### About the "Daigas Group" brand

### Concept of the "Daigas Group"

The concept is "Dynamic and Innovative, Genuine and Studious." This is a paraphrase of the three guiding principles; "Enterprising spirit," "Customer-oriented approach" and "Wholeheartedness and a sense of mission," which have been highly valued to realize the Daigas Group's Corporate Principles.

### **Dynamic Triangle**

The tricolored triangle within the logo has been named the "Dynamic Triangle." Each triangle represents the three guiding principles and the Group's three business pillars evolving towards the future.





Osaka Gas Co., Ltd. 4-1-2, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan https://www.osakagas.co.jp/en/

### 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, 2021.



\* 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



Published in 2021

INTEGRATED 2021



Osaka Gas Group is now Daigas Group







ぐっとそばで、ぐぐっとミライ。

Better servicing customers in closer communication for a brighter tomorrow

# 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.



### Outline of the Daigas Group

### Corporate Profile of Osaka Gas Co., Ltd. (As of March 31, 2021) Main Business Lines of the Daigas Group (As of March 31, 2021)

Head Office	4-1-2, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan
Date of Establishment Date of Founding Net Sales <sup>*1</sup>	April 10, 1897 October 19, 1905 [Non-consolidated] ¥1,053.5 billion
Ordinary Profit *1	[Consolidated] ¥1,364.1 billion [Non-consolidated] ¥73.0 billion [Consolidated] ¥127.7 billion
Profit <sup>*1</sup>	[Non-consolidated] ¥54.6 billion [Consolidated] ¥80.8 billion *2
Share Capital Number of Employees	¥132,166 million [Non-consolidated] 3,203 (including executive officers, directors and temporary employees, and excluding employees temporarily transferred to affiliated companies)
Share Capital Number of Employees	[Non-consolidated] 3,203 (including executive officers, directors and temporary employees, an

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

### 1 Fiscal year ended March 31, 2021 \*2 Profit attributable to owners of parent





3 5%

51.8%

Domestic Energy / Gas Domestic Energy / Electricity International Energy Life & Business Solutions Elimination etc

### Daigas Group Organization (As of April 1, 2021)



3

# **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
- II. 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





### Getting to Know the Daigas Group Outline of the Daigas Group Daigas Group's Values Table of Contents, Editorial Policy Our Commitment History of Co-creation of Value

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- Establishing Lifestyles and Businesses Adjusted to the New Normal 37 Enhancing Resilience of Customers and 41
- II. Evolve Our Corporate Group Enhancing Business Portfolio Management
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### 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.



### Editorial Policy

In Integrated Report 2021, we pay particular attention to 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. We will continue to pursue further improvement of its content



### Daigas Group's Values

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.









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### 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
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Period Covered

April 1 2020 to March 31 2021 \*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**

Commitment

To be an innovative energy and service company that continues to be the first choice of customers and achieve sustainable growth

> To maximize value for all stakeholders

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

The COVID-19 pandemic has been significantly impacting daily life and economic activity since the previous year. At the Daigas Group, we have been working hard to provide the stable supply of energy and maintain safety, as a corporate group responsible for social infrastructure. And we are rediscovering the weight of this responsibility on a daily basis.

Over the past 115 years since beginning to provide gas for lighting gas lamps in 1905, our gas business has expanded its application to heat source for residential, commercial, and industrial purposes to electric power generation, in response to social and environmental changes. The Daigas Group has worked to evolve as a corporate group that can meet the needs of customers and society through providing gas and electricity, as well as various related products, services, and solutions to support lifestyles and businesses.

The Daigas Group's principles and spirit are 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 to heart. We believe that it is the management's mission to apply these unwavering corporate principles and values to the greatest extent possible to the Daigas Group's corporate activities, regardless of changes in the times or the environment.

In the age of COVID-19 and even afterward, there will never be a change in the Daigas Group's original intention to genuinely engage with and serve customers and society. We are committed to maximizing value for all stakeholders, including customers and shareholders, and working toward realizing sustainable growth. As we work to meet the commitment, we aim to evolve into "an innovative energy and services company that continues to be the first choice of customers," which is our goal set in the Long-Term Management Vision 2030.

In March 2021, we announced the Daigas Group Medium-Term Management Plan 2023: Creating Value for a Sustainable Future, following the Daigas Group Carbon Neutral Vision released in January. Under the Plan, we will strive to create value for a sustainable future, which consists of achieving a low carbon / carbon neutral society, establishing lifestyles and businesses adjusted to the new normal, and enhancing resilience of customers and society. Creating this value will fulfill our corporate purpose of contributing to society by solving social issues.

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



Takehiro Honjo Chairman of the Board

September 2021



Masataka Fujiwara **Representative Director and President** 

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# 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.



### Social Background and Daigas Group's Strategy



Realization of sustainable society Growing concern for environment SDGs, Paris Agreement, and TCFD recommendations, etc., have been presented as pressing issues that must be tackled on a global scale.



Development of advanced products By developing advanced devices and systems that can contribute to energy conservation and reducing CO<sub>2</sub> emissions, we will work to reduce and eliminate carbon emissions alongside customers.



Residential fuel cell "ENE-FARM" (IoT-compatible function) 9

(%)

120

100

80

60

40

20

0

# **Financial Data**



Ordinary profit Fiscal year ended March 31, 2021





Profit attributable to owners of parent Fiscal year ended March 31, 2021



Total shareholder return\*1 Fiscal year ended March 31, 2021

108.0

100.1 101.7

103.4

Non-Financial Data

Customer satisfaction (overall satisfaction\*2) (Osaka Gas) Fiscal year ended March 31, 2021



\*1 Calculated based on data as of the end of March 2016

\*2 Percentage of evaluations in the highest two ranks of a six-rank scale regarding customer satisfaction levels in seven areas of operation that have direct interaction with customers (opening gas valves, appliance repairs, appliance sales with installation, periodic safety inspections (gas facility surveys), telephone support (customer center), emergency safety calls, expired meter replacements)

Percentage of women in managerial positions (Osaka Gas) As of March 2021

Target 5.	0% by	/ 2020
* Increased due t	to the imp	act of the C
(%)		
6.0		
5.0		
4.0		3.8
3.0	2.7	<u> </u>
2.0	0	
	17.3	18.3

Percentage of women in new recruits for career-track positions (Osaka Gas) Fiscal year ended March 31, 2021



Return on total assets (ROA)\* Fiscal year ended ROF ROA March 31, 2021 7.8% 3.6% O Return on equity (ROE) (%) O Return on total assets (ROA) 10.0 7 8 5.0 0 0.0 17.3 18.3 19.3 20.3 21.3 \* Calculated taking in account of "Partial Amendments to Accounting Standard for Tax Effect Accounting"

Return on equity (ROE)



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

Shareholders' equity ratio\* As of March 31, 2021



17.3 18.3 19.3 20.3 21.3 \* Calculated taking in account of "Partial Amendments to Accounting Standard for Tax Effect Accounting"

Debt equity ratio As of March 31, 2021



EBITDA

Fiscal year ended March 31, 2021 ¥227.5 billion



Number of employees As of March 31, 2021



Job turnover rate (Osaka Gas employees under age 50) Fiscal year ended March 31, 2021 1.36% (%) 1.5 1.0 0.5 0.5 0.0 17.3 18.3 19.3 20.3 21.3

10











### Greenhouse gas emissions\*3

Fiscal year ended March 31, 2021





### Patent portfolio by business type

Fiscal year ended March 31, 2021





Gas production, distribution, and supply

Residential gas appliances

Commercial and industrial gas equipment

Cogeneration

Materials technology

# Message from the President



We strive to create value for a sustainable future with our stakeholders and achieve further growth.

### Medium-Term Management Plan 2023 "Creating Value for a Sustainable Future"

In March 2017, we announced the Daigas Group Long-Term Management Vision 2030. Under the Vision, we have been working to diversify the Group's business portfolio while creating a foundation for sustainable growth in order to adapt to a rapidly changing environment. Amid this process, we have started to see a 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.

To this day, we have worked with a strong sense of mission in our business activities to support lifestyles and society through the stable supply of energy in any situation, even in these times of change. Going forward, we must speedily adapt to changing times by enhancing the resilience of customers and society, realizing a low carbon / carbon neutral society, and responding to new lifestyles. We must also take on challenges to resolve social issues both within and outside Japan, and create new social and economic value.

Based on such awareness, in March 2021, we announced the Daigas Group Medium-Term Management Plan 2023: Creating Value for a Sustainable Future as a way to clarify what we aim to be and to indicate what roles we will play in resolving new social issues. Under this Plan, we are committed to realizing a sustainable society by resolving social issues, and evolving into an innovative energy and service company that continues to be the first choice of customers.



Masataka Fujiwara Representative Director and President

# Creating Value for a Sustainable Future with Our Stakeholders

Daigas Group's Co-creation of Value

In the Medium-Term Management Plan 2023, we define value for a sustainable future as a set of three types of value that we aim to create, which are achieving a low carbon / carbon neutral society, establishing lifestyles and businesses adjusted to the new normal, and enhancing resilience of customers and society, for solving social issues. We focus our efforts on creating this value for a sustainable future with our stakeholders by leveraging our strengths in solutions and innovation, to share the achievements with our stakeholders. This spirit is described as "Creating Value for a Sustainable Future," as the subtitle of the Medium-Term Management Plan.



