

NSHD
We enable a carbon
neutral world



NIPPON SAN SO HOLDINGS

Web IR Conference on Sustainability initiatives

December 6, 2023
Tokyo, Japan

The Gas Professionals

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● Financial information

NSHD’s financial statements are prepared in accordance with international Financial Reporting Standards (“IFRS”).

Contents

1. **Sustainability Management Strategy**
2. **Measures to achieve Non-financial KPI**
3. **Business Opportunities in Carbon Neutrality**

Appendix

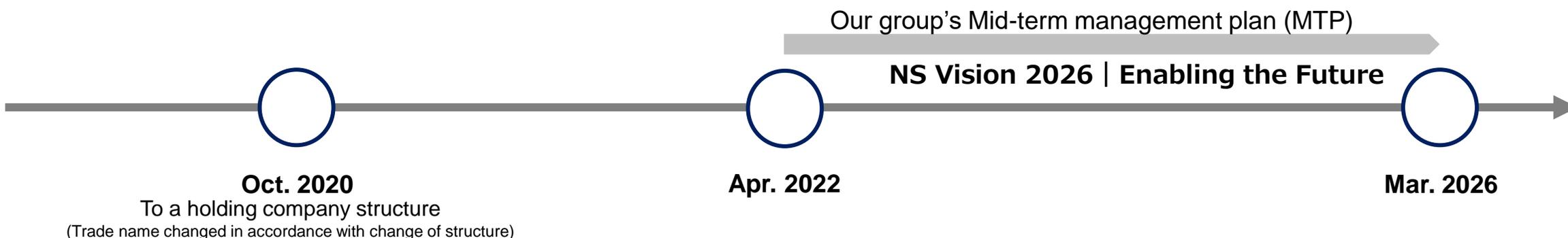
(Information)

In this slide deck, the term "Carbon Neutrality (Neutral)" appears frequently, so the abbreviation "CN" is used for the sake of readability and visibility. Please be aware of this in advance.

Opening remarks

1. Sustainability Management Strategy

Enhancing Corporate value through Sustainability orientation



Apr. 2015
CSO* appointed
(* Chief sustainability Officer)
Formulated materiality

Dec. 2018
Acquisition of European operations

Feb. 2019
Acquisition of U.S. HyCO business

Nov. 2019
Started disclosing information via website, etc., in support of TCFD.

Jul. 2020
Started our independent response to CDP

Feb. 2021
Establishment of corporate philosophy, vision, code of conduct and policies

Nov. 2021
Reinforcement of internal sustainability management system
(Group Sustainability Management Office established)

Dec. 2021
Updated our Materiality

Jan. 2022
Signed the United Nations Global Compact (UNGC)

Jun. 2021 and Jun. 2022
Review of Board composition

Jul. 2023
Launch of Sustainable Development Committee

May 2022
MTP 「NS Vision 2026」 released

● **Launch of Eight non-financial programs**

1. **CNP I** : Carbon Neutral Program I
2. **CNP II** : Carbon Neutral Program II
3. **ZWP**: Zero Waste Program
4. **SWP**: Sustainable Water Program
5. **SFP**: Safety First Program
6. **QRP**: Quality Reliability Program
7. **TDP**: Talent Diversity Program
8. **CPP**: Compliance Penetration Program

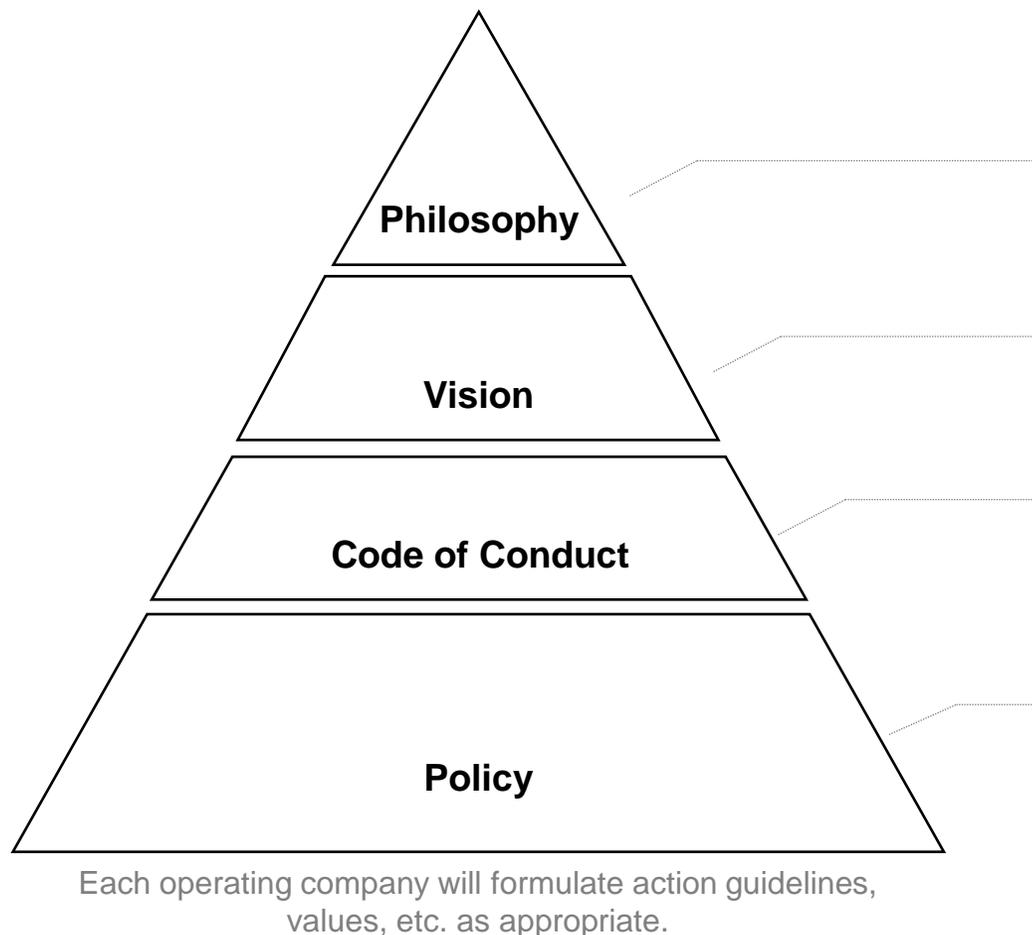
● **Establishment and disclosure of non-financial KPI (see following pages)**

● **Publication of TCFD Scenario Analysis Results**

Laying the foundation for Sustainability Management

Our Group's Philosophy System

(established in Feb. 2021)



Proactive. Innovative. Collaborative.
Making life better through gas technology.
The Gas Professionals

We aim to create social value through innovative gas solutions that increase industrial productivity, enhance human well-being and contribute to a more sustainable future.

The contents of the Charter of Corporate Behavior (Keidanren) are largely covered in our Code of Conduct. Therefore, rather than establishing a new "Charter of Corporate Behavior," we have reviewed the current Code of Conduct, taking into account recent social trends.

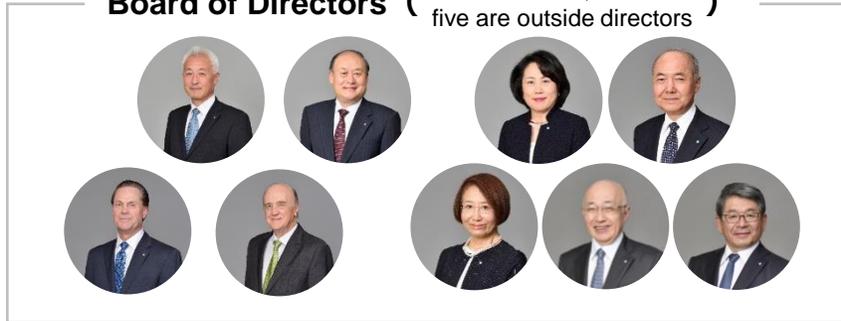
12 policies developed for disclosure

- Anti Corruption Policy
- Environmental Policy
- Occupational Safety and Health/ Industrial Safety and Disaster Prevention Policy
- Product Safety and Quality Policy
- Intellectual Property Policy
- Procurement Policy
- Global Policy on Respecting Human Rights, Contributing to Communities, Employment, Labor and Health
- Global Competition Law Compliance Policy
- Global Tax Policy
- Investor Relations (IR) Policy
- Information Security Policy
- Internal Audit Policy

To operate as a unified group

Sustainability Management and Operating Structure

Board of Directors (Nine Directors, five are outside directors)



Supervision

Representative Director, President CEO



* Once a year in principle

Management Committee

(Once a month in principle)

The committee deliberates and makes decisions on important matters related to the execution of duties by the Representative Director, President CEO.

Global Strategy Review Committee*

Global Risk Management Committee*

Global Compliance Committee*

Group Sustainability Management Office (GSMO)



CSO

Sustainable Development Committee

Technological Risk Liaison Committee

Meeting between NSHD and each operating company to determine specific measures to be taken

Japan / US / Europe / Asia & Oceania / Thermos

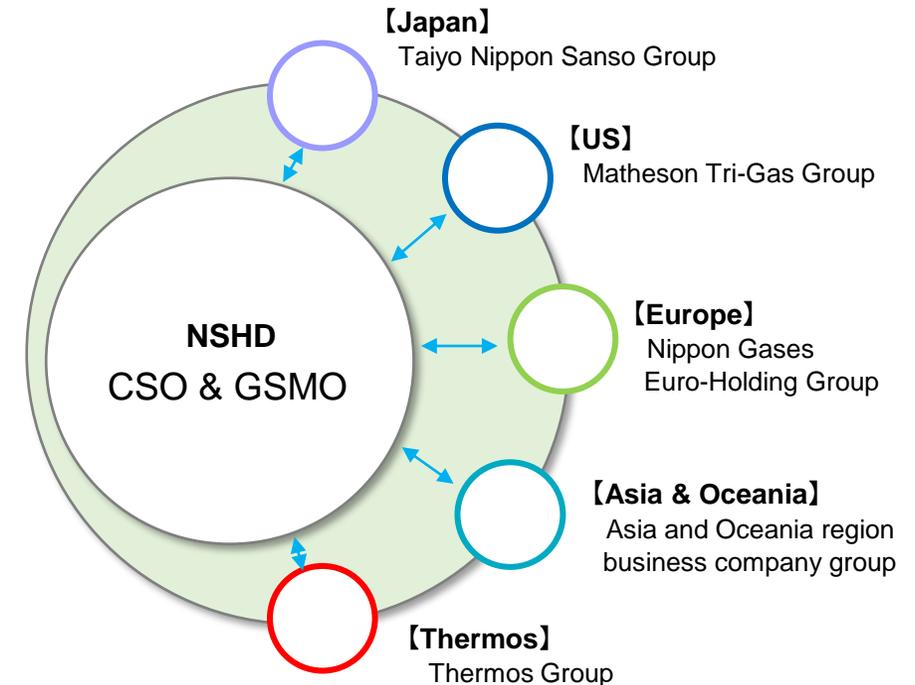
Reporting

Reporting

Major Non-financial matters & agendas for reporting and consideration in the Board of Directors (FYE2023)

