

# INTEGRATED REPORT 2022

# Creating Value for a Sustainable Future

We aim to solve various issues in building a sustainable society by taking on new challenges as well as existing ones while thereby achieving further growth of the Daigas Group.

We focus our efforts on creating “value for a sustainable future” with our stakeholders by utilizing our strengths in developing solutions and innovations, and share the achievements with our stakeholders.

We aim to be an “innovative energy and service company that continues to be the first choice of customers” while striving to make contributions to achieving a sustainable society.

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## Outline of the Daigas Group

### Corporate Profile of Osaka Gas Co., Ltd. (As of March 31, 2022)

Head Office	4-1-2, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan
Date of Establishment	April 10, 1897
Date of Founding	October 19, 1905
Net Sales <sup>*1</sup>	[Non-consolidated] ¥1,202.2 billion [Consolidated] ¥1,586.8 billion
Ordinary Profit <sup>*1</sup>	[Non-consolidated] ¥60.1 billion [Consolidated] ¥110.4 billion
Profit <sup>*1</sup>	[Non-consolidated] ¥56.7 billion [Consolidated] ¥128.2 billion <sup>*2</sup>
Capital	¥132,166 million
Number of Employees	[Non-consolidated] 3,189 (including executive officers, directors and temporary employees; excluding employees temporarily transferred to affiliated companies) [Consolidated] 20,961

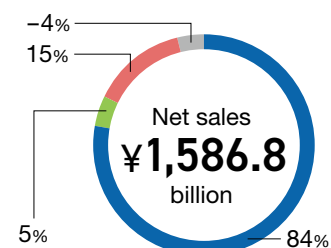
<sup>\*1</sup> Fiscal year ended March 31, 2022

<sup>\*2</sup> Profit attributable to owners of parent

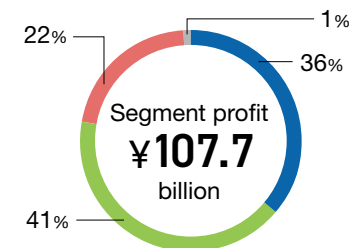
### Main Business Lines of the Daigas Group (As of March 31, 2022)

Business segments	Main business lines
Domestic Energy	Production, supply and sale of city gas, sale of gas appliances, gas pipe installation, sale of LNG, LNG transport, sale of LPG, sale of industrial gas, power generation and sale of electricity
International Energy	Development of and investment regarding natural gas, energy supply
Life & Business Solutions (LBS)	Development and leasing of real estate properties, information-processing services, sale of fine materials and carbon material products

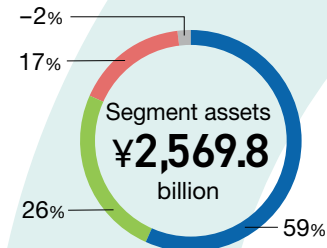
#### Net sales



#### Segment profit

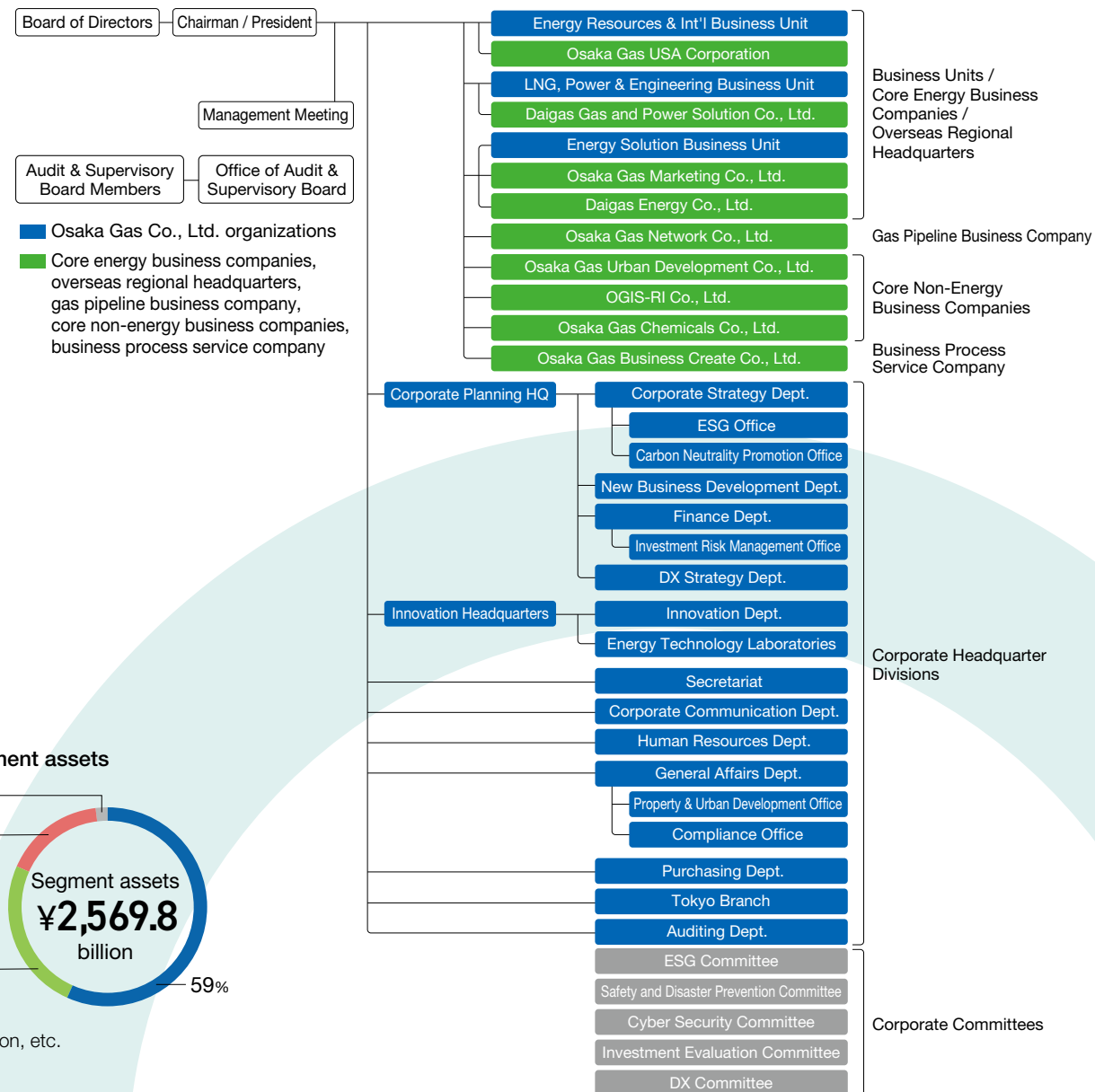


#### Segment assets



■ Domestic Energy ■ International Energy ■ Life & Business Solutions ■ Elimination, etc.

### Daigas Group Organization (As of April 1, 2022)





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## Editorial Policy

In Integrated Report 2022, we pay attention to business strategies and value-creation stories as well as non-financial information in order to present how assets accumulated to date will lead to future value creation and realize sustainable growth to our stakeholders, which include shareholders and investors.

## Tool Map

The Daigas Group disseminates diverse information with a variety of tools in order to promote communication with stakeholders. The Daigas Group works on proactive information disclosure for better understanding of the Group.

	📖 Leaflets (downloadable from the web)	🌐 WEB
Financial information	 <ul style="list-style-type: none"> <li>● Business Report</li> <li>● Securities Report</li> <li>● Fact Book</li> </ul>	<ul style="list-style-type: none"> <li>● Investor Relations</li> </ul> <a href="https://www.daigasgroup.com/en/ir/">https://www.daigasgroup.com/en/ir/</a> 
Non-financial information	<ul style="list-style-type: none"> <li>● Corporate Governance Report</li> </ul>	<ul style="list-style-type: none"> <li>● Sustainability</li> </ul> <a href="https://www.daigasgroup.com/en/sustainability/">https://www.daigasgroup.com/en/sustainability/</a> 

## Forward-Looking Statements

These materials include forecasts on future performance, plans, and strategies, which are based on the judgment of the Group upon currently available information.

Please note that actual financial results may differ from forecasts due to various factors.

Factors that can affect actual financial results include economic trends in Japan, sharp fluctuations in exchange rates and crude oil prices, and extraordinary weather conditions.

## Scope of This Report

Osaka Gas Co., Ltd. and its group companies

\*Some information, as noted in this report by phrases such as “Osaka Gas” or “the Company,” refers exclusively to Osaka Gas Co., Ltd.

## Period Covered

April 1, 2021, to March 31, 2022

\*Matters on other periods are partially included.

## Guidelines Referred to

- International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC)
- Guidance for Collaborative Value Creation of the Ministry of Economy, Trade and Industry
- Environmental Reporting Guidelines 2018 of the Ministry of the Environment
- Final Report of the Task Force on Climate-related Financial Disclosures (TCFD)
- ISO26000 (guidance on social responsibility) of the International Organization for Standardization
- Sustainability reporting standards of the Global Reporting Initiative (GRI Standards)
- The United Nations Global Compact COP Policy



# Our Commitment



We would like to extend our warmest greetings to all stakeholders as we issue this Integrated Report.

The Daigas Group is committed to maximizing value for all stakeholders, including customers and shareholders, and realizing sustainable growth of its business as “an innovative energy and services company that continues to be the first choice of customers,” in line with the Long-Term Management Vision 2030.

We continue the constant pursuit of our commitment in the face of changes in international circumstances that go beyond our expectations, such as the prolonged impact of the COVID-19 pandemic, sharp rises in the price of crude oil and gas, the depreciation of the yen, and the destabilization of the world’s energy supply-demand balance due to Russia’s invasion of Ukraine. Amid this business environment that has raised social and economic uncertainties to previously unknown heights, the responsibilities of energy business operators like us are growing in providing a stable energy supply and maintaining its safety.

For the realization of a sustainable society, we remain committed to working alongside our stakeholders to co-create value for a sustainable future. We aim to contribute to achieving a low carbon/carbon neutral society, realizing lifestyles and businesses adjusted to the new normal, and enhancing resilience of customers and society under the Carbon Neutral Vision and the Daigas Group Medium-Term Management Plan 2023: Creating Value for a Sustainable Future.

As we pursue the goals set in the current Medium-Term Management Plan, we deeply appreciate the continued support and encouragement of our stakeholders.

September 2022

本庄武宏

Takehiro Honjo  
Director, Chairman of the Board

藤原正隆

Masataka Fujiwara  
Representative Director  
and Executive President



# Daigas Group's Values

The “Daigas Group Corporate Principles” consists of “What We Aim To Be,” “Our Commitment” and “Our Corporate Motto.” The Daigas Group carries out its business activities based on the “Daigas Group Corporate Principles.”

## Daigas Group Corporate Principles

### What We Aim To Be

A corporate group that powers continuous advancement in customers' lives and businesses.

### Our Commitment

**We create four types of value.**

We create value primarily for customers, as well as for society, shareholders, and employees.

### Our Corporate Motto

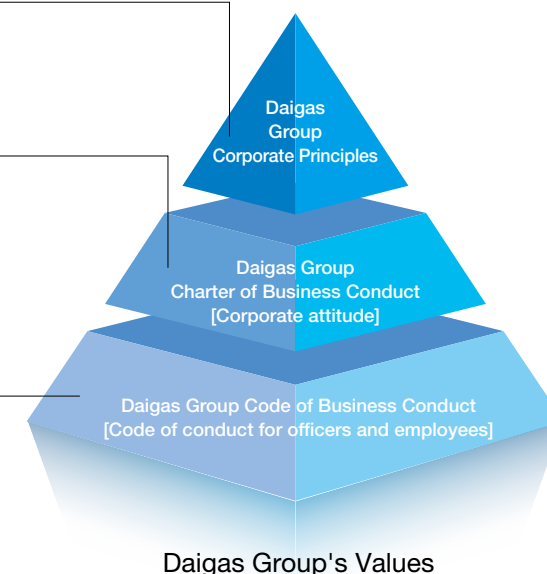
**Service First**

## Daigas Group Charter of Business Conduct

- I . Creating value for customers
- II . Contributing to the sustainability of the environment and society
- III . Engaging with and contributing to society
- IV . Respecting human rights
- V . Complying with laws and regulations
- VI . Providing work environment that supports employees' personal growth

## Daigas Group Code of Business Conduct

1. Respecting human rights
2. Providing safe and secure workplace
3. Complying with laws and regulations
4. Avoiding use of professional positions and company property for personal reasons
5. Complying with laws in each country and region, and respecting international standards including those on human rights
6. Contributing to the environmental conservation
7. Complying with anti-monopoly laws and regulations, and conducting fair transactions
8. Providing products and services
9. Ensuring safety of products and services
10. Interacting with customers appropriately
11. Engaging with and contributing to society
12. Building and maintaining sound relationships with business partners
13. Engaging business partners in following Daigas Group Code of Business Conduct
14. Managing proper use of information and systems
15. Disclosing information and engaging with stakeholders
16. Properly handling intellectual property
17. Avoiding association with anti-social groups and individuals
18. Making tax payment and performing accounting practices properly



We have set the Daigas Group Corporate Principles, Charter of Business Conduct, and Code of Business Conduct as guidelines for realizing the Daigas Group's Values including what the Group aims to be, its commitment, corporate motto, attitude, and standards of conduct that executives and employees must follow.

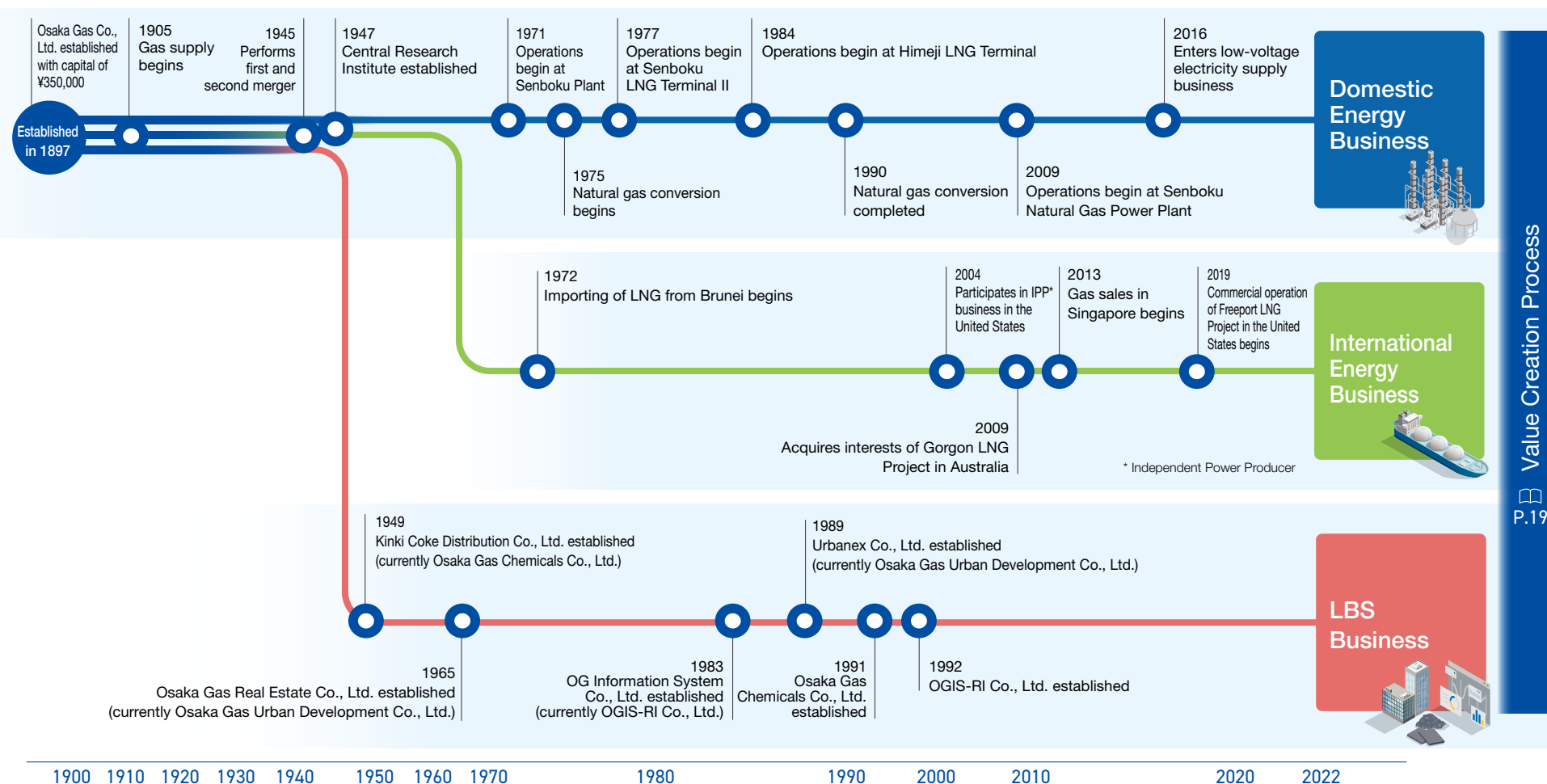
We aim to be a corporate group that powers continuous advancement in customers' lives and businesses. And we are committed to creating four types of value to fulfill our social responsibility: we create value primarily for customers, as well as for society, shareholders, and employees. In order to achieve these, we promote efforts that are in line with the Daigas Group's Values.



# History of Co-creation of Value

The Daigas Group's gas business began with gas supply in 1905. In over 110 years since, the gas business that started with lighting gas lamps has expanded the application of gas to cooking, heating, hot water, and power generation, overcoming many obstacles as society evolved and lifestyles changed. Additionally, founded on the relationships with customers and regions that have been fostered through the energy business, the Daigas Group has expanded its business domains and developed into a corporate group that provides various products, services, and solutions.

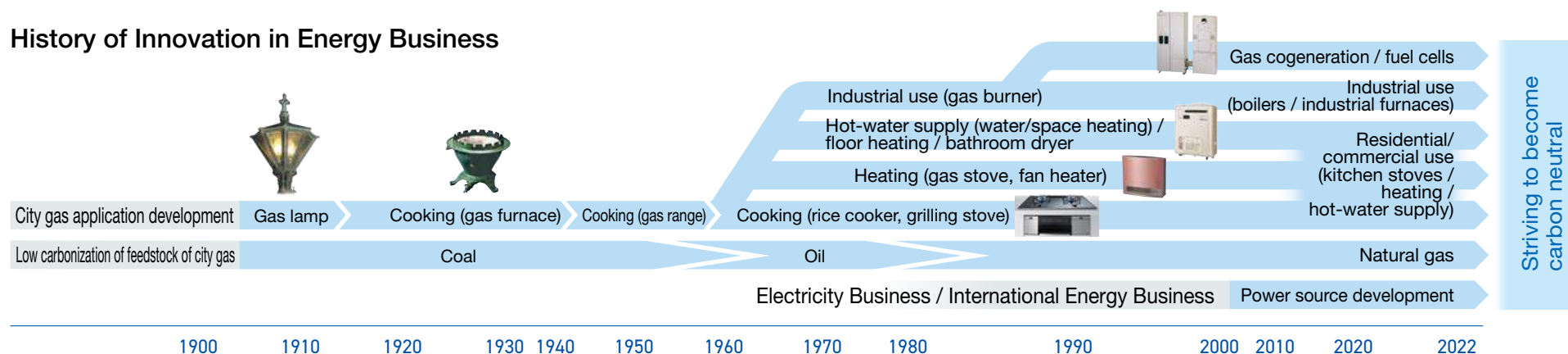
## History of Growth in the Daigas Group's Businesses





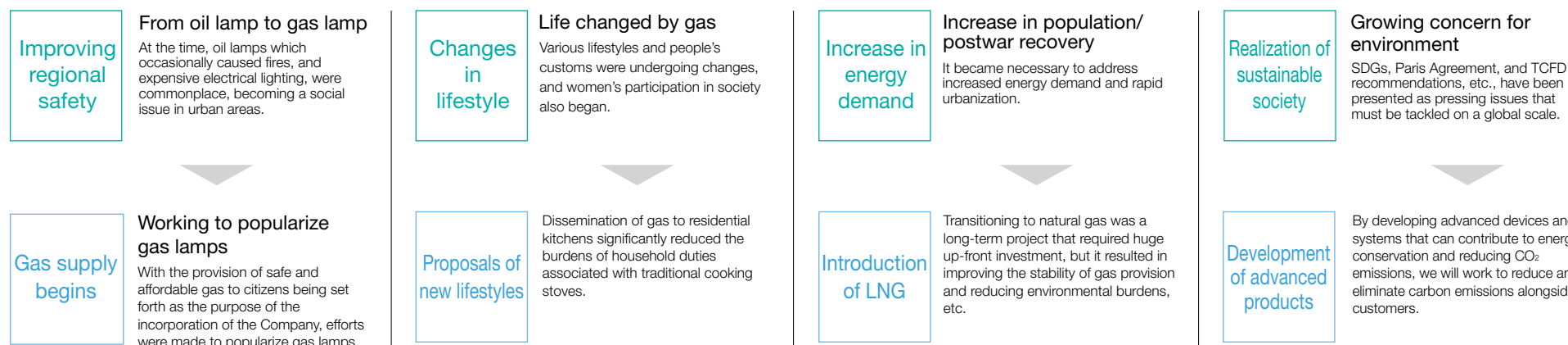


## History of Innovation in Energy Business



## Social Background and Daigas Group's Strategy

### ■ Social Issues and Needs



### ■ Daigas Group's Co-creation of Value



For detailed financial data,  
please visit our website.



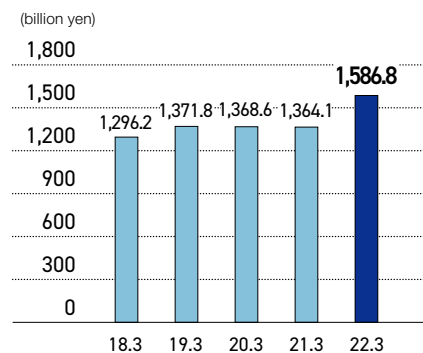
Fact Book

# Financial Data

## Net sales

Fiscal year ended March 31, 2022

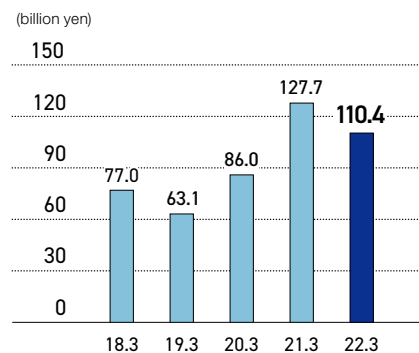
¥1,586.8 billion



## Ordinary profit

Fiscal year ended March 31, 2022

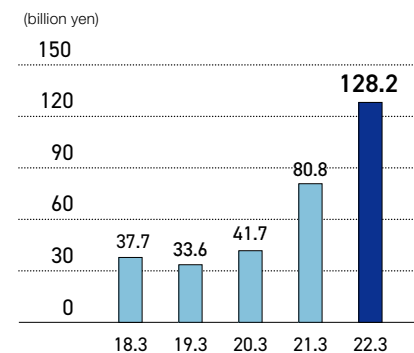
¥110.4 billion



## Profit attributable to owners of parent

Fiscal year ended March 31, 2022

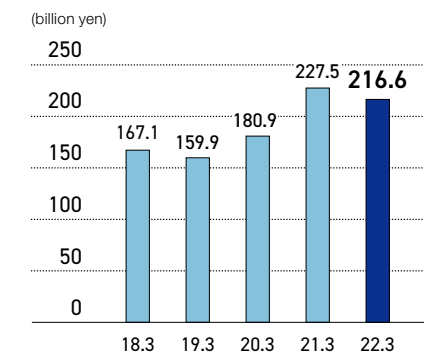
¥128.2 billion



## EBITDA

Fiscal year ended March 31, 2022

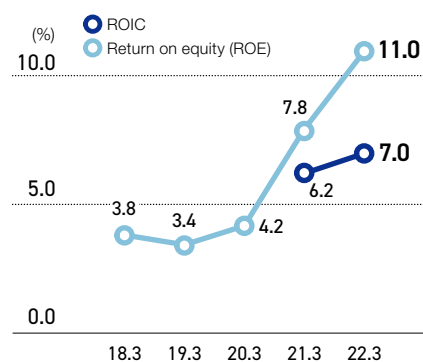
¥216.6 billion



## ROIC / Return on equity (ROE)

Fiscal year ended March 31, 2022

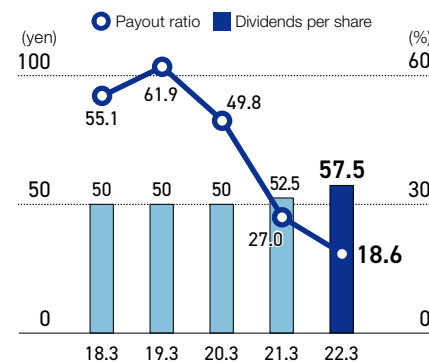
ROIC 7.0% ROE 11.0%



## Payout ratio / Dividends per share\*

Fiscal year ended March 31, 2022

Payout ratio 18.6% Dividends per share ¥57.5

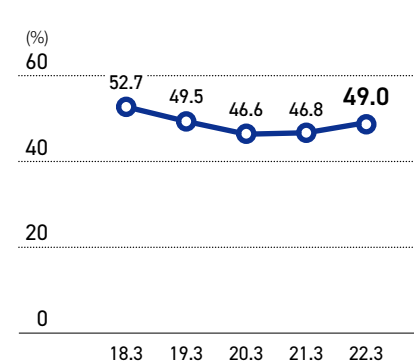


\* Taking into account the effects of the 1-for-5 stock consolidation

## Shareholders' equity ratio\*

As of March 31, 2022

49.0%

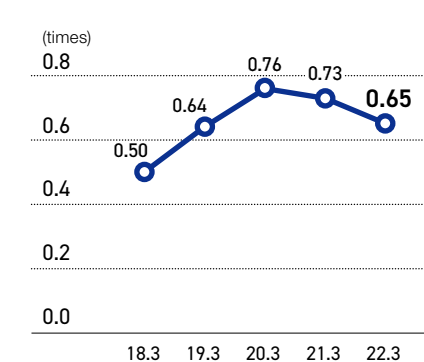


\* Calculated taking into account "Partial Amendments to Accounting Standard for Tax Effect Accounting"

## Debt equity ratio

As of March 31, 2022

0.65 times





For more detailed non-financial data, please visit our website.



Environment

Social

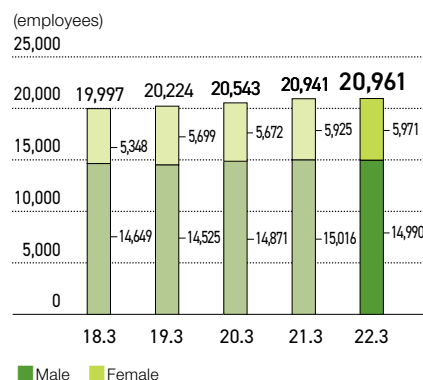
Governance

# Non-Financial Data

## Number of employees (Group)

Fiscal year ended March 31, 2022

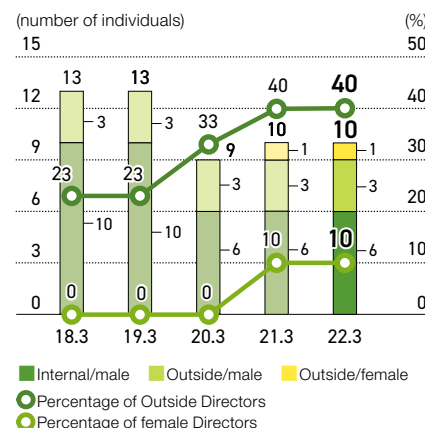
**20,961**



## Number of Directors of Osaka Gas

Number of the individuals in officer ranks reflecting the election results at the Annual Meeting of Shareholders in the year

**10**

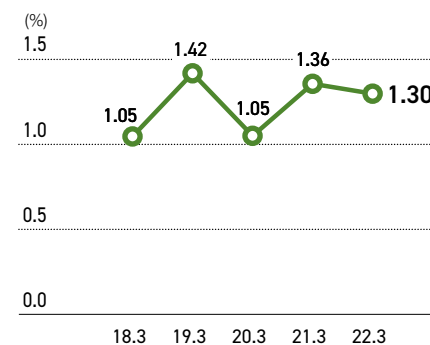


## Job turnover rate

(Osaka Gas, employees under age 50)

Fiscal year ended March 31, 2022

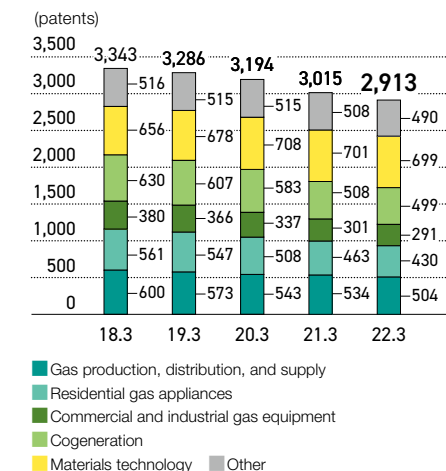
**1.30%**



## Patent portfolio by business type (Group)

Fiscal year ended March 31, 2022

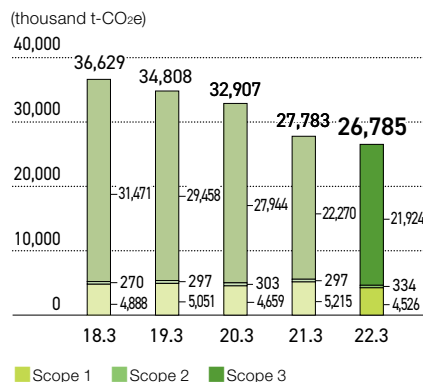
**2,913** patents



## Greenhouse gas emissions (Group)

Fiscal year ended March 31, 2022

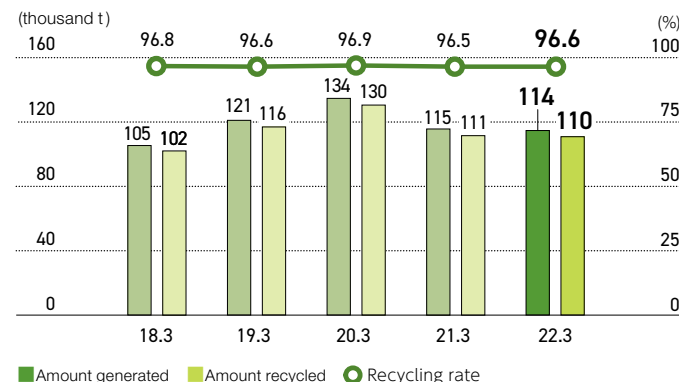
**26,785** thousand t-CO<sub>2</sub>e



## Waste recycling rate (Group)

Fiscal year ended March 31, 2022

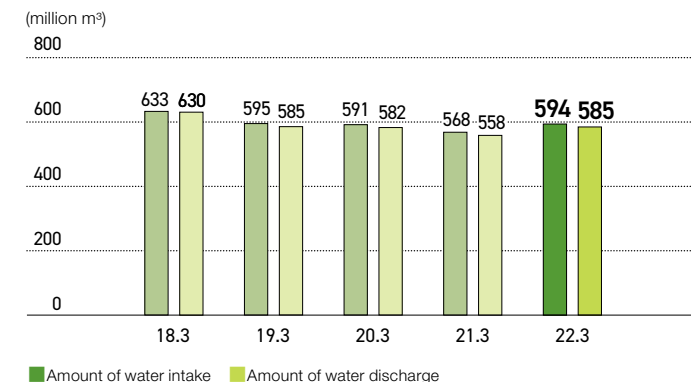
Waste recycling rate **96.6%**



## Water use (Group)

Fiscal year ended March 31, 2022

Intake **594** million m<sup>3</sup> Discharge **585** million m<sup>3</sup>





# Message from the President



## Co-creating value for a sustainable future and contributing to the realization of a sustainable society

The current Japanese economy, though showing some signs of recovery, still continues to face uncertainty, which is increasing due to unexpected changes in the international situation such as repeated waves of COVID-19 infections and Russia's invasion of Ukraine. In such a business environment, we pursue the stable supply of energy and maintenance of safety as our most critical missions. We aim to be a corporate group that meets the needs of our customers and society, striving to fulfill our responsibility for social infrastructure essential to daily life and industry.

藤原正隆

Masataka Fujiwara

Representative Director and  
Executive President

## Solving social issues lies at the heart of the Daigas Group's business

This year, the Daigas Group marks 117 years since it began to supply gas in October 1905. Over the years, our energy business has evolved, responding to customer needs and social issues as they have changed with the times. The Group's business began with providing gas for lighting gas lamps and has expanded the applications of its gas supply to residential kitchens and heat sources for commercial and industrial purposes and further to electric power generation. In addition to delivering gas and electricity, we have been also providing various related products, services, and solutions to support customer lifestyles and businesses. As climate change action has become a major social issue in recent years, the Daigas Group is working on the decarbonization of its gas business with carbon neutral solutions and electricity business with increased share of renewables in our power portfolio, in order to achieve our net zero goal by 2050 under the Group's Carbon Neutral Vision.

As demonstrated throughout the Daigas Group's history, solving social issues lies at the heart of our business, and that spirit is reflected in Our Corporate Motto "Service First" and in What We Aim to Be, "a corporate group that powers continuous advancement in customers' lives and businesses," which each employee takes firmly to heart. The Daigas Group's management ensures that these unwavering corporate principles and values are





applied to the Group's corporate activities to the greatest extent possible, regardless of changes in the times or the environment.

## Long-Term Management Vision 2030 and Medium-Term Management Plan 2023

Under the the Daigas Group Long-Term Management Vision 2030 announced in March 2017, we have been working to diversify the Group's business portfolio while creating a foundation for sustainable growth, aiming to be an innovative energy and services company that contributes to be the first choice of customers. Meanwhile, we have been facing the global paradigm shift in recent years caused by escalation of business environmental changes, which affect the sustainability of society as demonstrated by the COVID-19 pandemic and large-scale natural disasters due to climate change.

Amid such rapid changes in our business environment, we announced in March 2021 our Medium-Term Management Plan 2023: Creating Value for a Sustainable Future. In the plan, we define Value for a Sustainable Future as the value consisting of the following three activities essential for solving social issues: achieving a low carbon/carbon neutral society, establishing lifestyles and businesses adjusted to the new normal, and enhancing resilience of customers and society. We aim to co-create Value for a Sustainable Future by leveraging our strengths in solutions and innovation, in order to share the achievements with our stakeholders.



## Initiatives in FY2022.3 for Co-creating Value for a Sustainable Future

In FY2022.3, the first year of the Medium-Term Management Plan 2023, we made a smooth start under the plan, recording 110.4 billion yen of the consolidated ordinary profit and 7.0% of ROIC, a profitability indicator, both of which exceeded targets. In the three activities to create Value for a Sustainable Future, we are making steady efforts to achieve our medium- to long-term goals.

### 1. Achieving a Low Carbon / Carbon Neutral Society

For achieving a low carbon/carbon neutral society, we are promoting the advanced utilization of natural gas, a greener energy source than other fossil fuels, as well as pursuing the development and practical application of highly efficient methanation technology\*<sup>1</sup> as indicated in the Carbon Neutral Vision. Methanation is a promising technology for the decarbonization of gas business, which we pursue under the Vision. At the Carbon Neutral Research Hub we established in October 2021 in Konohana Ward, Osaka City, we are working on the research and development of methanation and other carbon neutral technologies. In Nagaoka City, Niigata Prefecture, we have launched a joint demonstration project with INPEX Corporation to develop CO<sub>2</sub>-methanation technology for practical use at INPEX's Nagaoka Field Office Koshijihara Plant. The facility will have a production capacity of 400 normal cubic meters per hour, making it one of the largest scale operations of its kind in the world.

For the decarbonization of power sources, we are actively working to expand the use of renewable energy sources. As of March 31, 2022, we had contributed a total of approximately 1.40 GW to the development of renewables in Japan and overseas. In FY2022.3, we joined a 50 MW biomass power generation project in Hyuga City, Miyazaki Prefecture, which is scheduled to commence commercial operation in November 2024, and a solar power generation project with sites at four locations including Shizukuishi Town, Iwate Prefecture, which had been



already in commercial operation with the combined capacity of 60 MW. In September 2021, commercial operation commenced at Shiribetsu Wind Farm (30 MW), located in Suttsu Town (Suttsu District) and Rankoshi Town (Isoya District), Hokkaido.



Shiribetsu Wind Power Plant (Hokkaido)

Tackling climate change is a key management issue for the Daigas Group. In support of the Recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD), we have published a scenario analysis for a 1.5°C temperature increase. And we are accelerating the implementation of our company-wide business strategy to reduce CO<sub>2</sub> emissions and become carbon neutral with the Carbon Neutrality Promotion Office established in April 2022 in the Corporate Strategy Office.

\*1 A technology that synthesizes methane, the main component of city gas, by a reaction of hydrogen and CO or CO<sub>2</sub> through a catalyst. See "Initiatives to Achieve Carbon Neutrality" on □□P.28.

## 2. Establishing Lifestyles and Businesses Adjusted to the New Normal

For the establishment of lifestyles and business adjusted to the new normal, we are expanding our lineup of services as optimal solutions to help our customers adjust their lifestyles and business models to the new normal while ensuring a stable supply of gas and electricity. Sumikata Services have been launched to help customers with house renovations and other home-related issues. Sumai LINK is a service platform that offers a wide range of services, including medical care and housekeeping services, in collaboration with partner companies across Japan. Sasuga Net is an internet service we launched in March 2022 to answer the needs of customers who want package deal contracts for home necessity services, which marked our entry into the fixed-line telecommunications business.