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

The first element of value for a sustainable future is achieving a low carbon / carbon neutral society. Under the Daigas Group Carbon Neutral Vision, we will seek out possibilities for the use of hydrogen while continuing to work on the expanded use and advanced utilization of natural gas, a greener energy source than other fossil fuels. As part of this initiative, we will develop methanation\*-related technologies to decarbonize city gas and increase the share of renewables in our power generation portfolio to decarbonize power sources, in order to achieve our carbon neutral goal by 2050.

ESG Highlights	Corporate Governance	Financial Section	
		1	



In the meantime, since it will take some time to establish carbon-free technologies, we need to accelerate our efforts to contribute to  $CO_2$  emissions reduction. We are striving to reduce as much  $CO_2$  emissions as possible to meet the three targets that we set forth as the milestones for 2030: 5 GW of renewables development contribution, nearly 50% of our power portfolio in Japan consisting of renewables, and 10 million tons per year of  $CO_2$  emissions reduction contribution.

\*Methanation technology

Technology that uses hydrogen (H2) and carbon dioxide (CO2) to generate methane (CH4).

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

The second element of value for a sustainable future is establishing lifestyles and businesses adjusted to the new normal. The COVID-19 pandemic has been significantly changing people's lifestyles and ways of work, as well as companies' business models. We expect, as these changes will gradually become commonplace as the new normal, there will be increasing needs for new value that accommodates this new environment. And this can be only achieved by deeply understanding what customers really need for their lives and businesses in facing the unprecedented changes. Through greater co-creation than ever before, we will provide customized solutions that meet the specific needs of customers, while vigorously working to develop new solutions and services utilizing various resources such as digital technologies.

Through this initiative, we aim to quickly achieve our goal of 10 million customer accounts through new approaches to B to C and B to B customers not only in the Kansai region but other key markets in Japan and overseas.

Daigas Group's Co-creation of Value Business Report

### 3. Enhancing Resilience of Customers and Society

The third element of value for a sustainable future is enhancing resilience of customers and society. Through our experiences in restoration and rebuilding after disasters such as the Great Hanshin Earthquake, the Great East Japan Earthquake, and the North Osaka Earthquake, we have tirelessly pursued efforts to enhance resilience of customers and society. We believe that the energy resilience will further grow in importance not only in Japan but also in other countries from the viewpoint of responding to climate change and providing stable energy. We will further enhance energy resilience by improving the stability and safety of the natural gas supply chain. We will also secure emergency electricity supply for large-scale power outages due to natural disasters and contribute to the power system stability with the combination of renewables and distributed power sources.

In the meantime, we will work to prevent the failures of appliances and facilities and improve the quality of maintenance services by utilizing the IoT technologies for customers' higher sense of safety and peace of mind. These measures will not be limited to Japan, but are planned to be widely expanded into other countries such as those in Asia.

### **Evolve Our Corporate Group**

As we create value for a sustainable future as a higher level of value, we must also keep growing and developing at the same time to evolve our corporate group. We will boost the Daigas Group's earning capabilities while strengthening its management foundation to be able to flexibly adapt to changes, through the following three key initiatives.



### 1. Enhancing Business Portfolio Management

First is enhancing business portfolio management. In order to evolve our corporate group, each business unit must not only seek to grow profits, but also improve capital efficiency to ultimately strengthen the business portfolio of the overall Daigas Group. From this viewpoint of securing financial soundness, we have introduced ROIC as a new management indicator to improve the control of each Group business operation with more focus on their balance sheets. Under the Medium-Term Management Plan 2023, we aim to achieve an ROIC of about 5% while raising cash flows from operating activitites to 1.5 times the average of the most recent three years, and provide shareholder returns when we achieve the profit growth.

### 2. Promoting Business Transformation with DX

Second is promoting business transformation with DX. We promote digital transformation (DX) to improve productivity by strengthening internal data management and reforming operational processes and to enhance our solutions to create and provide innovative customer services. In particular, we focus on building stronger connections with customers through DX and business reforms in all operations in order to achieve business model transformation and innovations.

To that end, we have launched a DX Promotion Office in the Corporate Strategy Department and a DX Committee as a companywide committee in April 2021 for implementing effective and swift digital transformation under the leadership of top management.



### 3. Maximizing Value for Each Employee

Third is maximizing value for each employee. Employees are the source of corporate value creation and the driving force behind growth. We are committed to maximizing the value for each employee, which will raise the comprehensive strength of the Daigas Group. We support safe and flexible ways of work through policies that allow employees to choose where they work and how they work, and promote diversity and inclusion throughout the Daigas Group as a basis for employees to pursue their individual career opportunities. We also focus on creating an

organizational and corporate culture that encourages employees to take on challenges for resolving social issues with a sense of stability at work. In the meantime, we aim to enhance employee engagement in areas such as corporate loyalty and desire to contribute.

In March 2021, we announced the Declaration of Health and Productivity Management, which declares that the Daigas Group is committed to securing employees' safety, maintaining and enhancing their physical and mental health as the foundation for all operations. Under this declaration, we encourage all employees to maintain and improve their health, distributing a guideline to promote healthy lifestyles.

This concludes an overview of the Medium-Term Management Plan 2023. We will roll out these measures globally going beyond traditional frameworks and evolve into a corporate group that continues to be the first choice of customers, while further contributing to realizing a sustainable society.

### **Contribution to Achieving SDGs through Creating** Value for a Sustainable Future

We will contribute to achieving the Sustainable Development Goals (SDGs) through our business activities to create value for a sustainable future. The 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. We will pursue SDGs through alliances with other companies and partnerships with stakeholders.

### Daigas Group's Contribution to SDGs

We provide a work environment where

female employees can perform at their

full potential and pursue their careers.

### We pursue an optimal energy

 We raise the proportion of renewables in our energy portfolio.

• We build a high-quality and

stable energy supply.

resilient energy infrastructure for



(0)

We pioneer a new era in



rewarding jobs, and build a work environment where employees' health and safety are protected.

### Gaining Confidence of Stakeholders Through ESG Management

For the Daigas Group's continued sustainable growth, we must steadily promote ESG-conscious management and continue to gain the confidence of our stakeholders.

Since its founding, the Daigas Group has been practicing ESGconscious 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, and we support the principles to be followed by companies as members of international community. In April 2021, when the new Medium-Term Management Plan was released, we revised the Daigas Group Charter of Business Conduct, which shows our universal corporate attitude, and announced the new Daigas Group Human Rights Policy amid a growing awareness of human rights 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.

Through 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.

September 2021



13 CLIMATE

# B

collaboration with various partners



• We strive to create employment, provide

### Becoming Carbon Neutral by 2050





- We promote the efficient utilization of resources
- We provide people with information and proposals on solutions using sustainable energy.



 We support productivity enhancement and economic growth by providing various services and creating new value through innovation

Business Report

# Explanation of Finance Strategy



Aiming to Achieve Goals Set in the Daigas Group Medium-Term Management Plan 2023

> Takeshi Matsui Representative Director and **Executive Vice President**

### Review of the Medium-Term Management Plan 2020

In order to realize what we aim to be as set forth in the Long-Term Management Vision 2030 announced in March 2017, we have worked to create new business pillars by aggressively investing in new assets for business growth and implementing M & A, while steadily making efforts to generate high profit from previously acquired assets.

In the fiscal year ended March 31, 2021, which was the final year of the Medium-Term Management Plan 2020 (Plan 2020), the International Energy Business began to fully contribute to the Group's profit growth, while the Domestic Energy Business and Life & Business Solutions Business each showed steady growth. As a result, we generally achieved the management indicator outlined in the Plan 2020.

As for profitability indicators, ROE was 7.8%, ROA 3.6%, and EBITDA 227.5 billion ven. In terms of financial soundness indicators, shareholders' equity ratio was 50.5% and D/E ratio was 0.60, which met our targets set in the Plan 2020. With respect to shareholder returns, we raised dividend forecasts for the current and next fiscal years in view of the results of our growth up to this point and projections for future profit levels. Owing to temporary factors that caused profits to rise, the payout ratio was 27.0% for the fiscal year ended March 31, 2021.

### Review of the Medium-Term Management Plan 2020

		FY2021.3 Result	Plan 2020
	ROE	7.8%	7.0%
Profitability indicators	ROA	3.6%	3.5%
indicatoro	EBITDA	227.5 billion yen	200.0 billion yen
Financial soundness	Shareholders' equity ratio*	50.5%	Around 50%
indicators	D/E ratio*	0.60	Approximately 0.70
Shareholder returns	Payout ratio	27.0%	30% or higher

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

### Breakdown of EBITDA (billion yen)





### Medium-Term Management Plan 2023

As financial policies under the Medium-Term Management Plan 2023 (Plan 2023), we will steadily promote growth by promoting existing business profitability and by investing in new businesses where we can leverage our strengths. In the meantime, we will strive to maintain financial soundness indicators, and distribute shareholder returns according to growth.