- Development of Non-financial KPI
- CDP response policy
- Non-financial KPI-linked bonuses for Officers
- Non-financial program progress of each operating company
- Risk management for global environment issues

Group companies Close collaborative relationship



Collaboration



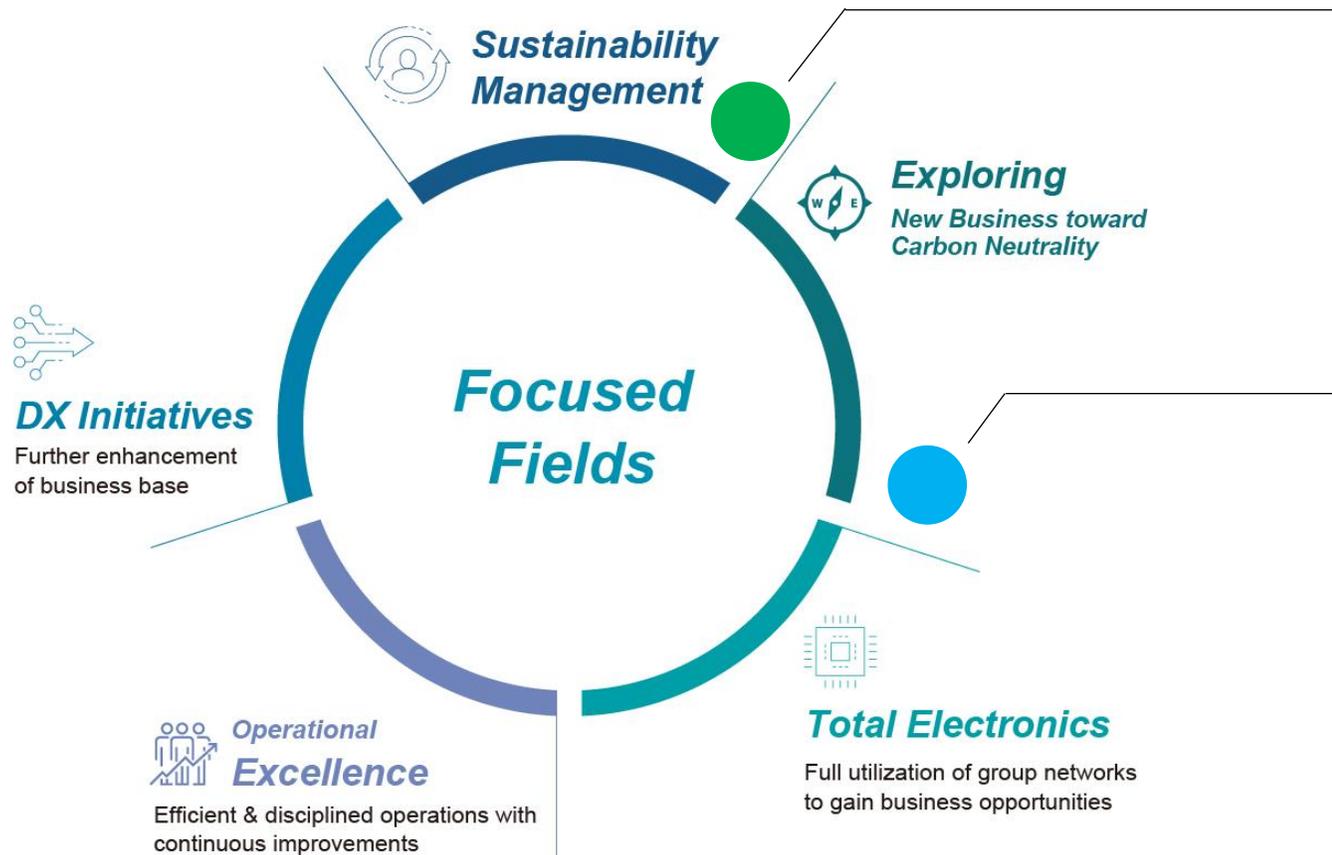
NIPPON SANSO HOLDINGS

Implement the five focused fields

Our Medium-Term Management Plan

NS Vision 2026

Slogan
: **Enabling the Future**



2. Measures to achieve Non-financial KPI

Explainer: Toshifumi Abe, General Manager



Sustainability Management,
Group Sustainability Management Office,
NIPPON SANZO Holdings Corporation

3. Business Opportunities in Carbon Neutrality

Explainer: Tomoki Nakamura, General Manager



Corporate Planning,
Group Corporate Planning Office
NIPPON SANZO Holdings Corporation

Eight Non-financial programs & NS Vision 2026 Non-financial KPI

	Non-Financial Programs	Non-Financial KPIs	NS Vision 2026 Final-Year Targets (FYE2026)	FYE2023 Results
E	Carbon Neutral Program I Reduce the Group's GHG emissions	Reduction rate of GHG emissions *1	18%	12.3%
	Carbon Neutral Program II Reduce customer GHG emissions through environmental product offerings and applications	Lower customer GHG emissions	Lower customer GHG emissions through environmental product offerings and applications > NSHD Group GHG emissions	7,308 > 5,868,000 t-CO ₂ e
	Sustainable Water Program Effective use of water resources	Reduction rate of water withdrawals intensity, etc.	-	-
	Zero Waste Program Reduction in waste emissions	Reduction rate of waste disposal intensity, etc.	-	-
S	Safety First Program Reduction in lost time injury rate	Lost time injury rate *2	≤ 1.6	1.56
	Quality Reliability Program Reduction in number of claims about products, offerings and applications	Number of product complaints, etc.	-	-
	Talent Diversity Program Utilization of diverse talent	Rate of female employees	≥ 22%	19.9%
Rate of female management posts		≥ 18%	14.5%	
G	Compliance Penetration Program Compliance education and enforcement	Rate of receiving compliance training	100%	99.7%

*1 Reduction targets for a fiscal year are set with reference to the base year of FYE2019, with figures adjusted to reflect the acquisition of the European industrial gases business.

*2 This is an indicator that represents the frequency of occupational accidents. It is calculated as the number of employees injured in accidents that resulted in lost work time, divided by the total number of work hours, multiplied by one million hours.

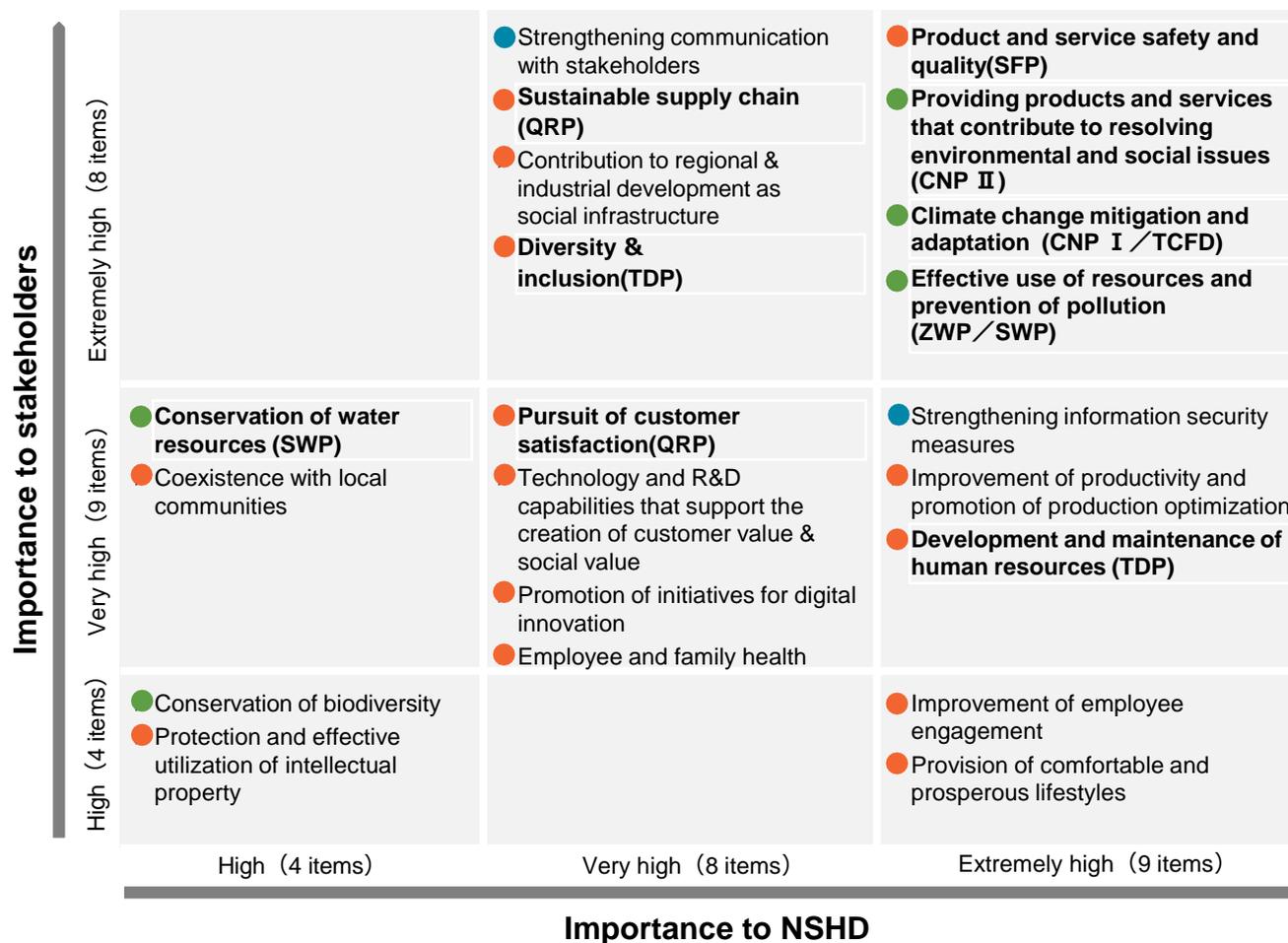
Relationship between Materiality & Eight Non-financial programs