The Daigas Group values its connections with customers not only in the Kansai region but in other parts of Japan and overseas, aiming to expand the number of customer accounts as a goal, which is the number of contracts, including those of gas and electricity supply and those of services related to safety and security. In FY2022.3, the number of customer accounts increased by approximately 400,000 compared with the previous fiscal year to 9.81 million. The customer satisfaction rate for direct interactions with customers, such as appliance sales with installation and telephone support, was maintained at a high level of 92%. We will continue providing optimal services to

customers and striving to quickly achieve our target of 10 million customer accounts.

## 3. Enhancing Resilience of Customers and Society

We have pursued enhancing resilience of customers and society, leveraging our experiences in restoration and rebuilding after disasters such as the Great Hanshin Earthquake, the Great East Japan Earthquake, and the North Osaka Earthquake. Faced with the impact of the COVID-19 pandemic and the energy supply-demand balance instability caused by Russia's invasion of Ukraine, we have reaffirmed the importance of ensuring safe and stable energy supply.

As for our pipeline network, which supports stable gas supply to customers, we are implementing earthquake countermeasures such as constant upgrading of gas pipelines to highly earthquake-resistant types and subdividing of supply blocks to minimize the damage from earthquakes and realize early restoration of supply. In FY2021.3, the earthquake resistance rate (earthquake resistant pipes as a percentage of all pipes in use) increased by 0.6 percentage points to approximately 89%, and subdividing supply blocks resulted in an increase in the number of earthquake blocks by 49 to 709 blocks.

In April 2022, Osaka Gas Network Co., Ltd. commenced business as the result of the legal spin-off of the gas pipeline business of Osaka Gas. Osaka Gas established the Safety and Disaster Prevention Committee to strengthen our governance functions



with the centralized management of safety, disaster prevention, and supply stability and to promoting measures related to them.

In June 2022, there was a fire at the Freeport LNG Terminal in Texas, U.S.A., which is one of our LNG sources. This incident forced us to seek out replacement LNG. Going forward, we will further strengthen risk management in our supply chain and strive to secure the safe and stable energy supply by joining forces within the Daigas Group.

## Gaining Confidence of Stakeholders Through ESG Management

Through our business activities to create Value for a Sustainable Future, we pursue SDGs in alliance with other companies and partnership with stakeholders. Such activities include contributing to realizing a low carbon/carbon neutral society, building stable and highly resilient energy infrastructure, and promoting community development that is both environmentally and economically sound.

Meanwhile, we also steadily promote ESG-conscious management and continue striving to gain the confidence of our stakeholders. Since its founding, the Daigas Group has been practicing ESG-conscious management in various ways while working to provide products and services that accommodate the changes of the times, in order to be a corporate group that provides solutions to customers and society. In 2007, we announced our participation in the United

Nations Global Compact, a first for a Japanese public utility enterprise. We are committed to the principles to be followed by companies as members of international community. At the time of releasing the new Medium-Term Management Plan 2023, we revised the Daigas Group Charter of Business Conduct, which shows our stance on corporate governance, and announced the Daigas Group Human Rights Policy amid a growing awareness of human rights among companies on a global scale.

We are committed to strengthening our corporate governance by not only disclosing information in an appropriate manner but also thoroughly implementing fair business operations across the Daigas Group, further promoting diversity, and enhancing information security. Business execution and supervision have already been separated, and at least one-third of the Board of Directors is comprised of outside directors with the intent of further strengthening business execution functions and supervision functions. In addition, the Board of Directors meeting held in December 2021 resolved to set the profit attributable to owners of parent for the past three years and the ESG Indicator Achievement Factor for the previous year\*<sup>2</sup> as the main indicators for the determination of performance-linked remuneration to encourage contributions to short-term and medium- to long-term increases in corporate value. Further, from FY2023.3, Osaka Gas is holding meetings of the Advisory Committee Relating to Management on a regular basis to deliberate on key issues such as medium- to

long-term corporate strategy. This committee is comprised of Osaka Gas President, all Outside Directors, and the Corporate Planning Headquarters President, with outside Audit & Supervisory Board Members participating as observers. Through the initiatives described above, we aim for the further improvement of corporate governance.

By implementing these ESG initiatives, we strive to gain the unwavering trust of our stakeholders and demonstrate the comprehensive strength of the Daigas Group, taking on challenges to realize sustainable growth.

\*2 Applied from July 2023 onward, when compensation is paid based on FY2023.3 results.

September 2022





# Our Financial Strategy

## Enhancing business portfolio management, using ROIC as a group-wide management indicator

As our financial policies under the Daigas Group Medium-Term Management Plan 2023: Creating Value for a Sustainable Future, we have declared the improvement of existing business profitability, investment in new businesses where we can leverage our strengths, and realization of shareholder returns according to business growth. We are steadily driving those initiatives while remaining mindful of the maintenance of financial soundness indicators.

**Takeshi Matsui**

Representative Director and  
Executive Vice President

## Review of FY2022.3 and Financial Targets for the Medium-Term Management Plan 2023

FY2022.3, the first year of the Medium-Term Management Plan, was a year of turbulent changes in the social and economic environments, such as the prolonged impact of the COVID-19 pandemic, accelerated trend toward decarbonization, oil and natural gas price surge, yen depreciation, and Russia's invasion of Ukraine. Despite the impact of these situations, the Daigas Group's consolidated ordinary profit exceeded the plan at 110.4 billion yen thanks to each business' flexible response to these changes and the progress made in business portfolio management with the international energy business entering the profit contribution phase. We also achieved our targets for major management indicators, such as EBITDA and ROIC.

We will continue to enhance our earning capabilities through growth by improvement of existing business profitability and growth by investment in new businesses where we can leverage our strengths, aiming for ROIC of around 5% in FY2024.3.

We will also firmly maintain a D/E ratio of approximately 0.7 and shareholders' equity ratio of around 50%.

In our shareholder return policy, we intend to provide stable dividends as our basic stance while





working to secure a consolidated dividend payout ratio of 30% or higher excluding short-term profit fluctuation factors and make shareholder returns according to business growth.

In June 2022, there was a fire at the Freeport LNG Terminal in Texas, U.S.A., one of our LNG sources, which forced us to procure replacement LNG. Please refer to our corporate website for details of the impact of this event on the Company's consolidated business results for the fiscal year ending March 31, 2023.

## Improvement of Profitability in Existing Business

The Daigas Group works towards ROIC higher than the capital cost for the Group as a whole, with its business units\*<sup>1</sup> pursuing respective goals depending on business characteristics while using common management indicators. In FY2022.3, the first year we introduced ROIC, we clarified the roles of business units and corporate headquarter divisions, set the targets for each business unit, and enhanced

members' understanding and awareness of the importance of ROIC improvement. As a result, the business units have started to focus on ROIC besides profit in their operations and implement measures, such as the sale of overseas assets that have completed their purpose and the value enhancement of asset holdings with the ongoing consideration of securitizing the Group-owned real estate.

In addition, we are speeding up our response to changes and improving the robustness of our

\*<sup>1</sup> The Daigas Group's seven business management units to plan and execute the Group's strategies

### Major management indicators

		FY2022.3 forecast announced on March 10, 2021	FY2022.3 results* <sup>1</sup>	FY2024.3 plan Final year of Medium-Term Management Plan
Consolidated ordinary profit		95.0 billion yen	110.4 billion yen	—
EBITDA* <sup>2</sup>		200.0 billion yen	216.6 billion yen	—
Profitability indicators	ROIC* <sup>3</sup> (Reference) ROE	4.4% (6.6%)	7.0% (11.0%)	Approx. 5%* <sup>4</sup> (Approx. 7.5%)
Shareholder returns	Payout ratio	32.4%	18.6%	30% or higher* <sup>5</sup>
Financial soundness indicators	D/E ratio	0.79	0.65	Approx. 0.7* <sup>6</sup>
	Shareholders' equity ratio	45.7%	49.0%	Approx. 50%* <sup>6</sup>

\*<sup>1</sup> Major temporary factors that increased profits in FY2022.3 include the effect of Osaka Gas USA's recording of deferred tax assets and income taxes – deferred (gain) of 42.6 billion yen.

\*<sup>2</sup> EBITDA = Operating profit + Depreciation (including amortization of goodwill) + Share of profit of entities accounted for using equity method

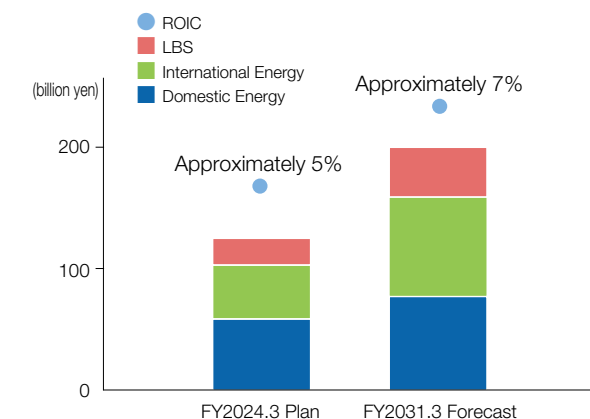
\*<sup>3</sup> See □ P.39 for ROIC explanation

\*<sup>4</sup> Excluding the temporary impact on Domestic Energy Business (time-lag effect of Gas Business and Electricity Business)

\*<sup>5</sup> Excluding short-time profit fluctuation factors

\*<sup>6</sup> Calculated after adjusting 50% of issued hybrid bonds as equity

### Forecasts for ordinary profit by segment\*<sup>1</sup>



\*<sup>1</sup> Excluding temporary impact (time-lag effect on gas business and electricity business)



business portfolio by increasing the frequency of corporate operations divisions' reviews on our business plan and resource allocations, aiming for the sustainable growth of the Group businesses.

## Investment in New Businesses Where We Can Leverage Our Strengths

In FY2022.3, we made investments worth 141.3 billion yen in projects to develop power sources such as the Himeji Natural Gas Power Plant and renewables, upstream business in North America, and real estate assets in Japan with the aim of expanding revenue.

We plan to execute steady investments in the cumulative amount of approximately 500 billion yen

for the period up to March 2024 under the Medium-Term Management Plan for business growth in key areas including decarbonization-related fields such as renewable energy (about 120 billion yen), International Energy business, and Life and Business Solutions (LBS).

In our investment for business growth, we focus on ROIC as a target in our renewable energy development project in Japan, where we invest with strategic partners to minimize our investment amounts while maximizing our power offtake in excess of our stakes in the projects. In renewable energy development overseas, we aim to enhance investment efficiency by participating in projects at an early stage while implementing risk-reduction measures through

strategic collaborations with partners.

In our investments for quality improvement, we are increasing investments for digital transformation and resilience enhancement.

For the sound and sustainable growth of the Daigas Group, we work to maximize ROIC from medium- to long-term perspectives while increasing profits and boost our operating cash flows to 575 billion yen, 1.5 times the FY2019.3 – FY2021.3 cumulative forecast, in the three years of the Medium-Term Management Plan.

### ■ ROIC enhancement measures

Promote business units' autonomous asset divestment	<ul style="list-style-type: none"> <li>■ Sell overseas assets that have completed their purpose (Idemitsu Snorre, 4 IPP projects including one with expired PPA*1)</li> <li>■ For cross-shareholdings, re-examine the significance of holdings for each individual stock and sell stocks appropriately (divestment of 9 stocks)</li> </ul>
Improve asset efficiency	<ul style="list-style-type: none"> <li>■ Consider securitization of the Group-owned real estate</li> <li>■ Mitigate business risk and improve asset efficiency through leasing in industrial energy services</li> </ul>
Invest in assets with focus on ROIC target	<ul style="list-style-type: none"> <li>■ In renewable energy development in Japan, maximize investment efficiency through joint investments with strategic partners, power offtake in excess of stakes in the project, innovation in finance schemes, etc.</li> <li>■ In renewable energy development overseas, enhance investment efficiency by participating in projects at an early stage</li> </ul>

■ Domestic Energy ■ International Energy ■ Life & Business Solutions

\*1 Power Purchase Agreement





## Investment Risk Management

In our investments, we aim to maintain a good balance between risk and return, not taking high risks to seek excessively high returns and avoiding unnecessary risk control. We manage investment risk by ensuring the following four points.

The first is the investment project's consistency with our strategy. Besides evaluating project profitability, we assess the project potential for synergies with the Group's other businesses and enhancement of business execution capabilities.

The second is the evaluation of the inherent risks of the investment project. We make decisions on investment through strict evaluations and deliberations of target projects at the Investment Evaluation Committee based on our group-wide investment standards, taking into account the evaluation results made by the Investment Risk Management Office, our internal organizations for financial and legal affairs, as well as external consultants when necessary.

The third is the maintenance of a good balance with financial soundness. We quantitatively assess potential losses for each risk in investment and balance risk and return across the entire Group to make it possible to

sustainably conduct investments for business growth while maintaining a certain level of financial soundness in the face of the risks.

The fourth is follow-up after investment. We conduct annual follow-ups on each investment project based on our investment monitoring standards, where we evaluate whether the project satisfies the original purpose of our investment, keeps up with the changes in the business environment, and faces any issues with its progress and profitability. Depending on the evaluation results, we take necessary actions such as improving project profitability and considering divestiture or withdrawal.

## Shareholder Returns According to Profit Growth

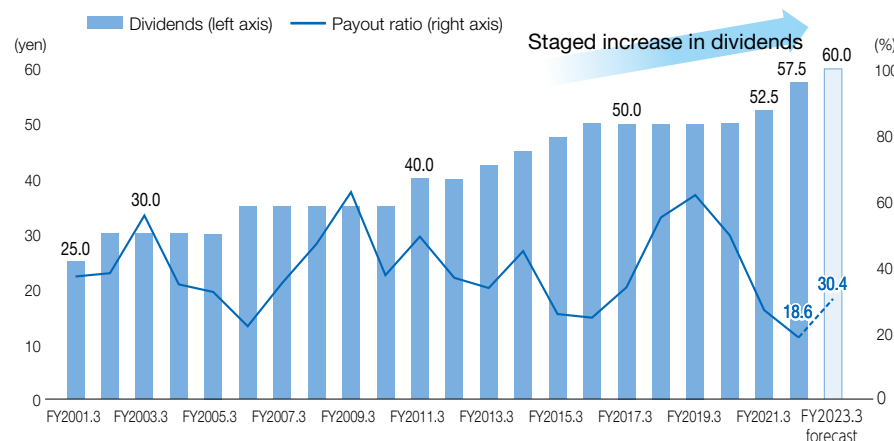
As our shareholder return policy, we intend to provide stable dividends while maintaining a consolidated dividend payout ratio of 30% or higher excluding short-term profit fluctuation factors, and increase dividends when we achieve profit growth.

In FY2022.3, we achieved the payout ratio of 18.6% due in part to the temporary profit-increasing factors, such as our overseas subsidiary's recording of deferred tax assets and income taxes – deferred (gain). In the meantime, we raised dividend forecasts for two consecutive fiscal years in view of the achieved growth and estimated future profits.

We will implement optimal shareholder-return

policy formulated based on comprehensive evaluation of projected free cash flow, progress in investments for business growth, business performance, and financial situation, taking into account factors such as the accelerating decarbonization trend and intensifying competition driven by non-energy players' entry into the gas and power markets.

### Dividends and payout ratio

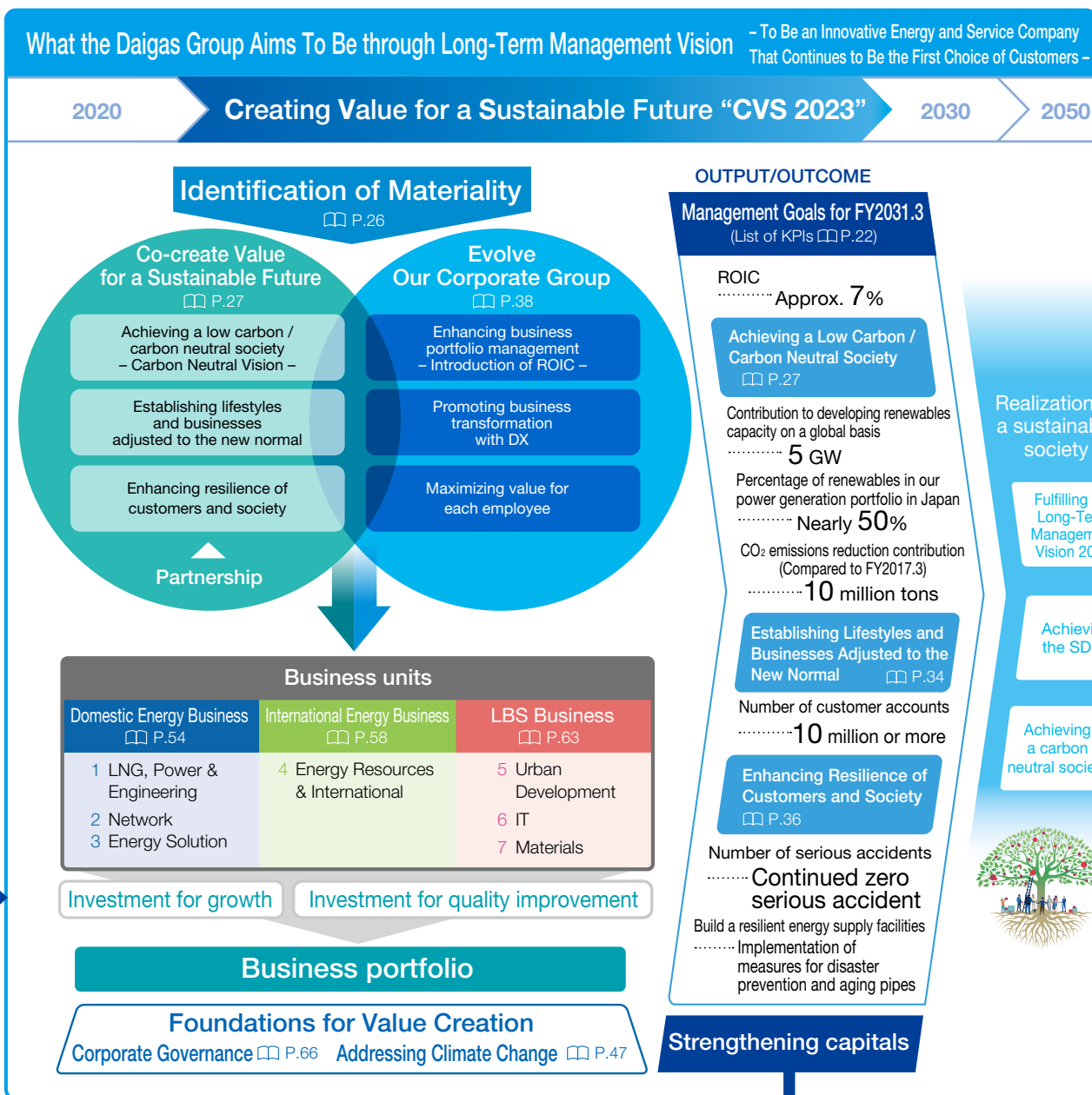


Note: The calculation of figures for 2017 and prior includes the effects of share consolidation (5 shares to 1 share) conducted in October 2017.



# Value Creation Process

We aim to realize sustainable value creation for stakeholders and society by leveraging our capitals with strengths and following our values that have been long cherished since the company's foundation.







# Daigas Group's Businesses and Capitals with Strengths (Data as of March 31, 2022)

We aim to create value for a sustainable future and evolve as an aggregate of multiple businesses through expansion into new global fields. We will strive to achieve that by leveraging our capitals with strengths and our expertise in the three core business segments: the Domestic Energy Business, International Energy Business, and Life & Business Solutions Business.



\*Capital is organized in accordance with the International Integrated Reporting Framework.

✂ Manufactured capital			📊 Financial capital		💡 Intellectual capital		👤 Human capital		🌿 Natural capital		🏢 Social and relationship capital	
Natural gas liquefaction processing plant	Power generation capacity (in operation)	Total pipeline length	Cash flows from operating activities		Number of patents held		Number of employees		Natural gas resources		Number of customer accounts*	
1 location	4.409 GW (Of which, renewable energy: 523 MW)	Approx. 63,300 km	145.3 billion yen		2,913 patents		20,961 employees				Approx. 9.81 million	
Carriers owned by the Group	Gas manufacturing plant	Central Control Office*	Financial soundness		R&D expenses		Employee Attitude Survey		Renewable energy		Low-voltage electricity supply contracts:	
8 ships	2 locations	* Operating 24 hours a day, 365 days a year to ensure stable supply and safety	D/E ratio		9.5 billion yen						Approx. 1.61 million	
			0.65 times								Gas supply contracts:	
			Shareholders' equity ratio								Approx. 5.02 million	
			49.0%								Service chain partners	
											Approx. 200 stores	
											Co-creation relationship with stakeholders	

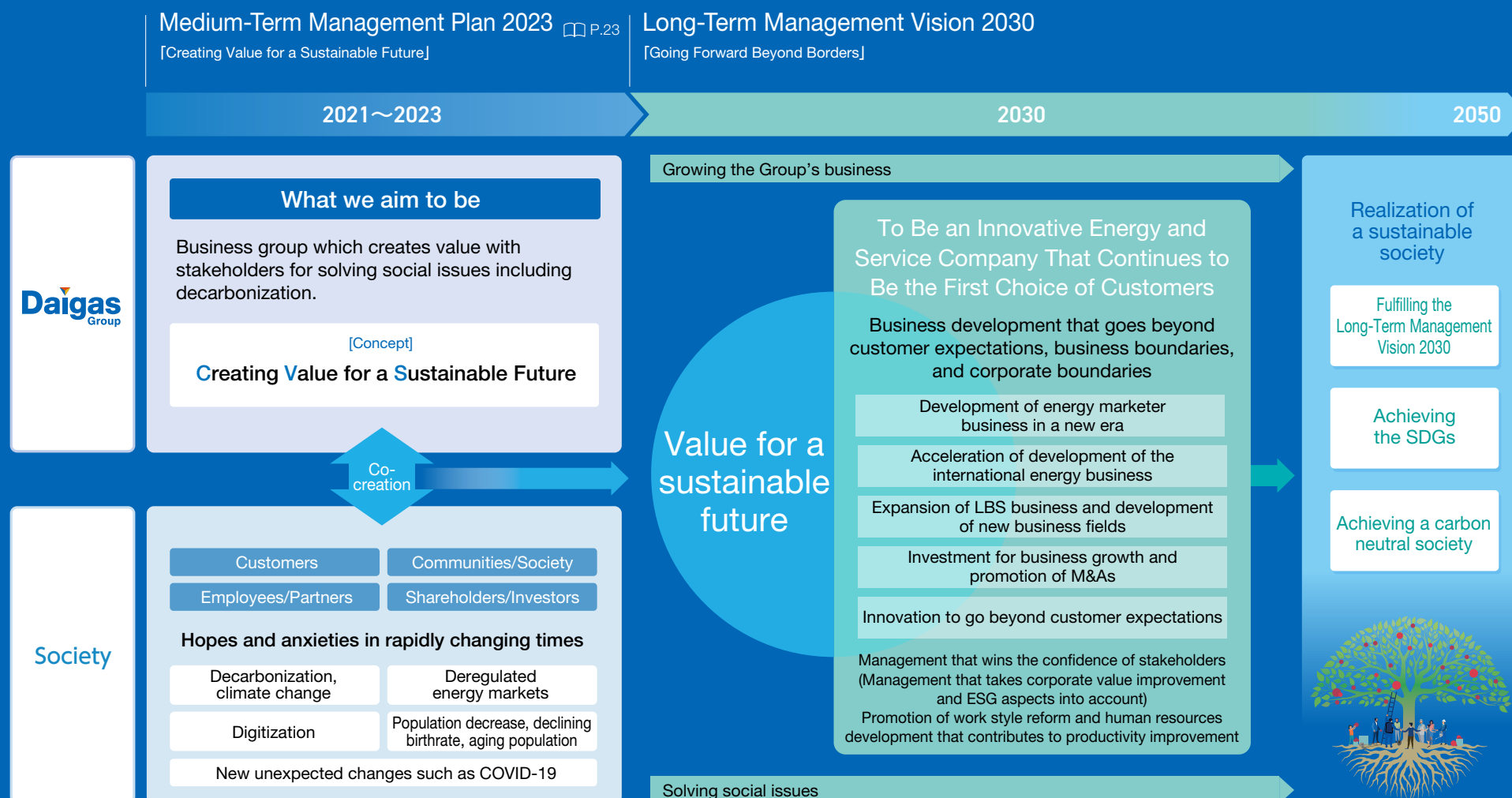
\*Total number of contracts, including city gas, electricity, LPG, ENE-FARM, Sumikata Service, and utility agent contracts.



# Long-Term Management Vision 2030 and Medium-Term Management Plan 2023

In 2017, the Daigas Group formulated a Long-Term Management Vision that looks toward FY2031.3, aiming to be “an innovative energy and service company that continues to be the first choice of customers” and achieve carbon neutrality by 2050.

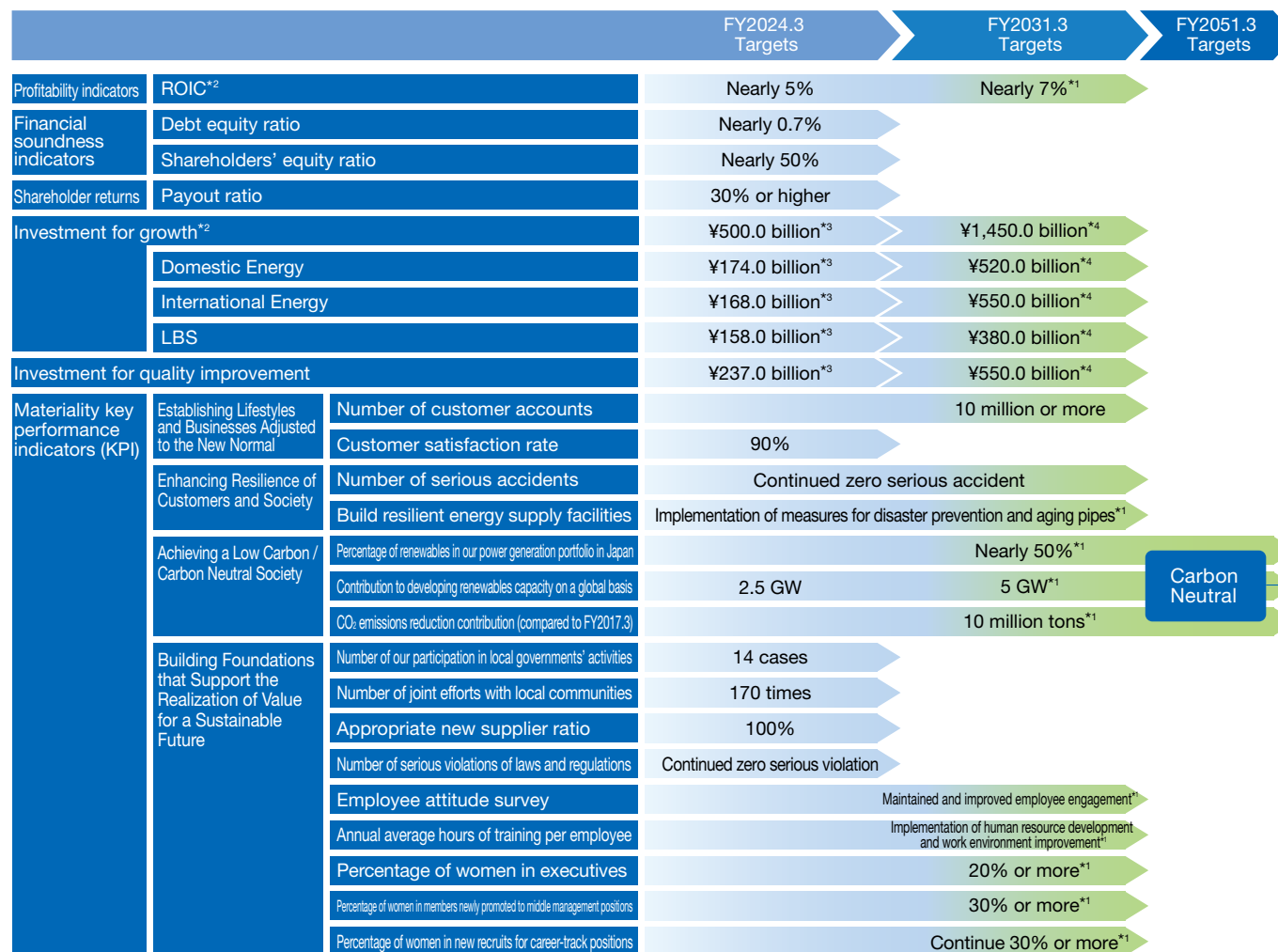
In our Medium-Term Management Plan 2023, “Creating Value for a Sustainable Future,” announced in 2021, we have adopted a backcasting approach from our long-term vision in formulating our plan. Our aim is to create “value for a sustainable future” together with our stakeholders and continue to grow as a corporate group that creates value that contributes to solving social issues, with the goal of achieving a sustainable society.





In formulating the Medium-Term Management Plan 2023 (Plan 2023), in addition to introducing ROIC as a management indicator, we newly identified important aspects (materiality) for the acceleration of ESG management. Please refer to [□□](#) page 16 for the results of financial indicators. Please refer to [□□](#) pages 25 to 26 for the results of the key performance indicators related to materiality.

## Medium- to Long-term Management Indicators



### Striving to achieve carbon neutrality by 2050

In light of the growing demands of society for responses to global warming, the Daigas Group aims to become carbon neutral by 2050. We plan to reach the goal through decarbonization of our gas and electricity by introducing methanation technology, which uses hydrogen generated by renewable energy, and by increasing the share of renewables in our power generation portfolio. Further, we announced our "Carbon Neutral Vision" in January 2021 to indicate our efforts to achieve this goal.

In March that year, we also announced our Medium-Term Management Plan 2023: Creating Value for a Sustainable Future. Within the Plan, we have updated some of the goals set forth in our "Long-Term Management Vision 2030" to further promote low carbonization and decarbonization.

Please refer to [□□](#) P.28-33 for the status of initiatives based on the Road Map to Carbon Neutrality.

\*1 Targets for FY2031.3 newly set in the Medium-Term Management Plan 2023

\*2 See [□□](#) P.39 for an explanation on ROIC.

\*3 FY2024.3 Targets are cumulative for FY2022.3 - FY2024.3.

\*4 FY2031.3 Targets are cumulative for FY2018.3 - FY2031.3.



# Medium-Term Management Plan 2023

## Medium-Term Management Plan 2023 as a Momentum Builder

Under the Medium-Term Management Plan 2023, we strive to build up momentum for a further growth of our business as a corporate group that provides solutions to achieving a sustainable society, focusing on creating value for a sustainable future with our stakeholders.

## Key Strategy

### I . Co-create Value for a Sustainable Future

Pursuing the creation of value for solving social issues alongside stakeholders.

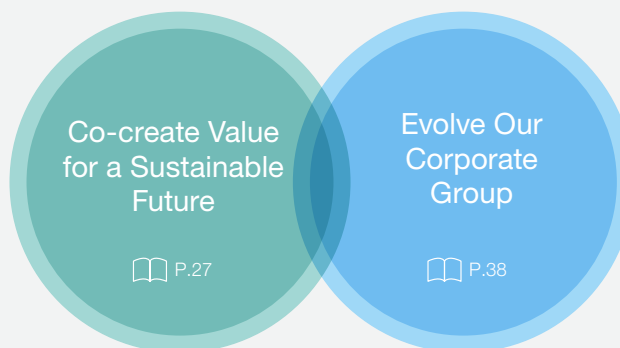
### II . Evolve Our Corporate Group

Building a robust business portfolio and strengthening the management foundation to support the enhancement of our business portfolio management.

## Key Initiatives

Cooperate with stakeholders globally

- Achieving a Low Carbon / Carbon Neutral Society P.27
- Establishing Lifestyles and Businesses Adjusted to the New Normal P.34
- Enhancing Resilience of Customers and Society P.36



- Enhancing Business Portfolio Management P.38
- Promoting Business Transformation with DX P.40
- Maximizing Value for Each Employee P.42

## Key points

Achieving approx. 5% in ROIC; Increasing cash flows from operating activities by 50%\*;  
Distributing shareholder returns when we achieve profit growth

\*Total amount from FY2022.3 - FY2024.3 divided by Total forecasts from FY2019.3 - FY2021.3





## Management Indicators

Indicators are as of March 2021, when the Medium-Term Management Plan 2023 was formulated and announced.

We aim to enhance our earning capabilities through growth of our existing business and growth by investment and to ensure shareholder returns depending on our profit growth while maintaining our financial soundness. We also strive to achieve growth in each of our business segments, which are Domestic Energy, International Energy, and Life & Business Solutions.

		FY2021.3 Forecasts	FY2024.3 Plan
Profitability indicators	ROIC* <sup>1</sup> (Reference) ROE	4.2% (7.0%)	Approximately 5% (Approximately 7.5%)
Shareholder returns	Payout ratio	30.5%	30% or higher* <sup>2</sup>
Financial soundness indicators	D/E ratio* <sup>3</sup>	0.65	Approximately 0.7
	Shareholders' equity ratio* <sup>3</sup>	50.1%	Around 50%

\*1 ROIC = NOPAT / Invested capital

NOPAT = Ordinary profit + Interest expenses - Interest income - Income taxes

Invested capital = (Business unit) Working capital + Non-current assets

(Group-wide) Interest-bearing debts + Shareholders' equity (average of the beginning and the end of each fiscal year)

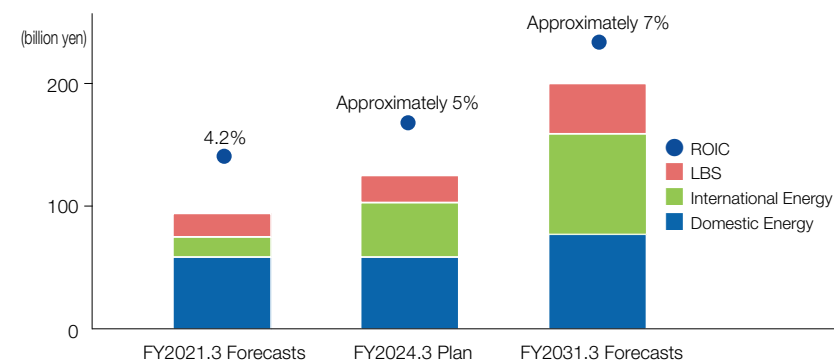
Interest-bearing debts excludes risk-free leased liabilities to us.

Excluding temporary impact on Domestic Energy Business (time-lag effect of Gas Business and Electricity Business).

\*2 Excluding short-time fluctuation factors that affect profits

\*3 Calculated with 50% of issued hybrid bonds as equity

Forecasts for ordinary profit by segment\*<sup>4</sup>



\*4 Excluding temporary impact. (Time-lag effect of Gas Business and Electricity Business)

We aim to achieve proper capital allocation to secure sufficient funds for investment and shareholder returns while minimizing external borrowing by enhancing our capabilities to increase cash flows from operational activities as well as replacing our assets.

### Cash In

Maintain financial soundness by reducing borrowing from financial institutions through asset replacement and growth of cash flows from operating activities. (Increasing cash flows from operating activities by 50% from the previous period)

### Cash Out

Implement strategic and selective investment for business growth in light of investment efficiency.

- Decarbonization area (Renewable energy in domestic and overseas, etc.)
- Areas where steady earnings contribution is expected (Business in North America, power source development, LBS business, etc.)
- New growth areas where strengths can be utilized, such as Asia

### [Breakdown of investment for growth]

(billion yen)

FY2019.3 - 2021.3 Forecasts	Domestic Energy 158.3	International Energy 250.3	LBS 115.6	524.0
FY2022.3 - 2024.3	174.0	168.0	158.0	500.0

As for investment for quality improvement, we intend to increase investment in decarbonization, DX, and resilience enhancement.

We strive to distribute shareholder returns depending on our profit growth and in accordance with the Shareholder Return Policy\*.

\*Maintain stable dividends, a consolidated dividend payout ratio of 30% or higher



# Materiality and Daigas Group Charter of Business Conduct

In light of the process to identify materiality, the Daigas Group has set forth “co-create value for a sustainable future” in its Medium-Term Management Plan, defining the pursuit of the creation of value for solving social issues alongside stakeholders as one of its key strategies.

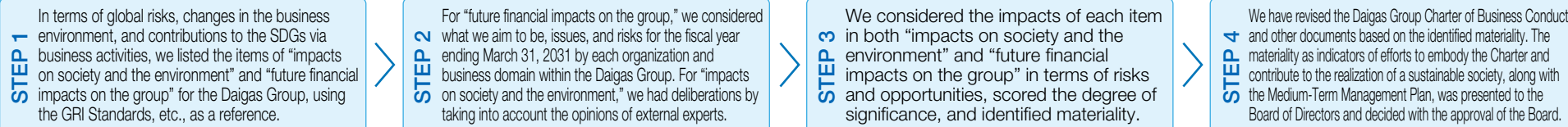
Through unified management that integrates corporate principles, the Medium-Term Management Plan, materiality, and key performance indicators (KPIs), we will work to accelerate ESG management.









