrogen manufacturing and supply business for mobility in the U.S., where hydrogen technology is advanced.



Hydrogen-related equipment

Selling hydrogen-related equipment (liquid hydrogen tanks and hydrogen trailers/rechargers*)



Hydrogen station

Investing in FirstElement Fuel, Inc., which operates hydrogen stations in California, U.S.

※Recharger is a mobile hydrogen station that can both transport hydrogen and fill up with hydrogen gas

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Efforts in Japan (Hokkaido)

- Developing industrial hydrogen business and aiming for manufacturing CO2-free hydrogen based on the hydrogen production base.
- Accelerating technical demonstrations in anticipation of increased demand for hydrogen in energy applications.



Shikaoi Hydrogen Farm Co.

Japan's only hydrogen manufacturing and supply business using biogas derived from livestock manure



CO2-free hydrogen

Selected by NEDO, began a demonstration experiment for manufacturing hydrogen without direct CO2 emissions.

※The image above is a natural gas extraction plant in Toyotomi Town, Hokkaido, where the hydrogen manufacturing facility is scheduled to be installed.

Features of the North American market

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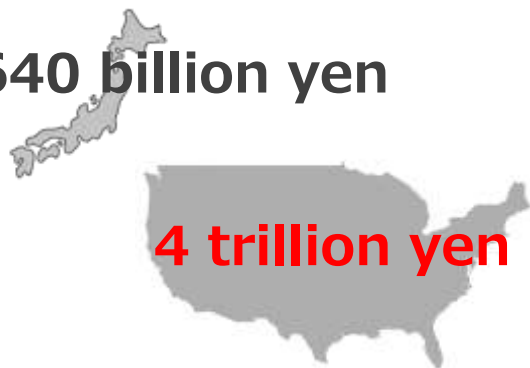


Features of the North American market



Huge industrial gas market

640 billion yen



4 trillion yen

Industrial gas market *1

New Market (Semiconductor/CN)

OInfrastructure Investment and Employment Act

(public infrastructure, CN, etc., **82** trillion yen)

OInflation Reduction Act

(clean energy, **55** trillion yen)

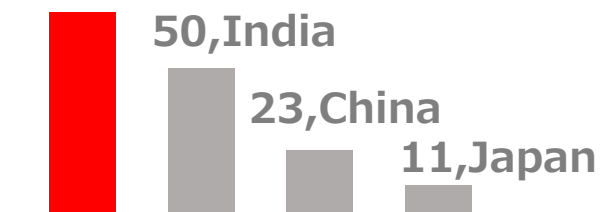
OCHIPS Acts

(Semiconductor related investment, **42** trillion yen)

U.S. Government Assistance
(recipient/budget)

Advanced Technology and expertise

70, North America



Number of startups (thousand)*2

**Entering the North American market
with our unique business model and technology**

Expanding the Hydrogen Business in California

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■ Manufacturing and sales of hydrogen-related equipment



Manufacturing and sales of liquefied hydrogen tanks, trailers, and rechargers

- Low equipment cost
- Portable
- Short construction time

►► **The most important solution in the initial stages of FC mobility**

■ Investment in FEF (world's largest operator of hydrogen stations) ►►

Invests in FirstElement Fuel, Inc. which operates hydrogen stations in California



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■ Hydrogen Station Map (California)

Auckland
Hydrogen ST for commercial vehicles



Livermore
Hydrogen Hub



Head Office/development and maintenance center



California

Number of hydrogen ST **41** locations

Liquefied hydrogen sales about **5** tpd volume

● : FEF Hydrogen Station

Returning acquired technology and expertise to Japan in the future

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Hydrogen Users
(Emerging
companies)

 **Plug Power**



FC Fork Related

 **FirstElement**



Hydrogen ST Business

 **Nikola**



FC truck manufacturing

Investment and Financing

Plug : Tank and trailer leasing
Nikola : Recharger leasing
FEF : Preferred stock investment
Trailer leasing etc.

Supporting the market both
technologically and financially



Providing cryogenic equipment and technology

**Tank/Trailer/Recharger/
Loss Reduction/ST Operation**



Catch up on trends and connect them to growth in
both technology and business



**Return technology and
expertise to Japan etc.**

Liquefied hydrogen manufacturing and supply business

Considering investment around
2027.



Develop markets and technologies through collaboration with emerging companies.
Start hydrogen business in the market expansion period, and
Return the acquired technology and expertise to Japan.