Materiality (24 items)

Preconditions for the Enterprise Existence
(3 items)

- Respect for Human Rights (UNGC)
- Safety & Security (SFP)
- Corporate Ethics (CPP)

● related to the global environment ● related to social systems ● related to the Company and its organizational structure



● Eight Non-financial programs

1. **CNP I** : Carbon Neutral Program I
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3. **ZWP**: Zero Waste Program
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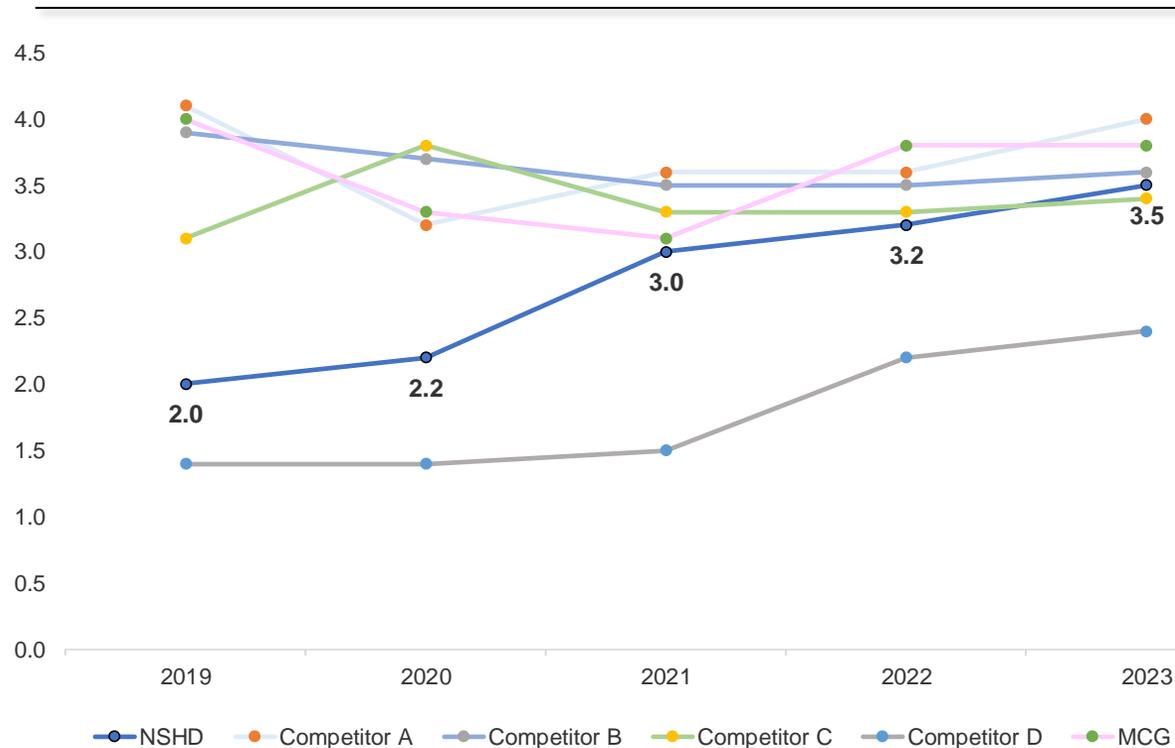
(Supplementary information)

- UNGC** : United Nations Global Compact
- TCFD** : Task Force on Climate-Related Financial Disclosures

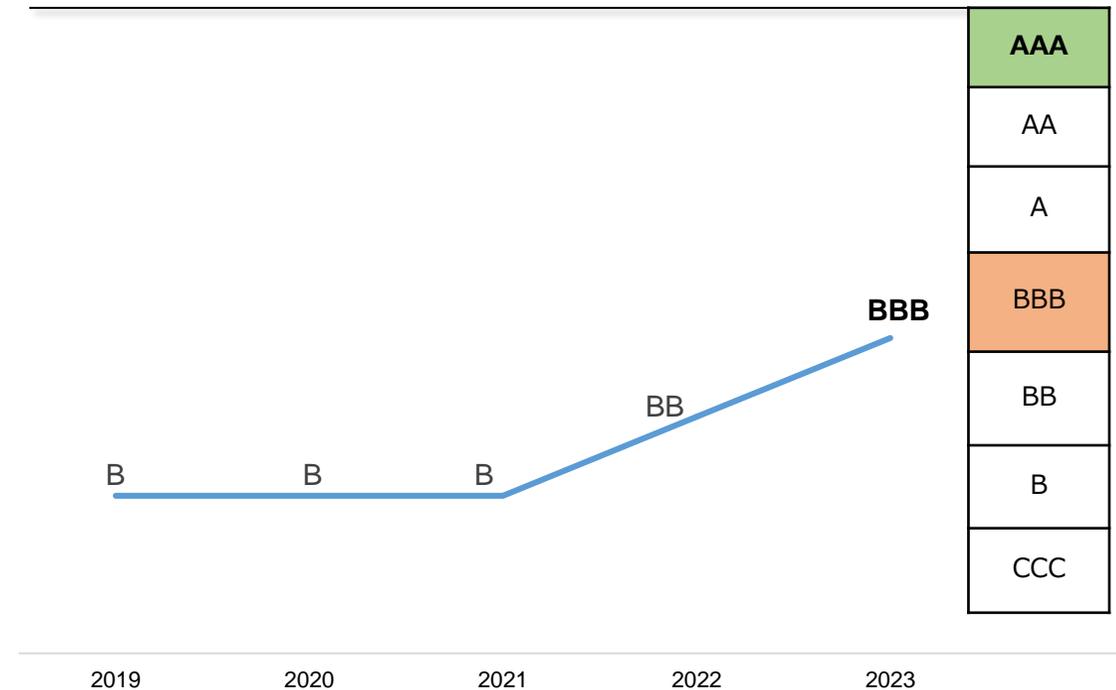
* This materiality is an updated version of the 2015 version, which was reviewed internally and approved by the Company's Board of Directors in Dec. 2021.

Non-financial related external evaluations (FTSE/MSCI)

FTSE Russell's ESG Ratings



MSCI



- Selected as constituent for “FTSE4Good Index Series”, “FTSE Blossom Japan Index” and “MSCI Japan Empowering Women (WIN) Select Index”
- Acquired “Star 4” in Nikkei SDGs Management Survey of FYE2023”

* MCG : Mitsubishi Chemical Group Corporation (Mitsubishi Chemical Holdings Corporation changed of trade name to Mitsubishi Chemical Group Corporation effective on July 1, 2022)

2. Measures to achieve Non-financial KPI

CNP I : To reduce the Group's GHG emissions through our own efforts (1/2)

(Carbon Neutral Program I)

Aiming for CN by 2050

Achieving CN through Technological breakthrough



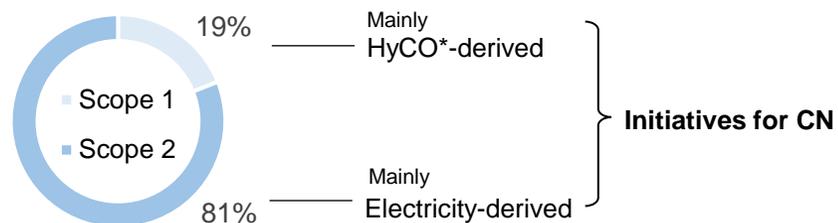
GHG emissions reduction target (Base year: FYE2019*)
(Greenhouse gas)

FYE2026: 18% down, FYE2031: 32% down

*Reduction targets for a fiscal year are set with reference to the base year of FYE2019, with figures adjusted to reflect the acquisition of the European industrial gases business.

Scenarios for achieving goals

● Composition of GHG emissions of our group (FYE2023)



Changes in power supply configuration are very relevant to GHG emissions

Estimates based on IEA emission factor projections

Source: IEA Carbon intensity of electricity generation in selected regions in the Sustainable Development Scenario, 2000-2040

*HyCO stands for hydrogen (H₂), carbon monoxide (CO), and syngas products.

Our measures

Further promotion of energy conservation & efficiency of energy use - Reduced energy consumption

- ① Replacement of Air Separation Units (ASUs)
- ② Reduction of electricity usage through digital solution technologies
- ③ Streamlining of logistics and review of transport

Promotion of the use of renewable energy and green power

- Green Electricity Procurement
- ① Switch to electricity companies with low emissions coefficients
- ② Purchase green power certificates
- ③ Introduce renewable energy

Carbon capture and offsets - Consideration of CCUS implementation

- ① Promote CO₂ capture
- ② Carbon offset through new technology, forest conservation, and tree-planting activities, etc.

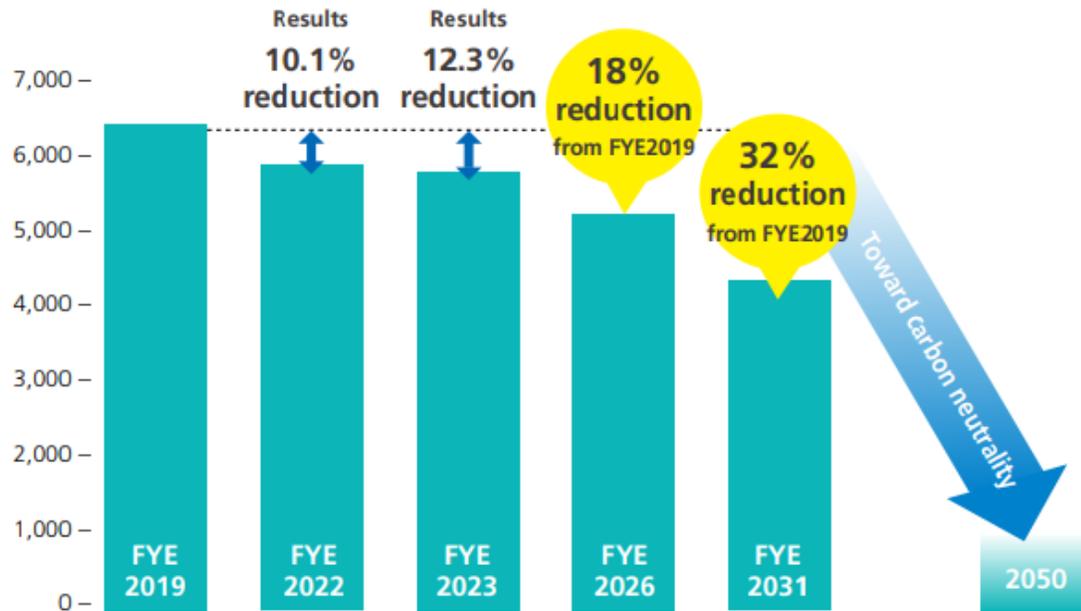
CNP I : To reduce the Group's GHG emissions through our own efforts (2/2)