Charter of Business Conduct	Important issues (Materiality)	Value for a sustainable future	Initiatives to create value for a sustainable future	Indicators	Goals	Fiscal year to be achieved	FY2022.3 Result	Contribution to SDGs
I	Maintain and expand customer base	Establishing lifestyles and businesses adjusted to the new normal	Maintain and expand customer base	Number of customer accounts	10 million or more	FY2031.3	9.81 million P.34	   
	Improvement of customer satisfaction and quality of services		Enhance customer relationship management	Customer satisfaction rate	90%	FY2024.3	92% P.35	
	Customer health and safety GRI Standards: 416-1	Enhancing resilience of customers and society	Maintain safety and quality levels	Number of serious accidents	Continued zero serious accident	FY2031.3	Zero serious accidents P.36	   
	Stable supply of services		Strengthen resilience of energy supply	Build a resilient energy supply facilities	Implementation of measures for disaster prevention and aging pipes	FY2031.3	Ratio of strengthening of earthquake resistance: about 89% Number of supply area subdivision: 709 blocks P.37	
II	Contributing to the sustainability of the environment and society	Climate change GRI Standards: 302-1 305-5	Implement carbon neutral measures	CO <sub>2</sub> emissions of Daigas Group	Net zero emissions	FY2051.3	26.79 million tons P.27	    
			Provide clean energy and expand renewable energy value chain	Percentage of renewables in our power generation portfolio in Japan*	Nearly 50%	FY2031.3	8.1% P.27	
				Contribution to developing renewables capacity on a global basis*	5 GW 2.5 GW	FY2031.3 FY2024.3	1.398 GW P.27	
			Promote advanced utilization of natural gas and environmental products	CO <sub>2</sub> emissions reduction contribution (compared to FY2017.3)	10 million tons	FY2031.3	3.36 million tons P.27	
III	Engaging with and contributing to society	Coexistence with local community GRI Standards: 413-1	Promote communication with local communities	Number of our participations in local governments' activities (i.e. community development planning)	14 cases	FY2024.3	26 cases P.44	   
				Number of joint efforts with local communities	170 times	FY2024.3	167 times P.44	

\*Includes power sources under the feed-in tariff (FIT) system.



## Materiality Identification Process



Charter of Business Conduct	Important issues (Materiality)	Value for a sustainable future	Initiatives to create value for a sustainable future	Indicators	Goals	Fiscal year to be achieved	FY2022.3 Result	Contribution to SDGs
<b>IV</b> Respecting human rights	Supply chain management GRI Standards: 308-1 414-1	Building foundations that support the realization of value for a sustainable future	Build a responsible supply chain	Appropriate new supplier ratio	100%	FY2024.3	100% P.44	   
<b>V</b> Complying with laws and regulations	Compliance GRI Standards: 307-1 418-1 419-1		Promote the Group's compliance	Number of serious violations of laws and regulations	Continued zero serious violation	FY2024.3	Zero serious violations of laws and regulations P.44	 
<b>VI</b> Providing work environment that supports employees' personal growth	Employee engagement		Create a workplace where employees can feel a sense of fulfillment	Attitude survey (Loyalty Score)	Maintained and improved employee engagement	FY2031.3	Design/implementation completed P.43	 
	Development of employee skills GRI Standards: 404-1			Annual average hours of training per employee	Implementation of human resource development and work environment improvement	FY2031.3	28.6 hours/person Hours of e-Learning courses (safety, information security, environment, etc.) were taken* 4.50 hours/person P.43	
	Diversity and inclusion GRI Standards: 405-1		Promote diversity and inclusion	Percentage of women in 1. executives, 2. members newly promoted to the middle management positions, and 3. new recruits for career-track positions	1. 20% or more 2. 30% or more 3. Continue 30% or more	FY2031.3	1. 13.3% 2. 6.3% 3. 28.1% P.43	

\*Includes some temporary employees and part-time workers



## I . Co-create Value for a Sustainable Future

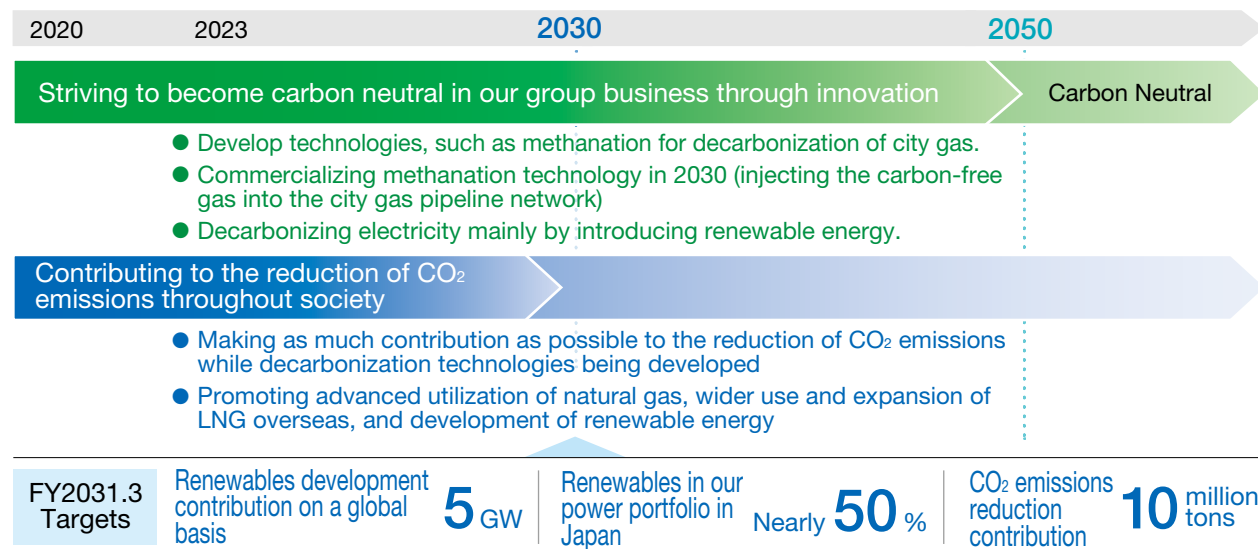
## Achieving a Low Carbon/Carbon Neutral Society

What We  
Aim to Be

As our contribution to achieving a low carbon / carbon neutral society, we strive to become carbon neutral by 2050 through decarbonization of our gas and electricity and through contribution to the reduction of CO<sub>2</sub> emissions.

## Aiming to Become Carbon Neutral by 2050

The Daigas Group aims to become carbon neutral by 2050. We plan to reach the goal through decarbonization of our gas and electricity by introducing methanation to generate gas with renewable energy and hydrogen and by increasing the share of renewables in its power generation portfolio. In the meantime, the Daigas Group set the following targets for 2030 as the milestones for the Group's contribution to the reduction of CO<sub>2</sub> emissions throughout society.



**Daigas**  
Group  
Strengths of  
the Daigas Group

Know-how of developing and operating renewable power sources

Expertise of fuel conversion to natural gas for in-house power generators and heat consuming facilities

Experience in procuring competitively priced LNG and developing shale gas

Accumulated knowledge of methanation technology

Materiality

Climate Change

## Indicators and FY2022.3 Results

CO<sub>2</sub> emissions across the Group ▶ **26.79 million tons**

We are actively promoting a range of activities, including the reduction of CO<sub>2</sub> emissions during liquified natural gas (LNG) transportation, city gas production, and power generation, the company-wide roll-out of various energy-saving initiatives in offices, and the ongoing verification of energy use data. CO<sub>2</sub> emissions across the Group in FY2022.3 were 26.79 million tons.

Percentage of renewables in our power generation portfolio in Japan ▶ **8.1 %**

Renewables development contribution on a global basis ▶ **1.398 GW**

We are pursuing the spread of renewable power sources such as wind, solar and biomass, with renewables accounting for 8.1% of our power generation portfolio in FY2022.3. Renewables development contribution was 1.398 GW.

CO<sub>2</sub> emissions reduction contribution (compared to FY2017.3) ▶ **3.36 million tons**

We have taken several initiatives, which included cryogenic power generation at our LNG terminals, the introduction of renewable energy sources in Japan and high-efficiency thermal power generation in both Japan and abroad, the introduction of fuel cells and gas-powered air conditioning and high-efficiency hot-water heaters at customer sites, and conversion to the use of natural gas as a fuel in Japan and abroad. These efforts have resulted in a CO<sub>2</sub> emissions reduction contribution of 3.36 million tons in FY2022.3.



## Achieving a Low Carbon / Carbon Neutral Society

## Initiatives to Achieve Carbon Neutrality

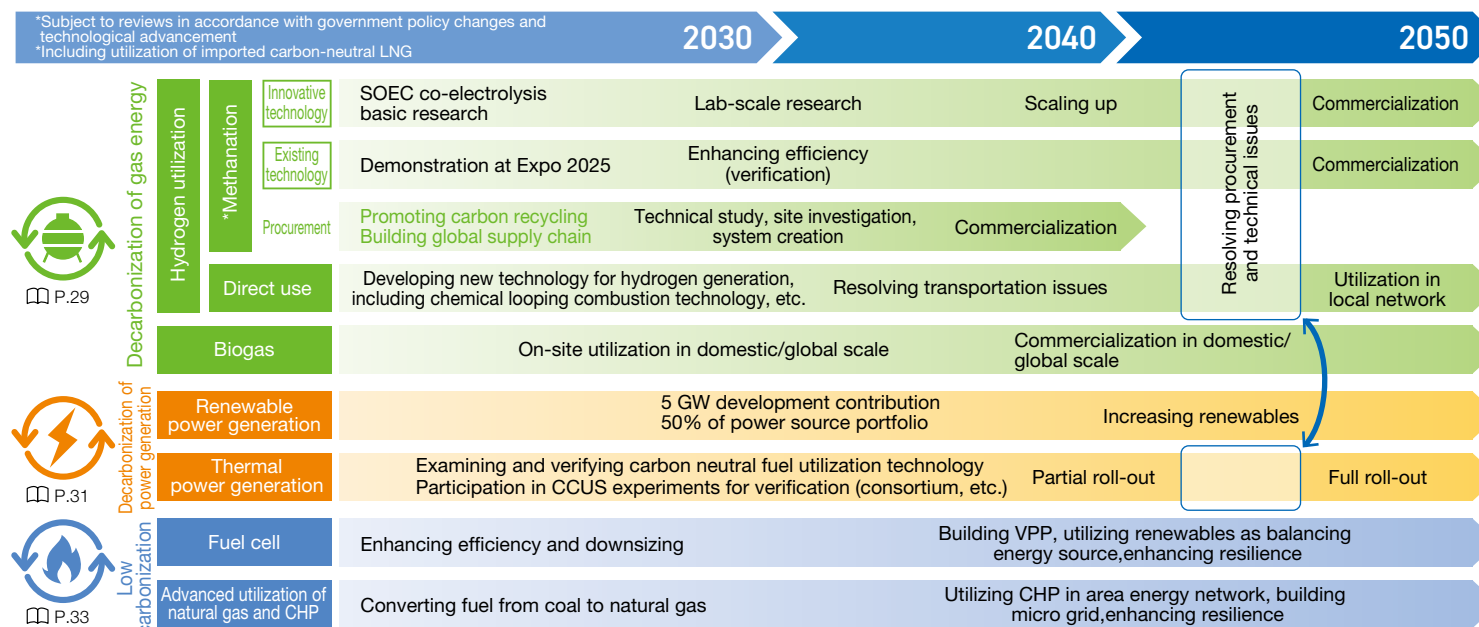
The Daigas Group aims to become carbon neutral by 2050 through the decarbonization of city gas through innovations such as methanation and the decarbonization of electricity by increasing the share of renewables in its power generation portfolio.

In addition, because initiatives for the steady reduction of CO<sub>2</sub> emissions will be essential in the intervening years, we will pursue contributions to society-wide CO<sub>2</sub> emission reduction efforts.

As a way of indicating our initiatives for the realization of a carbon neutral society, we announced our Carbon Neutral Vision in 2021.

## Road Map to Carbon Neutrality

We aim to achieve our carbon neutrality goal through our ongoing initiatives including methanation R&D and renewable power generation capacity development and other activities as shown in the road map below.



## \*Methanation

Methanation is a technology that synthesizes methane, the main component of city gas, from hydrogen and CO<sub>2</sub>. Synthetic methane has the advantage of being able to use existing city gas infrastructure and gas appliances without changing them, and it can also be deployed in areas where electrification is difficult. Also, by recycling CO<sub>2</sub> and combining it with hydrogen derived from renewable energies, it will be able to contribute to the carbon neutralization of city gas in the future.

In the Green Growth Strategy and Sixth Strategic Energy Plan announced by the Ministry of Economy, Trade and Industry in collaboration with other relevant ministries and agencies, a target of injecting synthetic methane by 1% into existing infrastructure by 2030 was declared.





## Initiatives to Achieve Carbon Neutrality



## Decarbonization of Gas Energy

For the social implementation of methanation technology, the Daigas Group is engaged in a variety of activities aimed at introducing synthetic methane equivalent to 1%\*1 of gas sales by Osaka Gas in 2030. These activities include research and development and building global supply chains. SOEC methanation technology is an innovative technology that offers energy efficiency well in excess of conventional processes by making effective use of waste heat. We will develop the elemental technology and conduct small-scale experiments with the aim of establishing this technology in 2030. This technological development has been selected as a Green Innovation Fund project. We are also conducting research and development into biomethanation technology, in which our fermentation technology is used to convert biogas, derived from sewage sludge and other sources, and hydrogen into methane. In addition, INPEX Corporation and we will conduct a demonstration experiment of the production of synthetic methane from CO<sub>2</sub> collected from INPEX Nagoaka Field Office from the second half of FY2025.3 into FY2026.3. The methanation facility to be developed in this project will have a production capacity of approximately 400 normal cubic meters per hour, making it one of the largest scale operations of its kind in the world.\*2

\*1 Approximately 60 million m<sup>3</sup> (based on city gas sales volumes in FY2021.3) \*2 As of October 15, 2021

## ■ Progress of major initiatives from FY2022.3

				Plan and details of initiatives	Period	Main operators
Decarbonization of gas energy	Hydrogen utilization	Methanation	SOEC methanation*1	SOEC methanation has been adopted by the Green Innovation Fund project (NEDO*2 project)	From FY2023.3 to FY2031.3	Osaka Gas National Institute of Advanced Industrial Science and Technology Toshiba Energy Systems & Solutions Corporation
			Biomethanation	Commence small-scale experiment of biomethanation using biogas generated at sewage treatment plant (MLIT applied research)	From 1st half of FY2023.3 to March 2024 (scheduled)	Osaka Gas Kyoto University NJS CO., LTD. Osaka City
			Sabatier methanation*3	Commence methanation demonstration experiment (Ministry of Environment project) using hydrogen derived from renewable energies and biogas derived from kitchen waste	From FY2023.3 to FY2026.3 (From FY2023.3 to FY2025.3, trial will be conducted inside Osaka Waste Management Authority Maishima Incineration Plant in Konohana Ward, Osaka Prefecture. Equipment will be relocated to Expo 2025 site in FY2025.3)	Osaka Gas Hitachi Zosen Corporation Osaka City Japan Association for the 2025 World Exposition
				Commence one of the world's largest Sabatier methanation technology development projects (NEDO project) jointly with INPEX Corporation □□ P.55	From 2nd half of FY2022.3 to Mar. 31, FY2026	INPEX Corporation Osaka Gas Nagoya University (Tokai National Higher Education and Research System)
		Existing technology				

\*1 Use of SOEC equipment to electrolyze water and CO<sub>2</sub> into hydrogen and CO using renewable energy, etc., and then synthesize methane by catalytic reaction.

\*2 New Energy and Industrial Technology Development Organization

\*3 CO<sub>2</sub> conversion by catalytic reaction with hydrogen derived from renewable energy, etc. to synthesize methane.



## Initiatives to Achieve Carbon Neutrality

Overseas, we are conducting feasibility studies on methanation projects in Australia and other regions and examining these projects with a view to building a supply chain for synthetic methane. In addition, to examine the potential for the use of synthetic methane in Asia, we are conducting a feasibility study on the methanation business in Singapore.

Further, besides synthetic methane, we are pursuing a variety of initiatives aimed at the decarbonization of gas energy. These include the technical study related to the production and transportation of green hydrogen in Australia and elsewhere, the technology development of small engine system using ammonia as fuel, and a study on the utilization of biomethane in Indonesia.



			Plan and details of initiatives	Period	Main operators	
Decarbonization of gas energy	Methanation	Building global supply chain	Commence a feasibility study on a methanation project in Singapore □□ P.60	<ul style="list-style-type: none"><li>• Conduct site selection and investigation for methanation equipment in Singapore, technical study</li><li>• Examine CO<sub>2</sub> and hydrogen supply and transportation methods</li></ul>	Scheduled for completion in 2022	Osaka Gas Singapore Pte. Ltd. City Energy Pte. Ltd. City-OG Gas Energy Services Pte. Ltd. Local companies in Singapore
			Commence joint study on decarbonization projects in wide-ranging areas, including methanation, hydrogen and CCUS, with Shell	<ul style="list-style-type: none"><li>• Commence feasibility studies in wide-ranging areas, including methanation, hydrogen, biomethane, and CO<sub>2</sub> capture, utilization, and storage (CCUS), for the realization of a carbon neutral society</li><li>• In the methanation area, reach agreement for a tripartite joint study including TOKYO GAS</li></ul>	Agreed to proceed with joint study in June 2022	Osaka Gas Shell Eastern Petroleum Pte. Ltd. Tokyo Gas Co., Ltd. (methanation area)
			Commence joint study on Australian methanation business □□ P.60	<ul style="list-style-type: none"><li>• Conduct site selection and investigation for methanation experiment equipment, technical study</li><li>• Examine CO<sub>2</sub> and hydrogen supply methods and synthetic methane transportation and sales methods</li><li>• Examine business model for the domestic market in Australia and export markets, economical evaluation, etc.</li></ul>	2022 - 2023 (scheduled)	Osaka Gas Australia Pty. Ltd. ATCO Australia Pty. Ltd.
	Hydrogen utilization	Direct use	Conclude joint development agreement for green hydrogen production project in Australia □□ P.60	<ul style="list-style-type: none"><li>• Produce green hydrogen*1 using water collected from the atmosphere and off-grid solar power</li><li>• Examine to supply green hydrogen to power stations in Australia and export to overseas markets</li></ul>	Aim to build hydrogen production plant before end of 2023	Osaka Gas Aqua Aerem Pty. Ltd.
			Participate in a feasibility study on green hydrogen hub project in Australia	<ul style="list-style-type: none"><li>• Aim to produce green hydrogen and supply it to operators in Australia, as well as export it to overseas markets</li><li>• Examine construction of production and distribution facilities for green hydrogen and synthetic methane, etc.</li><li>• Conduct demand survey and economical evaluation, etc. jointly with partners</li></ul>	Scheduled for completion in 2022	Osaka Gas Australia Pty. Ltd. AGL Energy Limited INPEX Corporation, Adbri, Brickworks, Flinders Ports, SK ecoplant, Spark Renewables, Fortescue Future Industries
			Conclude memorandum of understanding on supply of liquid hydrogen to Singapore's Keppel DC	<ul style="list-style-type: none"><li>• Conclude memorandum of understanding to study the technical and commercial feasibility of a long-term, stable supply chain of sustainable liquid hydrogen (LH<sub>2</sub>) from Western Australia to Singapore and Japan</li></ul>	Concluded basic MOU in December 2021	Osaka Gas Singapore Pte. Ltd. City-OG Gas Energy Services Pte. Ltd. Woodside Energy Ltd. Keppel Data Centres Holding Pte. Ltd. City Energy Pte. Ltd.
			Commence joint examination in hydrogen areas with ITOCHU Corporation and Nel ASA	<ul style="list-style-type: none"><li>• Explore and progress hydrogen-related businesses and jointly assess and examine business opportunities of individual projects</li></ul>	Commenced examination in October 2021	ITOCHU Corporation Nel ASA Osaka Gas (joint evaluation and study)
		Use of ammonia	Commence technological development and demonstration of small engine system for ammonia fuel (Ministry of Environment project)	<ul style="list-style-type: none"><li>• Establish elemental technology for ammonia engine</li><li>• Demonstrate properties of engine system</li><li>• Conduct operational demonstration of engine equipped with actual machine</li></ul>	From FY2022.3 to end of FY2023.3	Osaka Gas Toyota Industries Corporation
	Use of biogas	Conclude agreement for joint study on the utilization of biomethane in Indonesia	Conclude agreement for joint study on the utilization of biomethane*2 derived from palm oil mill effluent in Indonesia	Concluded agreement for joint study in April 2022	Osaka Gas PT Pertamina, Indonesia INPEX Corporation JGC Holdings Corporation	

\*1 Hydrogen produced by using renewable energy, etc. without emitting CO<sub>2</sub> in the production process

\*2 A biofuel with a higher methane concentration produced by refining biogas (main components are methane and CO<sub>2</sub>) resulting from anaerobic fermentation of organic waste derived from living organisms; widely considered as an alternative fuel to natural gas due to properties that are very similar to fossil fuel-based natural gas.



## Initiatives to Achieve Carbon Neutrality



## Decarbonization of Power Generation

The Daigas Group is accelerating multiple projects in Japan and overseas to contribute to renewables development.

In FY2022.3, we conducted an environmental assessment of offshore wind power generation projects in Japan, as well as collaborating with other operators and investing in solar power generation projects in Japan and overseas.

## Issuance of 1st Transition Bonds (44th unsecured corporate bonds)

Osaka Gas issued transition bonds\* with an issue amount of 10 billion yen on June 2, 2022.

The procured funds will be put to use in renewable energy business and projects that contribute to fuel conversion at customer facilities to natural gas.

\*Transition bond: Corporate bonds issued for the purpose of using the funds from them for initiatives that are in line with the company's long-term transition strategies to reduce greenhouse gas emissions

## ■ Progress of major initiatives from FY2022.3

Decarbonization of power generation

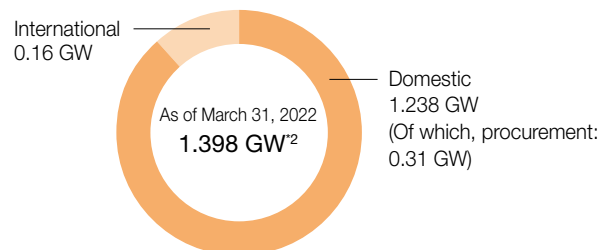
	Plan and details of initiatives		Period	Main operators
Renewable power generation	Acquire and commence commercial operation of Brighter Future Solar Farm (U.S.A.) 📖 P.61	Power generation capacity: 15.7 MW	Acquired September 2021 Commercial operation commenced January 2022	Osaka Gas USA Corporation Mitsubishi Heavy Industries America, Inc. Oriden LLC
	Commence commercial operation of Shiribetsu Wind Power Plant	Power generation capacity: 27 MW	Commercial operation commenced September 2021	Daigas Gas and Power Solution Co., Ltd.
	Acquisition of onshore wind power plant in Yokohama Town, Aomori Prefecture	Power generation capacity: 43.2 MW	Acquired July 2021 Commercial operation scheduled to commence April 2023	Osaka Gas Tokyu Land Corporation Development Bank of Japan Inc. GK Yokohama Town Wind Power
Thermal power generation	Examine study/development of offshore CCS project in Australia	Jointly examine the development of offshore CO <sub>2</sub> capture and storage (CCS) hub project, deepC Store	Commenced examination in June 2021	Osaka Gas Osaka Gas Australia Pty. Ltd. JX Nippon Oil & Gas Exploration Corporation Toho Gas Co., Ltd. Commonwealth Scientific and Industrial Research Organisation (CSIRO; Australia) Kyushu Electric Power Company, Incorporated Mitsui O.S.K. Lines, Ltd. Tokyo Gas Australia Pty. Ltd. Technip Energies N.V. Add Energy Group

Issuance of Transition Bonds	<p>As part of our efforts to procure the necessary funds for our initiatives toward carbon neutrality in 2050, we have formulated a Green/Transition Finance Framework.</p> <p>We have obtained a “Second-Party Opinion” from DNV Business Assurance Japan K.K., a third party reviewer, regarding the compliance with various principles, etc. pertaining to transition finance under the framework.</p> <p>The bonds were selected as a “Model Example for the 2021 Climate Transition Finance Model Projects” by the Ministry of Economy, Trade and Industry.</p> <p>[Purpose of Use of funds]</p> <ul style="list-style-type: none"><li>• Renewable energy business</li><li>• Projects that contribute to fuel conversion at customer facilities to natural gas</li></ul>	<p>Issue date: June 2, 2022</p> <p>Issue amount: 10 billion yen</p>	<p>[Target projects for use of funds]</p> <ul style="list-style-type: none"><li>• Inami Wind Power Plant</li><li>• Noheji Mutsu Bay Wind Farm</li><li>• Yokohama Town Wind Power Plant</li><li>• Daigas Oita Mirai Solar Power Plant</li><li>• Natural gas supply business in Shikokuchuo City, Ehime Prefecture</li></ul>
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## Initiatives to Achieve Carbon Neutrality

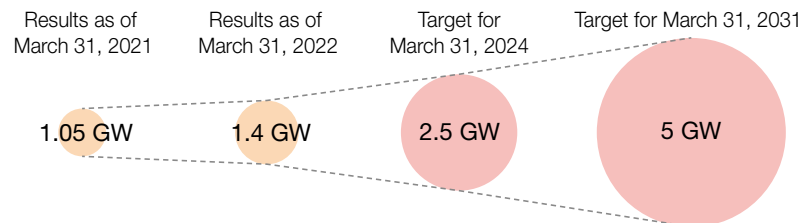
## Renewables development contribution\*1



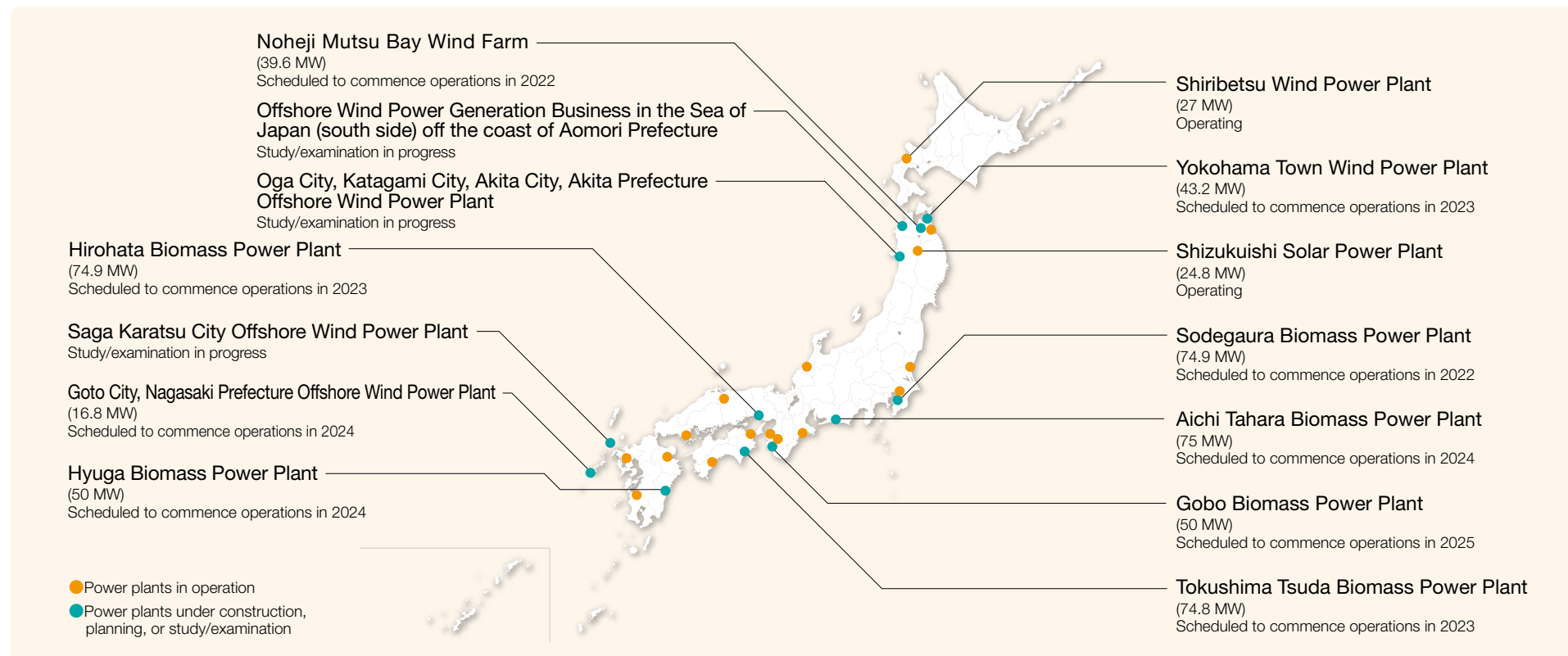
\*1 Including power projects which are eligible for the feed-in tariff (FIT) scheme

\*2 Including power projects under construction and for which decisions have been made

## Renewables development contribution - targets and results



## Main renewable energy sources (most recent major projects)





## Initiatives to Achieve Carbon Neutrality

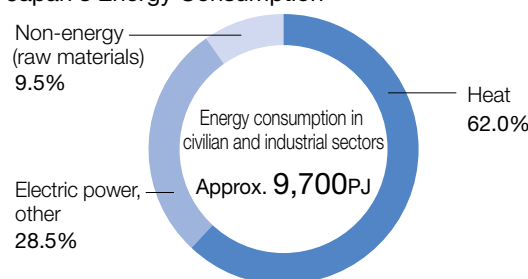


## Low carbonization

Heat demand accounts for approximately 60% of energy consumed in Japan's civilian and industrial sectors. In the industrial sector in particular, there is demand for high temperatures that are difficult to accommodate with electrification.

To achieve its Carbon Neutral Vision 2050, the Daigas Group is proceeding with low carbonization during the transitional phase, including the low carbonization of heat demand through fuel conversion to natural gas and the advanced utilization of natural gas through the implementation

## ■ Japan's Energy Consumption



[Source] Produced by The Japan Gas Association based on the Energy White Paper 2020

of cogeneration.

In October 2021, Daigas Energy Co., Ltd. realized the reduction of CO<sub>2</sub> emissions from the lime firing kiln<sup>\*1</sup> at the Mishima Mill of Daio Paper Corporation in Shikokuchuo City, Ehime Prefecture by co-firing natural gas and heavy oil in the equipment. By also switching fuel for the mill's paper machines to natural gas, the mill's CO<sub>2</sub> emissions are expected to be reduced by about 22,000 tons per year (lime firing kiln: approximately 19,000 tons per year; paper machines: approximately 3,000 tons per year).

In November 2021, Daigas Energy Co., Ltd. began retrofit of a coal-fired power plant at the Iwakuni Production Center (Iwakuni City, Yamaguchi Prefecture) of Toyobo Co., Ltd. with a thermal power plant fueled by natural gas and RPF.<sup>\*2</sup> The new power plant, which is scheduled to commence operation in October 2023, will reduce CO<sub>2</sub> emissions by about 80,000 tons per year.

With the recent global progress in the introduction of

<sup>\*1</sup> Equipment for firing lime used in the kraft pulp manufacturing process to reuse it  
<sup>\*2</sup> RPF stands for "refuse derived paper and plastic densified fuel." It is a solid fuel made mainly from used paper and waste plastics.

renewable energy, functions to stabilize the supply-demand balance have taken on increasing importance in order to respond the volatile renewable output, which often fluctuates depending on weather conditions.

Through our wholly owned subsidiary, Osaka Gas UK, Ltd., Osaka Gas signed an agreement to underwrite a capital increase of Jedlix B.V., a startup that operates electricity balancing<sup>\*3</sup> services business in Europe. In doing so, we have participated in Europe's balancing market,<sup>\*4</sup> which is one of the most highly developed in the world.

In Japan, we are engaged in a verification project to build a VPP<sup>\*5</sup> using the residential fuel cell system, ENE-FARM, as well as demand response services<sup>\*6</sup> using cogeneration systems targeting commercial and industrial customers.

<sup>\*3</sup> The power grid balancing needs to be constantly maintained by matching the power supply to demand through electricity charging and discharging in order to avoid causing blackouts and damaging infrastructures.

<sup>\*4</sup> The balancing market provides power grid operators with electricity reserves necessary to match the power supply to demand or maintain the grid frequency stabilization. Power grid operators issue grid balancing orders to electricity generators and aggregators, who receive fees for the services.

<sup>\*5</sup> A virtual power plant is a power supply service which aggregates and controls the capacities of decentralized power generating units as a single power plant by utilizing IT.

<sup>\*6</sup> A demand response service is a power supply service which contributes to grid stabilization by aggregating the capacities of decentralized power generating units.

## ■ Progress of major initiatives from FY2022.3

	Plan and details of initiatives		Period	Main operators
Low carbonization	Fuel cell	<div>Invest in Jedlix B.V., an EV balancing service platform developer in Europe 📖 P.61</div> <div>Participate in Europe’s balancing market, one of the most highly developed in the world</div>	Signed agreement to underwrite capital increase in November 2021	Osaka Gas UK, Ltd. Jedlix B.V.
		<div>Launch verification project of virtual power plant (VPP) using residential fuel cell ENE-FARM type S (Subsidized by Ministry of Economy, Trade and Industry)</div> <div>Remotely control approximately 500 ENE-FARM Type S units for: (1) Verification of technology for balancing capacity for stabilization of power grid (2) Verification of technology for control of output in line with grid supply-demand status</div>	June 2022 - February 2023 (scheduled)	Osaka Gas Eneres Co., Ltd.
Advanced utilization of natural gas and CHP		<div>Contribute to CO<sub>2</sub> emissions reductions by co-firing natural gas and heavy oil in lime firing kiln at Mishima Mill of Daio Paper Corporation</div> <div><ul style="list-style-type: none"><li>● Reduce CO<sub>2</sub> emissions by co-firing natural gas and heavy oil in lime firing kiln installed at Mishima Mill of Daio Paper Corporation</li><li>● Contribute to reduction of CO<sub>2</sub> emissions by approximately 22,000 tons per year (lime firing kiln: approximately 19,000 tons per year; paper machines: approximately 3,000 tons per year)</li></ul></div>	Announced in October 2021	Daigas Energy Co., Ltd.
		<div>Commence construction of low-carbon power plant fueled by natural gas and RPF at Iwakuni Production Center of Toyobo Co., Ltd.</div> <div><ul style="list-style-type: none"><li>● Began construction for an upgrade of coal-fired power plant to a thermal power plant fueled by natural gas and RPF</li><li>● Reduce CO<sub>2</sub> emissions by approximately 80,000 tons per year</li></ul></div>	Construction commenced in November 2021 Scheduled to commence operations in October 2023	Daigas Energy Co., Ltd.





## I . Co-create Value for a Sustainable Future

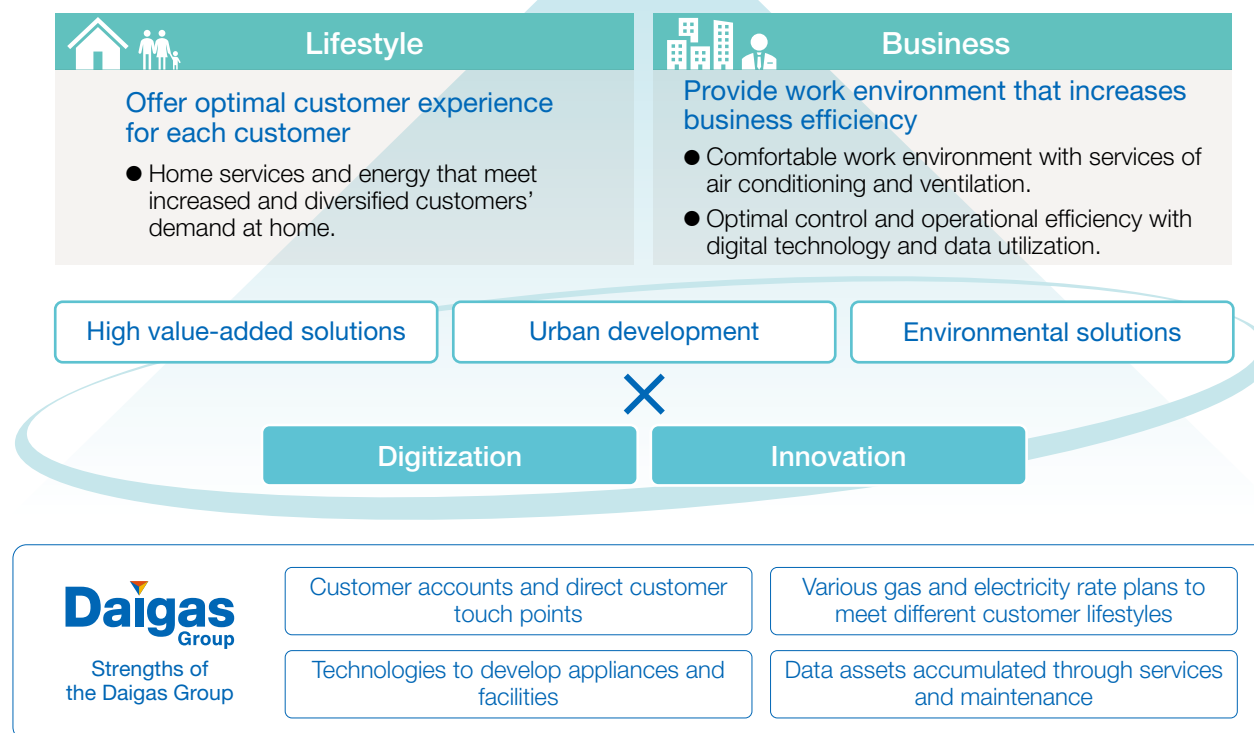
## Establishing Lifestyles and Businesses Adjusted to the New Normal

What We  
Aim to Be

We globally provide services as optimal solutions to each customer's adjustment of their lifestyles and businesses to the new normal.