### Financial targets for the Medium-Term Management Plan 2023

		Plan 2023
Profitability indicators	ROIC*1 (Reference ROE)	Approximately 5% (Approximately 7.5%)
Financial	D/E ratio* <sup>2</sup>	Approximately 0.7
soundness indicators Sha	Shareholders' equity ratio*2	Around 50%
Shareholder returns	Payout ratio	30% or higher* <sup>3</sup>

### Growth in existing business through improvement of profitability

To ensure the growth of our existing businesses, we have introduced ROIC as a group-wide management indicator and have been working to enhance business portfolio management.

ROIC is an indicator that represents how efficiently we earn profits from assets used for our business. We have been using companywide ROE as a management indicator, but under the Plan 2023, we take one step further and work to improve ROIC. While the Daigas Group is an aggregate of business units with different characteristics, we use ROIC as a common management indicator as well as EBITDA, which measures the scale of cash. We aim for ROIC higher than the capital cost by using an ROIC tree while reviewing resource allocation and asset replacement for each business unit as well as the overall company.

> An indicator of "how efficiently we earn profits from assets associated with our business

### ROIC\*1 = NOPAT / Invested capital

Introduction of common indicators for each business unit and the Daigas Group as a whole

In the meantime, we intend to increase the speed of our responses to changes, and thereby realize a more flexible and highly effective business portfolio management by enhancing the business control functions of each business unit and increasing the frequency of reviews on business plans and resource allocation at the headquarters (Please also see "Enhancing Business Portfolio Management" on page 45).

We will aim to achieve approximately 5% in ROIC on a group-wide basis for the fiscal year ending March 31, 2024. Over the long term, we will aim to raise the target to about 7% in the fiscal year ending March 31, 2031 in light of expected changes in incomeand-expense structures associated with future growth.

Daigas Group's

Co-creation of Value

### Growth through investment

We will steadily continue making investment for growth under the Plan 2023 in an effort to expand the scale of revenue. In key areas including decarbonization-related field such as renewable energy, international business, and life and business solutions (LBS), we will make investment for growth in a scale of approximately 500 billion yen during the period covered by the Plan. Of these, we expect that investment in renewable energy will be about 120 billion yen. As for investment in quality improvement, we will enhance investment for DX and resilience. To cover these investments, we will grow our cash flows from operating activitites to 1.5 times the forecasts for the three most recent fiscal years.

### Cash flows in this Medium-Term Management Plan (billion yen)



FY2019.3 - 2021.3 Forecasts

FY2022.3 - 2024.3

### Investment Risk Management

Our investment stance is to maintain a good balance between risk and return, not taking high risks to seek excessively high returns and avoiding unnecessary risk control. To this end, we manage investment risk by ensuring the following four points.

The first is the consistency with the investment project's strategy. In addition to profit contributions from the project alone, we evaluate whether or not the project contributes to synergies with the Company's other businesses and the improvement of business execution capabilities.

The second is the evaluation of the inherent risks of the investment project. We conduct strict project evaluations and deliberations through the Investment Evaluation Committee after establishing uniform group-wide investment standards and taking into account the evaluations of the Investment Risk Management Office and internal organizations in charge of finance and legal affairs, as well as third-party evaluations of external consultants when necessary.

The third is 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 growth while maintaining a certain level of financial soundness even when faced with the risks.

The fourth is follow-up after investment. Based on our investment monitoring standards, we conduct annual follow-ups on each investment project every year. By applying the standards, we evaluate whether or not 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, we take necessary actions such as improving project profitability or considering divestiture or withdrawal.

### Maintaining financial soundness

During the period of the Plan 2020 (two fiscal years ended March 31, 2020 and March 31, 2021), when the investment for growth exceeded cash flows from operating activitites, we issued a total of 175.0 billion yen in hybrid bonds (subordinated corporate bonds) that contributed to both financial soundness and the investment for growth. Going forward, we will increase cash flows from operating activitites by appropriately conducting ROIC management, while also advancing the replacement of assets including securities and restricting borrowing from financial institutions. Under the Plan 2023, we intend to maintain D/E ratio of approximately 0.7 and shareholders' equity ratio of around 50% as targets of financial soundness indicators.

### Shareholder returns according to growth

Our shareholder return policy is to provide stable dividends while maintaining a consolidated dividend payout ratio of 30% or higher excluding short-term fluctuation factors that affect profits, as our basic stance, and to provide higher dividends when we achieve profit growth. We will consider what would be our optimal measures for shareholder returns, taking into account structural risks such as intensifying competition in the fully deregulated energy market and declining population in Japan while comprehensively evaluating future free cash flow, progress in investments for growth, business performance, and financial situation.



### Trends in dividends / payout ratio

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

\*3 Excluding short-time fluctuation factors that affect profits

Daigas Group's

Co-creation of Value

# 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.

Under the Daigas Group Medium-Term Management Plan 2023: Creating Value for a Sustainable Future, we are committed to creating value for a sustainable future with our stakeholders and achieve further growth as a corporate group



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that provides solutions to social issues for realizing a sustainable society.

The Daigas Group will strive to evolve into an innovative energy and service company that continues to be the first choice of customers by creating a strong business portfolio through autonomous growth of each business unit.

### Realization of Daigas Group Corporate Principles

# We create four types of value

### Creating Value for Customers

We provide services that meet customer expectations for comfort, convenience and reliability in diverse fields.

### Creating Value for Society

We conduct fair and transparent business operations and contribute to the sustainable development of society and the improvement of the global environment.

# Creating Value for Shareholders

We strive to achieve stable long-term growth and maximize corporate value while maintaining a sound financial foundation.

### Creating Value for Employees

We respect the individuality of each employee and provide support for their personal growth and professional fulfillment.

### Contribution to SDGs



# Achieving a carbon neutral society

### Business Report

Business

unit

Distribution, Inc.

# Daigas Group's Businesses and Capitals with Strengths

(Data as of March 31, 2021 and for the fiscal year ended March 31, 2021)

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.

## **International Energy Business**

Natural gas liquefaction

processing plant

location

Carriers owned by the Group

8<sub>ships</sub>



Energy Resources & International

Total pipeline length

Approx. 63,100 km

Central Control Office\*

\* Operating 24 hours a day, 365 days a year to ensure stable supply and safety

Human capital

Number of employees

20,941 employees

Job Attachment to satisfaction the Company

3.86/4.25

onon Enong '

Attachment to



Upstream Business

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

Financial capital

Cash flows from operating activities

219.7 billion ye

Financial soundness

Shareholders' equity ratio

46.8

D/E ratio

0.73<sub>times</sub>



Mid- & Downstream Business in North America

Supporting the stable operation of the Freeport LNG project in the US for LNG price stabilization and index diversification.

X Manufactured capital

393 MW

er generation capacity

in operation)

4.69<sub>GW</sub>

Gas manufacturing plant

2<sub>locations</sub>

· ŵ· Intellectual capital

Number of patents held

3,015<sub>patents</sub>

R&D expenses

9.4 billion yer

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



Importing LNG under long-term contracts,

and diversifying LNG supply sources and price indices to enhance the stability of LNG procurement.

Matural capital

Natural gas

resources

Renewable

energy



Ensuring reliable power supply with various sources including gas-fired power plants at the Senboku LNG terminal, cogeneration systems, and renewables.



Power Generation **Renewable Energy** 



Ensuring the reliability of LNG facilities including 25 LNG tanks located in Senboku and Himeii



IPP in North America

For decarbonization, increasing renewables in our portfolio, which has mainly focused on gas-fired power plants.





supply.

Urban LBS Business Developmen

Developing non-energy businesses for risk diversification by leveraging technologies and know-how we have cultivated in our energy business.





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Engineering

LNG, Power &

Network

Energy Solution

Providing safety and peace of mind in

Supplying electricity through the power grids operated by other companies such as Kansai Transmission and





Network

Extending pipelines and conducting scheduled facility update for stable gas



Asia

and LNG terminals, as well as natural gas

# **Materiality Identification Process**

In formulating the Medium-Term Management Plan 2023 (Plan 2023), the Daigas Group newly identified important aspects (materiality).

Regarding the identification of materiality, we held numerous discussions with organizations in the Group and extracted the items of "impacts on society and the environment" over the medium- to long-term in view of changes in the business environment and social trends related to sustainability, and then identified the items of "future financial impacts on the group."

After considering the impacts of each item, we received opinions from external experts regarding "impacts on society and the environment." The materiality items identified are approved by the Board of Directors alongside the Plan 2023 after discussions at the ESG Committee and the ESG Council. Each KPI will be reported annually while running a PDCA cycle in the future.

### Materiality Identification Process

### STEP 1

In terms of global risks, changes in the business environment, and contributions to the SDGs via business activities, we listed the items of "impacts on society and the environment" and "future financial impacts on the group" for the Daigas Group, using the GRI Standards, etc., as a reference.

### STEP 2

For "future financial impacts on the group," we considered what we aim to be, issues, and risks for the fiscal year ending March 31, 2031 by each organization and business domain within the Daigas Group. For "impacts on society and the environment," we had deliberations by taking into account the opinions of external experts.