(Carbon Neutral Program I)

《Initiatives》

GHG Emission Reduction Targets

GHG emissions (Thousands of tonnes CO₂e)



* FYE2019 reference year: Addition of GHG emissions at U.S. HyCO business, European business, U.S. transportation, Asia and Oceania transportation, U.S. subsidiaries (CCPI: Continental Carbonic Products, Inc., Western: Western International Gas & Cylinders, Inc.) to actual emissions in FYE2019
 FYE2022: Addition of GHG emissions at U.S. subsidiaries (CCPI, Western)

Main factors of GHG Emission reduction

- Purchase green power certificates (Guarantee of Origin)
- Replacement of air separation units and reduction of electricity usage through digital solution technologies

Continuous initiatives for further reduction

- Expand above initiatives across the Group
- Switch to electricity companies with low emissions coefficients
- Introduce renewable energy

CNP II : To reduce GHG emissions of our customers through the promotion of our products (1/2)

(Carbon Neutral Program II)

Contribute to the reduction of global GHG emissions through the Group's products and technologies



X: Lower customer GHG emissions through environmental product offerings and applications
Y: NSHD Group GHG emission (Scope 1 + 2)
FYE2026: X > Y

Scenarios for achieving goals

External environment

Social demands from the perspective of global environmental protection

Working toward Net Zero is a corporate imperative.

Technological evolution on the customer side

**Drive toward carbon neutrality at our group's customers
Dramatic technological development and rapid replacement of existing technologies**

Our measures

Contribution by the Group's existing technologies

- ①Oxygen-enriched combustion in blast furnaces
- ②H₂ and NH₃ combustion in industrial furnaces
- ③Carbon capture and utilization (on a small scale)

Expansion of the Group's contribution area

- ①Areas of contribution other than the above existing technologies
(In addition to in-house R&D, mutual collaboration with other companies through strategic alliances, etc.)
- ②Carbon capture and utilization (on a large scale)

CNP II : To reduce GHG emissions of our customers through the promotion of our products (2/2)

(Carbon Neutral Program II)

《Results》

Carbon Neutral Program II

Realize a Reduction in GHG Emissions through Environmental Products, Offerings and Applications

GHG Emission Reduction Contribution		
FYE2023	Total: 7,308 thousands of tonnes CO ₂ e	
	Products and services 3,556 thousands of tonnes CO ₂ e	Industrial gases 3,752 thousands of tonnes CO ₂ e
FYE2022	Total: 6,865 thousands of tonnes CO ₂ e	
	Products and services 3,176 thousands of tonnes CO ₂ e	Industrial gases 3,689 thousands of tonnes CO ₂ e
FYE2021	Total: 5,066 thousands of tonnes CO ₂ e	
	Products and services 2,892 thousands of tonnes CO ₂ e	Industrial gases 2,174 thousands of tonnes CO ₂ e

GHG emissions of NSHD group (Scope 1+2)
FYE2023: 5,868,000 t-CO₂e

Contribution to GHG emission reduction through products and services using the NSHD Group's proprietary technologies

- Combustion-type exhaust gas abatement system
- SF₆ recovery service
- SCOPE-Jet[®]
- MG Shield[®]
- New refrigerants
- Nitrogen gas supply system for laser processing (PSA)
- Shuttle Chef[®]
- Hydrogen station
- Oxygen-enriched combustion in blast
- Oxygen-enriched electric furnaces
- Argon (Ar) welding

ZWP: To preserve the global environment

(Zero Waste Program)

Zero Waste Program

Aiming to reduce waste emissions

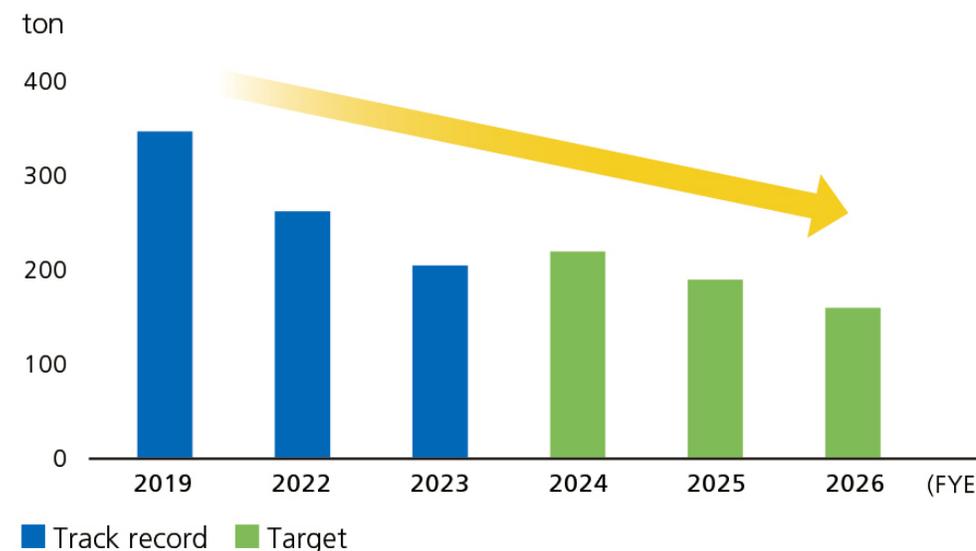
Following the 3R's (Reduce, Reuse, Recycle) of waste disposal is a necessary, and we will work on proper management and recycling of waste to reduce emissions and build a resource cycle.

< Initiatives in the Japan Segment >

We started HALD (Halve Amount of Landfill Disposal) to halve the amount of industrial waste generated by the Japan Segment for landfill disposal by FYE2026.

《Results》

Amount of Landfill Disposal (Japan segment)



SWP: To preserve the global environment

(Sustainable Water Program)

Sustainable Water Program

Aiming to minimize water risk

Effective use of water resources is a must, and we aim to conserve water resources in our corporate activities through efficient use of water.

Identify water risks and implement measures for high-risk sites

- Conduct an annual water stress survey using Aqueduct, a water risk assessment tool developed by the World Resource Institute, to identify production plants (ASU and HyCO plants) in high-risk areas.
- In production plants in high-risk areas, work to reduce water withdrawal and consumption by increasing the amount of water circulated, etc.

《Results》

Results of Water Stress Level Survey for all of NSHD's production sites (130 sites)

Upper level: Water usage (thousand m³), lower level: Number of applicable / production sites

	High	High-medium	Medium	Medium-low	Low
Japan	0 (0/24)	0 (0/24)	1,814 (6/24)	4,756 (15/24)	434 (3/24)
US	833 (5/51)	355 (3/51)	1,579 (14/51)	598 (5/51)	4,931 (24/51)
Europe	783 (7/29)	24 (1/29)	8,876 (8/29)	252 (3/29)	14,900 (10/29)
Asia & Oceania	194 (4/24)	145 (1/24)	733 (5/24)	609 (6/24)	1,917 (8/24)
Thermos	0 (0/2)	0 (0/2)	0 (0/2)	67 (1/2)	132 (1/2)
Total	1,810 (16/130)	524 (5/130)	13,002 (33/130)	6,282 (30/130)	22,314 (46/130)

• Data as of FYE2023

• Reporting boundary: Production sites with ASU, HyCO, or liquid carbon dioxide facilities with annual water withdrawal of 20,000 m³ or more and Thermos

SFP: Ensure the safety of our workforce

(Safety First Program)

Safety First Program

Aiming to be a global leader in the industrial gas industry through safety



FYE2026 : Lost Time Injury Rate ≤ 1.6

Safety is the foundation of our company's existence, and in the spirit of **"Selling gases is Selling safety."**, we will strive to maintain a safe and stable supply by further promoting safety.

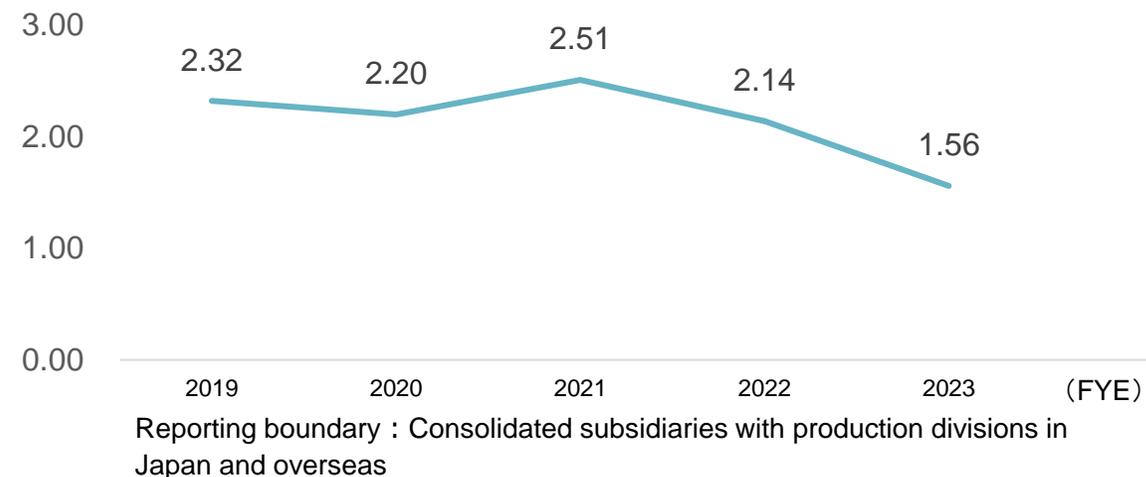
< Specific measures to achieve >

- Share information on accidents, occupational injuries, and best practices
- Improve security capabilities through the use of smart security (DX, AI, IoT)
- Enhancement of safety education
- Utilize TNSC's Technical Academies to foster safety culture and improve hazard sensitivity
- Promote investment in safety

《Results》

Lost-time injury rate*

*Lost-time injury rate expresses the frequency of accidents resulting in lost workdays in a fiscal year, calculated as the number of injuries/deaths due to occupational accidents per million work hours



The lost-time injury rate in FYE2023 decreased to 1.56 for the entire NSHD Group and our efforts have improved the rate to a level that meets the target.