## Provide solutions globally

Achieve 10 million customer accounts



## Materiality

Maintain and Expand Customer Base /  
Improvement of Customer Satisfaction  
and Quality of Services

## Indicators and FY2022.3 Results

Number of customer accounts ▶ **9.81 million**

The Daigas Group's business started more than 100 years ago from lighting (gas lamps). We have been expanding the applications of gas ever since to kitchens, hot-water supply, heating, and power generation, responding to various requests from customers. In addition, we have broadened the scope of our business to include industrial gas, real estate, telecommunications, new materials, and life-related fields, based on the relationships with a large number of customers. The Group's corporate purpose is to strive to make a multitude of customers' businesses and lifestyles better.

Setting the number of customer accounts, which means the number of contracts for gas and power supply, safety and warranty services, etc. as the indicator, we are working to establish their lifestyles and businesses adjusted to the new normal.

In FY2022.3, the Daigas Group focused on expanding its range of rate plans and its services related to household affairs and residential facilities, such as the Style Plans and With Plans, thereby offering value-added products and services that suit to customers' lifestyles and needs.

In the international energy business, we increased the number of new contracts through cooperation with local partner companies. Such new service development and alliance expansion resulted in 9.81 million customer accounts.



## Customer satisfaction rate ▶ 92%

For our customers to be able to use our products and services more safely and comfortably, the Daigas Group strives to ensure security and improve service quality. We also consider it important to appropriately provide information on safe use.

Since FY1989.3, Osaka Gas has conducted Customer Satisfaction Survey to improve customer satisfaction. The survey covers five areas of operation that have direct interaction with customers (opening gas valves, appliance repairs, appliance sales with installation, periodic safety inspections [gas facility surveys], and telephone support [customer center]). After each interaction, customers evaluate their levels of satisfaction in the survey, and the results are aggregated. Overall satisfaction represents the percentage of evaluations in the highest two ranks of a six-rank scale regarding customer satisfaction levels.

To achieve higher service standards, we have created a shared manual for each area of operation. We also raise awareness through training for managers and employees in charge.

We received 27,350 survey responses in FY2022.3, and the overall satisfaction level for the five areas of operation stood at 92%. We conducted an additional trial survey to collect feedback from a wider range of customers and increase response rates.

To ensure safety under the continued impact of COVID-19, we obtained prior approval when visiting customers and working in their homes. In addition, our employees visiting customers took thorough precautionary measures, including checking the body temperature on arrival at the office, gargling, hand washing, and mask wearing.

Based on customer feedback, we will continue to offer services from the customer's perspective.

### Main Initiatives

#### Development as an Energy and Services Marketer

We offer services and solutions to customers in response to diversified needs and the advancement of digital technologies.

##### Solutions for Residential Customers

- Expand value-added services and rate plans
- Offer services optimized for each customer combining electricity, ENE-FARM, IoT services, Sumikata Service, renovation, etc.
- Use digital technologies to offer solutions and diversify approaches

##### Solutions for Commercial and Industrial Customers

- Provide total energy solutions combining gas and electricity with water treatment, ventilation, air conditioning, IoT/ICT services, maintenance, etc.; promote new electricity businesses, including VPP
- Replace coal and heavy oil power generation, provide proposals on carbon-neutral LNG and city gas\*, spread gas air conditioning and cogeneration
- Strengthen proposals on renewable energy products by expanding D-Lineup\*

\*City gas with CO<sub>2</sub> offset by CO<sub>2</sub> credits

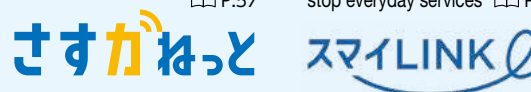
\*Services based on Decarbonization, Decentralization, and Digitalization

##### ■ Service via internet

□ P.57

##### ■ Digital platform offering one-stop everyday services

□ P.57



##### ■ A wide variety of rate plans and value-added plans



New, economical gas rate menu for customers who use various Osaka Gas services and equipment such as electricity, telecommunications, ENE-FARM, gas clothes dryers.

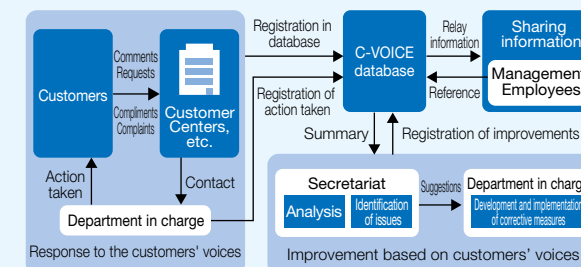
#### Incorporating Customer Opinions

##### Sharing Customer Opinions throughout Company

Osaka Gas has established a database system called “C-VOICE” to share customer opinions and demands among all employees. The company has reflected such customer voices in its business operations, product development and service quality.

Customer voices reaching the Company daily, including both positive and negative comments, are sorted out by the end of each day and filed into the “C-VOICE” system, to be shared later with all management and employees. In particular, with regard to complaints, we try to share not only the factual process and the status of our response to customers, but also measures to prevent recurrence and improve our systems.

##### ■ Overview of C-VOICE



##### Examples of Product Development and Improvement in Service Quality Based on Customers Comments

At Osaka Gas, we work to develop various products and improve the quality of services based on comments from our customers. In FY2022.3, we mainly improved systems for digital contact points (our website, My Osaka Gas, etc.).

Our efforts to improve our products and services are reported to our customers. Our website introduces various examples of improvements with the aim of attracting more comments from customers.



## I . Co-create Value for a Sustainable Future

## Enhancing Resilience of Customers and Society

What We  
Aim to Be

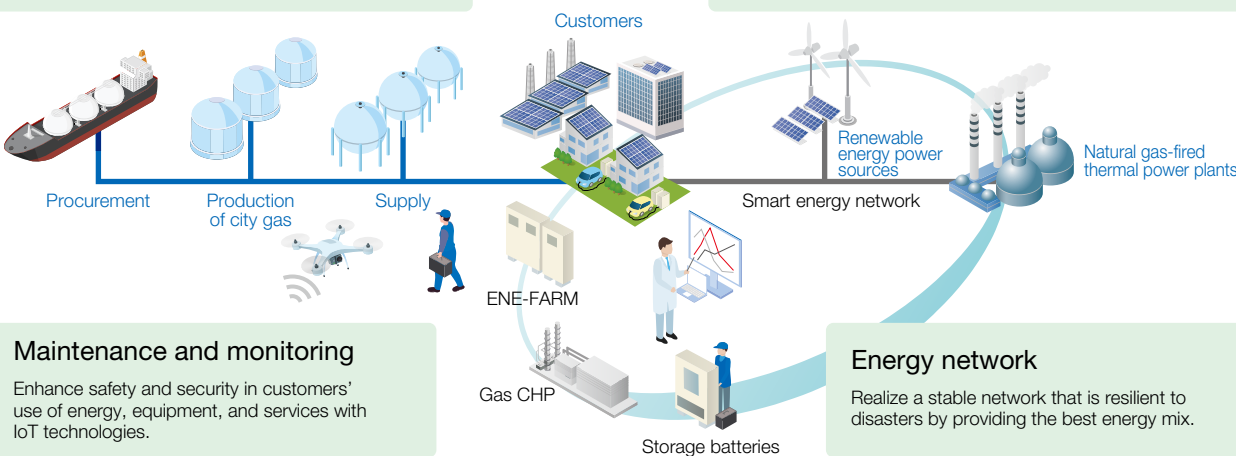
We aim to enhance energy resilience for customers and society by reinforcing gas supply chain infrastructure for stable supply and expanding energy network combined with distributed power sources.

## Gas supply chain

Ensure stable LNG procurement, energy security and stable supply, early recovery from natural disasters while preventing secondary disasters.

## Electricity supply chain

Build a robust power source portfolio through diversification of power sources and capacity expansion of renewable energy and other sources.



## Taking measures against infectious diseases such as COVID-19

**Daigas**  
Group

 Strengths of  
the Daigas Group

 Secure and stable energy supply &  
capability to respond to disasters

 The achievements of operation in remote  
facility management by utilizing IoT

 Use of natural gas-fired thermal power sources, renewable energy sources, and  
decentralized power sources

Materiality

 Customer Health and Safety/  
Stable Supply of Services

## Indicators and FY2022.3 Results

## Number of serious accidents

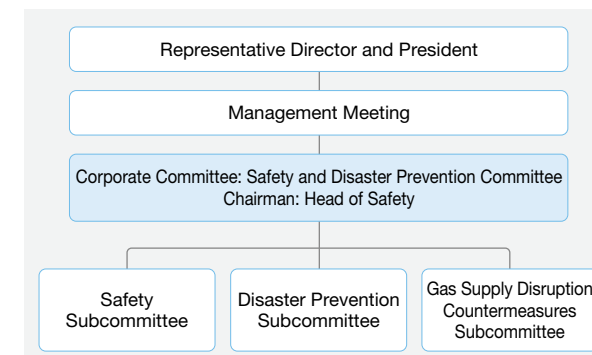
## ► Zero serious accidents

The Daigas Group has set the targets of continued zero serious accidents and 10 million or more customer accounts. As a corporate group that aims to enhance the resilience of customers and society, ensuring the safety of city gas, gas production and power generation facilities is our top priority. We therefore consider it important to work toward better safety and create a system prepared for contingencies, such as accidents and disasters.

We achieved continued zero serious accidents for FY2022.3 by carrying out quality control of city gas in production facilities and safety inspection of gas pipelines and supply facilities in the supply business. The procedures were conducted based on guidelines in accordance with laws and regulations as well as in-house rules.

In FY2023.3, we established the Safety and Disaster Prevention Committee as a corporate committee, in order to create a structure that can exercise governance across the company on a daily basis, as well as to unify the management of events related to safety, disaster prevention, and stable gas supply and promote measures against them.

## ■ Established the Safety and Disaster Prevention Committee in FY2023.3





## Build resilient energy supply facilities ► Ratio of strengthening of earthquake resistance: Approx. **89%** Number of block division of supply network: **709** blocks

For stable gas supply, we consider it important to strive to conduct scheduled facility updates, extend the pipeline network, and take disaster prevention measures, thereby strengthening the base for better supply stability.

Based on the Gas Safety Enhancement Plan by the Ministry of Economy, Trade and Industry, we have been working to increase the ratio of strengthening of earthquake resistance, which is the percentage of earthquake-resistant pipelines. We have also been dividing supply blocks into smaller

segments to minimize the scope of emergency gas suspension (measures to prevent secondary disasters).

We believe that we can improve energy resilience by enhancing earthquake resistance as precautionary measures, as well as by minimizing earthquake damage and achieving early recovery.

For FY2022.3, the ratio of strengthening of earthquake resistance was approximately 89%. The number of supply blocks reached 709 due to subdividing them.

### Main Initiatives

#### Supply Systems for Safe and Secure Use

The Daigas Group systematically extends and expands the gas pipeline network for wider use and expansion of city gas and improved capacity for stable supply.

In addition, we operate 24 hours a day to monitor and control the status of gas supply in an integrated manner and are ready to promptly respond and dispatch staff upon receiving reports from customers.



#### Progress of Earthquake Countermeasures after the Great Hanshin Earthquake

Focus	Main earthquake countermeasures	Before Great Hanshin Earthquake (January 1995)	Present (April 2022)
Strengthen information gathering function	Install additional seismometers	Installed at 34 locations	Installed at approx. 3,300 locations
	Introduce earthquake damage prediction system	—	Introduced at the Central Control Office, Supply Control Department (head office, back-up center) and 5 areas
Establish supply suspension system	Subdivide supply blocks into smaller segments	55 middle blocks	87 middle blocks 709 little blocks
	Introduce supply suspension equipment	Remote suspension equipment only for super blocks (dividing the supply area into 8)	Remote suspension equipment at approx. 3,600 locations; Earthquake-sensitive automatic suspension equipment at approx. 3,000 locations
Strengthen emergency communications	Strengthen wireless systems	—	Head office and back-up center serve as two hubs; 6 portable satellite communications facilities
Other	Ratio of strengthening of earthquake resistance	Percentage of earthquake resistant pipes: 68%	Percentage of earthquake resistant pipes: Approx. 89%
	Promote widespread use of polyethylene (PE) pipes	PE pipeline length: Approx. 1,200 km	PE pipes used for basically all new low-pressure pipelines; PE pipeline length: Approx. 17,600 km
	Back up important online information	—	Back-up center opened



## II. Evolve Our Corporate Group

## Enhancing Business Portfolio Management

**What We  
Aim To Be**

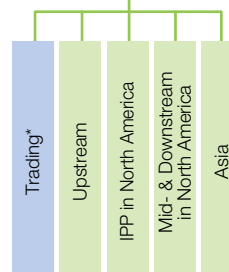
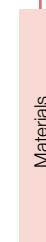
We plan to evolve into a group of enterprises with a robust business portfolio by promoting each business unit's autonomous growth and optimally allocating resources throughout the Group. We strive to improve our business portfolio management and governance while enhancing profit earning capabilities of each business unit by introducing ROIC.

- Improve each business unit's capabilities of autonomous management and expansion
- Build a robust business portfolio

Enhance Business Portfolio Management including introduction of ROIC

**Domestic Energy Business****Business Unit****Main Business****International Energy Business**

Energy Resources  
& International

**LBS Business**

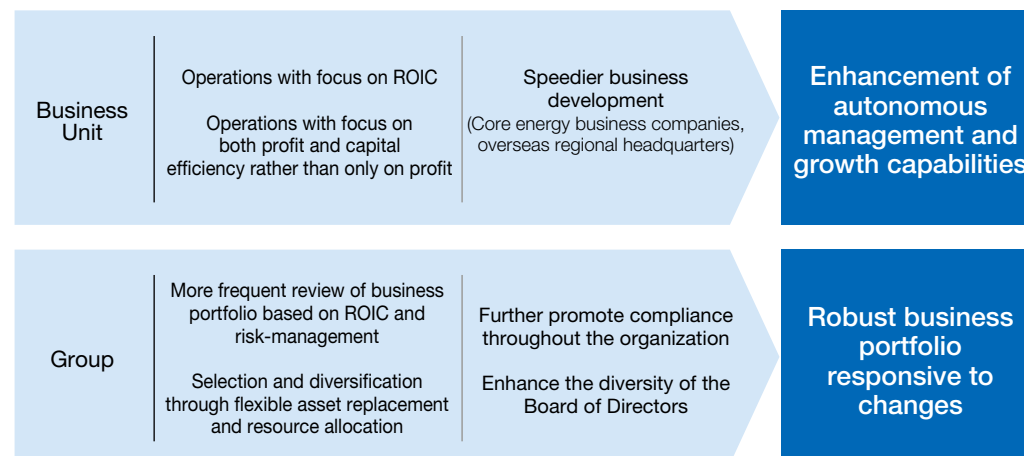
\*Trading is included in the Domestic Energy Business segment.





## Enhancing Business Portfolio

In order to create value for a sustainable future, we need the growth of earnings and capital efficiency of each business unit and a robust portfolio comprising those businesses. Under CVS 2023, we are improving our business management through the introduction of ROIC as a new management indicator, with the aim of boosting the earning capabilities of each business unit with more focus on the balance sheet. At the same time, we are increasing the business control functions of each business unit, which enhances their flexibility and agility in business operations. We are also introducing more frequent review of our business plan and resource allocation at the group headquarters. These measures are efficiently improving the robustness of our business portfolio while enabling it to quickly adapt to change.



$$\text{ROIC} = \text{NOPAT}^{*1} / \text{Invested capital}^{*2}$$

- We have introduced ROIC as an indicator of how efficiently we earn profits from assets associated with our business
- Monitor ROIC as a common indicator for each business unit and the Group as a whole

\*1 NOPAT = Ordinary profit + Interest expenses - Interest income - Income taxes

\*2 Invested capital= (Business unit) Working capital + Non-current assets  
(Group-wide) Interest-bearing debts + Shareholders' equity  
(average of the beginning and the end of each fiscal year)  
Interest-bearing debts excludes risk-free leased liabilities to us.

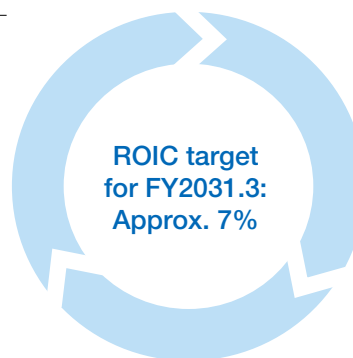
### Operation of Business Unit

Set ROIC targets for each business unit

Domestic Energy	International Energy	LBS
LNG, Power & Engineering	Energy Resources & International	Real Estate
Network		IT
Energy Solution		Materials

Promote autonomous management of business units

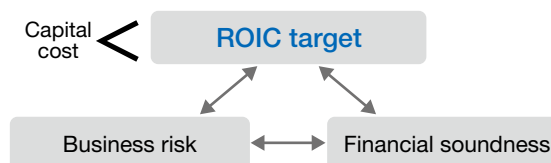
### Periodic reviews



Resource allocation  
Assets replacement

### Business Portfolio Management

Set, evaluate, and manage an ROIC target for the entire business portfolio



Build a business portfolio with a proper balance between risk and return

\*Please see □□ page 15 for efforts toward ROIC improvement.



## II. Evolve Our Corporate Group

## Promoting Business Transformation with DX

What We  
Aim To Be

We aim to be a corporate group that can keep on changing to continue providing value amid rapid change in society and the working environment as well as changes in customer values. We will proactively leverage digital technology, which is progressing rapidly, for our business, and accelerate innovative service creation, data management evolution, and operational process innovation. We have launched the DX Strategy Department in the Corporate Planning Headquarters for implementing effective and swift digital transformation under the leadership of top management.

## What We Aim To Be



## Initiatives during the Current Medium-Term



## Present status

Gas business-centric business operations, rules, operational process, and system structure\*

(\*Based on a household, month & fiscal year, fixed operational process)

## Basic Policy

We will change our business operations to enable them to respond rapidly and flexibly to any changes to enhance productivity dramatically to create value sustainably for realizing the Medium-Term Management Plan 2023 and the Long-Term Management Vision 2030. In the new age in which both our customers and services rapidly change, we will aim for transformation of the business itself and for innovation as a corporate group that can keep on changing by revising constantly and flexibly our business model, operations, rules, and systems that used to be taken for granted. In order to make a major transformation to realize our vision, we will work on building a promotion system driven by top management, strengthening human resources development, demonstrating the comprehensive strength of the Daigas Group including OGIS-RI Co., Ltd., and building alliances with our partner companies.

## DX Promotion System

In April 2022, we launched the DX Strategy Department in the Corporate Planning Headquarters by merging the Information/Communication Systems Department with the DX Promotion Office to accelerate business transformation (creation of new businesses / increased sophistication in existing businesses / operational process innovation) and system transformation in order to achieve what we aim to be. As a group-wide initiative, we will aim for realizing the vision and business transformation.





## Key Initiatives

## Practicing Innovative Service Creation

We will offer various services with higher value by incorporating trends and the diverse needs of customers without delay. This does not only refer to the development of new businesses and new services, but also leads to increasing sophistication in existing businesses, resulting in an increase in customer accounts, business opportunities, and net sales as well as raising business operations to the next level. In rapidly changing times, it is important to “accelerate the trial and error cycle”. We will acquire skills through practice, innovate the system itself and foster customs and mindsets across the entire Group, which enable the Group to move forward with new initiatives aggressively and quickly.

## Operational Process Innovation

We will thoroughly review our internal operations from “the perspective of customers,” not from an internal point of view. We will also focus on merging and abolishing operations as well as standardizing and aggregating different procedural operations among organizations to broadly redesign the entire operational process. Furthermore, the workload for remaining operations will be reduced with digital technologies such as AI and RPA. Through these transformations, Group employees will be able to generate extra power to work on more non-routine and discretionary operations as well as operations that require higher expertise and judgment in a pleasant working environment. This will allow employees to devote more energy to providing better value to customers.

## Data Management Evolution

The Group has been leading efforts to utilize data, placing “Business Analysis Center” at its core. In the future, utilizing valuable assets such as data as our strengths is the key to value creation and growth strengths. For example, if we can catch customer’s needs from data, we can offer services optimized for each customer. We will continue to create new value in customer experiences and our supply chain by developing our initiatives in the past and evolving data management further.

## Human Resources Development

We will enhance programs in sequence by leveraging the knowledge on the development of human resources that can utilize data, an effort that we have been making proactively for years while accumulating expertise on creating innovative services and drastic transformation on operational processes. In addition, we will provide a wide range of experience and practical chances for employees of various ages and positions, including “TORCH,” a program for new business creation for young employees, training schemes for executives and manager-level employees and new business development collaborated with venture capitals. Furthermore, we will help employees grow by providing them feedback on upskilling through these programs.



A TORCH presentation of new business ideas



A photo of workshop at venture capital WIL  
(in Silicon Valley, USA)

Please see pages 54 to 65 for examples of initiatives in each segment (including business transformation with DX).



## II. Evolve Our Corporate Group

## Maximizing Value for Each Employee

What We  
Aim To Be

We intend to build an organization with diverse talent and ways of work where employees can achieve personal growth through challenging tasks and feel a sense of fulfillment through social issue resolution.

## Diverse talent and ways of work



- Promote **diversity and inclusion** for active participation of diverse talent
- **Reform business processes** with DX
- Improve the quality of work environment **regardless of locations**

## Organization that provides personal growth and a sense of fulfillment



- **Enhance employees' engagement** through social issue resolution
- Foster **the culture of welcoming ambitions** to take on challenges
- **Maximize value for employees** by accelerating the appointment of the right person in the right place and securing close communications

## Ensuring safety and promoting health maintenance

## Promotion Policy

The Daigas Group is committed to promoting diversity, equal opportunity, and inclusion in the organization in order to be a corporate group with diverse talent that continues creating new types of value.

We aim to be a group of enterprises that provide a work environment that values uniqueness of each employee, tolerates no discrimination, acknowledges employee diversity including gender, age, physical disabilities, nationalities, form of employment, lifestyles<sup>\*1</sup>, religions, sexual orientation<sup>\*2</sup>, and gender identity<sup>\*3</sup>.

We provide support in realizing highly productive way of working and suitable work-life balance for each employee as a basis for them to pursue their career opportunities.

<sup>\*1</sup> Lifestyles: Working styles that meet the needs required in one's various life stages such as raising children and caring for family members.

<sup>\*2</sup> Sexual orientation: The tendency of sexual attraction, such as homosexuality, heterosexuality, bisexuality.

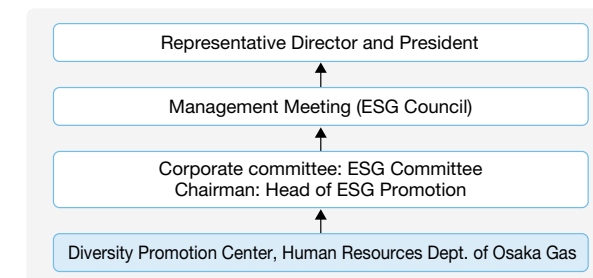
<sup>\*3</sup> Gender identity: Self-recognition of gender where one belongs to, including transgender.

## Diversity Promotion System

In 2013, the Daigas Group established the "Diversity Promotion Center" within the Human Resources Department of Osaka Gas as a specialized department for promoting diversity. We proceeded to formulate the "Diversity Promotion Policy" in 2014, and have taken an active approach toward this policy by including it in the Long-term Management Vision announced in 2017.

The targets set forth in the policy are linked to the materiality "Diversity and Inclusion." Progress we have made on achieving these targets is reported at the ESG Council every year, and relevant activities are, in principle, reported monthly to executives through direct distribution or by being posted on the Group portal site.

## Progress Reporting Process Related to the Diversity Promotion Policy





## Materiality

- Employee Engagement
- Development of Employee Skills
- Diversity and Inclusion

## Indicators and FY2022.3 Results

## Employee Attitude Survey ▶ Survey design/implementation completed

In FY2022.3, we reviewed the contents of Osaka Gas's conventional attitude survey and designed and implemented the new Employee Attitude Survey, thereby looking into employee engagement in the Group as a whole. From FY2023.3 onward, we will measure the level of employee engagement on an annual basis through the Employee Attitude Survey. Four comprehensive indicators (overall satisfaction, loyalty, intention to continue working, intention to recommend) will be used for the evaluation.

## Main Initiatives

## Promote Diversity and Inclusion

As the working population is expected to decline in Japan, Osaka Gas believes it important to accept diverse values and has been striving to create a work environment where women can exercise their abilities and play active roles. As a result of our efforts, many women employees have been displaying their abilities in various fields. Such efforts led to our selection as a "Nadeshiko Brand" in FY2022.3, in recognition of our initiatives such as creating an environment where employees can balance work with childcare and offering career education.

In addition to our system allowing employees to take childcare leave, we have set up an original method of providing paid leave called "nurturing leave.\*" This is based on the idea that participation of male employees in childcare leads to balancing work with childcare and adopting workstyles more conscious of work-life balance.



\*Employees can take one day off within the first 3 months after a child's birth.

## Annual average hours of training per employee

## ▶ 28.6 hours/person

Participation in e-Learning (safety, information security, environment, etc.) program : 4.50 hours/person

To help develop employee skills, we conduct assessments through meetings between employees and their superiors based on Management by Objectives (MBO), with periodic follow-up meetings. This mechanism encourages each individual's willingness to grow and helps us formulate a training plan. Below are the results for FY2022.3.

- Annual average hours of training per employee: 28.6 hours/person
- Status of e-Learning (relating safety, information security, environment, and other areas) program participation

\*Includes some temporary employees and part-time workers

No. of participants: 5,226 / course

No. of hours: 4.50 hours / person

## [ Main initiatives ]

## 1. Offering career education (including content on balancing work with childcare)

- Self-motivated career development through the "Mentoring program"
- Participation in external training programs exclusively for women
- Holding of the "Roundtable talks between female workers on careers"
- Personal development opportunities during childcare leave and programs to interact with other employees on leave
- Holding of the "Child Rearing Employee + Supervisor Forum" for employees back from childcare leave

## 2. Creating an environment where life events do not disrupt career

- Strengthening of cooperation between those engaged in employee development (supervisor, HR departments in the organization and head office) using meeting sheets from pregnancy to return to work
- Promotion of flexible workstyles in terms of time and location using the flextime and work-from-home systems

Percentage of women in executives, members newly promoted to the middle management positions, and new recruits for career-track positions

## ▶ Executives: 13.3%

Members newly promoted to the middle management positions: 6.3%

New recruits for career-track positions: 28.1%

Osaka Gas promotes initiatives to empower female employees to achieve the targets for 2030. Actions taken during FY2022.3 include efforts to reflect evaluations of initiative results in each layer, as well as comments made in meetings, in each policy.

In FY2022.3, the ratio of female executives was 13.3%, the ratio of female employees promoted to managerial positions in career-track employees was 6.3%, and the ratio of female employees in the number of career-track hires was 28.1%.

## 3. Strengthen recruitment activities for female students

- Information sessions that introduce a range of actual career paths to clarify how employees can play active roles after joining the company
- Holding of roundtable talks for female students

\*Childcare-related initiatives in 1 and initiatives in 2 are for both men and women. This is because we consider participation of men in childcare as part of creating a culture where women play active roles.

## ■ Number of Osaka Gas employees using childcare-related leave systems

Item	FY2018.3	FY2019.3	FY2020.3	FY2021.3	FY2022.3
Number of employees who took childcare leave	31	33	44	32	54
Of which, male employees	4	5	14	17	39
Number of employees who took nurturing leave	198	201	201	111	135
Of which, male employees	172	178	172	97	123
Rate	88.8%	84.1%	93.1%	93.3%	93.8%





# Building Foundations that Support the Realization of Value for a Sustainable Future

The Daigas Group aims to realize sustainable value creation for stakeholders and society and strives to establish its management foundation by strengthening capital.

We have set materiality and key performance indicators (KPIs) as foundations that support the realization of value for a sustainable future, and advance initiatives based on them.

## Materiality

## Coexistence with Local Community

### Indicators and FY2022.3 Results

Number of our participations in local governments' activities (i.e. community development planning) ▶ **26 cases**

Number of joint efforts with local communities ▶ **167 times**

The Daigas Group operates a business that is rooted in and supported by local communities. We believe that our various contributions to local communities will lead to a virtuous cycle leading to the development of both the Group and society.

In FY2022.3, the number of our participations in local governments' activities (i.e. community development planning) stood at 26 cases. This includes proposals aimed at building resilient cities and creating attractive communities with added value.

We made joint efforts with local communities 167 times during FY2022.3. These efforts include joint activities that help solve social issues, tackle declining birthrate and aging population, and revitalize local communities, as well as initiatives in collaboration with NPOs and community organizations.

#### ■ Major activities

Theme	Major activities
Participation in local governments' activities (i.e. community development planning)	<ul style="list-style-type: none"> <li>Support to local governments' SDGs promotion activities through community development proposals</li> <li>Proposals to and participation in councils, committees, etc. organized by various organizations and local governments</li> </ul>
Joint efforts with local communities	<ul style="list-style-type: none"> <li>Research activities with third parties on making cities attractive</li> <li>Support to elderly people's activities in cooperation with local government, NPOs, etc.</li> <li>Collaborative activities with NPOs and social entrepreneurs</li> <li>Communication related to social issues through NPO for social designing</li> <li>Support to NPOs with loyalty program of Osaka Gas</li> <li>Bazaar held as part of the social contribution program</li> <li>Community revitalization activities in cooperation with local governments and third parties</li> </ul>

## Materiality

## Supply Chain Management

### Indicators and FY2022.3 Results

Ratio of new suppliers met the company's eligibility criteria: ▶ **100 %**

The Daigas Group's broad-based city gas value chain is built on the cooperation of various business partners. Fulfilling our social responsibility by working with our suppliers in the value chain builds relationships of trust with our stakeholders and furthers the development of the entire value chain.

Based on this belief, we have established the Daigas Group Procurement Policy. In starting new business transactions, such as material purchase, we explain the policy and Daigas Group Procurement Policy for Suppliers to business partners and ask for their understanding.

A total of 29 suppliers began new business transactions with us in FY2022.3. No business deals were barred from being started due to violations of standards set in the fields of environmental and social impacts, human rights and labor practices.

In addition, we conduct questionnaire surveys targeting major business partners, and take other measures to fulfill social responsibility with our business partners and strive for mutual development across the value chain.

#### ■ Questionnaire surveys, etc. regarding sustainability activities (FY2022.3)

Target	No. of target companies	No. of responses	Other initiatives
Major material suppliers	176	176	Operation of the "Green Partner Initiative"
Gas equipment manufacturers	35	35	
Service chain partners and construction work contractors	208	177	
LNG suppliers	8	6	

## Materiality

## Compliance

### Indicators and FY2022.3 Results

Number of serious violations of laws and regulations

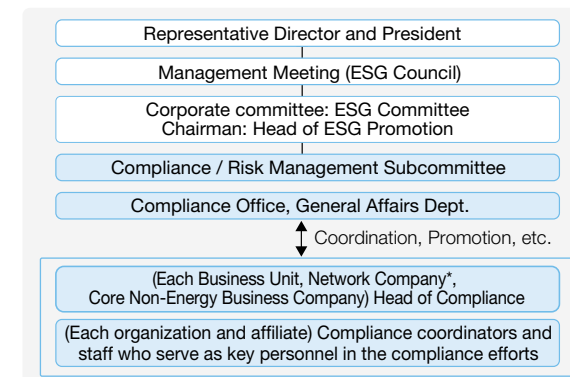
▶ **Zero serious violations of laws and regulations**

The Daigas Group's view on compliance is that it entails sensible corporate activities based on sound ethics with a particular focus on observing laws and regulations. To maintain trust from stakeholders, it is essential that officers and employees put compliance into practice. Recognizing that every management and employee is the key to ensuring compliance, we are continually conducting training sessions and employee surveys to raise awareness.

While FY2022.3 saw no serious violations of laws and regulations, we will continue to promote compliance.

The employee survey conducted in FY2022.3 showed increased levels of employee awareness and understanding toward the Daigas Group Corporate Principles, Charter of Business Conduct, and Code of Business Conduct. We will continue to familiarize employees with compliance and strive to promote the concept.

#### ■ Compliance Promotion Systems



\*Spun off into Osaka Gas Network Co., Ltd. in April 2022.



## Efforts to Build Strong Management Foundation

### Human Rights Due Diligence

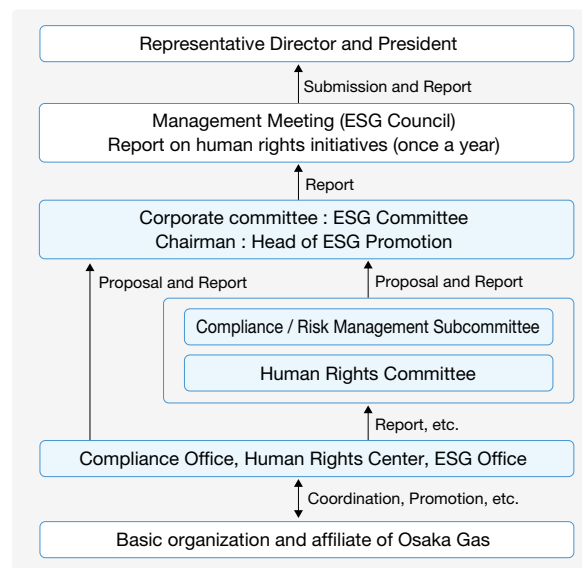
In April 2021, the Daigas Group formulated the “Daigas Group Human Rights Policy.”

We consider it important to create a system to respect human rights of people affected by our business activities, as well as to actively disclose relevant initiatives, in line with the United Nations Guiding Principles on Business and Human Rights. We work to respect human rights and achieve a sustainable business by carrying out human rights due diligence.

### System for Human Rights Due Diligence

Under the system shown on the right, Compliance Office, General Affairs Department; Human Rights Center, Human Resources Department; and ESG Office, Corporate Strategy Department work together to investigate and assess human rights risks that may arise from our business activities. We thereby aim to establish a cycle for prevention, remedy, and other responses.

#### System for Carrying Out Human Rights Due Diligence



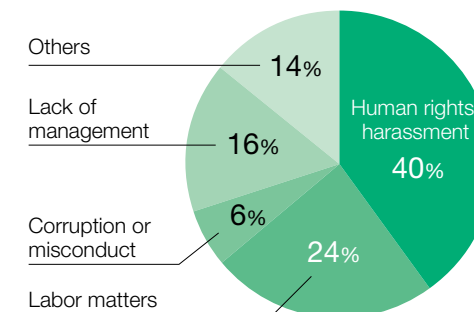
### Compliance Desks (Internal Reporting System)

“Compliance Desks” have been established within Osaka Gas, key affiliates, an external attorney’s office. The desks accept consultations and reports about compliance with laws and regulations, internal regulations, and other rules in the Daigas Group. Not only the Group’s officers, employees, and temporary employees but also officers and employees of business partners who constantly supply goods and services to Daigas Group companies can consult and report by phone, in writing, by email, or by other appropriate means. Consultations and reports can be made anonymously.

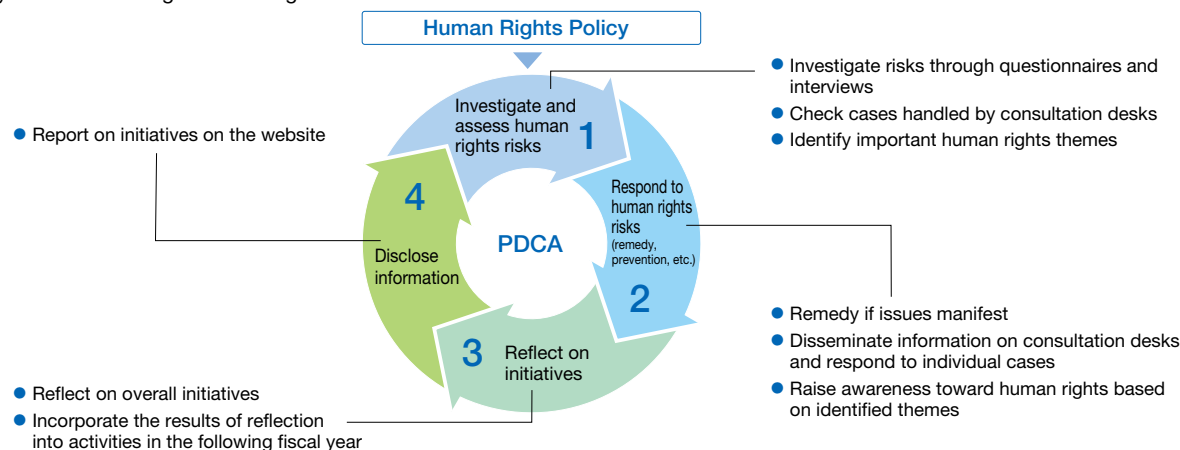
The desks accepted a total of 143 consultations and reports in FY2022.3. We examined the necessity of factual investigations on these cases and conducted interviews, evidence checks, etc. Measures to remedy the situation and prevent recurrence were taken as necessary.