Movement toward realization of GX in our country

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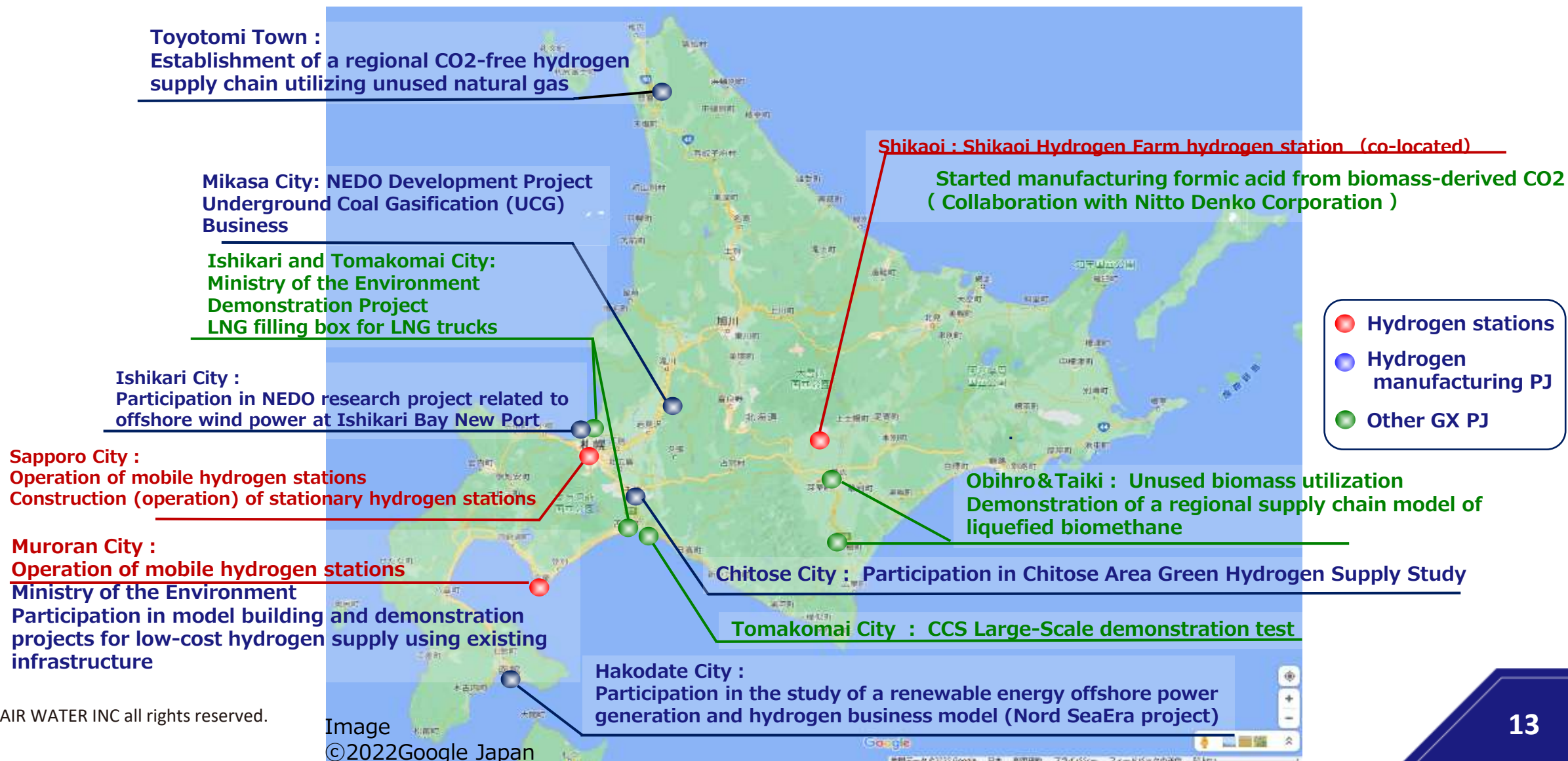


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- A large, light green arrow pointing downwards, indicating a timeline or progression.
- Oct. 2020 Then-Prime Minister Suga declared that Japan would achieve net-zero greenhouse gas emissions by 2050."
 - Dec. 2020 Ministry of Economy, Trade and Industry formulates **"Green Growth Strategy"** focusing on 14 key areas.
 - Mar. 2021 Created a **"Green Innovation Fund"** totaling 2 trillion yen within NEDO
 - Feb. 2022 Ministry of Economy, Trade and Industry releases **"GX League Basic Concept"** (starting from FY2023)
 - Feb. 2023 **"Basic Policy for Realization of GX"** was approved by the Cabinet.
 - May.2023 **"GX Promotion Act"** is enacted as part of a broader decarbonization strategy.
 - May.2024 **"Hydrogen Society Promotion Act"** and **"CCS Business Act"** are enacted.
 - May.2024 **"GX Acceleration Agency"** was established as a core organization to promote GX through public-private partnership and started operation in July.

Movement toward realization of GX in Japan

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Case Study in Hokkaido (Hydrogen and Biomethane from Cow Manure)

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Hydrogen supply chain utilizing hydrogen derived from livestock manure (Shikaoi) **【World's first】**



Shikao Biogas Plant



Shikaoi Hydrogen Farm



More than 20 FCVs are on the road.