<Lowering factors>

- Strengthening safety patrol
- Thoroughgoing use of protective equipment

Continuously analyze the occurrence factor and make countermeasures to prevent and promote the education to employees for risk control.

QRP: Improve the reliability of our quality

(Quality Reliability Program)

Quality Reliability Program

Aiming to improve quality and reliability

Thoroughly promote awareness of the importance of quality, further raise the awareness of operations personnel, and promote the introduction of automated technologies.

<Specific measures to achieve>

- Thorough training on quality ethics and compliance
- Implementation of quality audit program
- Promote automation of testing, inspection, and analysis records, etc.
- Efforts to improve customer satisfaction through Semiconductor Specialty Gas-Quality Committee (SSG-QC) activities

《Initiatives》

- We will promote a culture that emphasizes quality by keeping our important promises to customers and strive to further raise awareness among employees. We will also implement a series of initiatives with the aim of increasing quality and reliability by promoting the introduction of LIMS*¹ and other automation technologies.
- We are currently focusing on the quality audit program*² being undertaken by the entire NSHD Group since FYE2022.

*¹ Laboratory Information Management System

*² Each operating company conducts a quality audit of their business sites once every three years based on important audit items set by NSHD.

TDP: Toward Human Resource Development that Supports and Generates Sustainable Growth

(Talent Diversity Program)

Talent Diversity Program

Launched a strategy to develop human resources for sustainable growth.



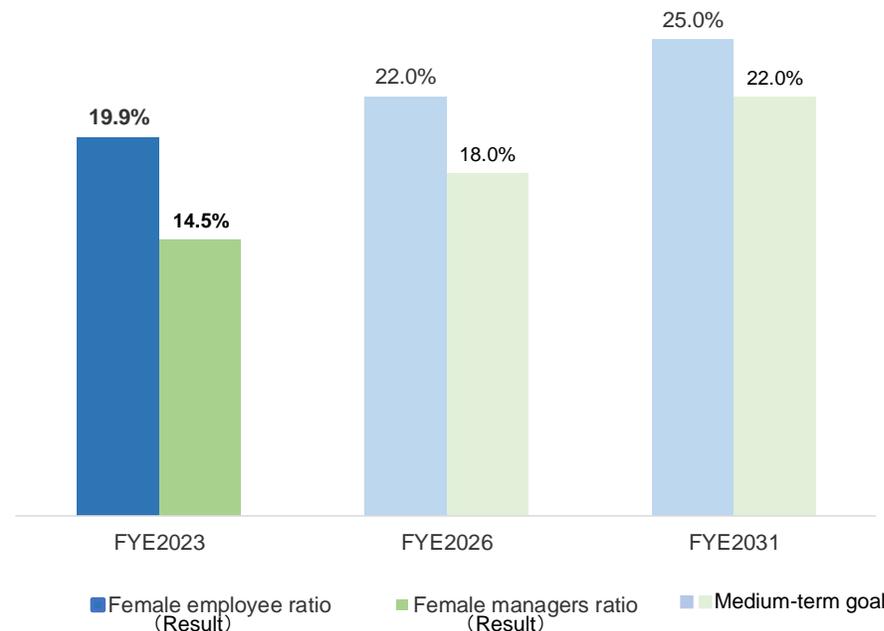
FYE2026 : **FYE2031 :**
Rate of female employees **22%** **25%**
Rate of female management posts **18%** **22%**

Promote the recruitment, development, and exchange of diverse human resources essential for sustainable growth

< Specific measures to achieve >

- To ensure the acceptance of a diverse workforce & ease of work.
- Promote cross-regional exchange of human resources
 - ① Established task-based global teams that span regions
 - ② Began to examine exchanging staff with operating companies
- Strengthen succession planning

Female employee ratio, Female managers ratio



Major initiatives	
Japan	Launch of project on empowering women
US	Strengthen activities in recruitment marketing
Europe	Promote programs to train female candidates for top management positions
Asia & Oceania	Promote Unity in Diversity program (educational activities for understanding different cultures, empowering women)

CPP: Toward Human Resource Development that Supports and Generates Sustainable Growth

(Compliance Penetration Program)

Compliance Penetration Program

Thoroughly adhere to the prerequisites (corporate ethics, safety and security, and respect for human rights) for maintaining corporate existence



FYE2026 :
Rate of receiving compliance training 100%

Promote the establishment of compliance by spreading awareness and acquiring correct knowledge of compliance

<Specific measures to achieve>

- Continue compliance training in each region to disseminate knowledge and corrective actions for all employees
- Prevention of compliance violations
- Detection of compliance violations through dissemination and operation of the internal reporting system

《Initiatives》

Conducted compliance training in each region and at each operating company.

【Compliance training in FYE2023】

- Compliance management
- Prevention of harassment
- Prevention of unfair competition
- Prevention of unfair business practices
- Code of conduct, internal whistleblowing system etc.

Employee participation rate: 99.7% (FYE2023)

To enhance Corporate value through Communication

- We engage in constructive dialogue with market participants based on the concept of fair disclosure.
- Attempt the enhancement of IR activities, learn from feedback and apply it in our business.



External communication

- Promote communication with customers and business partners through the Group as a whole, based on shared values and attitude.
- Execute appropriate initiatives and disclosures that reflect careful dialogue with external evaluation agencies (FTSE, MSCI, etc.), investors and analysts.
- Hold IR conference on sustainability initiative and have interviews about ESG related themes.
- Participate in IR event for individual investors

Internal communication

- To disseminate common values and attitudes, the Integrated report prepared with the cooperation of each operating company was redeveloped and relearned within the Group.
- **Operational Excellence Day** to share best practices at operating companies in each region
(one of five key strategies: Operational Excellence)
- Share our missions and values through internal communication (internal presentation meeting) about sustainability.

3. Business Opportunities in Carbon Neutrality

NS Vision 2026 Focused Fields : Exploring New Business toward Carbon Neutrality

Our thought

The value standard of “CN” and “Sustainability” will be added to the perspective of all activities.

Qualitative changes in the Value Chain adapted to the new society are essential.

1. Quick wins : Building on our track record of acquiring CN projects
2. Co-creation of value
: Developing our own technologies while building collaborative relationships with partners with advanced technological capabilities
3. Strengthening “Communications” with all stakeholders
(e.g. : Build a dedicated website as a tool for this purpose. > <https://www.carbonneutralworld.com/>)

Contributing to CN by 2050 as an industrial gas supplier

Two important perspectives on the transition period of the next 30 years

Efficient **Means of reducing environmental impact** × **Economic viability** as a business

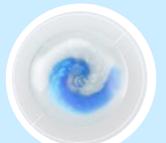
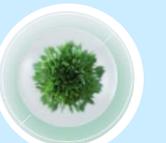
Basic Policy and Promotion Structure

Recognition of business environment and response stance

- All industries (steel, chemical, glass, cement, automotive, electronics, etc.) are moving toward CN
- Each region has different methods and priorities for addressing CN
- 30-year transition period may cause a temporary swing or loss of momentum in CN efforts due to war, epidemics, etc
- Economic and technological challenges make it difficult to build an ideal green society in a single step.

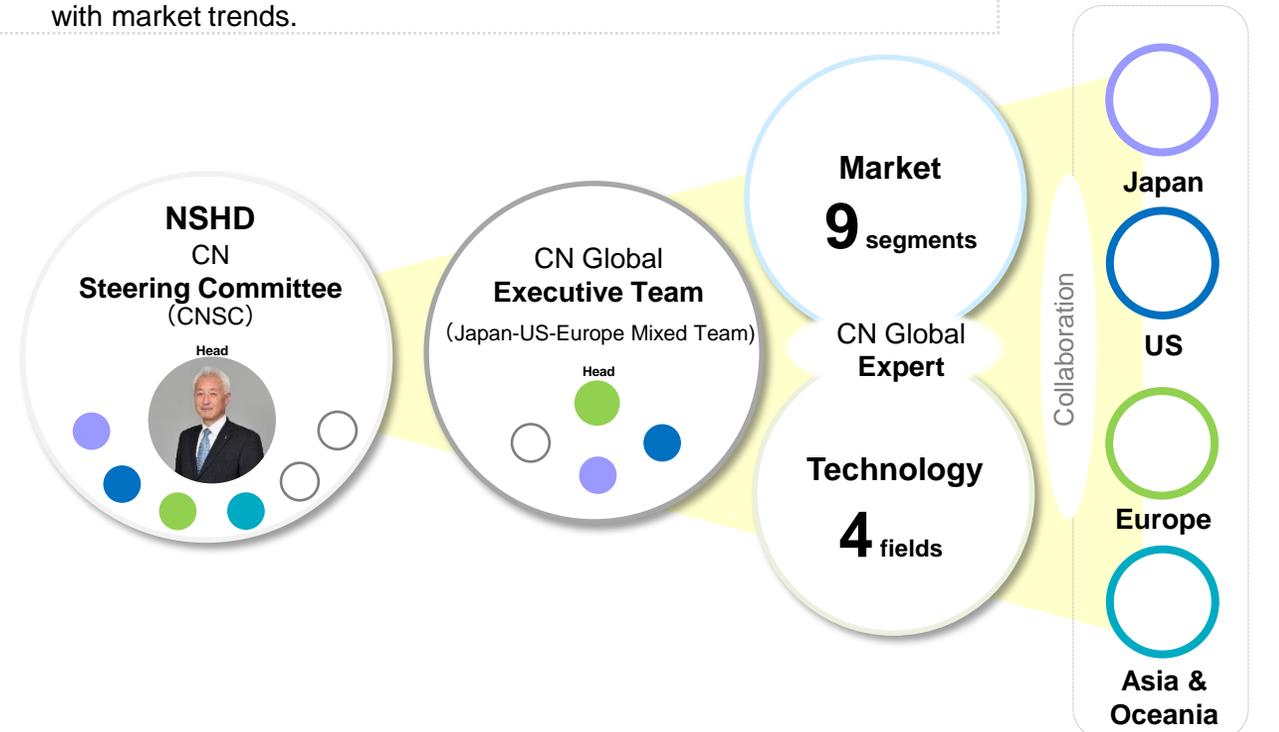
Accomplish business solution in technology field in where NSHD group would maximize our strengths

Four technologies for contribution to CN

	 Combustion (Oxy-fuel combustion)	 HyCO	 CO₂ Recovery	 O₂ Production
Technology	<ul style="list-style-type: none"> • Flame temperature rise • Suppression of exhaust gas • Improve efficiency of heat transfer 	<ul style="list-style-type: none"> • Hydrogen production and supply on a large scale • CO₂ Capture (blue hydrogen) 	<ul style="list-style-type: none"> • CO₂ capture, reuse and storage from exhaust gas 	<ul style="list-style-type: none"> • Productivity improvement through efficient use of oxygen
Market	Steel, Glass, Aluminum, Non-ferrous, Other metal processing	Refineries, Petrochemicals, Renewable fuels, Steel	Steel, Refineries, Petrochemicals, Cement	Any manufacturing Industry that uses oxidation processes

Integrated promotion system to respond promptly to customer needs

- Information is shared frequently by the RCNWG and CN global experts (by market segment and technology field).
- Global support for technology and expertise needed by RCNWG
- Group-wide efforts are reported to CNSC on a regular basis
- CNSC monitors the movement of each region, **selects themes for in-house technology development**, and **considers investment and equity participation** in accordance with market trends.