When cases are brought to “Compliance Desks,” violations of laws and regulations, etc. are remedied. Improvements are made as necessary even if no violations are found, in order to maintain and improve a sound work environment.

#### Breakdown of report content



#### Cycle of Human Rights Due Diligence





## Environmental Conservation Initiatives

### Initiatives on Water and Biodiversity

The Daigas Group believes that companies have a responsibility to ascertain the environmental impact of their business activities, to take appropriate steps in compliance with international norms, laws and ordinances, and to implement voluntary risk countermeasures.

We use an environmental management system (EMS) to manage environmental aspects, such as water and biodiversity. For example, we have obtained the ISO 14001 certification. In water management, we use an index called "Environmental Management Efficiency," which converts environmental impact, including water withdrawal, into monetary values to quantify the environmental impact.

When launching investment and development projects, whether in Japan or abroad, we gain understanding from local communities by conducting an environmental impact assessment and disclosing information.

### Appropriate use and discharge of water resources

In the business activities of the Daigas Group, water is not a significant raw material for the products we handle. We therefor recognize that water does not pose a major business risk for us.

However, the Group controls water discharge after using drinking water, industrial-use water, groundwater and seawater. At power plants, core facilities for its electricity business, the Group uses industrial water as a coolant in a steam turbine condenser, and vaporizes it inside the cooling tower. Drinking water, industrial-use water and groundwater are also used at LNG terminals, power plants and offices, and discharged. Seawater is mainly used for vaporization of LNG in city gas plants and for cooling in steam turbine condensers in some power plants, and is discharged to the sea without being consumed. In discharging water after it is used in our industrial activities, we have controlled its quality in line with relevant laws, ordinances and agreements with local

municipalities to ensure that chemical substances such as COD, pH, phosphorus and nitrogen are not contained in the water being discharged in excess of the relevant standards. Thanks to such efforts, there were no violations regarding the quality of water being discharged.

The Group sees water as a limited natural resource. We will continue to use water adequately, control its discharge strictly, and promote water saving.



#### Amount of water intake in FY2022.3

General water, industrial water	12,172 thousand m <sup>3</sup>
Underground water	3,608 thousand m <sup>3</sup>
Seawater	579,005 thousand m <sup>3</sup>

#### Amount of water discharge in FY2022.3

Sewer	1,297 thousand m <sup>3</sup>
River	3,200 thousand m <sup>3</sup>
Sea	580,861 thousand m <sup>3</sup>

### Consideration to biodiversity

Recognizing the essential nature of the many blessings of biodiversity, the Daigas Group is committed to helping build a society harmonious with nature that can conserve biodiversity and enjoy the bounties of nature into the future, and will undertake efforts that promote the conservation of biodiversity and sustainable use, based on the "Daigas Group Biodiversity Promotion Policy." Specific initiatives in FY2022.3 are described below.

We manage ballast of LNG tankers we use in accordance with regulations of the country where the port of call is located. In addition, our tankers are equipped with water-processing facilities that meet the conditions set under the International Convention for the Control and Management of Ships' Ballast Water and Sediments stipulated by the International Maritime Organization (enacted in September 2017). We aim to limit the impact of ballast on ecosystems by, for example, replacing ballast taken on at a Japanese port with water from the open ocean before releasing the ballast in a foreign port.

At our LNG terminals (Senboku LNG Terminals I and II, Himeji LNG Terminal), green areas were managed in a

way that contributes to biodiversity. In addition, native seeds and seedlings, etc. were maintained, biotopes were created, and biodiversity education and tree planting took place for employees working at LNG terminals.

### Main biodiversity initiatives in the value chain

<b>Procurement</b> 	Consideration to biodiversity in LNG tanker transportation <ul style="list-style-type: none"> <li>Ballast water management</li> </ul>
<b>Production</b> 	Green space management at LNG terminals using native seeds and seedlings, etc. <ul style="list-style-type: none"> <li>Conservation of native seeds and seedlings and rare species</li> <li>Network formation with nature in local areas</li> </ul>
<b>Supply</b> 	Reduction in excavated soil from underground gas piping works and promotion of recycling to reduce pit sand extraction <ul style="list-style-type: none"> <li>Use of Vermeer method to reduce excavated soil</li> <li>Recycling of excavated soil and road work waste</li> </ul>
<b>Customers</b> 	Activities to raise awareness toward biodiversity <ul style="list-style-type: none"> <li>Provision of information on measures taken at our showroom and LNG terminals</li> <li>Use of native seeds and seedlings in the urban development business</li> </ul>

### Response to the Plastic Resource Circulation Act

To create a recycle-oriented society, the Daigas Group facilitates resource circulation by promoting "3Rs (Reduce, Reuse and Recycle) + Renewable."

We actively recycle plastic resources in the supply chain. For example, waste from PE pipes, materials for gas pipelines, is recycled 100%. Resin used for gas alarm devices is also recycled.

We intend to make effective use of waste from other products that use plastics as well, by processing such waste into refuse paper & plastic fuel (RPF) for use as heat energy. We thus continue to work to minimize the amount of final landfill disposal.



# Addressing Climate Change

## -Recognition of and Action on Risks and Opportunities-



### Principle and Outline

Tackling climate change is seen as one of the Sustainable Development Goals (SDGs) adopted by the United Nations. Since the Paris Agreement came into force in November 2016, initiatives to tackle climate change are being undertaken around the world. In Japan, the government declared net-zero emissions in 2050 in October 2020, making climate action even more critical.

For the Daigas Group, which is engaged primarily in the energy business, climate change represents an important management challenge, and initiatives to reduce CO<sub>2</sub> emissions are a crucial mission. In January 2021, the Daigas Group established and announced the Daigas Group Carbon Neutral Vision, indicating its vision of how it strives to become carbon neutral by 2050.

The Daigas Group announced the Daigas Group Medium-Term Management Plan 2023: Creating Value for a Sustainable Future in March 2021 to further accelerate its efforts toward low-carbon or carbon-free business operations.

The recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) announced in June 2017 (the "TCFD recommendations") encourage companies to disclose climate change-related financial information to promote appropriate investment decisions by investors. Osaka Gas supports the TCFD recommendations and utilizes them as indicators to validate its climate change response. We also participate in the TCFD Consortium,\* where discussions take place on efforts toward information disclosure on responses to climate change based on the TCFD recommendations.

\* TCFD Consortium: The TCFD Consortium was established on May 27, 2019, whose members from the Japanese private sector discuss how companies can effectively disclose information on tackling climate change and how financial institutions can use the disclosed information to make appropriate investment decisions. From the Japanese government, the Ministry of Economy, Trade and Industry, the Financial Services Agency, and the Ministry of the Environment participate as observers in the consortium.

### Governance

The Daigas Group regards tackling climate change as a key management issue. Just as with other important business activities across the Daigas Group, the Board of Directors is responsible for making decisions on and supervising activities aimed at tackling climate change and other environmental issues. At the ESG Council (Management Meeting), which meets three times per year, executives deliberate on plans and reports of activities concerning ESG challenges, including climate change issues, under the supervision of the President.

The Group also has the ESG Committee, chaired by the Executive in Charge of ESG Promotion (Vice President), who supervises the Daigas Group's sustainability activities, and consisting of the heads of related organizations. The ESG Committee meets four times a year for the cross-organizational deliberation, coordination, and supervision of climate-change-related issues, including the planning and promotion of related business activities, progress in achieving relevant targets, and risk management. The committee submits to the Board of Directors deliberation proposals and reports on important agenda items, such as the status of achievement of sustainability-related ESG

management targets and business projects expected to sustain a major financial impact due to climate change.

Director remuneration is based on a remuneration system that encourages Directors to achieve sustainable growth of the Group and increase the corporate value over the medium- to long-term. Remuneration for Directors other than Outside Directors consists of basic remuneration as fixed remuneration, performance-linked remuneration, and stock remuneration.

For the purpose of contributing to the enhancement of corporate value over the short-term and medium- to long-term, performance-linked remuneration is determined based on profit attributable to owners of parent for the most recent three years (consolidated profit) and the ESG indicators achievement coefficient\* for the previous fiscal year.

Stock-based remuneration is granted annually at a certain time of the year in the form of restricted stock, with the aim of increasing the linkage between remuneration and medium- to long-term improvements in corporate value, as well as promoting further value sharing with shareholders.

\* ESG indicators include climate change-related indicators.

#### Climate Change Governance Organization Chart



- Board of Directors  
10 Directors (6 Internal Directors and 4 Outside Directors)
- Management Meeting (ESG Council)  
1 Executive President, 3 Executive Vice Presidents and 7 Senior Executive Officers  
\* In principle, it is held three times per year as "ESG Council."
- ESG Committee  
Executive Vice President (Head of ESG Promotion) and heads of related business units, etc.

(As of June 28, 2022)





## Strategy

The major risks and opportunities associated with climate change, their business and financial impact, and the Daigas Group's response to this impact, are shown below.

### Scenario Analysis

The Daigas Group has been working on climate change scenario analysis that is intended to be utilized as reference material in the evaluation and preparation of countermeasures, and to understand the impact of climate change on the Group's business on a medium- and long-term basis. For the analysis, we used the scenarios published by IEA (see figures on the right).

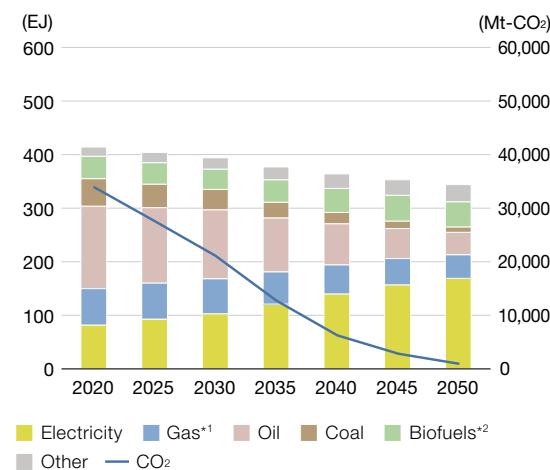
We assessed our energy businesses (gas, electricity and related businesses in Japan and overseas) which are expected to experience the greatest impact from climate change among the Group's businesses, assuming a multi-track scenario that takes into account the progress of energy conservation and changes in the composition of power sources, etc.

We steadily implement initiatives to increase the resilience of the Daigas Group's businesses, while applying the suggestions gained from scenario analysis to our evaluation of medium- and long-term business strategies. Moreover, as the global response to climate change continues to progress, the scenario's preconditions may also change in the future. We will continue to deepen our scenario analysis, renewing our assumptions in line with the latest conditions as necessary, taking into account scenarios established by external authorities.

### Global Final Energy Consumption and CO<sub>2</sub> Emissions\*

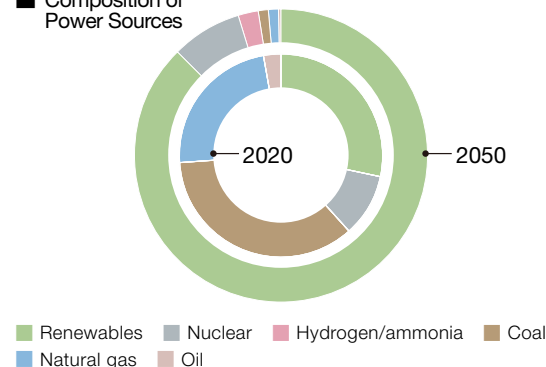
#### 1.5°C Scenario (NZE2050)

The scenario in which the world achieves net-zero energy consumption by reducing fossil fuel consumption and overall final energy consumption through progress in energy conservation, etc. In 2050, renewable energy sources will account for about 90% of the power supply mix.



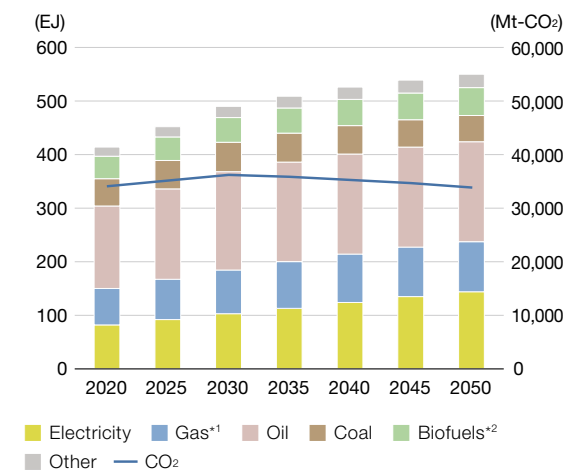
\*1 Natural gas, hydrogen, synthetic methane  
\*2 Liquid fuels, biomethane gas, solid biofuels

#### Composition of Power Sources



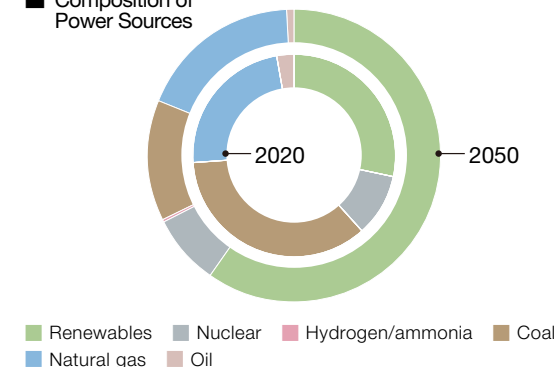
#### 2.6°C Scenario (STEPS)

The scenario that reflects countries' stated specific policies on climate change. In this scenario, electricity consumption increases and there remains some demand for fossil fuels as a source of energy. The ratio of renewable energy to all power sources doubled from 2020.



\*1 Natural gas, hydrogen, synthetic methane  
\*2 Liquid fuels, biomethane gas, solid biofuels

#### Composition of Power Sources



\*Source: IEA "World Energy Outlook 2021"





## Recognition of Risks and Opportunities










Using a multi-track scenario analysis, we pinpointed anticipated risks and opportunities based on the environment surrounding the Daigas Group's energy businesses in Japan and abroad, evaluated these risks and opportunities and examined countermeasures, in terms of both the short- and medium-term until 2030, and the long-term, to 2050.

The Group is engaged in gas and electricity businesses, primarily in the Kansai area, which use natural

gas as their main raw material and fuel. The external environment is undergoing various changes due to climate change. We have classified the major factors associated with these changes into "transition risks" and "physical risks," and identified the major risks and opportunities. Significant risks for the Group related to climate change include the possibility that rising sea levels and natural disasters such as typhoons and torrential rains due to localized abnormal weather

events, etc. may cause damage to our production and distribution facilities. In addition, it is possible that our businesses may be affected by the introduction of a carbon tax in Japan and a significant increases in the carbon tax rates, or an increased desire among our customers to switch to non-fossil fuels. However, promotion of the development and spread of renewable energy and decarbonization technologies also represents a significant opportunity for the Group.

### Evaluation of Risks and Opportunities

			Impact on Business			
			Scenario	Impact	Short- and Medium-Term	Long-Term
Risks	Physical	 Physical Risks	2.6°C	Damage to facilities arising from meteorological disasters	Increase in capital investment costs and insurance premiums	Increase in facilities countermeasure costs
	Transition	 Market	2.6°C	Switch to natural gas	Increase in prices due to greater competition in LNG procurement	Further price hikes and impediments to procurement, due to increasing competition in LNG procurement
			1.5°C	Switch to non-fossil fuel energy	Fall in sales of gas and thermal power	Fall in sales of gas and thermal power
		 Reputation	1.5°C	Focus of investment criteria on low-carbon or decarbonized businesses	Diminished capital procurement power in gas-related businesses	Declining investment in fossil fuels businesses
		 National energy policy	1.5°C 2.6°C	Introduction of a carbon tax	Carbon tax burden on gas and thermal power businesses	Increasing burden with rising carbon tax rates
Opportunity	Physical	 Physical Opportunity	2.6°C	Increase in awareness and support measures for weather disaster countermeasures	Increase in sales of products / services with disaster response function	Expansion of decentralized energy systems
	Transition	 Market	2.6°C	Switch to natural gas	Switch to LNG in Japan; Expansion of LNG business overseas	Switch to LNG and expansion of sales of high-efficiency equipment abroad
		 Technology	1.5°C	Development of renewable energy and CCUS technologies	Expansion of development of renewable energy sources	Introduction of synthetic methane, expansion of renewable energy sources, increase in value of thermal power generation with CCS technology in providing transition energy
		 National energy policy	1.5°C 2.6°C	Implementation of a national policy for the mass introduction of renewable energy sources	Expansion of sales of electricity from renewable energy sources	Expansion of sales of electricity from renewable energy sources
		 Technology	1.5°C 2.6°C	Development of AI/IoT	Participation in decentralized power sources aggregation business	Expansion of decentralized power sources aggregation business

Financial impact : Small



Financial impact : Large



### Strategies/Countermeasures for Risks and Opportunities

The Daigas Group aims to achieve sustainable growth by promoting business portfolio management with diverse businesses in order to appropriately respond to identified risks and opportunities.

		Short- and Medium-Term	Long-Term
Risks	Physical	● Implement disaster countermeasures for facilities	
	Transition	<ul style="list-style-type: none"> <li>● Diversify procurement sources</li> <li>● Develop and expand sales of renewable energy power sources in Japan and abroad</li> <li>● Engage in dialogue with investors</li> </ul>	
		● Investigate, develop, and verify CCUS / synthetic methane technologies	● Conduct verification and establish supply chains toward the introduction of CCUS / synthetic methane, hydrogen, etc.
Opportunity	Physical	● Development and sale of equipment with disaster response functions	
	Transition	<ul style="list-style-type: none"> <li>● Develop and expand sales of renewable energy power sources in Japan and abroad</li> <li>● Develop and market high efficiency, compact decentralized power sources (CHP, fuel cells)</li> <li>● Expand fuel switching, sales of high efficiency equipment in Japan and abroad</li> <li>● Verify and participate in the decentralized power sources aggregation business</li> </ul>	
		● Further develop energy-saving technologies	● Conduct verification and establish supply chains toward the introduction of CCUS / synthetic methane, hydrogen, etc.



### Financial Impact of Climate Change Risks and Opportunities

The Daigas Group's Medium-Term Management Plan has identified "achieving a low carbon / carbon neutral society" as a priority issue, and expects to spend 150 billion yen on decarbonization related investments in the period from 2021 to 2023 as it works toward achieving the goal of carbon neutrality in 2050.

The Daigas Group is actively contributing to the spread of renewable energy, and estimates that the impact on sales of its renewable energy business expansion will be in the order of 100 billion yen in FY2031.3.

It should be noted that there are uncertainties and assumptions in the above estimation of financial impact. In practice, the impact may vary significantly as a result of changes in key factors.

### Initiatives to Reduce Greenhouse Gas Emissions

Initiatives to reduce greenhouse gas emissions are a crucial mission for the Daigas Group. We focus on reducing CO<sub>2</sub> emissions, not only from our own business activities, but also from customers who use the energy we provide. Please see our sustainability website for details on the specific initiatives by the Daigas Group to reduce greenhouse gas emissions.

Under the Daigas Group Carbon Neutral Vision, we have established the goal of contributing 10 million tons per year of CO<sub>2</sub> emissions reductions in FY2031.3 as a management target, in order to further advance these business activities. This indicator will enable us to contribute to reductions throughout society, and we therefore use it as a management target linked to the Group's business initiatives.

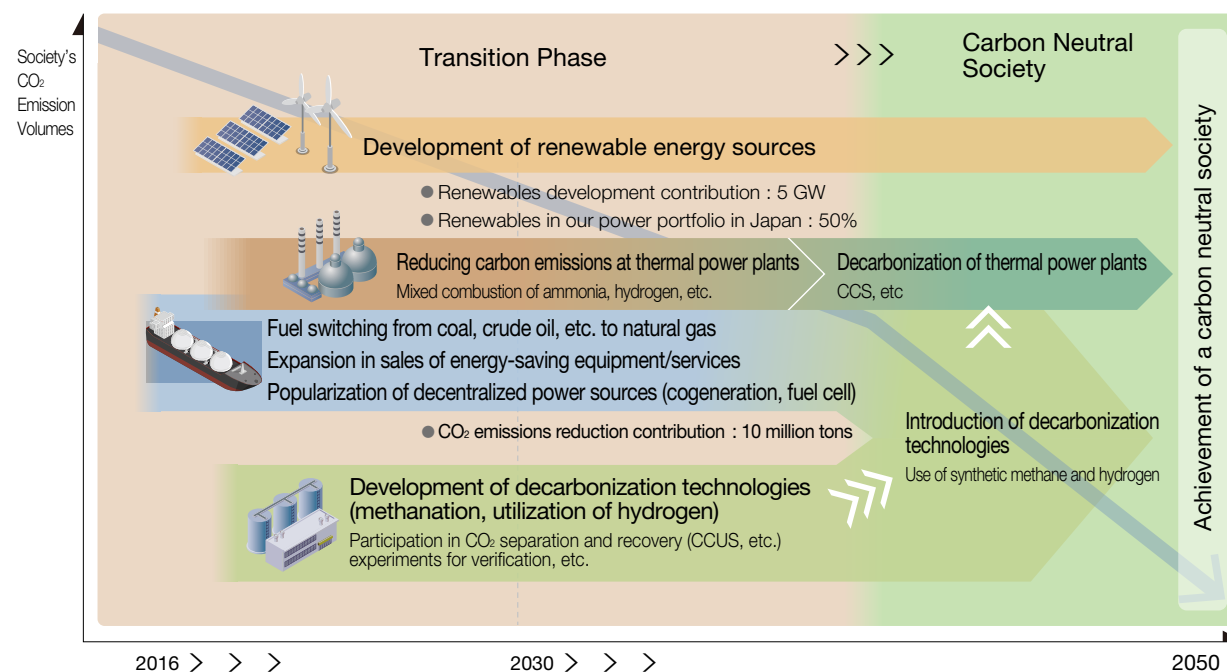
### Initiatives Ensuring Resiliency for a Decarbonized Society

Securing a stable supply of energy, a core social infrastructure, is one of the major climate change-driven challenges facing society as a whole. By continuing to provide a range of services, including multiple sources of clean energy such as gas and electricity utilizing decarbonization technologies, disaster response equipment, and the widespread and advanced use of energy, the Daigas Group will strive to contribute to society in terms of stable supply and resilience for a

decarbonized society.

In response to the growing global trend towards decarbonization, we will engage in activities to contribute to reducing CO<sub>2</sub> emissions across society, promote the advanced use of gas, and advance initiatives to develop decarbonization technologies, aiming to balance business growth with the stability of the core social infrastructure.

### Transition Plan Overview





## Risk Management

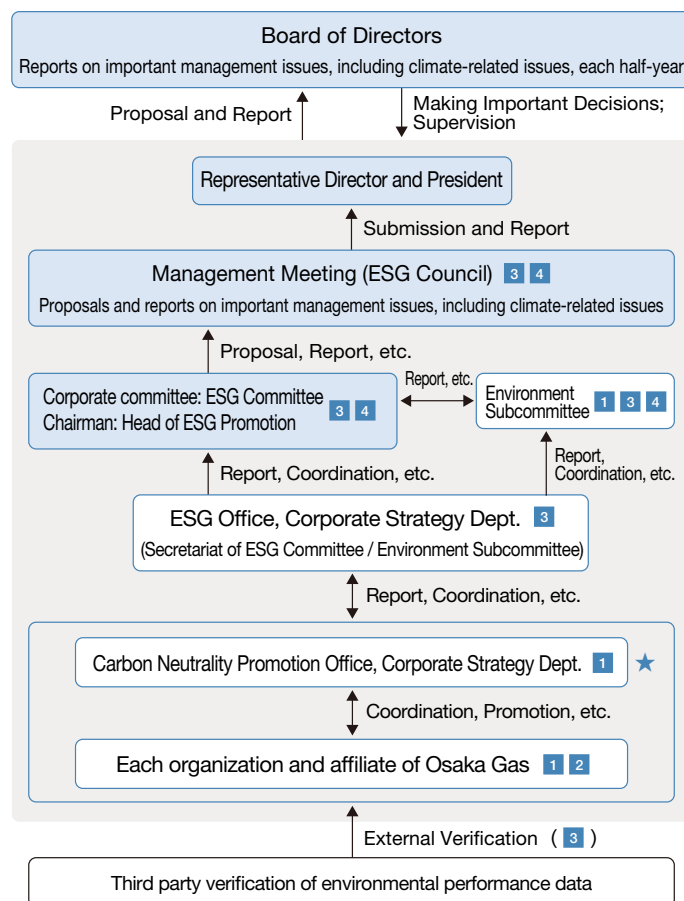
When deciding on the Daigas Group's business plan and investment plan, the internal organizations responsible for the gas, electricity and other businesses analyze the risk factors and their impact on each business, distill and identify risks, and submit these together with other business risks, etc. to the Management Meeting for deliberation. Climate change risks in the formulated plans are managed through a PDCA cycle (plan-do-check-act), and are reported and followed up

at the Environment Subcommittee, ESG Committee, and ESG Council (Management Meeting).

Decisions on climate-related risk and sustainability, including investment decisions, are made by the Board of Directors and the Management Meeting. Matters related to climate change that were proposed or reported by March 31, 2022, included those listed to the right.

- Follow up on the progress of the Medium-Term Management Plan, incorporating the Carbon Neutral Vision
- Recognition and disclosure of risks, opportunities and countermeasures related to climate change, based on scenario analysis
- Monitoring of the results for indicators used to manage climate change response, etc.

### Climate-related Risk Management Structure



#### 1 Plan formulation

\* Risks and opportunities associated with climate change

Response to cross-cutting environmental issues\*  
Formulation of environmental strategy\*  
Reflection in activities of each organization

#### 2 Implementation/Operation

Actions for each target  
Performance tracking for each indicator

#### 3 Checking

Report and follow-up for each target and performance at the Environment Subcommittee, ESG Committee, and ESG Council (Management Meeting); third party verification of environmental performance data

#### 4 Review

Issue identification  
Evaluation of countermeasures and improvements

#### ★ Establishment of Carbon Neutrality Promotion Office (April 2022)

Oversight of establishment and promotion of strategies to achieve carbon neutrality; coordination, planning promotion and follow-up with each organization and affiliate.

## Indicators and Targets

The Daigas Group will proceed to contribute to radically reducing CO<sub>2</sub> emissions and realizing a decarbonized society, through initiatives such as energy conservation, the advanced use of natural gas, and the contribution to widespread use of renewable energies.

Field	Item	Target	Target FY
Climate Change	CO <sub>2</sub> emissions across the Group	Zero effective CO <sub>2</sub> emissions	2051.3
	CO <sub>2</sub> emissions reductions from our own business activities	Proportion of power sourced from renewable energy in our electricity business in Japan	Nearly 50%
	Contribution to more widespread use of renewable energy	5 GW	2031.3
		2.5 GW	2024.3
	CO <sub>2</sub> emissions reductions at customer sites and through the value chain	<ul style="list-style-type: none"> <li>Promote carbon reduction and decarbonization through more widespread use of high efficiency, high value-added equipment with natural gas, renewable energy, etc.</li> <li>Efficient operation of LNG tankers and expanded use of low emission vehicles, etc.</li> <li>Provide environmental value through the dissemination of high-quality solutions in the fields of information, real estate, and materials</li> </ul>	Each year until 2031.3
	Contribution to CO <sub>2</sub> emissions reductions across society	Contribution to CO <sub>2</sub> emissions reductions (t-CO <sub>2</sub> ) (Including reductions contributed at customer sites and overseas)	10 million tons (relative to FY 2017.3)
			2031.3



## Environmental Impact throughout the Daigas Group Value Chain in FY2022.3

The Daigas Group calculated the amount of greenhouse gas (GHG) emissions from companies that constitute the Daigas Group's value chain network, based on the GHG Protocol, an international emission accounting standards. The methodology of the calculation and its results have been certified by an independent organization to verify their reliability and accuracy.

Combined GHG emissions by the Daigas Group and value chain companies, measured by CO<sub>2</sub>, totaled about 26.79 million tons in FY2022.3. The sum breaks down into about 4.86 million tons, or about 18%, for GHG emitted through business activities by the Daigas Group (Scope 1 and Scope 2), and about 21.92 million tons, or about 82%, emitted by others in our value chain (Scope 3).

GHG emissions from city gas and LNG combustion on the customer side amounted to 17.09 million tons in the reporting year in terms of CO<sub>2</sub>, accounting for about 64% of the total. To reduce CO<sub>2</sub> emissions in society as a whole, it is important for the Group to promote energy conservation using natural gas, an energy source with low CO<sub>2</sub> emissions, and further popularize high-efficiency equipment and systems such as its "ENE-FARM" and cogeneration systems.

GHG emissions through electricity generation, as measured in terms of CO<sub>2</sub> in the year, amounted to 4.38 million tons, accounting for about 16% of the total emissions, which represented the majority of GHG emissions from the Group's own business activities. As a way of reducing GHG emissions from power generation, the Group will continue to actively introduce highly advanced energy-efficient power generation facilities and use renewable energy sources.

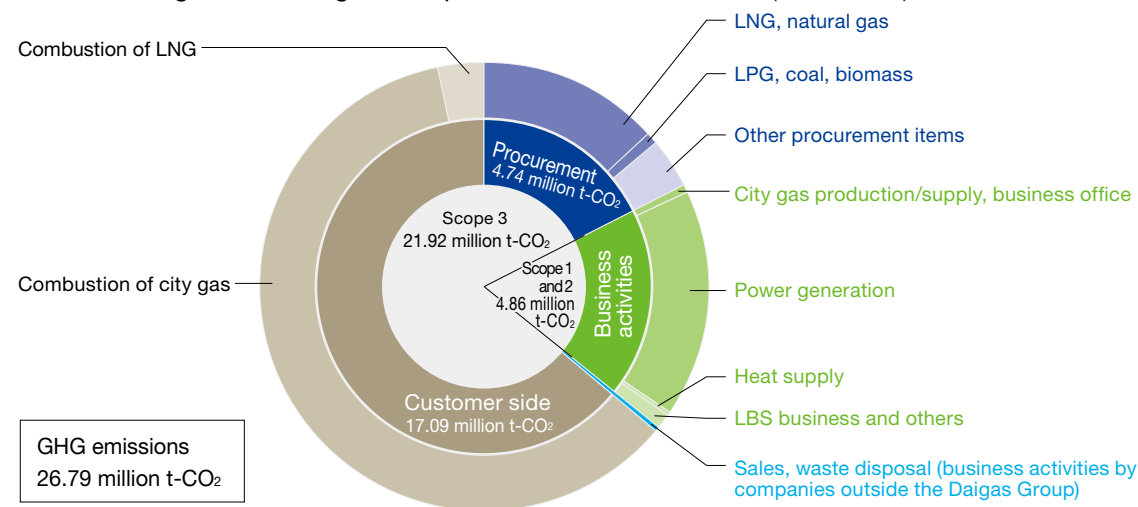
GHG emissions from material and fuel procurement totaled 4.74 million tons, as measured in terms of CO<sub>2</sub> in the year, accounting for about 18% of the total emissions. The procurement of energy sources, especially LNG,

accounted for over 70% of that amount. Under these circumstances, we will continue our efforts to improve fuel efficiency regarding the operation of LNG tankers in collaboration with resource suppliers.

Activities that have potential environmental impacts other than GHG emissions include the disposal of waste (general waste and industrial waste), and the disposal of excavated soil and polyethylene pipes associated with gas pipe construction. Regarding these items, we have

achieved a high recycling rate and will continue to strive to maintain this level. About 97% of water used for our industrial activities is taken from the sea. Such water is mostly used to vaporize LNG at LNG terminals. Seawater is also used as coolant inside the steam turbine condenser at some power plants. Once used, the water is discharged into the sea without being consumed under strict quality control.

### GHG emissions throughout the Daigas Group Value Chain in FY2022.3 (actual results)



Companies subject to the calculation of GHG emissions: Osaka Gas Co., Ltd. and 60 companies among 150 consolidated subsidiaries are subject to calculation of GHG emissions. Those housed in office buildings as tenants and whose environmental data are difficult to grasp and whose environmental effects are minimal are not subject to such calculation. Also excluded from the calculation are overseas companies, except one company.

#### CO<sub>2</sub> emission factors used

- Electricity: 0.65 kg-CO<sub>2</sub>/kWh (Average emission factor of thermal power plants in FY2014.3, stipulated in the Plan for Global Warming Countermeasures issued by the government in 2021.)
- City gas: 2.29 kg-CO<sub>2</sub>/m<sup>3</sup> (based on Osaka Gas data)
- Others: Factors listed under the Law Concerning the Promotion of Measures to Cope with Global Warming

#### Sources of emission factors used for calculating CO<sub>2</sub> emissions

- Production and transmission of city gas: "Life cycle evaluation of city gas" on the website of the Japan Gas Association
- Production and shipment of LNG: Calculation of life cycle greenhouse gas emissions of LNG and City Gas 13A (papers presented at research presentation meetings of the 35th Meeting of the Japan Society of Energy and Resources, June 2016)
- Production and shipment of LPG and coal: Future forecast for life cycle greenhouse gas emissions of LNG and City Gas 13A (Energy and Resources, Vol. 28, No. 2, March 2007)
- Other main emission factors: Emission factors for calculating supply-chain greenhouse gas emissions, etc. (Database Ver. 3.2) published in March 2022 by the Ministry of Environment

Please see our [website](#) for reports on sustainability activities at the Daigas Group.

Verified by a third party A third-party verification has been conducted by Bureau Veritas Japan Co., Ltd.

**Main Materials and Fuels**

Amount of LNG handled	<b>6,520 thousand tons</b>
	The figure above includes the amounts of the items listed below: <ul style="list-style-type: none"> <li>● Materials of city gas</li> <li>● Fuels at LNG terminals</li> <li>● Fuels used by Group companies for power generation</li> </ul>
LPG used for calorific adjustment of city gas	<b>213 thousand tons</b>

**Amount of Energy Used**

City gas	<b>1,390 million m<sup>3</sup></b> (including gas whose calorific value has yet to be adjusted)
Purchased electricity	<b>509 million kWh</b>
Other energy sources	<b>15,011 TJ</b>

**Amount of Vehicle Fuel Used**

Gasoline	<b>1,600 kl</b>
City gas	<b>49 thousand m<sup>3</sup></b>
Diesel	<b>730 kl</b>
LPG	<b>5 thousand m<sup>3</sup></b>

**Sales volume of main products**

Gas	<b>7,096 million m<sup>3</sup></b>
Electricity	<b>16,760 million kWh</b>

**Procurement of materials and fuels  
(activities by outside companies)**

<b>LNG, natural gas</b> City gas use / power generation use / marketing use	<b>LPG</b> City gas use / marketing use
<b>Coal, biomass</b> Power generation use	<b>Other purchased goods</b> Materials / consumable goods / capital goods / gas equipment for sale / electricity / gasoline and others

**Business activities by Osaka Gas**

City gas production/supply	Business office
Power generation	Heat supply
LBS business	Others*

\* Engineering / energy services / renovation / maintenance / R&amp;D etc.

**Sales, waste disposal  
(Business activities by companies outside the Daigas Group)**

Commuting, business trips	Waste disposal
Product shipment	Leasing of assets
Outlets providing sales support to Osaka Gas	

**Customer side**

City gas	Gas appliances
Electricity	Chemical products
LNG	Services

**GHG (Scope 3<sup>\*1</sup>)**

	Emissions (1,000 t-CO <sub>2</sub> )
LNG, natural gas	3,536
LPG, coal, biomass	206
Other procurement items	997
<b>Total</b>	<b>4,739</b>

**GHG (Scope 1 and 2)**

	Emissions (1,000 t-CO <sub>2</sub> )	
	Scope 1	Scope 2
City gas production	29	83
Business office (including supply)	15	16
Power generation	4,357	23
Heat supply	59	33
LBS and others	66	181
<b>Total</b>	<b>4,526</b>	<b>334</b>

**GHG (Scope 3<sup>\*2</sup>)**

Emissions (1,000 t-CO <sub>2</sub> )
<b>96</b>

GHG emissions due to energy consumption arising from various activities, including commuting of employees, business trips, transportation of products, business activities at outlets that provide sales support to Osaka Gas, disposal of own waste, disposal of product waste, and leasing of assets.

**GHG (Scope 3<sup>\*3</sup>)**

	Emissions (1,000 t-CO <sub>2</sub> )
Combustion of city gas	16,250
Combustion of LNG	840
<b>Total</b>	<b>17,090</b>

**Waste**

	Generated	Recycled
General waste	1,060 t	96%
Industrial waste	113,737 t	97%
Excavated soil	629,000 t	100%
PE pipe	125 t	100%
Used gas appliances recovered	1,517 t	86%

**Amount of water intake and water discharge** Stated on [page 46](#)**Breakdown of Scope 3 categories**<sup>\*1</sup> Category 1–4 (purchased products, capital goods, fuel procurement, upstream transportation)<sup>\*2</sup> Category 5–9, 12–14 (waste, business trips, commuting, leased assets, downstream distribution, end-of-life treatment of sold products, franchises)<sup>\*3</sup> Category 11 (use of sold products)





# Domestic Energy Business

FY2022.3  
ResultsNet Sales **¥1,336.1** billionSegment Profit\* **¥38.6** billion

\*Operating profit (loss) + Share of profit (loss) of entities accounted for using equity method

Investment for  
Growth for  
FY2031.3¥**520** billion\*

\*From FY2018.3 to FY2031.3 (Plan)

## What We Aim to Be in FY2031.3

The Daigas Group are striving to develop our business as an energy marketer in a new era by strengthening each of the three areas in the Domestic Energy Business; namely, gas manufacturing and sales, gas distribution, and electric power generation and sales.