### STEP 3

We considered the impacts of each item in both "impacts on society and the environment" and "future financial impacts on the group" in terms of risks and opportunities, scored the degree of significance, and identified materiality.

### STEP 4

We have revised the Daigas Group Charter of Business Conduct and other documents based on the identified materiality. The materiality as indicators of efforts to embody the Charter and contribute to the realization of a sustainable society, along with the Medium-Term Management Plan, was presented to the Board of Directors and decided with the approval of the Board.





1	2
<ul> <li>Climate change</li> <li>Customer health and safety</li> <li>Stable supply of services</li> <li>Maintain and expand customer base</li> <li>Coexistence with local community</li> <li>Improvement of customer satisfaction and quality of services</li> </ul>	<ul> <li>Occupational health and safety</li> <li>Development of regional economies (in emerging markets)</li> <li>Provision of information to customers and consumers</li> <li>Pollution prevention and chemical materials</li> <li>Tax</li> <li>Ethical actions</li> <li>Securing employment</li> <li>Freedom of association and collective bargaining rights</li> </ul>
<ul><li>Supply chain management</li><li>Compliance</li></ul>	3
<ul> <li>Employee engagement</li> <li>Development of employee skills</li> </ul>	Recycling-oriented economy (use of raw materials)     Political donation     Biodivgrativ

Biodiversity Diversity and inclusion

· Appropriate use of water

### Comment from External Expert

### Identification of Materiality at the Daigas Group

Daigas Group's



Hidemi Tomita **Representative Director** Lloyd's Register Japan K.K.

The Daigas Group has been identifying materiality and setting KPIs by incorporating the views of external experts, managing progress through the PDCA cycle, and reporting details of this process. Throughout this process, the Group refers to the GRI Standards, a set of global guidelines for corporate sustainability reporting. The methods that the Group adopted to identify materiality and tie it to management policies could be described as "straightforward," and the Group can be considered to have steadily generated results through this process.

The Group's new materiality has been identified in the same process as above, but has made considerable progress in the following areas.

### 1. Introduction of double materiality approach

In addition to the GRI Standards, which the Daigas Group has used for some time, various standards related to the disclosure of sustainability information have been created from different perspectives in recent years. While these circumstances have contributed to a deeper understanding among stakeholders of the relationship between business and sustainability, they have caused significant confusion for companies actually disclosing information, because the definitions of materiality differ between different sets of standards. In such a context, the Daigas Group has become an early adopter of the double materiality approach that is expected to be adopted in European laws and regulations on sustainability reporting. The concept of the double materiality is to consider both the financial impact that sustainability has on companies (financial materiality) and the impact that companies have on social and environmental sustainability (social and environmental materiality). Financial materiality is of particular interest to investors, but social and environmental materiality is closely tied to social impact, including contribution to the SDGs. Accordingly, this



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perspective is essential for the Daigas Group as a company that manages social infrastructure, and we can thus say that it is the proper way for the Company to think about information disclosure.

### 2. Assessment per business domain

The Daigas Group operates a wide variety of businesses apart from the gas business, but it is particularly notable that when assessing materiality, each business unit proactively participated in discussions and identified risks and issues after considering changes in the external environment in their respective businesses, with those risks and issues being subsequently reflected in the determination of materiality from a medium- to long-term perspective. Through this process for identifying materiality, it is likely that each business unit feels a clearer connection to materiality in their respective business activities. Additionally, the Group's materiality identification used to be based only on the GRI Standards for each of its themes, so, for example, there was no clear theme related to the "stable supply of service," an extremely important theme for the gas business. With the new process, the Group has overcome this issue, and as such, it can identify issues that are more closely related to its diverse range of businesses.

### 3. Link with Medium-Term Management Plan

Furthermore, I should note that the newly identified materiality will contribute to realizing the Daigas Group Charter of Business Conduct, the Group's basic principles, and the Group has also linked the concept of materiality to its Medium-Term Management Plan and its assessment of business performance for each business unit. As a result, it is clear that the materiality identified by the Daigas Group represents the issues it should prioritize in its businesses. Additionally, the fact that these measures were approved following discussion by the Board of Directors indicates that the process is correct in terms of conforming to Japan's Corporate Governance Code, which was revised this year.

From this perspective, the Daigas Group's newly identified materiality can be considered more appropriate for dialogue with stakeholders. In addition, I hope that the Daigas Group as a whole will accelerate its sustainability efforts by taking steady steps toward the KPIs including those set based on identified materiality, which will lead to significant results, such as contributions to the SDGs and greater recognition from investors.

Daigas Group's Co-creation of Value Business Report

# 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 creation of value for solving social issues alongside stakeholders as one of its key strategies. In conjunction with the identification of materiality and the formulation of the Medium-Term Management Plan, we revised the Daigas Group's charter, code of conduct, etc., to reflect the recent changes in the global external environment and the expansion of the Daigas Group's business. 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.

Charte	er 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	Points of contribution to SDGs by achieving the indicators	Contribution to SDGs
		Maintain and expand customer base	Establishing lifestyles	Maintain and expand customer base	Number of customer accounts	10 million or more	FY2031.3	Increasing opportunities to provide clean energy through improvement of customer	9 descent months 9 descent provide 11 descent and 11 descen
т	Creating value	Improvement of customer satisfaction and quality of services	and businesses adjusted to the new normal	Enhance customer relationship management	Customer satisfaction rate	90%	FY2024.3	<ul> <li>satisfaction</li> <li>Promotion of safe, pleasant, and sustainable urbanization through co-creation with our stakeholders</li> </ul>	13 Em         17 WHY Charles           Image: Constraint of the second
1	for customers	Customer health and safety GRI Standards: 416-1	Enhancing resilience of customers and	Maintain safety and quality levels	Number of serious accidents	Continued zero serious accident	FY2031.3	Sustainable management and efficient use of clean energy combined with safe and secure provision	7 KORRANGLANK OKATERIO O
		Stable supply of services	society	Strengthen resilience of energy supply	Build a resilient energy supply facilities	Implementation of measures for disaster prevention and aging pipes	FY2031.3	Implementing management and assessment of quality of city gas / understanding the impact in case of disasters	12 scorets BRIEDEDS COO
				Implement carbon neutral measures	CO2 emissions of Daigas Group	Net zero emissions	FY2051.3	Management of the amount of CO <sub>2</sub> emissions	7 EXEMPLES BY BOUTH MENUTIN
	Contributing to	Climate change GRI Standards: 302-1 305-5	Achieving a low	Provide clean energy and expand	Percentage of renewables in our power generation portfolio in Japan	Nearly 50%	FY2031.3	<ul> <li>Management of the amount of renewable energy</li> <li>Management of the environmental burden in the value chain</li> </ul>	7 ENERGIAL SALES
Π	I the sustainability of the environment and society		carbon / carbon neutral society	renewable energy value chain	Contribution to developing renewables capacity on a		FY2031.3	Including activities toward low-carbon society in business plans	12 encempt encempt COO
						2.5 GW	FY2024.3		17 Matulases
				Promote advanced utilization of natural gas and environmental products	CO <sub>2</sub> emissions reduction contribution (compared to FY2017.3)	10 million t	FY2031.3		
Ш	Engaging with and contributing	Coexistence with local community		Promote communication with	Number of our participations in local governments' activities (i.e. community development planning)	14 cases	FY2024.3	<ul> <li>Increasing opportunities to provide clean energy through improvement of customer satisfaction</li> <li>Promotion of safe, pleasant, and sustainable</li> </ul>	
	to society	GRI Standards: 412.1		local communities	Number of joint efforts with local communities	170 times	FY2024.3	<ul> <li>urbanization through co-creation with our stakeholders</li> <li>Control of the impact on stakeholders in case of disasters</li> </ul>	13 clear Trentacs Trentacs
N	Respecting human rights	Supply chain management GRI Standards: 308-1 414-1		Build a responsible supply chain	Appropriate new supplier ratio	100%	FY2024.3	<ul> <li>Building a sustainable society through co-creation with our stakeholders</li> <li>Understanding the status of suppliers through questionnaires regarding sustainability activities, etc.</li> <li>Management of fair training opportunities</li> <li>Management of safe and secure labor environments</li> <li>Understanding BCP measures</li> </ul>	5 met 11 memory 11 me
V	Complying with laws and regulations	Compliance GRI Standards: 307-1 418-1 419-1	Building foundations that support the realization of value for a sustainable future	Promote the Group's compliance	Number of serious violations of laws and regulations	Continued zero serious violation	FY2024.3	<ul> <li>Improving awareness of compliance to secure equal opportunities for leadership</li> <li>Improving awareness to promote safe and secure labor environments</li> </ul>	5 mm
	Droviding work	Employee engagement		Create a workplace where	Attitude survey (Loyalty Score)	Maintained and improved employee engagement	FY2031.3	Securing equal opportunities for leadership,	
VI	Providing work environment that supports employees'	Development of employee skills GRI Standards: 404-1		employees can feel a sense of fulfillment	Annual average hours of training per employee	Implementation of human resource development and work environment improvement	FY2031.3	understanding the status of safe and secure labor environments through employee attitude surveys Management of fair training opportunities	5 tean S
	personal growth	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	Management of percentage of women in management positions	

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the Daigas Group

Business Report

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

The Daigas Group has 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 previous Medium-Term Management Plan, we endeavored to offer optimal solutions and expand our businesses by combining various energies with high-quality technical capabilities as well as attractive products and services in order to meet the diverse needs of our customers.