In-house technology development

Please check our news release →



Combustion field

- World's first successful trial demonstration of using fuel ammonia for combustion in a glass melting furnace -

● Background

- Japan has set a goal to become carbon neutral by 2050 and one of the issues in realizing this is whether it can reduce CO₂ emissions in production processes in the materials industry (ex. Glass manufacture) and developing an innovative glass melting technology that enables use of a fuel with a light environmental burden is urgent.
- From 2021, AGC, TNSC, NEDO and Tohoku University are working jointly on technological development.

● Results

- In June 2023, the world first trial demonstration was carried out in the architectural glass production facility at the AGC Yokohama Technical Center using Ammonia and TNSC's ammonia-oxygen burner.
- Tests were carried out under various conditions and compared with existing combustion methods, and verification was made regarding the impact on glass quality and furnace materials, flame temperature, furnace temperature, NOx suppression effects and more.

● Future Plans

- Testing is planned to be carried out in scaled-up burners and through trial demonstrations in glass melting furnaces at other AGC bases to determine the scope that ammonia fuel technology can be used, and aims are for fully-fledged introduction from fiscal 2026 onward.
- In the future, consideration will be given to deploying the technology in materials other than glass, such as steel or aluminum, so that it can contribute to reducing greenhouse gas emissions in production processes broadly across the materials industry.



Glass Melting Furnace



Storage facility of liquefied ammonia



Natural gas 100% - flame of pure oxygen



Ammonia 100% - flame of pure oxygen

Business collaboration with another company

Please check our news release →



Combustion field

- World's first green hydrogen-fuelled ladle preheating station -



● Background

- CO₂ emissions in steel industry are abundant for blast furnace or other steelmaking furnace and it is necessary to inject the technology for carbon neutrality.
- Nippon Gases Europe worked together with Sarralle (Spain). Developed world's first green hydrogen-fuelled ladle preheating station by combination of their knowledge and combustion technology of TNSC.

● Results

- Provided this equipment to ArcelorMittal Sestao, one of the world leading steel company.
- Showed in results that this ladle preheating station is capable of running entirely on green hydrogen and all usual required temperatures are reached.

● Future Plans

- Use of green hydrogen in steelmaking process would contribute to customers' carbon neutrality. This technology is not only for ladle preheating station but in others by customizing its technology depends on the use.

Quick Wins, case example

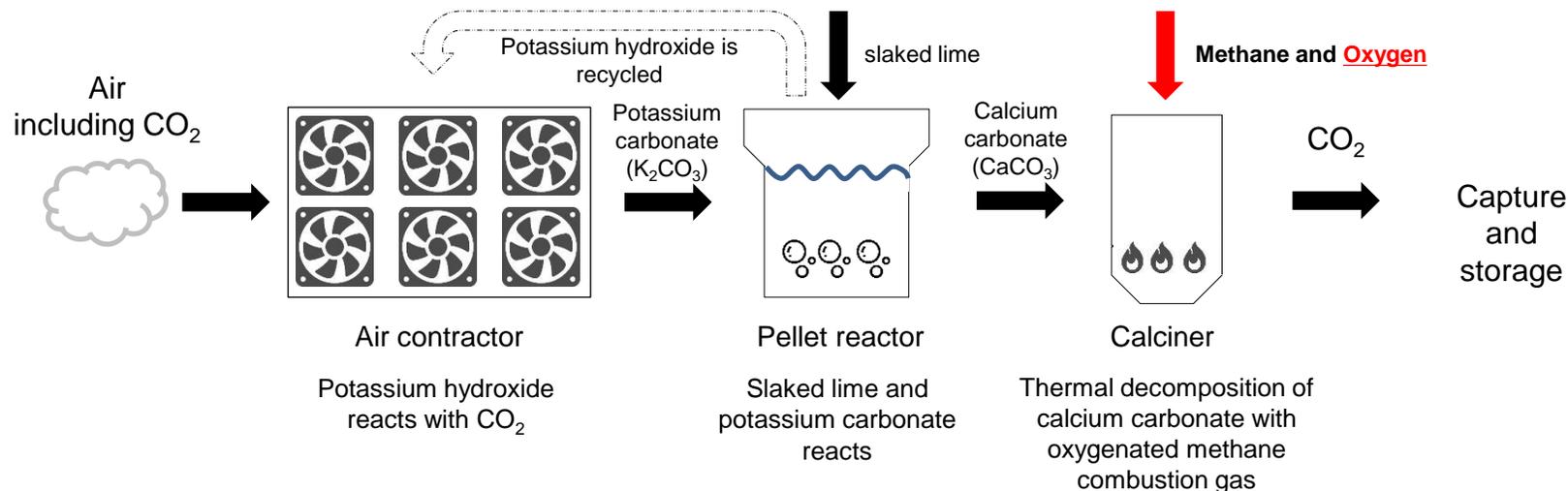
- Matheson signs oxygen supply contract for 1PointFive's DAC Plant -

Please check our news release →



O₂ Production field

- Matheson Tri-Gas, Inc (Matheson) entered into a gas supply agreement with 1PointFive to provide oxygen for the carbon capture, utilisation and sequestration in the company's first Direct Air Capture (DAC) plant in Texas.
- Its DAC plant is expected to capture up to 500,000 tonnes of CO₂ per year and it would be world's largest DAC plant. Matheson will supply oxygen in abundance for DAC process to produce a pure stream of CO₂ which is then securely sequestered in geologic reservoirs.



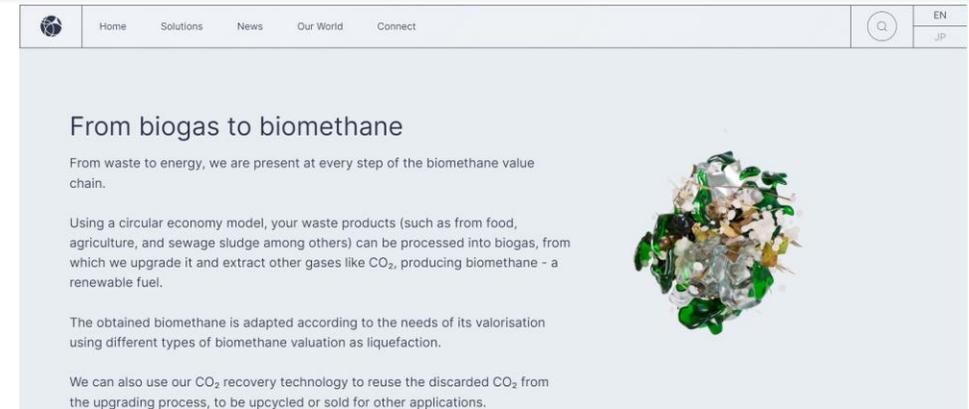
Initiatives in communication

Please check our
CN web site →



Expansion of contents on our Carbon neutral web site "We enable a carbon neutral world"

- Considering the contents capturing the change in market needs.
- Set up dedicated page to look for business opportunities in biomethane field which is being focused on in Europe.
- Develop the launch campaign of biomethane market page.
 - Issue news release
 - Mutual collaboration with websites of each NSHD group company.
(ex. Installation of link banner)



Exhibition: Salón del Gas Renovable October, 2023 in Spain

Induct concrete solutions of purification and condensation in exhibitions of biogas, biomethane or other renewable gas.

What we aim to be

The Gas Professionals

(Experts who are well versed in the physical properties and features of gases)

Producing industrial gases and supplying them safely and reliably to all industrial fields.

Contributing to the development of each industry and solving social issues through the supply of industrial gases.

Our Group's Goals

(Toward 2030)

Solution provider for a CN Society

NS Vision 2026 Focused Fields : Exploring New Business toward Carbon Neutrality

Slogan

“We enable a carbon neutral world”



Closing remarks

The Gas Professionals

Q&A Session



Senior Executive Officer,
Group Sustainability
Management Office,
and CSO
(Chief Sustainability Officer)

Takeshi Miki



General Manager,
Sustainability Management,
Group Sustainability
Management Office

Toshifumi Abe



General Manager,
Corporate Planning,
Group Corporate Planning
Office

Tomoki Nakamura



General Manager,
Human Resources

Yasukazu Takada



General Manager,
Investor relations,
Group Finance &
Accounting Office

Keita Kajiyama



General Manager,
Public relations,
Group Finance &
Accounting Office

Takayoshi Umehara

Appendix

Respond appropriately to climate change risks

In line with the recommendations of TCFD*

The results of the Group's impact analysis of opportunities and risks related to climate change and the Group's response are as follows,