In addition to ensuring that customers in the Kansai area use city gas in a stable, safe, and secure manner, we are proceeding with comprehensive provision of energy and services by expanding the electric power and LPG businesses and enhancing life support services and one-stop services as a utility agent. Furthermore, we will expand the know-how and services developed in the Kansai area to a wide area through alliances.

With these activities going beyond customer expectations, business boundaries, and corporate boundaries, we aim to reach more than 10 million customer accounts by FY2031.3.

## Solutions Business for Residential Customers

We will propose energy, appliances, home renovations, and lifestyle services, etc. to match the requests of each individual residential customer.

## Solutions Business for Commercial and Industrial Customers

For commercial and industrial customers, we will provide one-stop solutions built by energy and various services.

## Pipeline Network Operator Business

We provide a safe, secure supply of gas through the construction, maintenance and management of gas distribution facilities and the construction of 24-hour/365-day security frameworks.

## Gas Production & Engineering

In addition to ongoing stable gas manufacturing, we are engaged in technological development, etc. aimed at the industrial gas business, engineering business, and the realization of a low-carbon/carbon-free society.

## Power Generation

In addition to promoting the power generation business through ownership of power plants and operation and maintenance businesses, we are rolling out an electricity supply business using mainly electric power generated by the Group's own power plants.

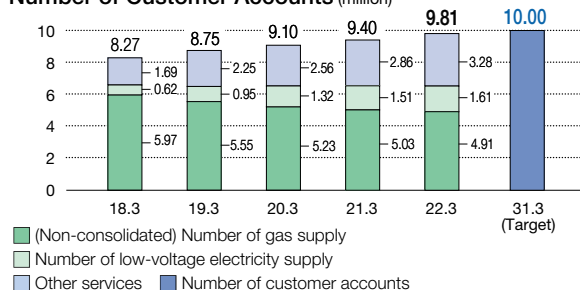
## Renewable Energy

The Group is proceeding with developing and holding power sources, and expanding its electric power procurement efforts, aiming for the spread of renewable energies.

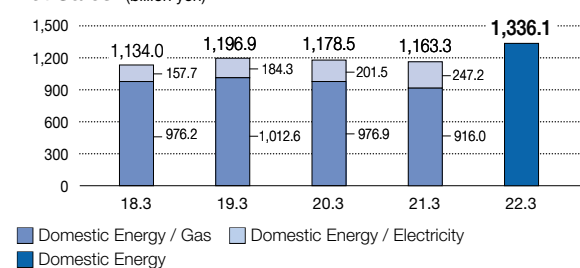
## Energy Marketer Business

Predominantly through long-term contracts, we are pursuing the diversification of our LNG supply sources and price indicators, etc., and providing our customers in Japan and overseas with a stable supply of LNG.

Number of Customer Accounts (million)



Net Sales\* (billion yen)

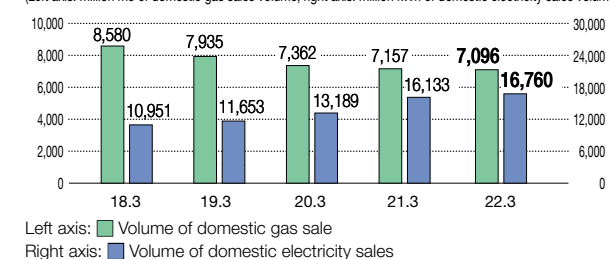


\*Since FY2019.3, Osaka Gas Engineering Co., Ltd. changed its segment from "Life & Business Solutions" to "Domestic Energy / Gas." FY2018.3 results are compiled by segments that reflect the change. In April 2020, Gas and Power Co., Ltd. (Domestic Energy / Electricity) was merged into Daigas Gas and Power Solution Co., Ltd. (Domestic Energy / Gas). FY2020.3 results are compiled by segments that reflect the change.

In April 2021, "Domestic Energy / Gas" and "Domestic Energy / Electricity" were integrated into "Domestic Energy." Osaka Gas International Transport Inc. and its subsidiaries conducting LNG transport, which belonged to "International Energy", were transferred to "Domestic Energy" with the objective of the integrated operation of energy sales and supply/demand management. Osaka Gas' operating expenses for International Energy business, which were previously included in Domestic Energy / Gas, were transferred to International Energy.

Domestic Sales of Gas and Electricity

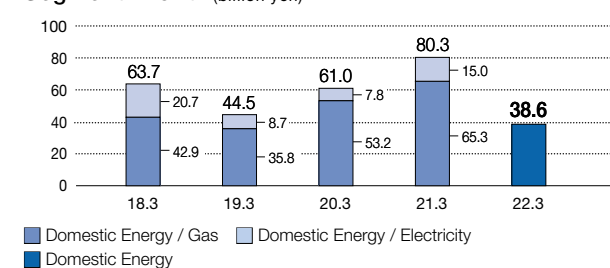
(Left axis: million m3 of domestic gas sales volume; right axis: million kWh of domestic electricity sales volume)



Left axis: ■ Volume of domestic gas sale

Right axis: ■ Volume of domestic electricity sales

Segment Profit\* (billion yen)





## Examples of Major Initiatives

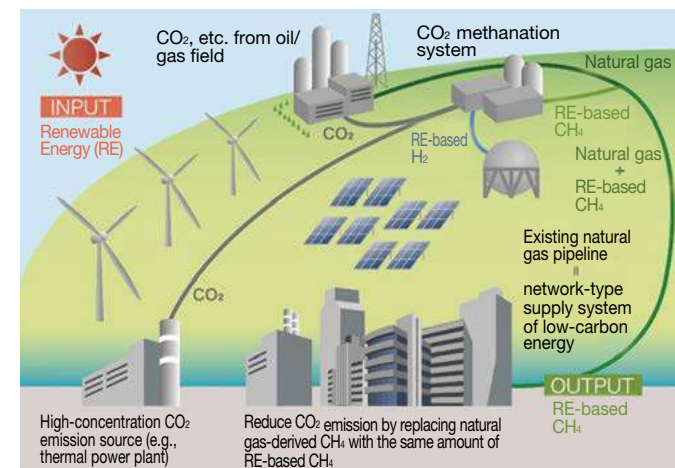
## Toward the Practical Application of Technology Enabling Carbon Neutralization of City Gas

In October 2021, INPEX Corporation ("INPEX") and Osaka Gas jointly launched a technical development business targeting the practical application of a CO<sub>2</sub>-methanation system toward the carbon neutralization of gas. This initiative is based on a subsidized project commissioned to INPEX by the New Energy and Industrial Technology Development Organization (NEDO). The joint technical development business is scheduled to be carried out at a newly built location connected to the Koshijihara Plant at INPEX's Nagaoka Field Office in Nagaoka City, Niigata Prefecture. INPEX and Osaka Gas will jointly take part in the business by entering an operating agreement.

By manufacturing synthetic methane from green hydrogen produced with renewable energy and CO<sub>2</sub>, it is possible to realize the carbon neutralization of city gas. Synthetic methane can use existing city gas infrastructure and facilities and be deployed to sectors where electrification is a challenge. The business is scheduled to consist of a demonstration test involving the production of synthetic methane using CO<sub>2</sub> extracted from within INPEX's Nagaoka Field Office from the second half of FY2025.3 into FY2026.3, and introducing the produced synthetic methane into INPEX's city gas pipeline network. The synthetic methane production capacity of the CO<sub>2</sub> methanation facility to be developed by this business is expected to reach approximately 400 normal cubic meters per hour, which would make it one of the world's largest scale operations\* by current standards.

\*As of October 15, 2021.

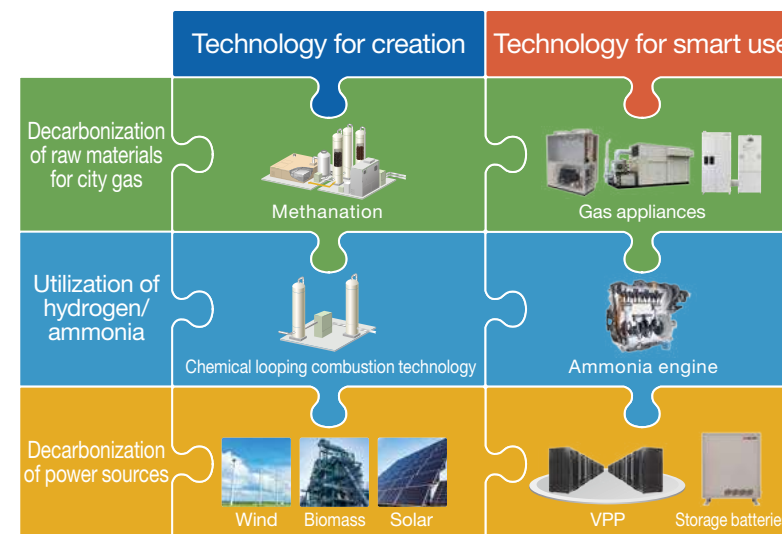
## Joint technical development business with INPEX Corp.



## Establishment of Carbon Neutral Research Hub as a research and development site for carbon neutral technology

We have established a Carbon Neutral Research Hub as a research and development site for carbon neutral technology in the Torishima district of Osaka City, the birthplace of R&D at Osaka Gas. The Company works on research and development aimed at achieving carbon neutrality by 2050 and thoroughly reducing carbon dioxide emissions by then. To accelerate these R&D activities, Osaka Gas will strengthen technical collaboration within the Daigas Group and promote joint research with its alliance partners. At the same time, it will enhance its experimental facilities for various carbon-neutral technologies.

## Concept of the Carbon Neutral Research Hub





## Examples of Major Initiatives

## Commencement of Service of D-Bio Methane, an On-site Biogasification System

Daigas Energy Co., Ltd., a wholly owned subsidiary of Osaka Gas, has developed D-Bio Methane, an onsite biogasification system to produce biogas by processing food waste.

The system produces methane gas by fermenting food waste at a high temperature of 55°C. Methane gas produced by the system will be used as fuel to operate gas boilers and gas engines to produce carbon-neutral steam and electricity, which will be used at customers' facilities. Target facilities include large commercial facilities and food factories where one to two tons of food waste is generated per day. This significantly reduces greenhouse gas emissions compared to conventional composting and power generation through incineration.

Daigas Energy Co., Ltd. began accepting applications for this service in October 2021. In principle, this will be an energy service\* in which Daigas Energy will install the system at customers' facilities to process food waste into biogas.

\*Energy service: Daigas Energy installs its equipment at customers' facilities, saving the customer from buying it, thus eliminating the initial cost.

### ■ Image of a plant in actual operation



## “D-Bio Steam” Biomass Boiler System that Uses Tea Grounds as Fuel

Daigas Energy Co., Ltd. has recently developed the biomass boiler system “D-Bio Steam” by combining a fluidized bed furnace\* manufactured by Okawara Mfg. Co., Ltd. and an exhaust gas boiler manufactured by Miura Co., Ltd. and making use of Daigas Energy's own combustion technology and waste treatment technology. This system enables stable self-sustaining combustion of tea grounds, making it possible for users to utilize steam generated by an exhaust gas boiler for their production process. At the Kainan Plant of Wakayama Nokyo Foods Industry Co., Ltd., the amount of waste is expected to decrease by about 90% annually by using tea grounds as fuel, and CO<sub>2</sub> emissions are expected to decrease by about 600 tons annually by using carbon-neutral steam. The construction of the system is underway with the aim of starting operations in May 2023.

\*Fluidized bed furnace: A combustion furnace that can stably burn even substances with a high water content by causing combustion in high-temperature sand fluidized by the force of air blown from the bottom.

## Development of In-vehicle Camera Capable of AI-based Automatic Recognition of Construction Sites

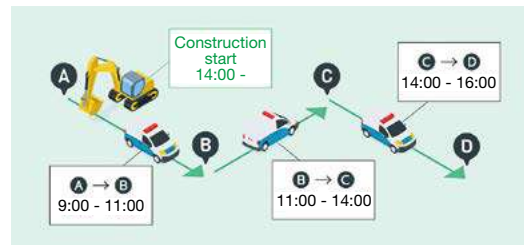
### - Simultaneously Improves Productivity of Gas Pipe Patrol Operations and Gas Pipeline Safety Quality -

Various infrastructure, including waterworks, sewerage, electricity, and communications cables, are buried under roads alongside gas pipes. The operators of this infrastructure need to perform excavation work for maintenance purposes. When business operators other than Osaka Gas\* perform such work near gas pipelines, we request them to hold consultations with us in advance to avoid damage to gas pipes during the excavation. In some cases, however, such construction work is performed without notifying us. For this reason, our inspection staff drive around in patrol cars to check for unnotified works.

By installing the newly-developed AI cameras on fixed-route buses, they can replace conventional patrol operations and thus improve the productivity of patrols. Also, because fixed-route buses drive on the same route multiple times a day, the patrol frequency will be higher, which is expected to enhance safety quality.

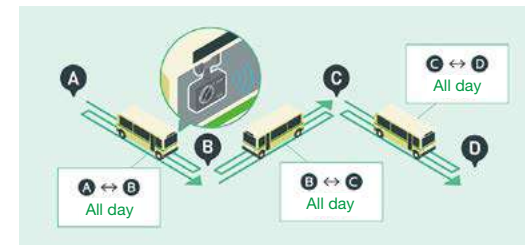
\*Since April 2022, the city gas supply business has been conducted by Osaka Gas Network Co., Ltd.

### ■ Patrols before introduction of the AI camera



Works conducted outside patrol times cannot be detected

### ■ Operation after introduction of the AI camera (image)



Multiple inspections a day



## Examples of Major Initiatives

## Offering One-stop Everyday Services Commencement of Services on Sumai LINK Digital Platform

In March 2022, Osaka Gas launched “Sumai LINK,” a new digital platform business that enriches customers’ daily lives. In collaboration with business operators carefully selected by Osaka Gas, Sumai LINK will offer products and services that are useful for customers’ daily lives via personal computers and smartphones.

In addition to online services, including shopping via the Internet, Sumai LINK will offer a wide variety of offline services that enrich customers’ time spent at home, including medical care and housekeeping services. In August 2022, we also launched a TV stick exclusively for Osaka Gas customers that allows the whole family to enjoy online shopping and entertainment content on large screens of their home television or PC monitor. Going forward, we are planning to roll out these services to various partner companies across Japan.

The Daigas Group uses digital technology to propose added value in quick and flexible response to changes in customer needs, further promoting digital transformation (DX). The Group also keeps a close eye on changes in customers’ lifestyles and business styles and provides optimal services and solutions for individual customers, aiming to help the customers establish a lifestyle and business style that correspond to the new normal amid the changes.

### ■ Overview of Sumai LINK

Provided to partner companies across Japan as well as Osaka Gas



## Osaka Gas’s “Sasuga Net” Internet Services

Osaka Gas has addressed a wide variety of customer needs by providing one-stop services, including not only the supply of energy, such as gas and electricity, but also “Sumikata Services,” which help customers with home-related issues, such as gas equipment repairs and renovations.

With these new Internet services, Osaka Gas will meet the request of customers who want a package deal contract for home necessity services.

### Osaka Gas’s “Sasuga Net” Internet Services



## Prizero, an App for Managing Handouts as Part of Efforts to Solve Problems at Home

Recently, it has become increasingly difficult for families to manage and store the many handouts distributed by school and afterschool teachers and manage schedules of events due partly to an increase in the number of double-income families with children. To solve such problems, Osaka Gas has developed “Prizero,” an app that enables families to comprehensively manage and share handouts, events and tasks using a smartphone. In the development of the app, 150 employees of the Daigas Group, both mothers and fathers, who are in the midst of raising children were involved as testers, and their feedback based on their actual experiences was reflected in the development.

Osaka Gas aims to study the possibility of promoting the use of the service through partnerships with local governments and schools. As the first step, Osaka Gas concluded a partnership agreement regarding child development and child care support with Toyonaka City, Osaka Prefecture in March 2021. Osaka Gas also hopes to contribute to identifying and solving social issues by organizing workshops for child-rearing households.



Schedule management possible on smartphone





## International Energy Business

FY2022.3  
ResultsNet Sales ¥**80.7** billionSegment Profit\* ¥**44.3** billion\*Operating profit (loss) + Share of profit (loss) of  
entities accounted for using equity methodInvestment for  
Growth for  
FY2031.3¥**550.0** billion\*

\*From FY2018.3 to FY2031.3 (Plan)

### What We Aim to Be in FY2031.3

As an energy business operator, the Daigas Group has focused on the natural gas value chain from early on and has made investments abroad accordingly. In the future, we will continue to invest outside of Japan and by FY2031.3 will increase our international-to-domestic business ratio to 1:2. The Daigas Group will create a business model capable of generating balanced earnings streams from North America, Asia, Oceania, and Europe.

### Upstream Business

Expanding upstream business field through project participation for group-wide steady profit growth.

(North America) Expansion of output and profits of

American shale gas development company, Sabine Oil & Gas Corporation

(Australia) Stable profit contribution by Gorgon LNG Project and Ichthys LNG Project

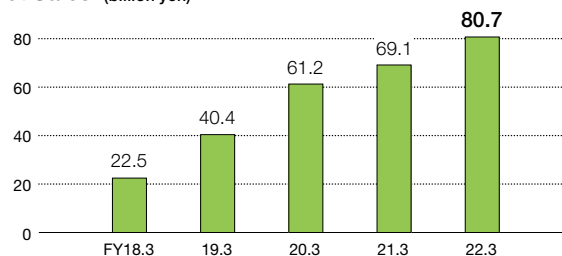


Sabine Shale Gas Project in USA

### IPP in North America

Increasing investment in renewables, which are expected to expand in the United States, as well as natural gas-fired power plants, to accelerate decarbonization.

Net Sales\* (billion yen)



### Mid- & Downstream Business in North America

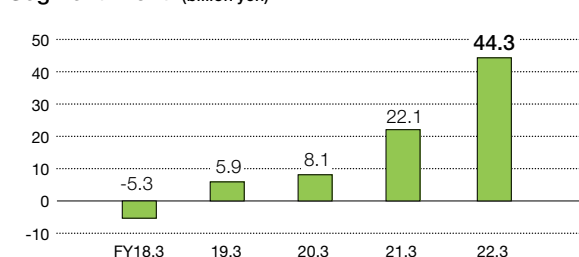
Working to achieve stable, flexible procurement of LNG by securing LNG with no destination restrictions through the procurement of LNG from the Freeport LNG Project in the US and by diversifying our supply sources and price indices.

Freeport LNG Terminal in USA  
Courtesy of Freeport LNG Development, L.P.

### Asia

Expanding our businesses in renewables and LNG terminals, as well as natural gas marketing and energy services.

Segment Profit\* (billion yen)

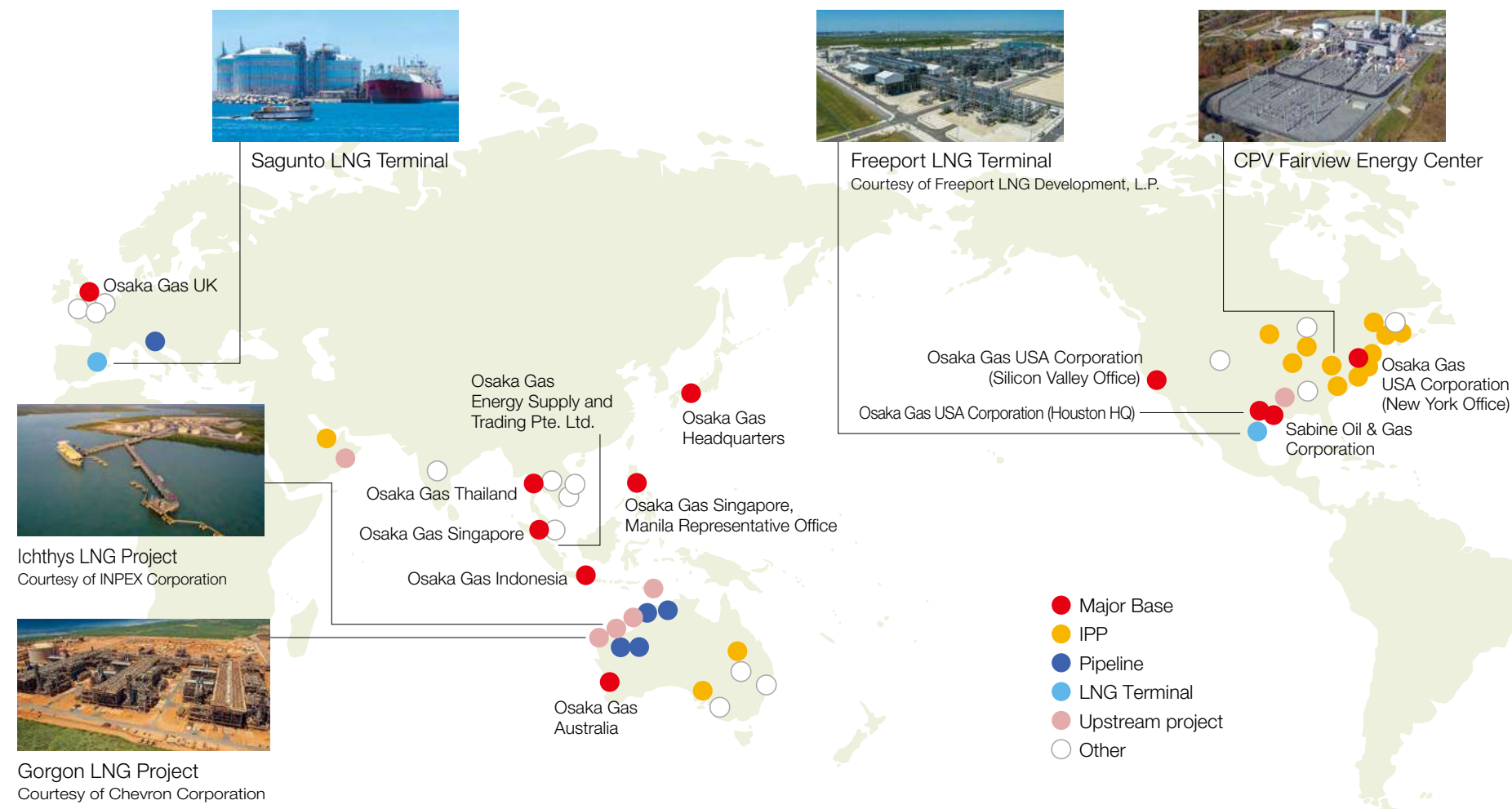


\* Since FY18.3, Sumisho Osaka Gas Water UK Limited, an equity-method affiliate, changed its segment from "Life & Business Solutions" to "International Energy." In April 2021, Osaka Gas International Transport Inc., which belongs to "International Energy" and conducts LNG transport, was merged into "Domestic Energy" with the objective of the integrated operation of energy sales and supply/demand management, and operating expenses for international energy included in Osaka Gas (Domestic Energy/Gas) were transferred to International Energy.





■ Investments in the International Energy Business (As of March 31, 2022)



Please refer to the [Fact Book 2022](#) for investments in the International Energy Business.



## Examples of Major Initiatives

## Green Hydrogen Production Project in Australia

In April 2022, Osaka Gas concluded an agreement with Australian company, Aqua Aerem Pty. Ltd., for the joint development of the Desert Bloom Hydrogen Project in Australia's Northern Territory. This project will use water captured from the atmosphere and off-grid solar power to produce green hydrogen,\*<sup>1</sup> with the aim of supplying it to power plants in Australia and exporting it to other countries. This initiative of using off-grid electricity to produce hydrogen is extremely advanced, making it one of the most highly anticipated hydrogen developments in Australia.\*<sup>2</sup> The long-term aim of the project is to build multiple hydrogen production plants that will produce a total of 400,000 metric tons of green hydrogen per year.

\*<sup>1</sup> Hydrogen that has been produced without generating CO<sub>2</sub> in its production process, using renewable energies, etc.

\*<sup>2</sup> The Desert Bloom Hydrogen Project has been given major project status in the Northern Territory as part of the Territory Government's Renewable Hydrogen Strategy.

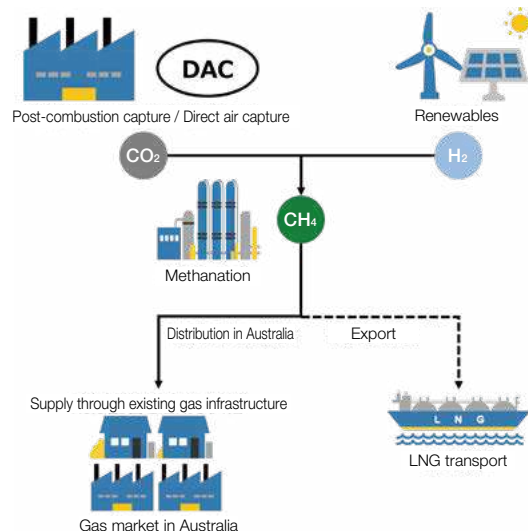
■ Hydrogen production units  
(courtesy of Aqua Aerem Pty. Ltd.)



## Joint Methanation Study in Australia

In December 2021, Osaka Gas Australia Pty. Ltd., a subsidiary of Osaka Gas, signed a Memorandum of Understanding with ATCO Australia Pty. Ltd. and launched a joint study on the viability of a methanation business in Australia. ATCO Australia is a subsidiary of ATCO Ltd., which conducts energy infrastructure businesses in over 100 countries. The concept of this business is to produce synthetic methane at methanation plants using green hydrogen and CO<sub>2</sub> captured from carbon emitting facilities such as power plants or the atmosphere. The synthetic methane would be supplied to Australian gas markets via existing gas distribution network and exported to Japan and other overseas markets.

■ Methanation project with ATCO Australia Pty. Ltd.

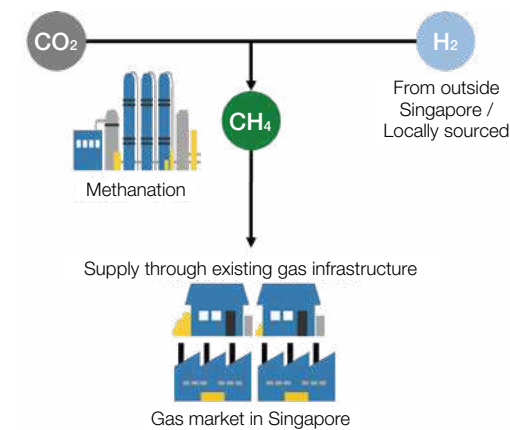


## Methanation Feasibility Study in Singapore

In March 2022, Osaka Gas Singapore Pte. Ltd., a subsidiary of Osaka Gas, entered into an agreement with energy-related companies in Singapore including City Energy Pte. Ltd. and City-OG Gas Energy Services Pte. Ltd. to conduct a feasibility study on a methanation project in Singapore.

The joint study will explore business models and conduct economic evaluation over an approximately six-month period for the production of synthetic methane from hydrogen sourced from either overseas or in Singapore and CO<sub>2</sub> captured in Singapore, and the supply of that synthetic methane to meet local gas demand using existing gas infrastructure.

■ Methanation project with Singaporean partners





## Examples of Major Initiatives

## Participation in Renewable Energy Projects Overseas

Osaka Gas has invested in several IPP projects overseas, including natural gas power plants and wind power and solar power plants in North America and Australia, etc. Investments in FY2021.3 include the Three Rivers Energy Center (under construction) in Illinois in the United States for natural gas-fired power plants and SolAmerica Energy, LLC, a U.S. distributed solar energy project developer. In FY2022.3, we signed a contract with Summit Ridge Energy, LLC for the joint implementation of a distributed solar energy

project in Maine and reached an agreement with NOVI Energy, LLC, a U.S.-based power project developer, to jointly develop a portfolio of utility-scale solar power projects. Further, the Brighter Future Solar Project in North Carolina, U.S.A., in which we invested in 2021, began commercial operation in January 2022. We will continue to consider opportunities to participate in renewable energy power sources that are expected to expand into the future.

## Investment in Jedlix, an Electricity Balancing Service Platform Developer in Europe

In November 2021, through our wholly owned subsidiary Osaka Gas UK, Ltd., we signed an agreement to underwrite a capital increase of Jedlix B.V., a startup that operates electricity balancing\*<sup>1</sup> services in Europe. In doing so, we have participated in Europe's balancing market,\*<sup>2</sup> which is one of the most highly developed in the world.

Solutions to the grid frequency stabilization has been increasingly needed as the amount of renewable energy production, which often fluctuates depending on weather conditions, has been on the rise in recent years. Europe is a frontrunner in the introduction of renewables and their balancing markets are the most highly developed in the world. Jedlix has been in aggregator\*<sup>3</sup> business in Europe, and uses a balancing service platform

it has developed to remotely control electric vehicle (EV) batteries. The startup was established in 2016 and has gradually expanded its business into seven countries, including the Netherlands and France. It plans to further expand its business by pursuing partnerships with EV manufacturers, charge point operators, and energy retailers.

\*<sup>1</sup> Power grid balancing needs to be constantly maintained by matching power supply to demand to avoid causing blackouts and damaging infrastructure. Electricity charging and discharging to maintain that balance is known as electricity balancing.

\*<sup>2</sup> Balancing markets provide power grid operators with electricity reserves necessary to match the power supply to demand or maintain grid frequency stabilization. Power grid operators issue grid balancing orders to electricity generators and aggregators, who receive fees for these services.

\*<sup>3</sup> Aggregators provide grid balancing by remotely controlling their customers' electricity generation units in accordance with the grid operators' balancing orders.

## Participation in Rooftop Solar Generation Business in Vietnam

In October 2021, Sojitz Osaka Gas Energy Company Ltd., a joint venture company\* between Sojitz Corporation ("Sojitz") and Osaka Gas Co., Ltd., partnered with Looop Inc. to establish a new joint venture company, SOL Energy Company Limited ("SOL Energy").

SOL Energy plans to install rooftop solar panels that can provide over 10 MW of solar power to customers at the Sojitz-operated Long Duc Industrial Park in southern Vietnam's Dong Nai Province. Installation of solar panels is expected to reduce CO<sub>2</sub> emissions for Long Duc Industrial Park as a whole by approximately 5,800 tons annually. In addition to supplying customers with solar power over the long term, SOL Energy will use the surplus electricity to supply the industrial park's operating companies. In doing so, SOL Energy will contribute to the utilization of renewable energy and decarbonization at the Long Duc Industrial Park. The company also plans to expand its solar business beyond Long Duc Industrial Park. By actively promoting the spread of renewable energy through SOL Energy's rooftop solar power generation business, we will contribute to Vietnam's sustainable development and the realization of a low-carbon society.

■ Part of Long Duc Industrial Park



\* Equity ownership of Sojitz Osaka Gas Energy Company Ltd.: Sojitz Group 51%, Osaka Gas Singapore Pte. Ltd. 49%. (Osaka Gas Singapore Pte. Ltd. is a fully owned subsidiary of Osaka Gas Co., Ltd.)



## Examples of Major Initiatives

## Osaka Gas Becomes the First Japanese Company to Participate in City Gas Distribution Business in India

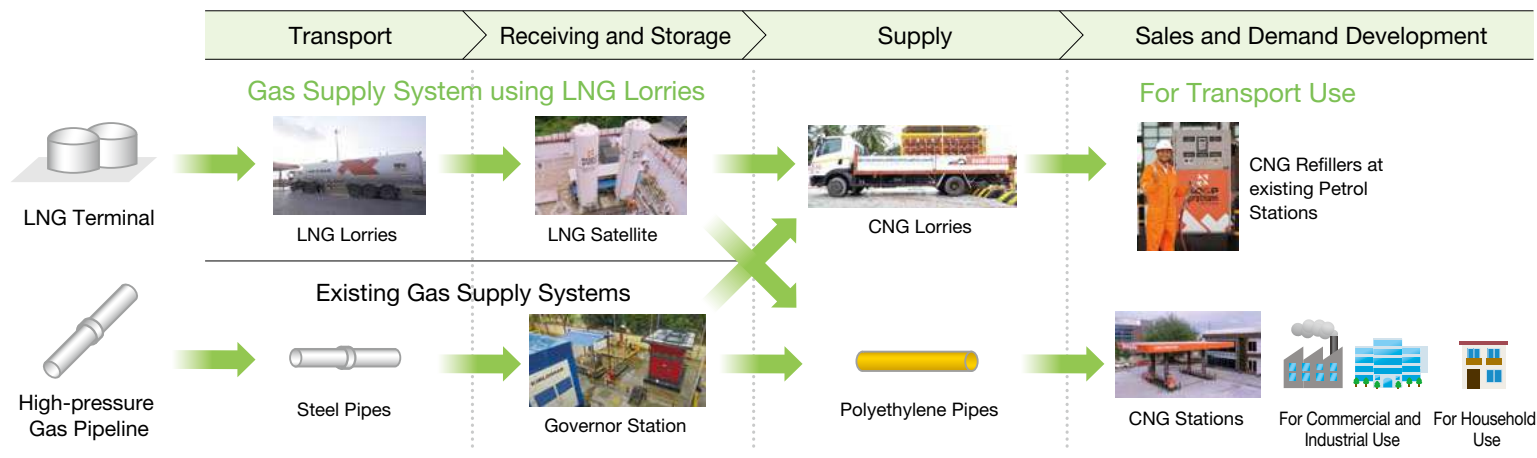
Together with the Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development, Osaka Gas has become the first Japanese company to participate in the city gas distribution business conducted by AG&P LNG CGD HoldCo Pte. Ltd. in India. It has done so by investing in AG&P CGD HoldCo SPV3 (Singapore) Pte. Ltd. through its subsidiary, Osaka Gas Singapore Pte. Ltd.

This city gas business, promoted by the AG&P Group, has already obtained exclusive rights to a vast swath of southern India roughly equivalent to 3/4 the area of Japan. The use of LNG lorries as the main gas supply system, which is introduced for the

first time to India, will shorten the time for the development and roll-out of city gas infrastructure. The venture also plans to promote city gas demand for CNG vehicles as well as for household, commercial and industrial uses. The aim for the future is to realize a city gas business that is equivalent to approximately half of Osaka Gas's city gas sales volume in Japan.

Osaka Gas aims to develop this city gas venture in India into one of its core businesses in Asia and to contribute to carbon emissions reduction and stable energy supply in India.

## ■ Gas Supply System using LNG Lorries



## Switching Fuel at Garment Factory in Thailand

In September 2021, Osaka Gas (Thailand) Co., Ltd. entered into an agreement with Parfun Textile Co., Ltd., a subsidiary of Parfun Co., Ltd., for the delivery of compressed natural gas (CNG) to Parfun's garment factory in Thailand.

This project involves the installation of highly efficient gas-fired once-through boilers to replace the existing coal-fired water tube boilers at Parfun's Nakhon Pathom garment factory. This will achieve reductions in the factory's greenhouse gas emissions.





## Life & Business Solutions Business

FY2022.3  
ResultsNet Sales ¥ **237.0** billionSegment Profit\* ¥ **23.5** billion

\*Operating profit (loss) + Share of profit (loss) of entities accounted for using equity method

Investment for  
Growth for  
FY2031.3¥ **380.0** billion\*

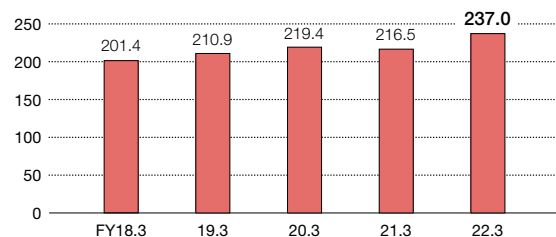
\*From FY2018.3 to FY2031.3 (Plan)

### What We Aim to Be in FY2031.3

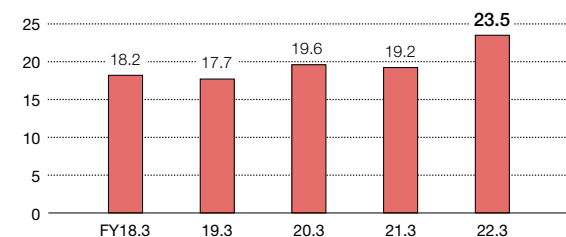
The Daigas Group actively applies the technologies and know-how it has accumulated in the energy business, developing businesses that differ from the energy field in order to diversify business risk. These non-energy businesses are playing a major role in supporting the Daigas Group's earnings base as a stable source of earnings, particularly as crude oil prices and foreign exchange trends remain unclear.

We plan to accelerate growth in three core business areas in Life & Business Solutions—Urban Development, Materials Solutions, and Information Solutions—aiming to consistently increase profits through fiscal 2031.3.

Net Sales\* (billion yen)



Segment Profit\* (billion yen)



\*Since FY18.3, Sumisho Osaka Gas Water UK Limited, an equity-method affiliate, changed its segment from "Life & Business Solutions" to "International Energy." Since FY19.3, Osaka Gas Engineering Co., Ltd. changed its segment from "Life & Business Solutions" to "Domestic Energy / Gas." FY18.3 results are calculated based on the contents after the change.

### Urban Development Business

## Osaka Gas Urban Development Group

Our real estate business extends widely to include the development of properties such as sale and rental apartments, office buildings, management of buildings and facilities, and so on.

### What We Aim to Be in FY2031.3

The Group aims to be a corporate group in which employees are actively engaged in various areas including development, operation, and maintenance, and one that meets the needs of customers and society through diverse solutions that are blended with real estate and services.