In our Medium-Term Management Plan 2023, "Creating Value for a Sustainable Future," 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.

Medium-Term Management Plan 2020 (From FY2018.3 to FY2021.3) Medium-Term Management Plan 2023 (From FY2022.3 to FY2024.3) Creating Value for a Sustainable Future

### Carbon Neutral Vision Striving to become carbon neutral by 2050







Medium-Term

Management Plan 2023

# Medium-Term Management Plan 2023

In March 2021, the Daigas Group formulated and announced the "Daigas Group Medium-Term Management Plan 2023 'Creating Value for a Sustainable Future'" that covers the three years from FY2022.3 to FY2024.3. Under the Medium-Term Management Plan 2023, we have committed to creating "value for a sustainable future" with our stakeholders and achieving further growth as a corporate group that provides value that contributes to solving social issues in order to realize a sustainable society.

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

### **Key Strategy**



### I. Co-create Value for a Sustainable Future Pursuing the creation of value for solving social issues alongside stakeholders. **Key Initiatives** Cooperate with stakeholders globally Achieving a Low Carbon / Carbon Neutral Society **MP29 Co-create Value** Establishing Lifestyles and Businesses Adjusted to for a Sustainable the New Normal Future P.37 Enhancing Resilience of

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

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*1 (Reference)ROE	4.2% (7.0%)	Approximately 5% (Approximately 7.5%)
Shareholder returns Financial soundness indicators	Payout ratio	30.5%	30% or higher*2
	D/E ratio*3	0.65	Approximately 0.7
	Shareholders' equity ratio*3	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





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

Customers and Society

D P.41

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 year						
FY2019.3 - 2021.3 Forecasts	Domestic Energy 158.3	International Er 250.3	nergy	LBS 115.6	524.0	
FY2022.3 - 2024.3	174.0	168.0	15	58.0	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

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

# Achieving a Low Carbon / Carbon Neutral Society





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.

2020	2023	<b>2030</b>	20	<b>50</b>
Strivir	ng to become carbon	neutral in our group business th	nrough innovation	Carbon Neutral
	<ul> <li>Commercia gas into the</li> </ul>	chnologies, such as methanation for o lizing methanation technology in 20 e city gas pipeline network) ing electricity mainly by introducing	30 (injecting the carbon-free	
	buting to the reductions throughout socio			
	while decar Promoting	much contribution as possible to the bonization technologies being deve advanced utilization of natural gas, eas, and development of renewable	loped wider use and expansion of	
		(FY2031.3 Targets)		
	Renewables de	velopment contribution on a g		
	Renewables in (	our power portfolio in Japan	Nearly 50 %	
	CO <sub>2</sub> emissions	reduction contribution	<b>10</b> million tons	
		Daigas	р Ip	
		Strengths of the Daiga	as Group	
Kr	now-how of developing a power s		perience in procuring competiti and developing shale	
	ertise of fuel conversion power generators and he	to natural gas for in-house eat consuming facilities	umulated knowledge of metha	nation technology

### 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.

	polic	y char	nges and tech	cordance with government nological advancement iported carbon-neutral LNG	2030			
			Innovative technology	SOEC co-electrolysis*1 basic research	Lab-scale resear			
cation of Decarbonization of gas energy	Hydrogen utilization	Methanation	Existing technology	Demonstration at Expo 2025	Enhancing efficie (verification)			
	/drogen	Σ	Procurement	Promoting carbon recycling Building global supply chain	Technical study, site inve system creation			
	Í		drogen ilization	Developing new technology including chemical looping cor				
	Biogas		ogas	On-site utilization in domestic/global scale				
	Renewable power generation				5 GW development 50% of power source			
Decarbonization of power generation	Thermal power generation			utilization tech	d verifying carbon neutral f nology; Participation in CO or verification (consortium,			
Low- carbonization	Fuel cell Advanced utilization of natural gas and CHP		l cell	Enhancing efficienc and downsizing	У			
			al gas and	Converting fuel fro coal to natural ga				

### Renewables development contribution on a global basis

Osaka Gas will proceed with developing and holding power sources, and expanding its electric power procurement efforts, aiming for our further target of 5 GW renewables development contribution by FY2031.3.

### Renewables development contribution\*<sup>1</sup>



### CO<sub>2</sub> emissions reduction contribution

Several initiatives have been taken from FY2018.3 to FY2021.3. These include 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 gaspowered air conditioning and high-efficiency hot-water heaters at customer sites, and conversion to the use of natural gas as

### Implement carbon neutral measures, provide clean energy and expand renewable energy value chain, promote advanced utilization of natural gas and environmental products



\*1 Please see page 31 for details. \*2 Please see page 58 for details.

As of March 31, 2021, the Daigas Group had contributed a total of approximately 1.05 GW to the development of renewables in Japan and overseas.



a fuel in both Japan and abroad. These efforts have resulted in a total of approximately 5.60 million tons in CO<sub>2</sub> emissions reduction contribution.

We aim to contribute to the reduction of CO<sub>2</sub> emissions by 10 million tons\* in FY2031.3.

 $^{\ast}$  Reduction in CO\_2 emissions by society and customers  $% \left( \text{compared with }\right)$  (compared with FY2017 3)

### Achieving a Low Carbon / Carbon Neutral Society

We will utilize the technical capabilities and business expertise that we have developed as a group over many years to create value together with our various stakeholders, and thereby achieve a low carbon / carbon neutral society.

### Succeeded in prototyping a new type of SOEC, a key technology to realize "Innovative Methanation," which contributes to decarbonization of city gas

We have been conducting basic research on highly efficient and innovative methanation\*1 technology, a promising technology for the decarbonization of city gas, and have succeeded for the first time in Japan in prototyping a practical-sized cell used for a new type of SOEC\*2, which is the key to realizing this technology. We believe that this technology will have potential uses not just for the decarbonization of city gas, but also for the efficient manufacturing of carbon neutral fuels such as hydrogen and synthetic liquid fuels, and other substances. Accordingly, we will accelerate our research and development efforts through industry-government-academia collaboration, and alliances with various business partners, as we aim to establish this technology around 2030.

\*1 Methanation is a technology using hydrogen  $(H_2)$  and carbon dioxide (CO<sub>2</sub>), instead of natural gas, to generate methane.

\*2 Solid Oxide Electrolysis Cell: An electrolysis element that uses solid oxides. Electrolysis is performed on steam and CO2 at high temperatures.

### Conventional methanation with "water electrolysis / Sabatier reaction technology"



### Innovative Methanation "SOEC Methanation Technology"



# **Daigas × Stakeholders**

### Working with various stakeholders to contribute to the development of renewables

In FY2021.3, we endeavored to contribute to the development of renewables by collaborating with various stakeholders. In terms of developing power sources, we acquired a solar power plant by investing in D&D Solar GK, which was established to hold solar power asset, together with Development Bank of Japan Inc. Additionally, we also focused on developing various power sources, including joint

### Development of renewables (main projects since 2020)

Shiribetsu Wind Power Plant

- Wind power
- Facility: 27 MW
- Operation launch: September 2021
- (Participated in March 2018)

### (Under construction) Noheji Mutsu Bay Wind Farm

- Wind power
- Facility: 40 MW Stake: 39%

(Under construction) Tokushima Tsuda Biomass Power Plant Biomass (palm kernel shell (PKS), wood pellets)

### Kuwaharajou

- Mega Solar (No.4) Solar power
- Facility: 12 MW Stake: 50%
  - Facility: 50 MW Stake: 35%
- Operation launch: April 2020
- Operation launch: Scheduled in November 2024

- Operation launch: Scheduled in April 2022 Komatsu Solar Power Plant Solar power Facility: 13 MW Stake: 20% Operation launch: May 2018 (Participated in June 2021) (Under construction) Hirohata Biomass Power Plant Biomass (imported wood chips, domestically produced wood chips, palm kernel shell (PKS)) Facility: 75 MW Stake: 90% Operation launch: Scheduled in August 2023
  - - Facility: 75 MW Stake: 33.5%
      - Operation launch: Scheduled in March 2023

investment in an onshore wind power project and participation in a biomass power project. With regard to procuring electric power, we entered into a bilateral contract with West Holdings Corporation for the long-term procurement of electricity generated at thousands of small-scale solar power facilities to be developed by West HD in FY2022.3. Misawa Solar Power Plant Solar powe Facility: 10 MW Stake: 20% • Operation launch: February 2017 (Participated in July 2021) Shizukuishi Solar Power Plant Solar power Facility: 25 MW Stake: 20% • Operation launch: October 2016 (Participated in June 2021) Isoharacho Extra High Voltage Power Plant in Kitaibaraki, Ibaraki Solar power Facility: 35 MW Stake: 50% Operation launch: January 2021 (Participated in February 2021) Haru Mito Solar Power Plant Solar power Facility: 9 MW Stake: 20% • Operation launch: May 2015 (Participated in June 2021) Ichihara Biomass Power Plant • Biomass (palm kernel shell (PKS), wood pellets) Facility: 50 MW Stake: 39% Operation launch: December 2020 (Under construction) Sodegaura Biomass Power Plant Biomass (wood pellets) Facility: 75 MW Stake: 100% Operation launch: Scheduled in July 2022 (Under construction) Tahara Biomass Power Plant Biomass (wood pellets) Facility: 75 MW Stake: 25% Operation launch: Scheduled in October 2024 Green Power Fuel Procurement and sales of domestic wood for (Under construction) Hyuga Biomass Power Plant power generation · Biomass (imported wood pellets, domestically produced wood chips, etc.) Stake: 55% • Business launch: Scheduled in the second half of 2022 Biomass Solar power Wind power Fuel procurement and sales

Daigas Group's Co-creation of Value Business Report

## **Climate Change Initiatives** - Recognition of and Action on Risks and Opportunities –

### Backgrounds and Concepts

Tackling global climate change is positioned as one of the "Sustainable Development Goals (SDGs)" adopted by the United Nations. Since the Paris Agreement came into force in November 2016, initiatives are being undertaken around the world. In Japan as well, tackling climate change is becoming increasingly important as Prime Minister Suga declared Japan's aim to realize a carbon neutral society by the year 2050 in his general policy speech on October 26, 2020.