Biomethane supply chain derived from livestock manure (Tokachi Region) **【Japan's first】**



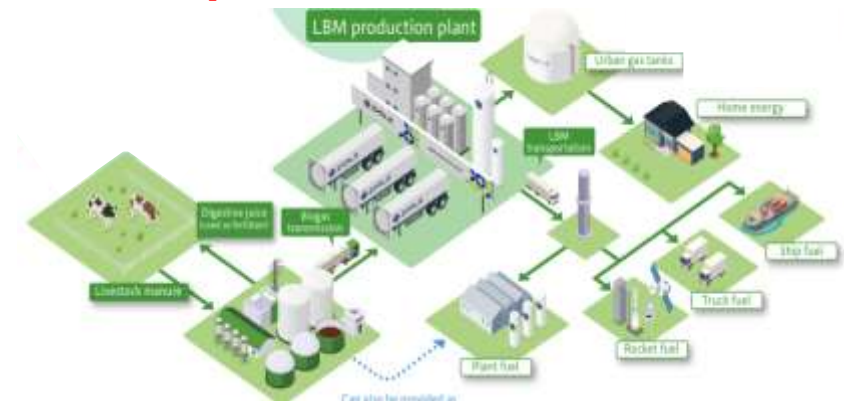
gather biogas derived from livestock farmers' manure



Manufacturing plant



Rocket launch Fuel



Case Study in Hokkaido (Manufacturing of hydrogen, Hydrogen station)

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Demonstration of CO2-free hydrogen manufacturing technology (Toyotomi Town) **【Japan's first】**



Natural gas extraction plant



Hydrogen plant under construction

Hydrogen supply demonstration using existing infrastructure (Muroran City)

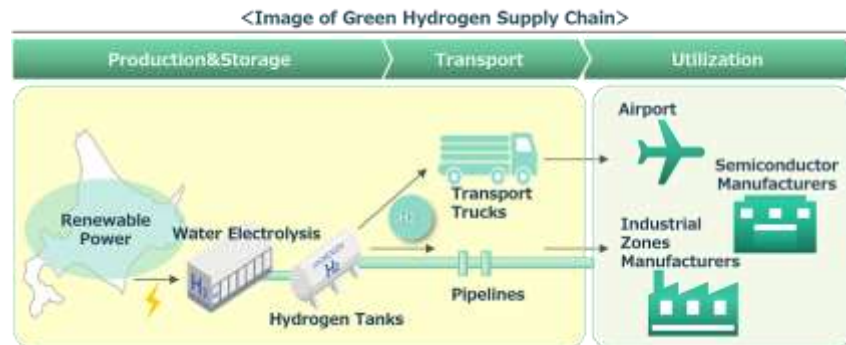


Manufacturing green hydrogen from wind power plant electricity



Utilizing LP gas distribution network

Examination of green hydrogen supply (Sapporo City, Chitose City, etc.)



Joint Discussions on Green Hydrogen Supply in Hokkaido's Chitose Area

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Hydrogen stations (Sapporo, Muroran, and Shikaoi)



AIR WATER
Hydrogen Station Sapporo



Muroran City
Hydrogen Station **Kujiran**

Sapporo City

Stationary hydrogen station, hydrogen district, deregulation

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Center of Sapporo (along Route 12) Constructed in the Hydrogen Model District



Sapporo and Hokkaido Business Potential

Opportunities and Potential around Sapporo and Hokkaido

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The best renewable energy potential in Japan

- Japan's greatest renewable energy potential in wind, solar, hydro, geothermal, etc.
- Establish an innovative energy system, such as hydrogen, CCUS*, and energy storage technology.

*CCUS : Carbon dioxide Capture, Utilization and Storage



Progress in the location of next-generation of semiconductor manufacturing companies and data centers

- Cool climate, large land area, and renewable energy sources lead digital industries to locate in the area.
- Concentration of science-related human resources and IT industry leads to the development of next-generation industries.



Role as a Japanese food supply base and a choice of tourist destination around the world

- The agriculture, forestry, fisheries, food, and tourism industries link together to drive the economy as key industries.
- Create a social space where the "Hokkaido Brand" attracts a wide variety of people.



Front runner in advanced problem-solving regions

- Population decline and depopulation 10 years earlier than the rest of the Japan
- A large challenge field with a lot of room for solving social issues.



Efforts to create social issue-solving businesses

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The Forest of Air Water (near Souen Station, Sapporo)

**Scheduled to open in
December 2024**



Providing a place to create “new businesses” through new ideas and collaboration. Challenging a system to solve social issues through business.

Air Water will become a hub for creating innovation with advanced companies, research institutes, local governments, and educational institutions. Also provide opportunities for business creation in Sapporo and Hokkaido .

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Hometown Support H (Eichi) Program



※ “Eichi” means wisdom or intelligence in Japan

Donate a total of 1 billion yen to local governments in Hokkaido by 2030. Supporting efforts to solve some local issues.

Backed by an entrepreneurial spirit,
we dedicate ourselves and our resources to
the creation and development of businesses linking
air, water and the earth.

The origins of the AIR Water Group's business can be found in its name, which consists of two words: "air" and "water."

We make use of the resources of our precious earth to create businesses and contribute to society and everyday life.

Amid a business environment that continues to change at a dizzying pace, we will continue to leverage the Group's collective capacities to tackle problems faced by our customers and society, and will rise to the challenge of creating new value.

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