### Efforts Toward Sustainable Growth

We aim for sustainable profit growth and improvement of capital efficiency by deepening the strength of existing businesses, expanding business domains, and evolving our business model. Specifically, we will develop apartments that pursue value creation, launch new businesses such as logistics real estate, provide comprehensive facility management services in the building maintenance business, and provide interaction opportunities and a business environment that triggers the creation of innovations in the research park business.



Rental apartments



Rental offices





## Materials Solutions Business

## Osaka Gas Chemicals Group

We develop, manufacture and sell highly functional materials based on our own coal chemistry technologies and pharmaceutical- and agrochemical-related technologies. In 2014, we acquired activated carbon producer Jacobi Carbons AB (Sweden) and are developing our business globally.

## What We Aim to Be in FY2031.3

Engaged primarily outside of Japan, we aim to become a manufacturer of functional materials with a top position in niche markets that contributes positively to industry, life, and the environment.

## Efforts Toward Sustainable Growth

We aim to establish a stable earnings base and achieve sustainable growth by developing and expanding sales of products with high added value in a diverse product offering, while also pursuing synergies and developing new markets. We will also be working on substitutions in our business portfolio on a continuous basis to adapt to changes in the times.

Fine Materials	Carbon Fiber Materials	Activated Carbon	Silica- and Alumina-based Materials	Preservatives
Development of various applications for fluorene with its excellent optical properties and heat resistance	Expanded sales of DONACARBO carbon fiber with its excellent heat insulation and abrasion resistance	Expanded global value chain through cooperation between the Jacobi Group and Osaka Gas Chemicals Co., Ltd.	Expanded sales of adsorbents and additives and efforts toward developing new applications	Development of wood preservatives, industrial preservatives, industrial coating agents
				
Resins for camera lenses in smartphones and other devices, semiconductor materials, liquid crystal displays	Acoustic insulation material for train cars	Activated carbon for purification processes in food, alcohol and pharmaceutical manufacturing, air purifiers and water filters	Activated clay for petroleum processing and for refining cooking oil	Xyladecor wood preservative, Xylamon termite control agent

## Information Solutions Business

## OGIS-RI Group

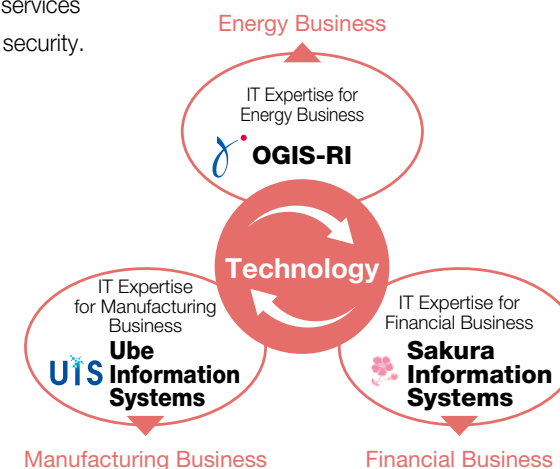
OGIS-RI traces its roots back to developing and managing systems for the gas business of Osaka Gas Co., Ltd. After various acquisitions, it organized a group of system providers to offer services to the manufacturing and financial industries. By sharing the expertise of each company in the group, we provide comprehensive IT services ranging from consulting, design, development, and operation of corporate information systems to data centers, cloud services, and security.

## What We Aim to Be in FY2031.3

Through high-level innovation in information and communications technologies, we aim to be a corporate group that provides new value and grows sustainably with customers.

## Efforts Toward Sustainable Growth

Our strategy is to differentiate ourselves with a priority placed on the fields of finance, manufacturing, and energy as we expand service businesses for the domains of IoT, cloud technology, and authentication. We will apply our cumulative expertise and introduce new technologies to improve the competitiveness of the Daigas Group.





## Examples of Major Initiatives

## Urban Development Business

## Implementing Product Planning that Meets the Needs of the Times and Customers, Leading to SUUMO AWARD

As work styles become more diverse and new lifestyles, including staying at home, take root, these changes in lifestyles are also resulting in changes in the needs of condominium residents.

Osaka Gas Urban Development Co., Ltd. has engaged in a range of product planning to provide living environments that meet these changing needs, offering customers' new lifestyles.

For example, purchasers of an apartment of condominium Scenes Omori Park Side are given free use privileges of ADDRESS, a nationwide multi-location residential service run by ADDRESS Inc., and BIZcomfort, a nationwide co-working space network run by WOOC Co., Ltd. In addition, at a condominium Scenes Kyoto Enmachi, Osaka Gas Urban Development has partnered with Casie Co., Ltd. to offer Japan's first art subscription service for condominiums. It has also partnered with Social Interior Inc. to offer the "subscLife" furniture and appliances subscription service. Further, it has introduced "TukTuk," a convenience stand service operated by Relic Inc. that offers unmanned sales of food and daily necessities, at 13 Urbanex rental apartment buildings in the greater Tokyo area.

In recognition of these ongoing initiatives and of its introduction of ENE-FARM and other energy-creating systems, the company won the Grand Prize in the "Creativity and Progressiveness" category and an Award for Excellence in the "Property Viewing Satisfaction" category of the SUUMO Award Kansai Edition for the first time. The SUUMO Awards are judged by purchasers of new condominium.

We will continue to create high-quality living and business environments that are one step ahead through real estate solutions that meet the needs of customers and society.



Conceptual image of use of "subscLife"

## Information Solutions Business

## Launch of AI-based Decision Support Tool

We have commenced the provision of "ThothPlus-DecisionManager," an AI-based decision support tool that is suited to operations requiring business impact analysis and that enables the structuring of unstructured data such as e-mails.

This service automatically captures e-mails and other large volumes of data that have no set format and converts them into databases after analyzing their contents with AI. It also uses its own rule-based AI technology to determine the importance and business impact of the data, providing strong support for customers' decision-making. Through this and other services, we will realize digital transformation (DX) and create new corporate value together with our customers.



## Materials Solutions Business

## Strong Performance by Carbon Fiber Materials Business

Osaka Gas Chemicals' carbon fiber insulation materials possess excellent insulating properties due to the properties of the material and the advanced formation and machining technologies used to make them. They have been adopted for use in high-temperature furnaces such as silicon crystal growth apparatus for semiconductor substrates. Given the thriving semiconductor market of late and the brisk demand for sapphire glass for LEDs, sales of these products have been strong. We will continue to provide high-quality material solutions in our efforts to respond to customers' requirements, including the development of products with even higher insulating properties.





# Corporate Governance

## Basic Views on Corporate Governance

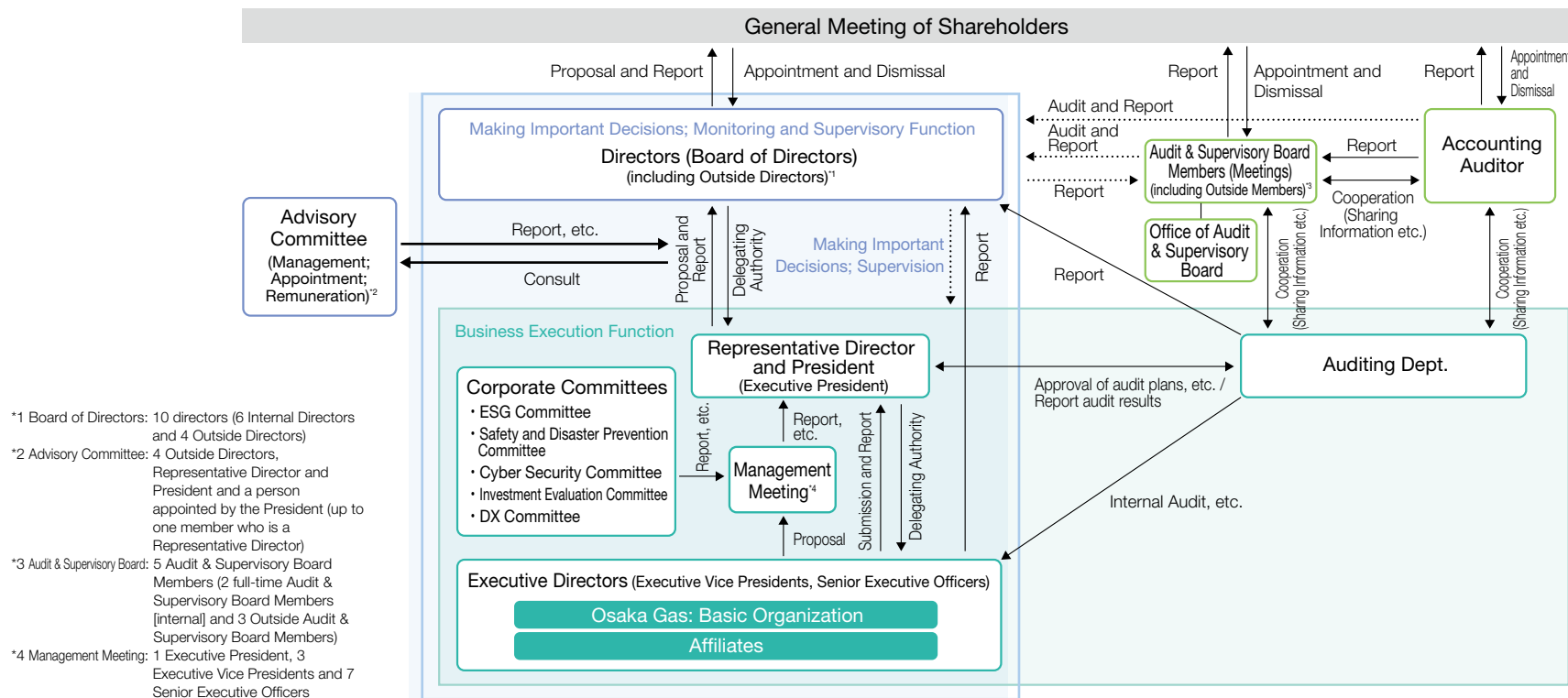
As a corporate group that powers “continuous advancement” in consumer life and business, our Corporate Principles aim to create four types of value: “Value for Customers,” “Value for Society,” “Value for Shareholders” and “Value for Employees” by providing various products and services relating to not only the energy business, including natural gas, electricity and LPG, but also its peripheral services and non-energy businesses, such as urban development, materials and information businesses.

Under this Corporate Principles, the Company and its affiliates (the “Group”) will respond appropriately to the exercising of shareholder rights, and work toward maintaining and increasing a sense of trust by dialogue and cooperation with its stakeholders. In addition, the Group will continue to enhance and strengthen corporate governance in order to respond quickly and appropriately to changes in the business environment surrounding the Group, make transparent, fair and decisive decisions, and execute business efficiently and appropriately.

## Corporate Governance System

The Company has selected to be a company with Audit & Supervisory Board and conducted the introduction of an executive officer system, appointment of multiple Outside Directors, and establishment of voluntary advisory committees corresponding to management, appointment of Directors and Audit & Supervisory Board Members and Director remuneration. The Company considers its current governance system best suited for the decision-making and business execution described above.

### ■ Corporate Governance Organization Chart (as of June 28, 2022)





## Overview of Corporate Governance System

### Board of Directors, Directors of the Company

The Board of Directors consists of 10 Directors (including four Outside Directors). Its mission is to make swift and appropriate decisions about important matters that affect the whole Group including subsidiaries and to enhance supervisory capabilities. The Articles of Incorporation stipulate that there shall be no more than 15 Directors. They also direct that appointment of Directors is to take place with a quorum of shareholders possessing at least one-third of shareholder voting rights and by a majority of voting rights held by shareholders present, and that no cumulative voting may be used for appointing Directors.

### Executive Officers

The Company has adopted an executive officer system (Executive Officers consist of Executive President, Executive Vice Presidents, Senior Executive Officers, and Executive Officers), which enables the Directors of the Company to focus on making business decision and monitoring and supervisory functions, and worked toward strengthening the business efficiency and the supervisory functions by vitalizing the Board of Directors. Executive Officers perform duties determined by the Board of Directors, and some Representative Directors and Directors concurrently serve as Executive Officers to make management decision-making more accurate and efficient.

### Management Meeting

The Company examines basic management policies and important management issues at the Management Meeting and fully deliberates the foregoing before decision-making. In accordance with internal regulations, the Management Meeting consists of the Executive President, Executive Vice President, and Senior Executive Officer. In principle, the Management Meeting is held three times per year as “ESG Council,” which deliberates on activity plans and report on activities related to promotion of ESG management.

### Audit & Supervisory Board, Audit & Supervisory Board Members

The Audit & Supervisory Board consists of five Audit & Supervisory Board Members, of whom three are Outside Auditors and each Audit & Supervisory Board Member monitors the execution of work duties by the Directors.

### Auditing Department

The Company established the Auditing Department (18 members) as an internal audit division. Based on a yearly auditing plan, it evaluates, from independent and neutral viewpoints, the adequacy of business activities in light of in-house standards, their efficiency, and the appropriateness of various systems and standards adopted by the Company. In addition to giving recommendations and conducting follow-ups that lead to business improvements in the organizations subject to audit, the department summarizes the issues and reports its results to the Management Meeting. The Auditing Department is subject to periodical evaluation from an outside party to maintain and improve its auditing abilities.

### Advisory Committee

The Advisory Committee consists of all the Outside Directors (four), the President and, if necessary, a person appointed by the President (the President may appoint up to one person from among the other Representative Directors). From the perspective of corporate value enhancement, ensuring objectivity and transparency in the decision-making process, the Advisory Committee deliberates on matters related to key issues such as medium- to long-term corporate strategy, matters related to the election of candidates for Directors and Audit & Supervisory Board Members, matters related to the selection and dismissal of Representative Directors and other Executive Directors, and matters related to the remuneration of Directors. The committee chairperson is appointed by the committee members.

### ESG Committee

The Company has established the ESG Committee to promote activities relating to the Group’s sustainability, including the environment, compliance, social contribution, respect for human rights, and risk management.

### Safety and Disaster Prevention Committee

In April 2022, in order to take all possible measures to ensure safety, disaster prevention, and gas supply stability after the legal spin-off of the gas pipeline service business, the Company established the Safety and Disaster Prevention Committee to unify the management of events related to safety, disaster prevention and gas supply stability, and to promote measures against them within the Group.

### Cyber Security Committee

The Company has established the Cyber Security Committee to reinforce the cyber security measures of the Group.

### Investment Evaluation Committee

The Company has established the Investment Evaluation Committee to examine risk and return and assess investments in excess of a certain amount, and report findings to the Management Meeting to help make appropriate investment decisions.

### DX Committee

The Company has established the DX Committee to promote DX (Digital Transformation: a business transformation by utilizing digital technology) for the entire group while coordinating the alignment with business, IT, and financial strategies across the organization.



## Views on Composition of the Board of Directors

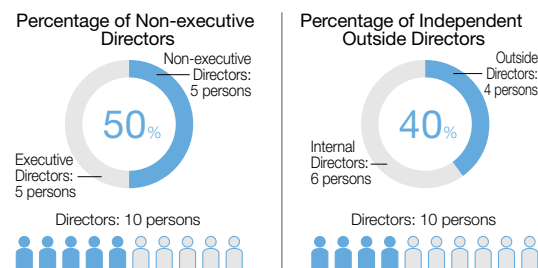
From the perspective of contributing to its sustainable growth and improvement of the medium- to long-term corporate value of the Daigas Group, Osaka Gas has adopted a basic policy of appointing diverse talent as Directors and Audit & Supervisory Board Members in full consideration of their knowledge, experiences, ability, personality, etc. regardless of gender, nationality, career, or age etc. The Company has set a target of 20% or higher female officers (Directors and Audit & Supervisory Board Members) in FY2031.3, and as of June 2022, the percentage of female officers (Directors and Audit & Supervisory Board Members) was 13.3% (one Outside Director and one Outside Audit & Supervisory Board Member each).

Moreover, based on medium- and long-term management plans, we have defined the basic qualifications for Internal Directors as having experience and expertise in our Group's businesses including the energy business, corporate management, financial accounting, marketing, legal affairs and risk management, etc. and those for Outside Directors as having not only independence that enables objective judgment but also extensive knowledge, wealth of experience, great expertise in their specified field, etc. As such, the Board of Directors as a whole has a well-balanced composition.

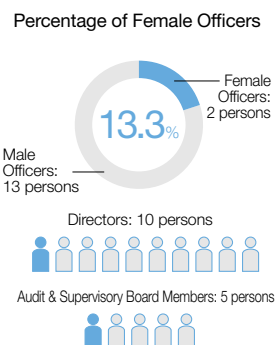
In addition, we have long since defined the term of Director as one year in order to respond flexibly to changes in our business environment and clarify management responsibility.

Based on the above-mentioned policy, decisions on the selection of candidates for Directors and Audit & Supervisory Board Members and the appointment and dismissal of Representative Directors and other Executive Directors are made based on deliberations by a voluntarily appointed Advisory Committee made up of a majority of Outside Directors in order to ensure objectivity and transparency in decision-making. (The system of the voluntarily appointed Advisory Committee is the same as that of the Advisory Committee deliberating on remuneration.)

### ■ Independence of Directors



### ■ Diversity of Directors and Audit & Supervisory Board Members



### ■ Skills Matrix

The following is a list of the expertise and experience that the Board of Directors should possess as identified in light of the medium- to long-term management plan as well as the significant expertise and experience of each Director and Audit & Supervisory Board Member.

Name	Position	Fields of Significant Expertise and Experience								
		Corporate Management	Marketing	Technology / R&D	DX*	Global Management	ESG	Finance / Accounting	Legal / Risk Management	Human Resources Development
Takehiro Honjo	Chairman and Director	●	●				●	●	●	●
Masataka Fujiwara	Representative Director and President	●	●	●	●	●	●			
Tadashi Miyagawa	Representative Director	●		●	●	●	●		●	
Takeshi Matsui	Representative Director	●			●	●	●	●		●
Takayuki Tasaka	Representative Director	●	●					●	●	
Fumitoshi Takeguchi	Director						●	●	●	●
Hideo Miyahara	Outside Director	●		●	●					●
Kazutoshi Murao	Outside Director	●			●		●		●	●
Tatsuo Kijima	Outside Director	●					●		●	●
Yumiko Sato	Outside Director						●		●	●
Toshimasa Fujiwara	Audit & Supervisory Board Member	●	●				●		●	●
Hisaichi Yoneyama	Audit & Supervisory Board Member	●		●		●			●	●
Eiji Hatta	Outside Audit & Supervisory Board Member	●						●	●	●
Shigemi Sasaki	Outside Audit & Supervisory Board Member	●							●	●
Eriko Nashioka	Outside Audit & Supervisory Board Member	●					●	●		●

\*DX: Digital transformation





## ■ Corporate Governance Initiatives

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Long-Term Management Vision		Field of Dreams 2020			Vision 2030: Going Forward Beyond Borders						
Medium-Term Management Plan		Catalyze Our Dream			Vision 2030: Going Forward Beyond Borders				Creating Value for a Sustainable Future		
	Priority themes	① Strengthening the energy business in the Kansai region ② Expanding the area of the energy business ③ Creating the next core businesses (International Energy Business, Life & Business Solutions Business)			① Develop energy marketer business of a new era ② Accelerate the development of international energy business ③ Expand LBS business and developing new business fields				① Co-create value for a sustainable future Pursuing the creation of value for solving social issues alongside stakeholders ② Evolve our corporate group Building a robust business portfolio and strengthening the management foundation to support the enhancement of our business portfolio management		
Separation of business execution and supervision	Chairperson of the Board	Representative Director and President	From 2015: Representative Director and Chairman of the Board						From 2021: Director and Chairman of the Board		
	Execution system	From 2009: adoption of an executive officer system									
	Outside Directors	From 2009: 2 persons			From 2016: 3 persons					From 2021: 4 persons	
		From 2020: Percentage of Outside Directors: 1/3 or more									
	Outside Audit & Supervisory Board Members	From 2014: 3 persons									
	Voluntary advisory committee	In 2013: established (appointment and remuneration)								In 2022: expanded (management, appointment, and remuneration)	
Diversity	Female officers	From 2014: one person (one Audit & Supervisory Board Member)							From 2021: 2 persons (one Director and one Audit & Supervisory Board Member)		
	Skills Matrix								Since 2021: disclosed		
Linkage between sustainable growth and remuneration	Remuneration system	In 2013: established performance-linked remuneration system								Since 2022: linked remuneration to ESG indicators achievement	
										In 2021: established stock-based remuneration system	
Internal Control	Corporate committee*1	From 2003: Investment Evaluation Committee									
		From 2006: CSR Committee*3						From 2020: ESG Committee			
		From 2019: Cyber Security Committee									
										From 2021: DX Committee	
		From 1996: Executive Safety Council								From 2022: Safety and Disaster Prevention Committee	
	Strengthening risk management (operation of G-RIMS*2)	From 2006: targeting Osaka Gas and domestic affiliates			From 2017: scope expanded to include overseas affiliates						
	Cross-shareholdings	In 2013: established policies regarding cross-shareholdings*4									

\*1 Established for the purpose of coordinating and promoting matters (important issues for the entire Group) across multiple basic organization

\*2 Systematized self-assessment of risk management practices (Gas Group Risk Management System)

\*3 The new "CSR Committee" was established to coordinate and promote the activities of the committees (Compliance Committee and Energy & Global Environment Committee), which had been operating separately by field, as well as community and social contribution, human rights, employment, and other activities promoted by the organizations in charge, on a cross-organizational basis.

\*4 Rules on the purchase and management of third-party stocks was established. The Board of Directors examines the significance of each individual stock holding. If the significance of holding an issue has waned, we sell it sequentially.

With respect to the exercise of voting rights, a standard for exercising voting rights was established (in 2016). We examine the content of proposals through various methods, including dialogue with investee, and decide whether to approve or disapprove.



## Advisory Committee

The Advisory Committee consists of all the Outside Directors (four), the President and, if necessary, a person appointed by the President (the President may appoint up to one person from among the other Representative Directors). From the perspective of corporate value enhancement, ensuring objectivity and transparency in the decision-making process, the Advisory Committee deliberates on matters related to key issues such as medium- to long-term corporate strategy, matters related to the election of candidates for Directors and Audit & Supervisory Board Members, matters related to the selection and dismissal of Representative Directors and other Executive Directors, and matters related to the remuneration of Directors. The committee chairperson is appointed by the committee members.

Name	Composition of each advisory committee and percentage of Outside Directors	Agenda	Members*	Committee meetings held (April 2021 - September 2022)
Advisory Committee Relating to Management	<b>(Management)</b> 67% 	Key issues such as medium- to long-term corporate strategy	(Outside members) Hideo Miyahara, Kazutoshi Murao, Tatsuo Kijima and Yumiko Sato (Inside members) Masataka Fujiwara and Takeshi Matsui	July 2022 (Established in 2022)
Advisory Committee Relating to Officer Appointment	<b>(Appointment)</b> 80% 	Matters related to the election of candidates for Directors and Audit & Supervisory Board Members, the selection and dismissal of Representative Directors and other Executive Directors, skills matrix, and succession plan, etc.	(Outside members) Hideo Miyahara, Kazutoshi Murao, Tatsuo Kijima and Yumiko Sato (Inside member) Masataka Fujiwara	July and November 2021, January, February and August 2022
Advisory Committee on Remuneration	<b>(Remuneration)</b> 67% 	Policy on determining remuneration of Directors, calculation method for the portion linked to business performance of the remuneration, payment coefficient, appropriateness of the remuneration levels, etc.	(Outside members) Hideo Miyahara, Kazutoshi Murao, Tatsuo Kijima and Yumiko Sato (Inside members) Masataka Fujiwara and Takayuki Tasaka	May and November 2021, May 2022

Outside Directors Internal Directors \*Outside Audit & Supervisory Board Members participate as observers

### ■ Advisory Committee Relating to Management

From FY2023.3, the Company is holding meetings of the Advisory Committee Relating to Management on a regular basis to deliberate on key issues such as medium- to long-term corporate strategy.

The Advisory Committee Relating to Management is comprised of all Outside Directors, Representative Director and President, and an officer in charge of Corporate Planning Headquarters, with Outside Audit & Supervisory Board Members participating as observers. Outside experts may be invited to the Committee depending on the theme.

#### [ First Meeting of the Advisory Committee Relating to Management ]

##### Prospects and Challenges for Achieving Carbon Neutrality

In July 2022, we held a first meeting of the Advisory Committee Relating to Management, and invited Mr. Keigo Akimoto of the Systems Analysis Group of the Research Institute of Innovative Technology for the Earth as a lecturer.

At the Committee meeting, we exchanged opinions on the medium- to long-term prospects for carbon neutrality in Japan and abroad, as well as issues to achieve carbon neutrality.



Lecturer **Mr. Keigo Akimoto**  
Group Leader/Chief Researcher, Systems Analysis Group, Research Institute of Innovative Technology for the Earth

## Training Policy for Directors and Audit & Supervisory Board Members, and Succession Plan

When appointed, the Company provides internal officers an opportunity to acquire knowledge regarding their roles, legal duties to be complied with, and responsibilities expected for a Director or Audit & Supervisory Board Member. Subsequently, the Company regularly provides opportunities internally or externally for Officers to receive training regarding legal affairs, risk management, compliance, and other matters to continue to acquire knowledge necessary for comprehension of legal revisions and other latest world trends. Further, as part of the succession plan for top management, human resources to oversee the Company's management are fostered through such means as the systematic rotation of the areas of responsibility of internal Directors and Executive Officers.

As for outside officers, the Company provides opportunities for them to deepen their understanding upon appointment, such as by explaining the nature of the Group's businesses, so that they can put to practice their expertise and experience in each of their fields for supervising and auditing the Company's business. Later, the Company also offers opportunities as necessary in which the business environment and business trends are explained accurately in a timely manner so that Outside Officers can gain an understanding.



## Directors and Audit & Supervisory Board Members Remuneration

### 1. Decision Policies on Content of Remuneration, etc. for Each Individual Director

The Company has established a policy on determining the content of remuneration, etc. for each individual Director (hereinafter the “Policy on Determining Remuneration”) as prescribed by the resolution of the Board of Directors after deliberation at a voluntarily appointed advisory committee made up of a majority of the Outside Directors. This policy is summarized as follows.

The system of paying retirement benefits to Directors has been abolished.

### 2. Resolution of the Annual Meeting of Shareholders on Remuneration of Directors, etc.

The amount of remuneration for Directors was approved at the 203rd Annual Meeting of Shareholders held on June 25, 2021 to be up to 57 million yen per month for monetary remuneration and up to 72 million yen per year for stock-based remuneration. The number of Directors at the end of said Annual Meeting of Shareholders was ten.

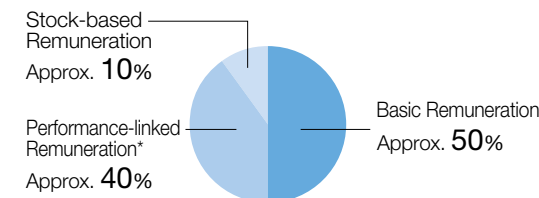
### Policy on Determining Remuneration

(a) Basic Approach	Remuneration for Directors shall be provided in a remuneration system designed to raise motivation for Directors to achieve sustainable growth and mid- to long-term increase in corporate value. Remuneration for Directors other than Outside Directors shall consist of basic remuneration as fixed remuneration, performance-linked remuneration and stock-based remuneration, and remuneration for Outside Directors shall only consist of basic remuneration as fixed remuneration, as they have a standpoint independent of business execution. Remuneration for Directors shall be determined within the total amount of remuneration approved at the Annual Meeting of Shareholders, after deliberation at a voluntarily appointed advisory committee made up of a majority of the Outside Directors, from the perspective of ensuring objectivity and seeking transparency in the decision-making process.
(b) Basic Remuneration	Basic remuneration shall be monetary remuneration paid on a monthly basis. The amount shall be determined in accordance with the rules prescribed by the resolution of the Board of Directors, while considering such factors as each Director's position and responsibilities, public standards, and other factors.
(c) Performance-linked Remuneration	Performance-linked remuneration shall be monetary remuneration paid on a monthly basis. The amount shall be determined using the profit attributable to owners of parent for the past three years and the coefficient of ESG indicators achievement in the previous year* <sup>1</sup> as the main indicators to encourage contribution to short-term and mid- to long-term increases in corporate value.
(d) Stock-based Remuneration	Restricted stock shall be granted at a certain time every year for the purpose of strengthening the linkage between remuneration and mid- to long-term increase in corporate value and further promoting sharing of value with the shareholders. The number of shares to be granted shall be determined with consideration for the positions and responsibilities of each Director and stock prices, etc.* <sup>2</sup>
(e) Ratio by Type of Remuneration	For Directors other than Outside Directors, the standard ratio of basic remuneration, performance-linked remuneration, and stock-based remuneration should be 5:4:1. Remuneration for Outside Directors shall fully consist of basic remuneration.
(f) Procedures for Determining Remuneration	The content of remuneration for each individual Director shall be made in accordance with the rules prescribed by the resolution of the Board of Directors, and, after deliberation at the voluntarily appointed advisory committee, shall be determined by the resolution of the Board of Directors. However, the content of monetary remuneration may be determined by the Representative Director and President based on delegation of authority by the resolution of the Board of Directors.

\*<sup>1</sup> By resolution of the Board of Directors meeting held on December 23, 2021, a change was made to add the coefficient of ESG indicators achievement in the previous fiscal year. The change will be applied from July 2023 onward, when remuneration is paid based on FY2023.3 results.

\*<sup>2</sup> In the event that the grantee of stock-based remuneration commits an act of misconduct, files a petition for commencement of bankruptcy proceedings, or falls under other certain events stipulated in the restricted stock allotment agreement, the Company will naturally acquire all or part of the allotted shares without remuneration (malus and clawback provisions).

### Composition of Remuneration



\* The amount shall be determined using the profit attributable to owners of parent for the past three years and the coefficient of ESG indicators achievement in the previous year as the main indicators

[Reference] ESG Indicators (please see [p.25-26](#) for details)

Charter of Business Conduct	Important issues (Materiality)	Value for a sustainable future	Initiatives to create value for a sustainable future	Indicators	Goals
I	Maintain and expand customer base	Establishing lifestyles and businesses adjusted to the new normal	Maintain and expand customer base	Number of customer accounts	10 million or more
	Improvement of customer satisfaction and quality of services		Enhance customer relationship management	Customer satisfaction rate	90%
	Customer health and safety GRI Standards: 416-1	Enhancing resilience of customers and society	Maintain safety and quality levels	Number of serious accidents	Continued zero serious accident
	Stable supply of services		Strengthen resilience of energy supply	Build a resilient energy supply facilities	Implementation of measures for disaster prevention and aging pipes
II	Contributing to the sustainability of the environment and society GRI Standards: 305-1, 305-5	Achieving a low carbon / carbon neutral society	Implement carbon neutral measures	CO <sub>2</sub> emissions of Daigas Group	Net zero emissions
			Provide clean energy and expand renewable energy value chain	Percentage of renewables in our power generation portfolio in Japan*	Nearly 50%
			Promote advanced utilization of natural gas and environmental products	Contribution to developing renewables capacity on a global basis*	5 GW
				CO <sub>2</sub> emissions reduction contribution (compared to FY2017.3)	2.5 GW
III	Engaging with and contributing to society	Coeexistence with local community GRI Standards: 413-1	Promote communication with local communities	Number of our participations in local government activities (i.e. community development planning)	14 cases
IV	Respecting human rights	Supply chain management GRI Standards: 308-1, 414-1	Build a responsible supply chain	Number of joint efforts with local communities	170 times
				Appropriate new supplier ratio	100%
V	Complying with laws and regulations	Compliance GRI Standards: 307-1, 418-1, 419-1	Promote the Group's compliance	Number of serious violations of laws and regulations	Continued zero serious violation
VI	Providing work environment that supports employees' personal growth	Employee engagement GRI Standards: 404-1	Create a workplace where employees can feel a sense of fulfillment	Attitude survey (Loyalty Score)	Maintained and improved employee engagement
			Promote diversity and inclusion	Annual average hours of training per employee	Implementation of human resource development and work environment improvement
				Percentage of women in 1. executives, 2. middle management positions, and 3. new recruits for career-track positions	1. 20% or more 2. 30% or more 3. Continue 30% or more



### 3. Delegation of Decision of Content of Remuneration, etc. for Each Individual Director, etc.

The amount, timing and method of remuneration payment for each Director is determined by Representative Director and President (Takehiro Honjo until December 2020 and Masataka Fujiwara from January 2021) based on delegation of authority by a resolution of the Board of Directors. The Company has delegated the above authority to the Representative Director and President, as the position is considered to be the best suited to determine the contents of remuneration, taking into account the status of the execution of duties by each Executive Director while maintaining a comprehensive view of the Company's performance.

In addition, to ensure that the authority of the Representative Director and President is exercised appropriately, the delegation of authority is conducted so that the remuneration amount, etc. for each individual Director is determined in accordance with the Policy on Determining Remuneration and the rules prescribed by the resolution of the Board of Directors, while considering such factors as each Director's position and responsibilities, public standards, and the Company's business performance, after deliberation at a voluntarily appointed advisory committee made up of a majority of the Outside Directors. As the amount of remuneration, etc. for each individual Director is determined through such a procedure, the Board of Directors has judged that the content of remuneration, etc. for each individual Director for the fiscal year ended March 31, 2022 is in line with the Policy on Determining Remuneration.

### 4. Details of Activities of the Board of Directors and Advisory Committee in the Process for Determining the Amount of Remuneration, etc., for Officers During the Fiscal Year Ended March 31, 2022

With regard to matters related to the remuneration of officers, at meetings held in May 2020, December 2020, February 2021, and May 2021, the Advisory Committee deliberated matters such as the appropriateness of performance-linked remuneration calculation methods, the payment coefficient, remuneration levels, and the number of shares to be granted as stock-based remuneration, which were then decided by the Representative Director and President as mentioned above.

#### ■ Profit Attributable to Owners of Parent (Consolidated Profit) for the Last Three Years

Term			201st	202nd	203rd
Fiscal year ended			March 31, 2019	March 31, 2020	March 31, 2021
Profit attributable to owners of parent	million yen	Plan	46,500	55,000	73,000
		Result	33,601	41,788	80,857

#### ■ Total Amount of Remuneration by Officer Classification and by Type of Remuneration, and Number of Eligible Officers (fiscal year ended March 31, 2022)

Classification	Total amount of remuneration (million yen)	Total amount of remuneration by type of remuneration (million yen)			Number of payees
		Fixed	Performance-linked	Non-monetary remuneration, etc.	
Directors (excluding Outside Directors)	397	185	174	38	7
Audit & Supervisory Board Members (excluding Outside Members)	69	69	—	—	2
Outside Directors	44	44	—	—	4
Outside Audit & Supervisory Board Members	35	35	—	—	3

Note: The number of persons and amounts include one internal Director who retired as of the close of the Company's 203rd Annual Meeting of Shareholders held on June 25, 2021.

\*The total amount of remuneration for each officer is not stated as there is no officer with a total amount of consolidated remuneration of 100 million yen or more.

\*There are no employees concurrently serving as officers.



## Evaluation and Analysis of Effectiveness of the Board of Directors as a Whole

The Board of Directors analyzes and evaluates the effectiveness of the Board of Directors each fiscal year based on the results of interviews conducted by the Board of Directors Secretariat with each Director and Audit & Supervisory Board Member. The methods and results of the evaluation of the effectiveness of the Board of Directors for the fiscal year ended March 31, 2022 are summarized below.

### 1. Method

#### Interview

Conducted interviews\* with all Directors (10) and all Audit & Supervisory Board Members (5) in March 2022 regarding the composition of the Board of Directors, its operation, and the content of deliberations, etc.

#### Discussion

Discussed the effectiveness of the Board of Directors at the outside officers meeting held in April 2022 (attended by all Outside Directors and Outside Audit & Supervisory Board Members).

#### Report to the Board of Directors and Discussion

- At the Board of Directors meeting held in May 2022, Outside Directors reported the results of the outside officers meeting, and the Board of Directors confirmed their assessment of the effectiveness of the Board of Directors for the fiscal year ended March 31, 2022.
- The Board of Directors discussed the direction of improvement for the issues identified in the Board effectiveness evaluation, prioritizing them according to their level of importance and the period of time required for their consideration.

#### Addressing Key Issues

Promote improvement of key issues

\* Based on the evaluation by an external specialist institution, we have established the interview items for the fiscal year ended March 31, 2022.

### 2. Interview Items

- ① Initiatives in response to last year's issues
  - Discussions on medium- and long-term themes
  - Follow-up on investment projects and provision of information on financial strategies
  - Increased number of advisory committee meetings and more involvement in the process of selecting board candidates
  - Careful explanation of industry terminology, etc.
- ② Composition of the Board of Directors
- ③ Role as a decision-making body
- ④ Operation of the Board of Directors meetings (frequency, time, proceedings, remote meetings, etc.)
- ⑤ Provision of information (prior information, prior explanations, etc.) and others
- ⑥ Outside officers meetings (theme, exchanging opinions for the purpose of developing management, etc.) and others
- ⑦ Advisory committee (frequency of meetings, content of deliberations, method of operation, topics to be discussed, etc.)
- ⑧ Free opinion

### 3. Evaluation Results

<Major issues>

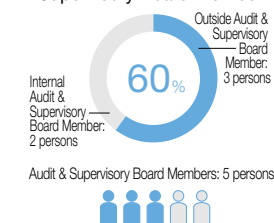
- Establishment of medium- to long-term themes to examine the direction of the company as a whole
- Further enhancement of information to judge candidates for Directors
- Devising ways to deepen discussions at Board of Directors meetings

## Audit & Supervisory Board, Audit & Supervisory Board Members

The Audit & Supervisory Board consists of five Audit & Supervisory Board Members, of whom three are Outside Audit & Supervisory Board Members. The Company has established the Office of Audit & Supervisory Board, which is composed of full-time staff operating outside the Executive Directors' chain of command. The Office is designed to support Audit & Supervisory Board Members' auditing work and thus enhance their auditing function.