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 an extremely important 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. In March 2021, the Daigas Group

### Climate Change Governance

The Daigas Group regards climate change response as a key management issue. The Board of Directors, which decides on and supervises the important business activities of the Group as a whole, is responsible for the decision-making and supervision of projects involving climate change issues. At the "ESG Council (Executive Board)," 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.

In addition, the Daigas Group has also established the "ESG Committee," chaired by the "Head of ESG Promotion" (Vice President), the officer overseeing Daigas Group

### Climate Change Governance Organization Chart



announced the "Daigas Group Medium-Term Management Plan 2023 'Creating Value for a Sustainable Future'" to further promote activities toward a low carbon / carbon neutral society.

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.

\* Established on May 27, 2019, the consortium holds discussions led by private sectors on 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 government, the Ministry of Economy, Trade and Industry, the Financial Services Agency and the Ministry of the Environment also participate as observers in the con

sustainability activities, and composed of the heads of related business units as its members. The "ESG Committee" is held four times per year to formulate and advance plans for business activities concerning climate change response, and engages in Group-wide deliberation, coordination and supervision of issues such as the achievement of targets, risk management and response. Of these, the "ESG Committee" proposes or reports important issues to the Board of Directors, such as performance against ESG management targets, and business plans that are anticipated to be significantly affected financially by climate change.

Board of Directors

10 Directors (6 Internal Directors and 4 Outside Directors)

- Executive Board (ESG Council) 1 President and Executive Officer, 3 Vice Presidents (Executive Officers), and 6 Managing Executive Officers n principle, it is held three times per year as "ESG Council."
- ESG Committee Vice President and Executive Officer (Head of ESG Promotion) and heads of related business units. etc.

### 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.

Using this analysis method based on scenarios established by an external authority (IEA), we assessed the impacts on the performances of 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, for the purpose of acquiring suggestions related to relevant factors and measures for mitigating/tapping into the impact. We

### Japan's Final Energy Consumption of Gas, Electricity, etc. under Each Scenario





\* Proportional reduction in CO2 emissions achieved in FY2051.3 relative to FY2018.3

### 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 prospect until 2030 and the long term prospect until 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

assumed a multi-track scenario that takes into account the progress of energy conservation and changes in the composition of power sources, etc., as follows.

We will 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.

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 manufacturing equipment. In addition, it is possible that our businesses may be affected by significant increases in the carbon tax rate in Japan, or an increased desire among our customers to switch to non-fossil fuels. However, promotion of the development of renewables and decarbonization technologies also represents a significant opportunity for the Group.

### Evaluation of Risks and Opportunities and the Daigas Group's Responses

Impact in the case of the 2°C scenario			Risks and Opportunities			
and 2	2℃ origi <mark>nal scenario</mark>		Short and Medium Term (~2030)	Long Term (~2050)		
Policy and	Introduction of a carbon tax Risk		Carbon tax burden on gas and thermal power plants	Increasing burden with rising carbon tax rates		
legal	Support for mass introduction of renewable energy sources	ty	Expansion of sales of electricity from renewable energy sources	Reduction in costs of introducing renewable energy and expansion of sales		
Technology -	Development of renewable Opportunite energy and CCUS	ty	Sustained sales of electricity from gas and thermal power plants	Expansion of sales by making gas carbon neutral		
K lechnology	Development of Al/IoT Opportuni	ty	Participation in decentralized power sources aggregation business	Expansion of decentralized power sources aggregation business		
Morket	Switch to non-fossil fuel Risk		Fall in sales of gas and thermal power	Further fall in sales of gas and thermal power		
Market	Switch to LNG Opportuni	ty	Increase in demand due to the switch to LNG in Japan and abroad	Increase in demand for LNG abroad		
Reputation	Focus of investment criteria on low-carbon or decarbonized businesses		Fall in capital procurement power in gas-related businesses	Decline in investment in fossil fuels businesses		
		_	Financial impact: S	mall Financial impact: Large		

### The Daigas Group's Response

- Contribute to gas sales in Japan and abroad through fuel switching, etc. Promote the development and widespread use of high efficiency, compact cogeneration systems and fuel cells
- Verify and participate in the decentralized power sources aggregation business
- Develop renewable energy power sources Research, develop and verify Investigate and verify thermal power methanation technology generation with CCUS technology
- Examine the use of carbon neutral fuels
- Consider expanding the use of biogas
  - Engage in dialogue with investors



<ul> <li>Diversify procurement sources</li> <li>Divide the supply areas into blocks</li> <li>Implement disaster countermeasures for important buildings and facilities</li> <li>Promote widespread use of disaster response equipment</li> </ul>	The Daigas Group's Response	
and operate facilities remotely Promote the development and widespread use of high Contribute to gas sales through fuel efficiency, compact cogeneration systems and fuel cells switching, etc.	and facilities <ul> <li>Promote the development and widespread use of high</li> </ul>	<ul><li>response equipment</li><li>Contribute to gas sales through fuel</li></ul>

\* The intensity of the colors used for risks and opportunities indicates their degree of financial impact (the 2°C original scenario and 4°C scenario have been used to calculate quantitative impact)

### 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.

### **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 Executive Board for deliberation. Climate change risks in the formulated plans are managed through a PDCA cycle, and are reported and followed up at the Environment Subcommittee, ESG Committee, and ESG Council (Executive Board). The PDCA (plan-do-check-act) cycle is used to manage such actions.



### 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 widespread use of renewable energies.

Field	Item	Target	Target FY
Climate Change	CO <sub>2</sub> emissions across the Group GHG emissions (Scopes 1, 2 and 3)	Zero effective CO <sub>2</sub> emissions	2051.3
CO <sub>2</sub> emissions reductions from our	Proportion of renewable energy sources in domestic electric power business	Nearly 50%	2031.3
own business activities	Contribution to more widespread use of renewable energy	5 GW	2031.3
CO <sub>2</sub> emissions reductions at customer sites and through the value chain	<ul> <li>Promote carbon reduction and decarbonization through monophing efficiency, high value-added equipment with natural gate</li> <li>Efficient operation of LNG tankers and expanded use of low</li> <li>Provide environmental value through the dissemination of her the fields of information, real estate, and materials</li> </ul>	as, renewable energy, etc. v emission vehicles, etc.	Each year until 2031.3
Contribution to CO <sub>2</sub> emissions reductions across society	Contribution to CO <sub>2</sub> emissions reduction (t-CO <sub>2</sub> ) (Including reductions contributed at customer sites and overseas)	10 million tons (relative to FY 2017.3)	2031.3

including investment decisions, are made by the Board of Directors and the Executive Board.

Matters related to climate change that were proposed or reported by March 31, 2021, included the following.

### I. Co-create Value fo nable Future

# Establishing Lifestyles and Businesses Adjusted to the New Normal



## What We Aim to Be

Daigas Group's Co-creation of V

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



Getting to Know the Daigas Group

Daigas Group's Co-creation of Value

### DX for solutions in the era of new normal

One of the Daigas Group's strengths has been our network of in-person customer contact points based on our approximately 200 service chain partners across our supply area. By combining this real network with digital contact points, we aim to offer a customer experience of the highest quality through an omnichannel strategy, such as offering services at the most appropriate timing for our customers. As part of our efforts to achieve this target, in FY2022.3 we will launch the "Sumai LINK Platform (tentative name)," a life service platform that will enable customers of all generations to digitally access services offered by the Company and our partner companies.

We aim to increase the user base of devices such as the "ENE-FARM" residential fuel cell system in the "Tsunagaru de series" of IoT-compatible gas devices, the "ECO-JOZU" highly energy efficient water heater, and the "Sumapiko" alarm device to 300,000 units by FY2024.3. To that end, we will utilize the strengths of our group companies with unique technology in the digital sphere such as the OGIS-RI Group and Palette Cloud, Inc., while also utilizing the capabilities of the Daigas Group as a group, including coordination with partner companies such as Bitkey Inc. Additionally, we will take steps to grow earnings by offering the expertise we obtain in the course of the above measures to companies outside the Group.