Type		Climate change risks	Financial impact	Business risks	Business opportunities	Response/Actions by the NSHD Group
Transition	Policy regulations	Introduction of carbon pricing	Large	<Medium to long term> • Decrease in profits due to increased tax burden	<Medium to long term> • Acquire business opportunities by differentiating through early response	• Increase introduction of renewable energy by power purchase agreement and green power certificates
	Technology	Replacement to low-carbon alternative products/Progress in energy saving	Medium	<Medium to long term> • Decrease in sales of existing products due to screening of low-carbon products	<Short to medium term> • Increase profit margin by energy saving • Increase in demands for existing products that contribute to low carbonization <Medium to long term> • Increase in business opportunities through environmental product offerings and applications that contribute to low carbonization	• Promote the development of environmental product offerings and applications that contribute to low carbonization • Promote energy saving by improving productivity through the introduction of DX technology, etc. (introduction of SAITEKI optimization of delivery)
	Markets	Changes in market needs/ Changes in customers' business activities	Large	<Long term> • Decrease in sales due to changes in the manufacturing process of the steel and chemical sector • Decrease in sales due to new entrants utilizing by-product O2 gas as demand for water electrolysis process expands	<Medium to long term> • Increase in demand for blue and green H ₂ • Increase in demand for green fuels • Increase in demand for CO ₂ capture for CCUS	• Promote the introduction of carbon-free (H ₂ , NH ₃) combustion technology • Expand the use of oxygen combustion • Acquire demand for medium-scale CO ₂ capture in response to CCUS • Expansion of the H ₂ supply business by the HyCO business • Increase sales of environmental product offerings and applications that contribute to low carbonization
	Reputation	Industry criticism	Large	<Medium to long term> • Investor valuation decline for GHG emitting companies	<Medium to long term> • Continue stable funding by demonstrating contribution to GHG emission reduction	• Disclosure of quantitative data on GHG emission reduction contributions through integrated reports, etc. • Promote disclosure of Non-financial information
Physical	Acute	Intensification of disasters/ Frequent typhoons/Heavy rain/ Droughts	Medium	<Medium to long term> • Plant shutdowns due to disasters caused by abnormal weather • Increase in premiums paid	—	• Promotion of disaster countermeasures • Use of insurance
	Chronic	Sea level rise/Rise in average temperatures	Small	<Long term> • Narrowing of profit margin due to increase in running costs of air separation units caused by rising temperatures	<Medium to long term> • Increasing demand for medical products to treat diseases	• Replacement of aging air separation units to reduce running costs • Provision of medical oxygen, etc.

* TCFD: The final report was released in June 2017 and recommends that companies and others disclose items on governance, strategy, risk management, and indicators and targets related to climate change-related risks and opportunities.

Corporate Information

(As of March 31, 2023)

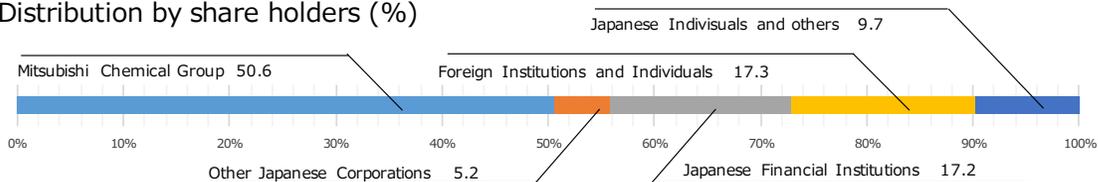
Company Name	Nippon Sanso Holdings Corporation
Founded	October 30, 1910
Headquarters	1-3-26 Koyama Shinagawa-ku, Tokyo 142-0062, Japan
TEL	81-3-5788-8500
	Representative Director, President CEO
Representative	Toshihiko Hamada
Common stock	37.3 billion yen

Stock information

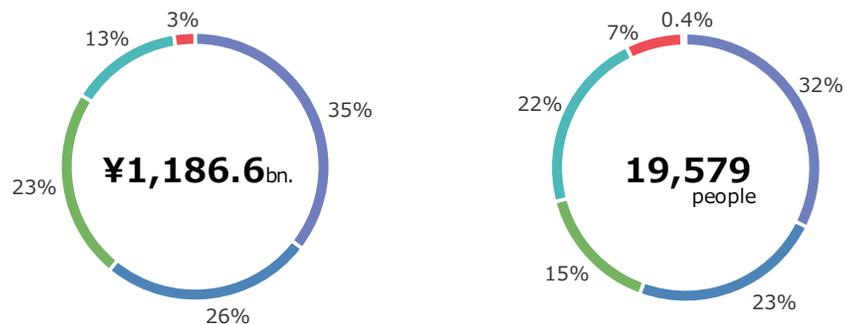
(As of March 31, 2023)

Number of shares	433,092,837
Number of shareholders	14,743
Listed stock exchanges	Tokyo Stock Exchange Prime Market
Ticker	4091.T

Distribution by share holders (%)



Revenue / Employee personnel by Segment (As of March 31, 2023)



■ Japan ■ US ■ Europe ■ Asia & Oceania ■ Thermos ■ Corporate

Corporate Philosophy

Group Philosophy

Proactive. Innovative. Collaborative.

Making life better through gas technology.

The Gas Professionals

Group Vision

We aim to create social value through innovative gas solutions that increase industrial productivity, enhance human well-being and contribute to a more sustainable future.

Main Core business

Industrial Gas business



Electronics business



Thermos business



FYE2024 Financial Forecast (IFRS)

Revenue	¥1,230.0 bn.	Net income attributable to owners of the parent	¥97.0 bn.
Operating income	¥163.0 bn.	EPS	¥224.09

Overview

Plan Name	NS Vision 2026
Slogan	Enabling the Future
Period	4 years from April 2022 to March 2026
Released date	May 11, 2022

Financial target

(Final fiscal year in the plan: FYE2026)

Revenue	¥975.0-1000.0 bn.
Core Operating Income	¥125.0-135.0 bn.
EBITDA margin	Group: ≥24 % Japan, the U.S., EU, A&O, Thermos: ≥17-33%
Adjusted net D/E ratio	≤0.7 times
ROCE after Tax	≥6 %

(Note) Forex rate (Assumption) : USD ¥115 EUR ¥125

Non-Financial target

<Environment>

Reduction rate of GHG emissions	FYE2026:	18 %
(Base year: FYE2019)	FYE2031:	32 %

GHG reduced emissions through environmental product offer
 FYE2026: Lower GHG emissions through environmental product offerings and applications
 > NSHD Group GHG emission

<Safety Management>

Lost Time Injury Rate	FYE2026:	≤1.6
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<Compliance>

Rate of receiving compliance training	FYE2026:	100 %
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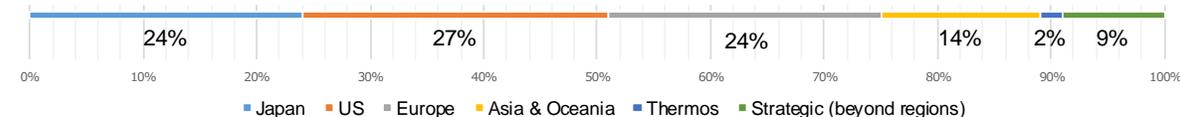
<HR>

Rate of female employees	FYE2026:	≥22 %
	FYE2031:	25 %
Rate of female management posts	FYE2026:	≥18 %
	FYE2031:	22 %

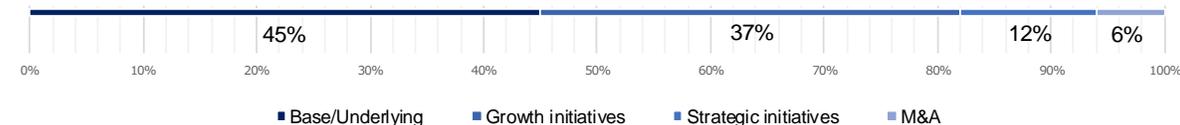
Capital allocation

Cash-in	(the total for 4 years)
[Operating Cash flow]	¥730.0 bn.
Cash-out	¥433.0 bn.
[Investment as a whole]	

Composition ratio by Business



Composition ratio by Initiative

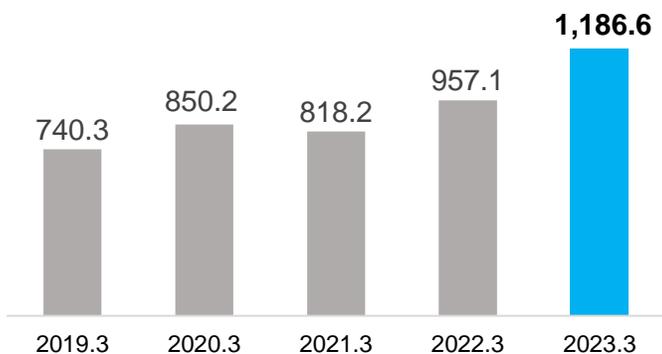


Focused fields

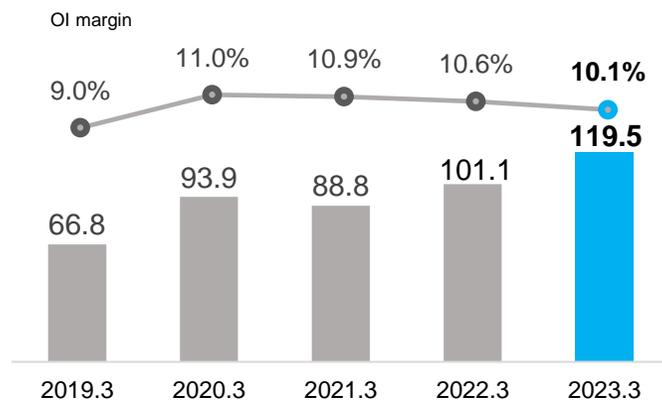


Business performance over the past five years

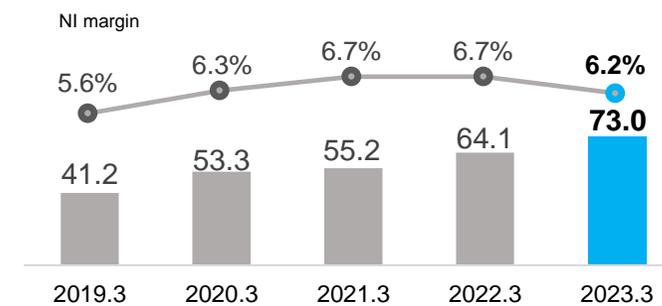
Revenue (¥ bn.)



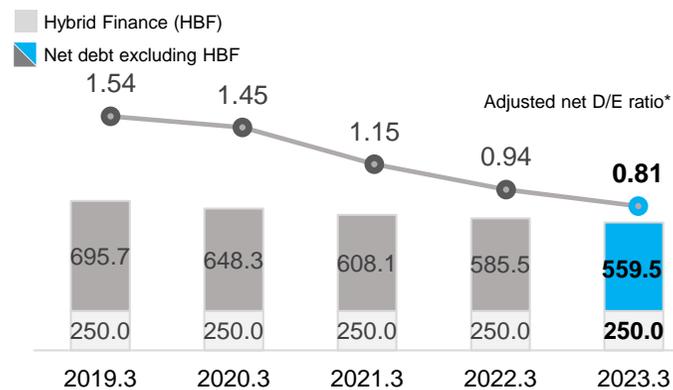
Operating income (IFRS) (¥ bn.)