Audit & Supervisory Board Members monitor the execution of duties of the Directors from an independent viewpoint and strive to raise the effectiveness and quality of auditing by exchanging information as necessary on such occasions as regular meetings about annual audit plans and audit reports. Further, they exchange opinions on the status of internal controls and risk management with internal audit division and the accounting auditor. Full-time Audit & Supervisory Board Members conduct auditing activities on a daily basis and share their findings with Outside Audit & Supervisory Board Members in a timely manner. Their main activities are as follows.

Percentage of Outside Audit & Supervisory Board Member



### Main Activities of Audit & Supervisory Board Members

(a) Business audit	<ul style="list-style-type: none"> <li>• Attend important meetings such as Management Meeting and read important documents</li> <li>• Conduct visiting audits at Head Office, major offices, and affiliates</li> <li>• Listen to reports from each organization and affiliate</li> <li>• Exchange opinions with Directors (including Outside Directors)</li> <li>• Cooperate with the internal audit division and Audit &amp; Supervisory Board Members of affiliates</li> </ul>
(b) Accounting audit	<ul style="list-style-type: none"> <li>• Confirm the independence of the accounting auditor and proper conduct of audits</li> <li>• Confirm accounting audit plans and audit results, etc.</li> </ul>

The Audit & Supervisory Board reports on the implementation status of audit, shares information, and conducts necessary deliberations and resolutions. 14 Audit & Supervisory Board meetings were held in FY2022.3. Main resolutions of the Audit & Supervisory Board meetings are as follows.

### Main Resolutions at the Audit & Supervisory Board meetings

- |   |  |
|---|--|
| • Audit plans by Audit & Supervisory Board Members  | • Evaluation and reappointment/non-reappointment of the accounting auditor |
| • Report on audits by the Audit & Supervisory Board |  |

The amount of remuneration for Audit & Supervisory Board Members was approved at the 176th Annual Meeting of Shareholders held on June 29, 1994 to be up to 14 million yen per month. The number of Audit & Supervisory Board Members at the end of said Annual Meeting of Shareholders was five. The amount of remuneration for each Audit & Supervisory Board Member shall be determined through discussions among Audit & Supervisory Board Members within this amount, and consisting only of fixed remuneration because they are assigned the role of auditing the execution of duties by Directors from a standpoint independent of the performance of the Company's businesses, and taking into consideration the position, etc. of each Audit & Supervisory Board Member. The system of paying retirement benefits to Audit & Supervisory Board Members has been abolished.





## Risk Management

### Risk Management

Organizational heads of the Company and presidents of the affiliates promote the management of the risk of losses and periodically conduct risk management assessments. Each basic organization or affiliate identifies risk items, checks the status of management concerning the risk items and conducts follow-ups or other measures by using such means as the “G-RIMS (Gas Group Risk Management System),”<sup>\*</sup> which systematizes the self-assessment of risk management practices.

In light of the spread of COVID-19 in Japan and abroad, we set up a task force and confirm the status of the Group’s responses, while taking measures to prevent infections, as necessary. Regarding the management of risks concerning security and disaster prevention which are common to the

Group, the organization in charge is clearly specified, and the organization supports each basic organization and affiliate to ensure risk management on a Group-wide basis. In addition, effective April 1, 2022, we established the Security and Disaster Prevention Committee to coordinate and promote cross-organizational measures related to safety and disaster prevention within the Group, and are taking all possible measures to ensure safety and disaster prevention after the transfer of the general gas pipeline service business to our wholly owned subsidiary, Osaka Gas Network Co., Ltd.

To prepare for emergencies, regulations for disaster countermeasure and business continuity plans are prepared. We carried out company-wide disaster-prevention drills, which consist of earthquake drills and BCP exercises. During

the fiscal year ended March 31, 2022, in addition to drills assuming disasters occurred amid the COVID-19 pandemic, we confirmed measures, etc., to ensure the smooth operation of the task force meeting after the transfer of the general gas pipeline service business, etc.

The Cyber Security Committee has been established to further strengthen countermeasures against cyberattacks from outside the Group network such as by carrying out periodic inspections and following up on the Group’s security.

\* G-RIMS is a system for risk management in routine business operations. The manager of each organization and affiliated company checks if preventive measures have been implemented or an early-detection system is in place as required, using a checklist comprising about 50 risk items. G-RIMS is also designed to evaluate the magnitude of risks and identify risks to be addressed, before PDCA (plan-do-check-act) is operated for improvement.

### Business Risks

The following are examples of risks that can affect business performance and financial conditions of the Group.

Matters concerning the future as stated are based on the Daigas Group’s judgment and assumptions as of the end of FY2022.3.

#### (1) Risks Related to All Businesses within the Group

- ① Changes in economic, financial, and social conditions as well as market contraction
- ② Occurrence of catastrophic disasters, accidents, or infectious diseases
- ③ Changes in international rules, politics, laws and regulations, and institutional systems
- ④ Changes in foreign exchange rates and borrowing rates
- ⑤ Uncollected investments
- ⑥ Climate change and decarbonization
- ⑦ Intensifying competition
- ⑧ Breakdown or malfunction of critical IT systems, information leaks, and development delays
- ⑨ Quality issues with products or services
- ⑩ Non-compliance with laws and regulations

#### (2) Risks Related to Major Businesses

- ① Domestic Energy Business
  - a. Impact of fluctuations in temperature/water temperature on energy demand
  - b. Changes in raw fuel costs
  - c. Difficulty in procuring raw fuels
  - d. Changes in electricity procurement costs
  - e. Difficulties in gas production/power generation and gas/power supply
  - f. Product such as gas equipment and facility issues
  - g. Intensifying competition in the industry and the resulting increase in choices available to consumers
- ② International Energy Business
 

Changes in the operating environment, such as decreased profitability or project delay or cancellation, resulting from the public policies, implementation of or changes in regulations, deterioration of economic or social conditions, market fluctuation in areas including crude oil prices and gas prices, technical issues, or damage by natural disasters in the countries in which the Group operates
- ③ Life & Business Solutions
 

Changes in the operating environment, such as soaring material costs, suspension of material supplies, and worsening economic conditions

In addition to the measures preparing for the above risk, the Daigas Group aims to mitigate impact on its business in cases where such risks emerge by appropriately understanding and supervising the situations of business operations, while considering the degree and time period of the potential for risks to materialize.



## Directors and Audit &amp; Supervisory Board Members

## Directors



Director  
Chairman of the Board  
**Takehiro Honjo**

## [Biography]

1978. 4 Joined the Company  
2003. 4 General Manager of Corporate Strategy Dept.  
2007. 6 Executive Officer  
2008. 6 Senior Executive Officer  
2008. 6 Head of Commercial & Industrial Energy Business Unit  
2009. 6 Director, Senior Executive Officer  
2010. 6 Head of Residential Energy Business Unit  
2013. 4 Representative Director, Executive Vice-President  
2015. 4 Representative Director and President, Executive President  
2021. 1 Director, Chairman of the Board (current)

## [Reason for appointment]

He has considerable experience and extensive knowledge in corporate and organizational management, as well as other expertise. The Company therefore believes that he is capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.



Representative Director  
Executive President  
**Masataka Fujiwara**

## [Biography]

1982. 4 Joined the Company  
2009. 6 General Manager of Keiji Energy Sales Dept., Commercial & Industrial Energy Business Unit  
2012. 4 Executive Officer  
2012. 4 General Manager of Energy Business Development Dept., Commercial & Industrial Energy Business Unit  
2013. 4 Representative Director and President of Osaka Gas Chemicals Co., Ltd.  
2015. 4 Senior Executive Officer  
2016. 4 Executive Vice-President  
2016. 4 President of Corporate Planning Headquarters  
2016. 6 Representative Director, Executive Vice-President  
2020. 4 Head of Energy Solution Business Unit  
2021. 1 Representative Director and President, Executive President (current)

## [Reason for appointment]

He has considerable experience and extensive knowledge in corporate and organizational management, as well as other expertise. The Company therefore believes that he is capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.



Representative Director  
Executive Vice-President  
**Tadashi Miyagawa**

## [Biography]

1982. 4 Joined Ministry of International Trade and Industry  
2013. 6 Director-General of Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry  
2014. 7 Retired from Ministry of Economy, Trade and Industry  
2015. 1 Joined the Company  
2015. 4 Senior Executive Officer  
2016. 6 Director, Senior Executive Officer  
2018. 4 Representative Director, Executive Vice-President (current)  
2020. 4 Head of LNG, Power & Engineering Business Unit

## [Reason for appointment]

He has considerable experience and extensive knowledge in corporate and organizational management, as well as other expertise. The Company therefore believes that he is capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.



Representative Director  
Executive Vice-President  
**Takeshi Matsui**

## [Biography]

1983. 4 Joined the Company  
2009. 6 General Manager of Finance Dept.  
2013. 4 Executive Officer  
2014. 4 General Manager of Human Resources Dept.  
2016. 4 Senior Executive Officer  
2016. 4 Head of Energy Resources & International Business Unit  
2017. 6 Director, Senior Executive Officer  
2019. 4 President of Corporate Planning Headquarters  
2019. 4 Representative Director, Executive Vice-President (current)  
2021. 1 President of Corporate Planning Headquarters (current)

## [Reason for appointment]

He has considerable experience and extensive knowledge in corporate and organizational management, as well as other expertise. The Company therefore believes that he is capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.



Representative Director  
Executive Vice-President  
**Takayuki Tasaka**

## [Biography]

1985. 4 Joined the Company  
2011. 4 General Manager of Corporate Strategy Dept.  
2015. 4 Executive Officer  
2015. 4 General Manager of Planning Dept., Residential Energy Business Unit  
2016. 4 Senior Executive Officer  
2016. 4 Head of Residential Energy Business Unit  
2018. 4 Head of Commercial & Industrial Energy Business Unit  
2018. 6 Director, Senior Executive Officer  
2020. 4 President of Corporate Planning Headquarters  
2021. 1 Representative Director, Executive Vice-President (current)  
Head of Energy Solution Business Unit

## [Reason for appointment]

He has considerable experience and extensive knowledge in corporate and organizational management, as well as other expertise. The Company therefore believes that he is capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.



Director  
Senior Executive Officer  
**Fumitoshi Takeguchi**

## [Biography]

1985. 4 Joined the Company  
2011. 4 General Manager of Secretariat  
2016. 4 Executive Officer  
2016. 4 General Manager of General Affairs Dept.  
2018. 4 Senior Executive Officer  
2018. 6 Director, Senior Executive Officer  
2020. 6 Senior Executive Officer  
2021. 6 Director, Senior Executive Officer (current)

## [Reason for appointment]

He has considerable experience and extensive knowledge in organizational management, governance and risk management, as well as other expertise. The Company therefore believes that he is capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.



## Directors



Outside Director

**Hideo Miyahara**

## [Biography]

1989.10 Professor, Faculty of Engineering, Osaka University  
 1998. 4 Dean of the Graduate School of Engineering, Dean of the Faculty of Engineering, Osaka University  
 2002. 4 Dean of the Graduate School of Information Science and Technology, Osaka University  
 2003. 8 President of Osaka University  
 2007. 9 President of the National Institute of Information and Communications Technology  
 2012. 6 Representative Director of Knowledge Capital Association (current)  
 2013. 4 Specially Appointed Professor, Graduate School of Information Science and Technology, Osaka University  
 2013. 6 Director of West Japan Railway Company  
 2013. 6 Director of the Company (current)  
 2016. 4 Visiting Professor, Graduate School of Information Science and Technology, Osaka University (current)

Board of Directors Meetings Attendance Record (April 1, 2021–March 31, 2022)  
 Attended 11 of 13 meetings of the Board of Directors. He made comments as appropriate based on his considerable experience and extensive knowledge in organizational management and from his independent position as an outside director.

## [Reason for appointment]

He has made considerable research-related achievements in the field of information engineering. In addition, he held positions as Dean of Graduate School of Information Science and Technology, Osaka University, and President of Osaka University, and has deep insight in information science and technology, and considerable experience and extensive knowledge in organizational management, as well as other expertise. The Company therefore has appointed him as Director.



Outside Director

**Kazutoshi Murao**

## [Biography]

1976. 4 Joined Nippon Telegraph and Telephone Public Corporation  
 2009. 6 Representative Director and Senior Executive Vice President of Nippon Telegraph and Telephone West Corporation  
 2012. 6 Representative Director and President of Nippon Telegraph and Telephone West Corporation  
 2018. 6 Counselor to the president, Nippon Telegraph and Telephone West Corporation (current)  
 2019. 6 Director of Keihan Holdings Co., Ltd. (current)  
 2019. 6 Director of the Company (current)

Board of Directors Meetings Attendance Record (April 1, 2021–March 31, 2022)  
 Attended 12 of 13 meetings of the Board of Directors. He made comments as appropriate based on his considerable experience and extensive knowledge in corporate and organizational management and from his independent position as an outside director.

## [Reason for appointment]

He has the experience of serving as Representative Director and President of Nippon Telegraph and Telephone West Corporation and has not only considerable experience and extensive knowledge in corporate and organizational management but also other expertise. The Company therefore has appointed him as Director.



Outside Director

**Tatsuo Kijima**

## [Biography]

1978. 4 Joined Japanese National Railways  
 2012. 6 Vice President, Representative Director of West Japan Railway Company  
 2016. 6 President, Representative Director of West Japan Railway Company  
 2019.12 Vice Chairman and Director of West Japan Railway Company  
 2020. 6 Director of the Company (current)  
 2021. 6 Advisor of West Japan Railway Company (current)  
 2021. 6 Audit & Supervisory Board Member of Sumitomo Electric Industries, Ltd. (current)

Board of Directors Meetings Attendance Record (April 1, 2021–March 31, 2022)  
 Attended 13 of 13 meetings of the Board of Directors. He made comments as appropriate based on his considerable experience and extensive knowledge in corporate and organizational management and from his independent position as an outside director.

## [Reason for appointment]

He has the experience of serving as President, Representative Director of West Japan Railway Company and has not only considerable experience and extensive knowledge expertise in corporate and organizational management but also other expertise and experience. The Company therefore has appointed him as Director.



Outside Director

**Yumiko Sato**

## [Biography]

1975. 4 Joined Suntory Co., Ltd.  
 2008. 4 Senior Research Fellow of Suntory Foundation (incorporated foundation)  
 2013.10 Specially-appointed Professor of Otomon Gakuin University, Special Professor of Institute for Creating Local Culture of Otomon Gakuin University  
 2014. 5 Director of Mature Society Research Institute, Otomon Gakuin Educational Foundation  
 2015. 4 Professor of Faculty of Regional Development Studies, Otomon Gakuin University  
 2016. 4 Director of Mature Society Research Institute, Otomon Gakuin University  
 2020. 6 Trustee of Otomon Gakuin Educational Foundation (current)  
 2021. 6 Director of the Company (current)

Board of Directors Meetings Attendance Record (April 1, 2021–March 31, 2022)  
 Attended 11 of 11 meetings of the Board of Directors held after she assumed the office of Director of the Company on June 25, 2021. She made comments as appropriate based on her considerable experience and extensive knowledge in organizational management and from her independent position as an outside director.

## [Reason for appointment]

She has made considerable achievements in the field of social studies related to life and culture. In addition, she held positions as General Manager of Next Generation Institute of Suntory Co., Ltd. and Trustee of Otomon Gakuin Educational Foundation, and has deep insight in life and culture as well as other expertise. The Company therefore has appointed her as Director.



## Audit & Supervisory Board Members



Audit & Supervisory  
Board Member (full time)

**Toshimasa Fujiwara**

[Biography]

1981. 4 Joined the Company  
2010. 6 General Manager of Human Resources Dept.  
2012. 4 Executive Officer  
2014. 4 Representative Director and President of Osaka Gas Customer Relations Co., Ltd.  
2015. 4 Senior Executive Officer  
2015. 4 Head of Residential Energy Business Unit  
2015. 6 Director, Senior Executive Officer  
2018. 4 Director, Chairman and Director of Osaka Gas Customer Relations Co., Ltd.  
2018. 6 Advisor  
2019. 6 Audit & Supervisory Board Member (current)



Audit & Supervisory  
Board Member (full time)

**Hisaichi Yoneyama**

[Biography]

1986. 4 Joined the Company  
2013. 4 General Manager of Technology Planning Dept.  
2014. 4 Executive Officer  
2014. 8 President of Osaka Gas USA Corporation  
2017. 4 Senior Executive Officer  
2017. 4 Head of LNG Terminal & Power Generation Business Unit  
2018. 4 Head of LNG, Power & Engineering Business Unit  
2018. 6 Director, Senior Executive Officer  
2020. 6 Audit & Supervisory Board Member (current)



Outside Audit & Supervisory  
Board Member

**Eiji Hatta**

[Biography]

1985. 4 Professor, Faculty of Economics, Doshisha University  
1996. 4 Dean, Faculty of Economics, Doshisha University  
1998. 4 President, Doshisha University  
2008. 2 Chairman, Japan Student Baseball Association (current)  
2009. 4 Vice Chairman, Japan University Auditors Association (current)  
2011.10 Chancellor, The Doshisha  
2015. 6 Audit & Supervisory Board Member of the Company (current)  
2015. 9 Director, Japan High School Baseball Federation  
2017. 4 President, The Doshisha (current)  
2017. 4 Chancellor, The Doshisha (current)  
2019. 4 Professor Emeritus, Doshisha University (current)

Board of Directors Meetings Attendance Record (April 1, 2021–March 31, 2022)

Attended 13 of 13 meetings of the Board of Directors and attended 14 of 14 meetings of the Audit & Supervisory Board. He made comments as appropriate based on his considerable experience and extensive knowledge in organizational management and from his independent position as an outside Audit & Supervisory Board Member.



Outside Audit & Supervisory  
Board Member

**Shigemi Sasaki**

[Biography]

1974. 4 Appointed as judge  
2011. 5 Chief Judge, Takamatsu High Court  
2012. 3 Chief Judge, Osaka High Court  
2013. 3 Retired from judgeship  
2013. 4 Professor, Graduate School of Law, Kyoto University  
2016. 6 Audit & Supervisory Board Member of the Company (current)  
2021. 5 General Manager of Kinki Branch, Japan Bar Association (current)  
2021. 6 Governor, Japan Bar Association (current)

Board of Directors Meetings Attendance Record (April 1, 2021–March 31, 2022)

Attended 13 of 13 meetings of the Board of Directors and attended 14 of 14 meetings of the Audit & Supervisory Board. He made comments as appropriate based on his considerable experience and specialized knowledge as a legal professional and from his independent position as an outside Audit & Supervisory Board Member.



Outside Audit & Supervisory  
Board Member

**Eriko Nashioka**

[Biography]

1991.10 Joined Ota Showa Audit Corporation  
1995. 4 Registered as a Certified Public Accountant  
2004. 4 Director, Institute for Environmental Management Accounting  
2004. 7 Registered as a Licensed Tax Accountant  
Director, Nashioka Accounting Office (current)  
2006. 4 Part-time Instructor, Faculty of Commerce, Doshisha University (current)  
2013. 4 Representative Director, Institute for Environmental Management Accounting (current)  
2020. 6 Audit & Supervisory Board Member, Sansha Electric Manufacturing Co., Ltd. (current)  
2022. 6 Director, Fukushima Gallei Co., Ltd. (current)  
2022. 6 Audit & Supervisory Board Member of the Company (current)



# Corporate Data





## Summary of Consolidated Operating Results

		2012.3	2013.3	2014.3	2015.3	2016.3	2017.3	2018.3	2019.3	2020.3	2021.3	2022.3
Financial Information												
Net sales	million yen	1,294,781	1,380,060	1,512,581	1,528,164	1,322,012	1,183,846	1,296,238	1,371,863	1,368,689	1,364,106	1,586,879
Operating profit	million yen	77,274	84,773	99,381	105,065	146,674	97,250	78,118	67,977	83,792	112,491	94,905
Ordinary profit	million yen	75,694	90,125	106,044	108,173	134,986	96,276	77,087	63,103	86,018	127,752	110,464
Profit attributable to owners of parent	million yen	45,207	52,467	41,725	76,709	84,324	61,271	37,724	33,601	41,788	80,857	128,256
Comprehensive income	million yen	39,702	83,844	80,850	106,084	38,256	78,029	60,590	27,966	14,996	108,723	208,740
Capital expenditures for quality improvement	million yen	43,713	44,507	41,082	44,698	56,051	48,253	42,191	44,205	57,498	68,873	67,931
Depreciation + amortization of goodwill	million yen	93,624	82,818	83,806	87,785	86,747	86,206	88,723	99,745	91,925	101,444	108,902
R&D expenses	million yen	10,974	10,875	11,793	11,434	11,340	10,374	9,708	10,961	10,174	9,440	9,500
Total assets <sup>*1</sup>	million yen	1,475,759	1,566,899	1,668,317	1,862,201	1,829,756	1,886,577	1,897,230	2,029,722	2,140,482	2,313,357	2,569,819
Net assets	million yen	708,904	774,317	828,565	918,869	935,786	991,870	1,028,799	1,035,044	1,027,667	1,114,597	1,284,132
Shareholders' equity	million yen	684,584	747,802	798,964	888,496	906,623	961,905	999,569	1,004,340	997,492	1,081,881	1,259,660
Balance of interest-bearing debts	million yen	541,349	540,199	573,586	633,923	567,164	540,668	503,789	647,465	754,006	785,383	815,079
Cash flows from operating activities	million yen	122,793	129,597	154,225	156,908	281,819	148,801	168,731	65,116	182,892	219,797	145,350
Cash flows from investing activities	million yen	(107,764)	(116,791)	(175,591)	(110,704)	(144,198)	(137,527)	(110,456)	(204,192)	(232,266)	(198,354)	(152,163)
Cash flows from financing activities	million yen	(8,279)	(27,897)	4,163	22,892	(90,716)	(50,530)	(51,591)	85,262	79,272	(1,636)	(30,479)
Cash and cash equivalents at end of period	million yen	122,448	109,456	90,359	162,793	209,367	166,912	171,061	115,769	146,813	166,762	130,769
Free cash flow (Cash flows from operating activities + Cash flows from investing activities)	million yen	15,028	12,805	(21,365)	46,204	137,620	11,274	58,274	(139,076)	(49,374)	21,443	(6,813)
Capital expenditures	million yen	87,171	112,987	124,146	119,398	114,418	88,657	81,716	107,259	131,010	189,454	189,317



		2012.3	2013.3	2014.3	2015.3	2016.3	2017.3	2018.3	2019.3	2020.3	2021.3	2022.3
Per Share Information*2												
Earnings per share (EPS)	yen	108.55	125.99	100.21	184.31	202.64	147.29	90.71	80.80	100.50	194.48	308.48
Net assets per share (BPS)	yen	1,643.85	1,795.79	1,919.49	2,134.92	2,179.23	2,312.68	2,403.68	2,415.37	2,399.06	2,602.18	3,030.63
Dividends	yen	40.0	42.5	45.0	47.5	50.0	50.0	50.0	50.0	50.0	52.5	57.5

Key Ratios												
EBITDA (Operating profit + Depreciation + Amortization of goodwill + Share of profit of entities accounted for using equity method)	million yen	176,536	173,927	191,105	199,840	228,883	188,403	167,100	159,916	180,943	227,554	216,649
Shareholders' equity ratio (Shareholders' equity / Total assets (as of the end of the fiscal year))	%	46.4	47.7	47.9	47.7	49.5	51.0	52.7	49.5	46.6	46.8	49.0
D/E ratio (Interest-bearing debts / Shareholders' equity (as of the end of the fiscal year))		0.79	0.72	0.72	0.71	0.63	0.56	0.50	0.64	0.76	0.73	0.65
Return on equity (ROE) (Profit attributable to owners of parent / Average shareholders' equity during the fiscal year)	%	6.7	7.3	5.4	9.1	9.4	6.6	3.8	3.4	4.2	7.8	11.0
Return on invested capital (ROIC)*3	%	—	—	—	—	—	—	—	—	—	6.2	7.0
Payout ratio (Annual dividends / Earnings per share (EPS))	%	36.8	33.7	44.9	25.8	24.7	33.9	55.1	61.9	49.8	27.0	18.6

Gas Sales Volume												
	million m <sup>3</sup>	8,711	8,534	8,554	8,290	8,052	8,694	8,580	7,935	7,362	7,157	7,096

Number of Employees												
	employees	19,818	19,870	21,250	20,982	20,844	20,762	19,997	20,224	20,543	20,941	20,961

\*1 "Partial Amendments to Accounting Standard for Tax Effect Accounting" (Accounting Standards Board of Japan (ASBJ) Statement No.28, February 16, 2018) have been applied from the beginning of the fiscal year ended March 31, 2019. Key management indicators for the fiscal year ended March 31, 2018 are calculated by retroactively applying the above accounting standard.

\*2 Calculated in consideration of share consolidation.

\*3 See □□ P.39 for an explanation on ROIC.



# Group Companies

As of March 31, 2022

## Consolidated Subsidiaries

	Name of subsidiary	Main business	Capital (million yen)	Osaka Gas shareholding (indirect shareholding thereof) (%)
Domestic Energy	Osaka Gas Marketing Co., Ltd.	Sales of gas and electricity for residential customers, maintenance, sales of appliances, home renovation, and others	100	100.0
	Daigas Energy Co., Ltd.	Sales and maintenance of gas and electricity for commercial customers; sales of appliances, engineering, and construction; energy service; sales of LNG and LPG; heat supply; and others	310	100.0
	Daigas Gas and Power Solution Co., Ltd.	Operation and maintenance of LNG terminals and power plants; power generation and sales of electricity; engineering; and others	100	100.0
	Osaka Gas Finance Co., Ltd.	Leasing, assistance with installment payments, insurance agency business, and others	600	100.0
	Osaka Gas International Transport Inc.	LNG transport	3,190	100.0
	Osaka Gas Energy Supply and Trading Pte. Ltd.	LNG trading	US\$40 million	100.0
	Shiribetsu Wind Development Co., Ltd.	Electric power supply	598	100.0 (100.0)
	Senboku Natural Gas Power Generation Co., Ltd.	Electric power supply	2,000	90.0
	Nakayama Joint Power Generation Co., Ltd.	Electric power supply	300	95.0 (95.0)
	Nakayama Nagoya Joint Power Generation Co., Ltd.	Electric power supply	450	95.0 (95.0)
	Hiragawa Myojin-yama Wind Power Generation Co., Ltd.	Electric power supply	490	100.0 (100.0)
	Daigas Oita Mirai Solar Co., Ltd.	Electric power supply	8	100.0 (100.0)
International Energy	Osaka Gas USA Corporation	Investment in natural gas projects, energy supply business, and others	US\$1	100.0
	Osaka Gas Australia Pty. Ltd.*	Development of and investment in natural gas, and others	US\$1,327 million	100.0
	Osaka Gas Gorgon Pty. Ltd.*	Development of and investment in natural gas, and others	US\$322 million	100.0 (100.0)
	Osaka Gas Ichthys Pty. Ltd.*	Development of and investment in natural gas, and others	US\$152 million	100.0 (100.0)
	Osaka Gas Ichthys Development Pty. Ltd.*	Development of and investment in natural gas, and others	US\$149 million	100.0 (100.0)
	Osaka Gas Singapore Pte. Ltd.*	Research, development, investment and others relating to energy-related business	222 million Singapore dollars	100.0
	Osaka Gas UK, Ltd.*	Investment relating to energy supply business, and others	€134 million	100.0



	Name of subsidiary	Main business	Capital (million yen)	Osaka Gas shareholding (indirect shareholding thereof) (%)
Life & Business Solutions	Osaka Gas Urban Development Co., Ltd.	Development, leasing, management, sales of real estate, and others	1,570	100.0
	Osaka Gas Facilities Corporation	Operation, management, maintenance of buildings and facilities, and others	100	94.4 (94.4)
	OGIS-RI Co., Ltd.	Development of computer software / Computer-based data processing services, and others	440	100.0
	Sakura Information Systems Co., Ltd.	Software development / Computer-based data processing services, and others	600	51.0 (51.0)
	Osaka Gas Chemicals Co., Ltd.*	Manufacture and sales of fine materials, carbon material products, activated carbon, and wood protective coating	14,231	100.0
	Mizusawa Industrial Chemicals, Ltd.	Manufacture and sales of absorbent functional materials and resin additives, and others	1,519	100.0 (100.0)
	Jacobi Carbons AB	Manufacture and sales of activated carbon, and others	549,000 Swedish Kronor	100.0 (100.0)

and others, totaling 150 companies

\*Specified subsidiary

## Equity Method Affiliates

Name of affiliate	Main business	Capital (million yen)	Osaka Gas shareholding (indirect shareholding thereof) (%)
Enearc Co., Ltd.	Domestic Energy	1,040	50.0
CD Energy Direct Co., Ltd.	Domestic Energy	1,750	50.0
FLIQ1 Holdings, LLC	International Energy	—	25.0 (25.0)

and others, totaling 30 companies

Note: The column "Main business" shows segment names listed on [P.2](#) in this report.



# Company Data

As of June 30, 2022

## Directory

### Head Office

4-1-2, Hiranomachi, Chuo-ku, Osaka  
541-0046, Japan  
Tel: (+81) 6-6205-4715 (IR Team,  
Corporate Strategy Dept.)

### Tokyo Office

Shin-Otemachi Building 6F, 2-2-1,  
Otemachi, Chiyoda-ku, Tokyo  
100-0004, Japan

### United Kingdom

(Osaka Gas UK, Ltd.)  
1st Floor, Carrington House,  
126-130 Regent Street, London  
W1B 5SE, U.K.

### United States

(Osaka Gas USA Corporation (Houston))  
1330 Post Oak Blvd,  
Suite 1900 Houston, TX 77056, U.S.A.

(Osaka Gas USA Corporation (New York))  
1 North Lexington Avenue, Suite 1400,  
White Plains, NY 10601, U.S.A.

(Osaka Gas USA Corporation (Silicon Valley))  
440 North Wolfe Rd, Sunnyvale, CA 94085

(Sabine Oil & Gas Corporation)  
1415 Louisiana Street, Suite 1600 Houston,  
TX 77002, U.S.A.

### Australia

(Osaka Gas Australia Pty. Ltd.)  
Level 22, 108 St Georges Terrace, Perth,  
Western Australia 6000, Australia

### Singapore

(Osaka Gas Singapore Pte. Ltd.)  
(Osaka Gas Energy Supply and Trading Pte. Ltd.)  
#30-02 Fraser Tower, 182 Cecil Street,  
Singapore 069547

### Thailand

(Osaka Gas (Thailand) Co., Ltd.)  
55 Wave Place Building 10th Floor, Unit 10.04,  
Wireless Road Lumpini Pathumwan, Bangkok  
10330, Thailand

### Indonesia

(PT Osaka Gas Indonesia)  
(Osaka Gas Singapore Pte. Ltd.)  
Jakarta Representative Office  
Gedung Summitmas 1, Lantai 9, Jl. Jend.  
Sudirman Kav. 61-62, Kelurahan Senayan,  
Kecamatan Kebayoran Baru,  
Jakarta Selatan, 12190, Indonesia

### Philippines

(Osaka Gas Singapore Pte. Ltd.)  
Manila Representative Office  
37F LKG Tower, 6801 Ayala Ave, Makati,  
1226 Metro Manila, Philippines

## Investor Information

**Date of Establishment** April 10, 1897

**Annual Meeting of Shareholders** Held in June each year  
(In 2022, the Annual Meeting of  
Shareholders was held on June 28.)

**Common Stock** Authorized: 700,000,000 shares  
Issued: 416,680,000 shares

**Listing of Shares** Tokyo Stock Exchange

**Number of Shareholders  
(As of March 31, 2022)** 96,004

**Stock Transaction Units** 100 shares

**Independent Certified  
Public Accountants** KPMG AZSA LLC

**Transfer Agent** Sumitomo Mitsui Trust Bank, Limited

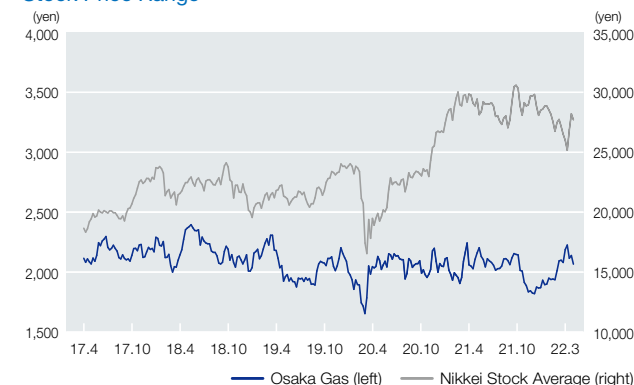
**Contact** Sumitomo Mitsui Trust Bank, Limited  
Stock Transfer Agency Business Planning Department  
Tel: (+81) 120-782-031 (Toll-free in Japan)

### Major Shareholders (As of March 31, 2022)

Shareholder	Number of shares (Thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust a/c)	66,210	15.93
Custody Bank of Japan, Ltd. (Trust a/c)	21,659	5.21
Nippon Life Insurance Company	15,394	3.70
MUFG Bank, Ltd.	11,188	2.69
Resona Bank, Ltd.	10,555	2.54
STATE STREET BANK WEST CLIENT-TREATY 505234	7,996	1.92
Aioi Nissay Dowa Insurance Co., Ltd.	5,973	1.44
Meiji Yasuda Life Insurance Company	5,838	1.40
JP MORGAN CHASE BANK 385781	5,078	1.22
Osaka Gas Employees Shareholding Association	5,013	1.21

Note: The share ratio is the percentage in respect to the number of shares issued and outstanding.

### Stock Price Range



We have created a page for investors on our website, which is updated in a timely manner.



Osaka Gas investor relations web page: <https://www.daigasgroup.com/en/ir/>

● For inquiries about this report or requests for other materials, please contact:

✉ E-mail: [keiri@osakagas.co.jp](mailto:keiri@osakagas.co.jp)

● Please note that we do not accept files attached to e-mails, such as image files.





## Unit Conversion List

## Weight

kg	Metric ton	Imperial (short) ton	U.S. (long) ton
1	$1 \times 10^{-3}$	$0.984 \times 10^{-3}$	$1.102 \times 10^{-3}$
1,000	1	0.9842	1.1023
1,016.0	1.0160	1	1.1200
907.19	0.9072	0.8927	1

## Length

m	ft	yard	mile
1	3.2808	1.0936	$0.622 \times 10^{-3}$
0.3048	1	0.333	$0.189 \times 10^{-3}$
0.9144	3	1	$0.568 \times 10^{-3}$
1,609	5,280	1,760	1

## Volume (Liquid)

m³ (kl)	ft³	Imperial gallon	U.S. gallon
1	35.315	219.97	264.17
$28.32 \times 10^{-3}$	1	6.288	7.481
$4.55 \times 10^{-3}$	0.1606	1	1.2011
$3.78 \times 10^{-3}$	0.1337	0.8327	1

1 kl = 6.29 barrels, 1 barrel (42 U.S. gallons) = 0.159 kl

## Volume (Gas)

m³ (N)	m³ (S)	SCF
1	1.055	37.33
0.9476	1	35.37
0.0268	0.0283	1

N: 0 °C, S: 15 °C, SCF: 101.33 kPa, 15.5 °C (60 °F)

## Energy

kcal	Btu	MJ	kWh
1	3.969	$4.186 \times 10^{-3}$	$1.162 \times 10^{-3}$
0.2520	1	$1.055 \times 10^{-3}$	$0.2929 \times 10^{-3}$
238.9	948.2	1	0.2778
860.1	3,414	3.600	1

## Heating Value (Gas)

kcal/m³ (N)	Btu/SCF	MJ/m³ (S)
1	0.1063	$3.97 \times 10^{-3}$
9.406	1	$3.73 \times 10^{-2}$
252.1	26.81	1

1 ton of LNG =  $13 \times 10^6$  kcal =  $52 \times 10^6$  Btu

## Inclusion in SRI Indices

Osaka Gas was included in the following socially responsible investment (SRI) indices and an investment universe (candidates for inclusion in indices) as of June 30, 2022.

Member of

**Dow Jones  
Sustainability Indices**

Powered by the S&amp;P Global CSA

**2022 CONSTITUENT MSCI JAPAN  
ESG SELECT LEADERS INDEX**<sup>\*2</sup>**2022 CONSTITUENT MSCI JAPAN  
EMPOWERING WOMEN INDEX (WIN)**<sup>\*2</sup>

<sup>\*1</sup> FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Osaka Gas has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE Blossom Japan Sector Relative Index. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.

<sup>\*2</sup> The inclusion of Osaka Gas Co., Ltd. in any MSCI Index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Osaka Gas Co., Ltd. by MSCI or any of its affiliates. The MSCI Indexes are the exclusive property of MSCI. MSCI and the MSCI Indexes names and logos are trademarks or service marks of MSCI or its affiliates.



**Osaka Gas Co., Ltd.**

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<https://www.daigasgroup.com/en/>