### Lifestyle and businesses solutions in the era of the new normal

The Daigas Group has focused on expanding its range of value-added rate plans and its services related to household affairs and residential facilities in a way that suits to customers' lifestyles and needs, such as through the Style Plans and With Plans. Looking ahead, we aim to guickly achieve our target of 10 million customer accounts prior to FY2031.3 by expanding services in new fields.

In our ESP (energy service provider) business, which we also aim to expand, we plan to provide onestop solutions for services better suited to the commercial and industrial customers in the age of the new normal, such as ventilation and air conditioning. For low carbon / carbon neutral needs,



Increase profit by approximately 50% (FY2021.3→FY2024.3)

### Key Initiatives Maintain and Expand Customer Base, and Enhance Customer Relationship Management



we are offering solutions such as D-Solar service and fuel conversion to natural gas for in-house power generation and heat equipment.

In the Osaka Gas Chemicals Group, we will proceed with the establishment of systems for the development of new products of fine materials for the photoelectron materials market, while continuing to develop activated carbon and the wood preservative and coating agent "Xyladecor" as highvalue-added products. Additionally, in the Osaka Gas Urban Development Group, we will promote advanced urban development, including the "Umekita" project near Osaka Station, which is linked to regional and real estate development initiatives on a group-wide basis. In housing development, the group continues increasing the ratio of properties in the Greater Tokyo area through Prime Estate Co., Ltd., its acquired company in Yokohama. Additionally, we have been making efforts to expand into new business domains such as logistics which has been growing in response to the expansion of e-commerce business due to the COVID-19 pandemic. In future, we will continue to create high-quality lifestyles and business environments for customers through real estate solutions that fulfill the needs of customers and society.

Daigas Group's

### International energy business - North America

### Wider use of natural gas

In North America, the pillar of the International Energy Business, we are steadily proceeding with projects in which our participation is already decided, including the Freeport LNG Project and the Sabine Shale Gas Project. While steadily proceeding with projects in which our participation is already decided, we aim to create an earnings platform and improve our business promotion by acquiring new projects in production or development. In the USA, there has been increased demand for stable power supply due to factors such as the decommission of aging coal-fired power plants and the expansion of renewable energy sources. Since participating in North American natural gas thermal power plant projects in 2004, we have acquired projects, mainly in the USA northeast including the PJM Market, one of the largest wholesale power markets in the USA. In addition to expanding profit contributions, we have accumulated expertise on power plant operations, including fuel procurement and sales of electric power to the market. We are taking measures to accelerate the accumulation of business expertise by promoting more independent power plant operations, while making further efforts to achieve sustainable growth in the IPP business in North America.

Expansion of renewable energy business

In addition to the investment in solar project developer,

SolAmerica Energy, LLC, we will also consider opportunities to participate in renewable energy businesses, an area that is expected to grow significantly in the USA.

### Driving business development in North America

We have designated Osaka Gas USA Corporation as our regional headquarters in North America, which is responsible for the business development of the Freeport LNG Project, Sabine Shale Gas Project, and IPP projects, including renewable energy. With Osaka Gas USA Corporation gaining control over the decision making on asset acquisition and replacement with agility, we expect the acceleration of our earnings growth in North America, aiming for a fourfold increase from FY2021.3 to FY2024.3

### Forecast for profit\* in North America



### International energy business - businesses in Asia, trading, decarbonization

### Asia

Southeast Asia, where natural gas demand is expected to grow, is a key region for the Daigas Group. We will steadily grow the natural gas sales business in Singapore and Vietnam and the energy services business in Thailand and Indonesia in which we have already participated. We will also consider

expanding new businesses such as participation in projects for LNG terminals and natural gas-fired power plants, as well as renewable energy development projects in collaboration with our local partner companies.



Scene at onsite survey in Singapore

### Trading

A natural gas liquefaction project in Texas, USA started from December 2019, which has increased the number of countries with suppliers we source from. We also entered into a new type of procurement where LNG procurement prices are

indexed to Henry Hub prices, one of the price indexes for natural gas in the USA, in addition to traditional procurement in which LNG prices are generally linked to the crude oil price. The diversification of price indexation will help stabilize LNG prices when crude oil prices fluctuate. In addition, by investing in liquefaction projects, we will contribute to ensuring pricecompetitive LNG procurement by focusing on the low-cost procurement of the raw materials for gas in the USA market.

We established Osaka Gas Energy Supply and Trading Pte. Ltd., an LNG trading company in Singapore, and aim to reduce costs for energy resource procurement while responding to customer needs through the utilization of the company and our group carrier fleet, and optimization leveraging our diversified procurement portfolio.

### Decarbonization

We continue exploring new potential projects and technologies such as CCS/CCUS and hydrogen to capture great opportunities presented by the globally accelerating wave of decarbonization businesses. In addition, we also identifying and responding to the needs for carbon neutral LNG supply.

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

We aim to utilize the Daigas Group's strengths in solutions and innovation and create value together with stakeholders, thereby establishing new lifestyles and businesses adjusted to the new normal.

# <u> Daigas × Stakeholders</u>

### Holding "Internet-based promotion campaign" allowing people to participate online from their own homes

In anticipation of the age of COVID-19 and even afterward, the Daigas Group has focused on creating opportunities for new contact points with customers. In 1955, we began holding our annual promotion campaign, an exhibition event for customers using the Company's gas. Now, we hold this campaign every year in approximately 100 event spaces in commercial facilities and other venues, with total attendants numbering over 400,000 people. We adopted an online format for the first time in FY2021.3 as the 66th year holding this campaign. We provided a variety of content, including introductions to products and services by video, etc., as well as a lottery that customers could apply for online.

This format enabled customers to participate from anywhere at any time that suits them. As a result, a total of over 400,000 customers participated in the lottery.

Additionally, we also implemented our new social contribution program "Tsunagaru Project" at the campaign. The project is an initiative in which we donate 10 yen per lottery

### "D-Solar" - a solar power generation service for private consumption\*

In June 2020, we released "D-Solar," a solar power generation service for private consumption as part of the Daigas Group's efforts to achieve a decarbonized society. In this service, we install solar power generation systems on the rooves of our customers' facilities and supply the electric power generated to the customers, enabling customers to "reduce CO2 emissions" and "strengthen BCP measures" with zero initial investment. The electric power generated by these solar power generation systems has zero CO<sub>2</sub> emissions. Additionally, in the event of power outage, the solar power generation systems can secure power source during the daytime, and thereby allow businesses to continue and resume activities early.



\*1 "Initial investment" here refers to construction-related expenses associated with the introduction D-Solar (construction fees, equipment fees, design and technical expenses, etc.). There may be separate expenses associated with revenue stamps depending on the amount of the contract, structural calculations to assess whether it is possible to install solar panels on the building, etc. ad with the introduction o \*2 Prescribed screening is required when entering into contracts

\* \* 10 " series: Products and services offered by Daigas Energy Co., Ltd., a wholly owned subsidiary of Osaka Gas. These products and services contribute to (1) Digitalization, (2) Decarbonization, and (3) Decentral

entrant to an eligible NPO as aid money. As a result, we donated a total of approximately 4.07 million yen to 10 organizations.

We will offer enduring support for the lives of our customers directly facing environmental changes, and vigorously and continuously develop new solutions and services based on digital technology that fulfill customers' expectations.



### "D-Aqua," a one-stop water treatment service\*

In response to recent growth in demand among customers for solutions that address environmental issues, the Daigas Group entered into a business alliance with Miura Co., Ltd. and Aguas Corporation with the aim of creating a one-stop service by enhancing maintenance services in water treatment services and expanding our range of products. Looking ahead, we have renamed our water treatment services to "D-Aqua." and will strive to further improve the service. We will provide our customers with a one-stop service for utilities as a whole, including the use of well water and industrial water, as well as wastewater treatment through our partnership with these two companies in addition to technology for addressing energy and environmental issues.



THE REPORT OF A DECK OF A DECK

# **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.



Taking measures against infectious diseases such as COVID-19





Getting to Know the Daigas Group

### Pursuit of resiliency and efficiency at LNG terminals, power plants and gas supply networks

Daigas Group's

Co-creation of Value

In order to enhance energy resilience, we plan to improve productivity while pursuing safety as a priority. In gas production, we are increasing efficiency and lowering costs by utilizing smart factory technologies for remote monitoring and operation. In our gas pipeline network operation, we are enhancing both security and productivity through digital transformation.

In order to minimize the impact of large scale natural disasters on customers, we are expanding remote operations and strengthening the earthquake resistance of our facilities while ensuring stable energy supply on a daily basis. In the meantime, we are enhancing our post-disaster quick recovery measures and service recovery status visualization system.

Subdivided areas	s* for earthquake c	ountermeasures
171	688	705
End of FY2021.3	FY2024.3 Forecast	FY2031.3 Forecast

\*Area Subdivision Plan is scheduled to be implemented in FY2022.3

### Disaster Prevention Measures (Earthquake Countermeasures)

blocks

55 blocks

Before Great Hanshin-Awai

(Kobe) Earthquake

### Preventive Measures

### **Emergency Measures**

We are advancing efforts to minimize damage caused by earthquakes, such as promoting the spread of intelligent gas meters (residential use) that automatically stop gas when large shakes are detected, and actively adopting polyethylene pipes for lowpressure gas pipes.