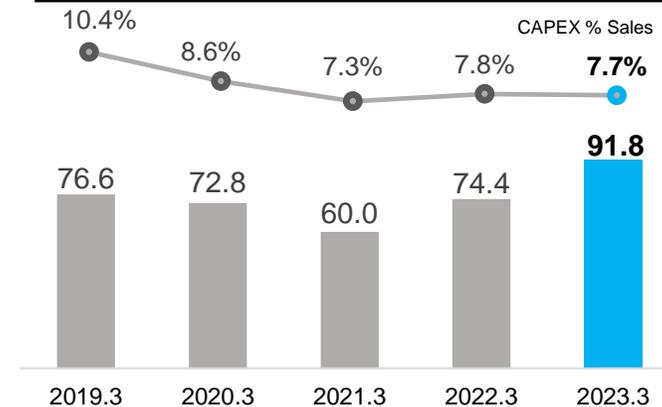
Profit attributable to owners of the parent (¥ bn.)



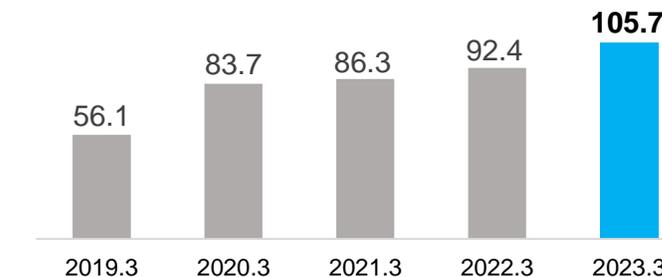
Net interest-bearing debts (¥ bn.)



Capital expenditures (¥ bn.)



Depreciation and amortization (¥ bn.)

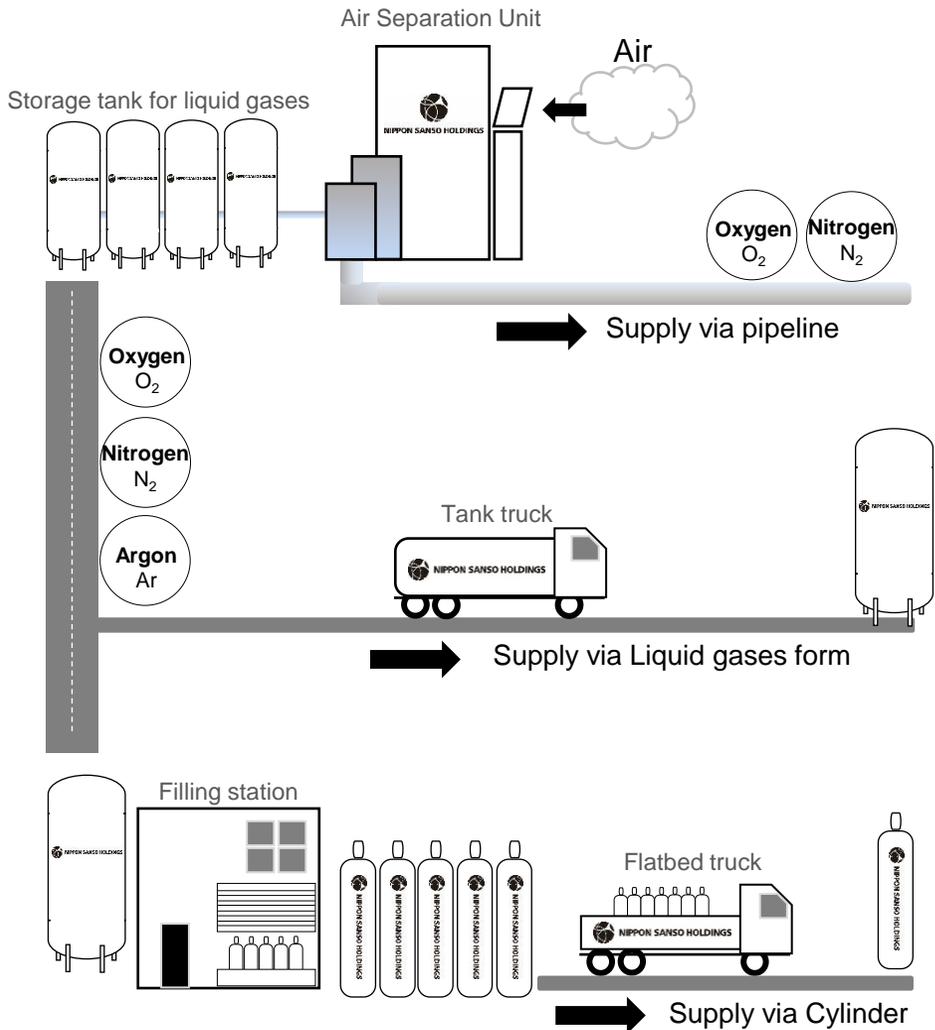


*Adjusted Net D/E Ratio: an indicator of safety (financial soundness) calculated in consideration of this part due to 50% of the amount raised by HBF is permitted as "Equity" by rating agencies.

*It's recorded on a construction basis until FYE2019 and on a cash basis from FYE2020 onwards.

Industrial gas supply systems

Air Separation Gases



On-site

Major supply destination (Sector)

Steel	Petrochemical	Refinery
-------	---------------	----------

We've established production plants in the vicinity of the customer. A form of direct connection and constant supply of pipes. (Large-scale supply)

Bulk

Major supply destination (Sector)

Automobile	Shipbuilding	Manufacturing
Construction machinery	Pharmaceutical Medical	Glass/Paper
LCP	Photovoltaics	Food/beverage
		Semiconductor

We've installed a storage tank for liquefied gas in the customer's premises. A form of supply according to the method of use of gas. (Medium-scale supply)

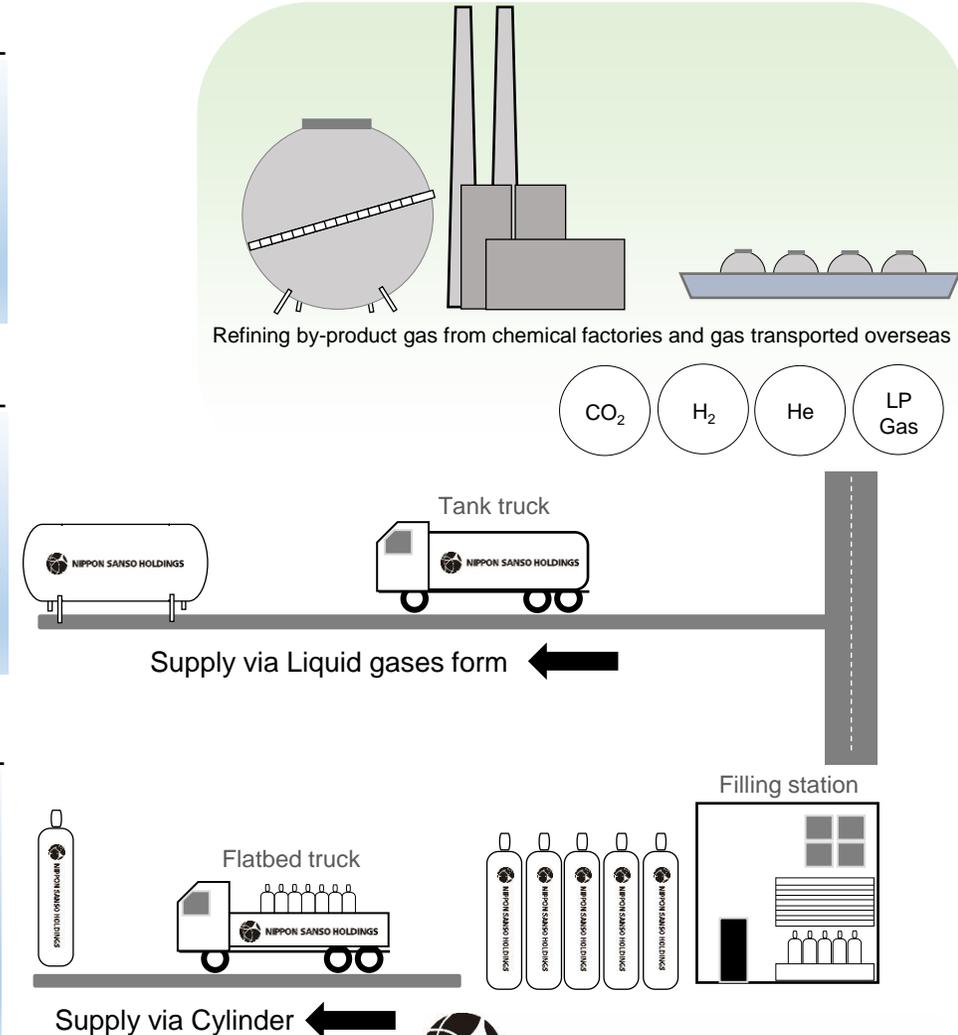
Packaged

Major supply destination (Sector)

Homecare	Advanced medicine	Sanitation
Engineering development	R&D	Construction/Installation

We deliver filling containers (cylinders) to customers. A form of supply according to the method of use of gas. (Small-scale supply)

Other Gases



Improving to fruitful report for our stakeholders



NSHD Integrated Report 2023

(Released on September 26, 2023.)

Please jump to the access webpage.> [Link](#).



Production process for 2023 edition



THERMOS

Thermos products deliver what matters every time.

As the leading manufacturer of convenient insulated product for over 100 years, Thermos is trusted by consumers to provide innovative portable containers that promote a safe and healthy lifestyle.

Thermos delivers when it matters.

At Thermos, We carefully choose the best available materials, and produce products with consistent quality and reliable performance. We ensure the excellence of our products by testing for quality.



For further information, please contact:

Public Relations for media

Public Relations,
Tel : +81 (0)3-5788-8513
E-mail : Nshd.info@nipponsanso-hd.co.jp

Investor Relations for investors

Investor Relations,
Tel: +81 (0)3-5788-8512
E-mail : Nshd.ir@nipponsanso-hd.co.jp

Upcoming IR events

Q3 FYE2024 Earnings Call February 2, 2024

www.nipponsanso-hd.co.jp/en/

NIPPON SANSO Holdings Corporation (Ticker:4091.T)

Headquarters : 1-3-26 Koyama Shinagawa-ku, Tokyo 142-0062, Japan





NIPPON SANSO HOLDINGS

The Gas Professionals

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