### Intelligent gas meters



Earthouak Approx. 75% End of March 2021

Approx. 99.9%

### Highly flexible polyethylene pipes

Before Great Hanshin-Awaji (Kobe) Farthquake

About 1,200 km

End of March 2021 About 17,200 km

### Maintain Safety and Quality Levels, and Strengthen Resilience of Energy Supply

### Distributed power sources to enhance resilience

In light of the expected heightened risk of natural disasters due to climate change and the greater reliance on renewable energy, we need higher levels of resilience and safety of the electric power supply than ever before. We have been already combining renewables and gas cogeneration in specific locations to establish a number of microgrids, where local power supply continues even during an outage. We have been also conducting verification tests on a VPP incorporating 3,600 ENE-FARM units. We plan to further develop projects such as building a new energy network by combining multiple energy sources in view of the shift to a society with decentralized power sources.



Residential fuel cells "ENE-FARM type S"

We are stepping up our preparedness for earthquakes, by dividing the pipeline network into blocks, which enables gas supply suspension only for severely damaged areas, and having in place a Central Control Back-up Center which will take over the Central Control Office of the head office if it is affected.

### Segmenting the pipeline network into

As of April 2021 660 blocks

### **Recovery Measures**

We have stockpiled materials and equipment and carried out system maintenance for post-disaster quick recovery. In addition, a system to visualize the recovery situation provides gas recovery information in an easy-tounderstand manner to customers in areas where gas supply is suspended when a large-scale earthquake occurs.

### System to visualize the recovery situation

Visualization of gas recovery status at the municipal level (Maps and lists are provided for ease of reference.)



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

### Enhancing Resilience of Customers and Society

The Daigas Group aim to utilize our strengths in solutions and innovation and create value together with stakeholders, thereby enhancing the resilience of our customers and society.

### Development of "Al radar locator," which uses Al to locate underground pipes

Osaka Gas has developed and uses an "Al radar locator" that allows anyone to easily detect underground pipes with a high degree of accuracy, thanks to the adoption of Al image diagnostic technology. The radar locator emits radio waves toward the ground, and generates survey images based on the reflection of the waves from underground pipes. Operators can then estimate the location of underground pipes by interpreting the shape of the waves in the images. There were cases in which it was difficult to detect locations depending on the status of pipes and the quality of soil, and it required significant technical skill to identify the location of underground pipes with certainty. In this development, however, the AI system that learns the judgment of

experienced workers enabled operators to automatically make judgments about the location of underground pipes, without relying on the expertise of them. We will focus on further technical development for enhancing the safety of our gas operations in order to ensure that our customers can continue to use gas safely and with peace of mind.



Gas pipes survey using a radar locator





### Move to absolute coordinates for pipe mapping systems

The Company manages location information of gas pipes with a mapping system to implement construction, maintenance, and operations. Previously, this location information was expressed in the form of relative coordinates based on geographical features such as roads and rivers on a topographic map. As such, in order to identify the location of gas pipes at sites, it was necessary to measure the distance from the origin of the relative coordinates. There were cases where the location of the origin needed to be changed because of road construction or other reasons, requiring significant labor for maintenance. Now, we have replaced the maps used in our pipe mapping system with high-accuracy and high-resolution aerial photographs with absolute coordinates, thereby proceeding with our efforts to allocate absolute coordinates to gas pipes. As a result, we will be able to identify the location of gas pipes with pinpoint accuracy, even when it has become impossible to identify the origin of relative coordinates due to road expansions or sediment deposition caused by natural disasters, and other reasons.

Using the location information of gas pipes expressed in absolute coordinates, we began a trial operation utilizing AI for gas pipe patrols, jointly with Osaka City Bus Corporation, starting in June 2021. For roads where medium-pressure gas pipes are buried, we have traditionally been taking steps to prevent damage to the gas pipes by operating patrol cars that travel along designated routes every day to detect any construction work in the vicinity of the gas pipes about which the Company are not notified. Now, we have developed a camera that automatically recognizes construction sites by

using AI systems, and have installed the camera in route buses along with GPS, thereby making efforts to identify construction works taking place in the vicinity of mediumpressure gas pipes on the bus routes. By so doing, we will be able to increase the frequency of patrols and enhance safety guality, while also increasing the productivity of our operations.

In the future, it will become possible to identify the location of gas pipes even with general-purpose devices such as smartphones, by managing the location information of gas pipes based on absolute coordinates. This also offers the prospect of future transformations in operations, etc. We will continue enhancing the quality of our operations from the perspective of ensuring safety and preventing disasters to improve the resilience of our customers and society.



# **Daigas × Stakeholders**

### Launch of verification project to establish virtual power plant (VPP) using residential fuel cell "ENE-FARM" - VPP verification project connecting 3,600 units-

Electricity cannot be stored, so continual adjustments of power generation must be made to ensure a balance between supply and demand. If power generation is not balanced, the frequency of the electricity will fluctuate, potentially resulting in large-scale power outages, in the worst-case scenario. As a result, general electricity transmission and distribution utilities

currently maintain frequencies within a certain range, mainly by limiting the output of power stations to match demand.

Renewable energy, which does not generate CO<sub>2</sub> when electricity is generated, may become a key energy source in future under Japan's energy policies. Still, solar power generation and wind power generation are affected by weather conditions such as the amount of solar radiation and strength of the wind, causing issues when adjusting the balance of grid



### Innovation by the Daigas Group

Osaka Gas is conducting a verification project to build a virtual power plant (VPP)\*1 that controls approximately 3,600 units of the residential fuel cell system, "ENE-FARM," installed at customers' homes (a total potential supply capacity\*2 of around 1 MW) as energy resources as if it were a single power plant, so as to utilize it for effective adjustment of grid electricity supply and demand and for avoiding imbalance in the grid. While the aggregation coordinator\*3 in this verification project is ENERES Co., Ltd., Osaka Gas participates in the project as a resource aggregator\*4.

In the previous fiscal year, the Company participated in a verification project for a VPP that involved verifying the operation of over 1,500 ENE-FARM units. This fiscal year, we



\*1 Virtual power plant. It is utilized by a business operator called "aggregator" that aggregates the adjustment capacity supplied by distributed power sources \*2 The amount of adjustment capacity that can be offered to the market

\*3 A business operator who aggregates the electric power controlled by a resource aggregator, and trades electricity directly with general electricity transmission and distribution utilities and electricity retailers

\*4 A business operator who controls resources by directly concluding VPP service contracts with customers

electricity supply and demand. On the other hand, fuel cells have the characteristic of being able to freely control the output of power, and are attracting attention as a resource that can contribute to the adjustment of grid electricity supply and demand in a society in which a large amount of renewable energy is introduced.

intend to conduct a technical verification that aims to provide adjustment capabilities with the use of approximately 3,600 ENE-FARM units, exceeding the previous fiscal year, while also aiming to enhance the accuracy of controlling ENE-FARM units remotely in accordance with the supply-demand balance in the grid. Additionally, it has been required to avoid imbalances of renewable energy ahead of the introduction of the FIP scheme. Therefore, in this verification, the Company will verify the technology used to avoid imbalances by controlling the power generated by ENE-FARM units in accordance with the output of power from our Yura Solar Power Plant.

Daigas Group's Co-creation of Value

# Enhancing Business Portfolio Management





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 International Energy Business

**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.

Business Unit	Operations with focus on ROIC Operations with focus on both profit and capital efficiency rather than only on profit	Sp (Core ener overseas
Corporate	More frequent review of business portfolio based on ROIC and risk-management Selection and diversification through flexible asset replacement and resource allocation	Further through Enhanc Bo

### Introduction of ROIC

### ROIC = NOPAT<sup>\*1</sup> / Invested capital<sup>\*2</sup>

• We have introduced ROIC as an indicator of how efficiently we earn profits from assets associated with our business

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



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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.

beedier business development ergy business companies, s regional headquarters)

promote compliance hout the organization

ce the diversity of the pard of Directors

Enhancement of autonomous management and growth capabilities

**Robust business** portfolio responsive to changes

Monitor ROIC as a common indicator for each business unit and the Group as a whole

\*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.



. Evolve Our Corporate Group

# Promoting Business Transformation with DX



What We Aim To Be 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 to continue providing value amid rapid change in society and the working environment as well as changes in customer values. We will launch the DX Committee and the DX Promotion Office for implementing effective and swift digital transformation under the leadership of top management.



### **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 addition to DX promotion at each organization for realizing what we aim to be, we established the "DX Committee" and the "DX Promotion Office" in April 2021 to increase our top

commitment and to accelerate DX by demonstrating direction, coordination, and support functions from a group-wide perspective. As a group-wide initiative, we will aim for realizing the vision and business transformation.



Daigas Group's Business Report

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.

### 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.

### **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 Al and RPA. Through these transformations, Group employees will be able to generate extra power to work on more nonroutine 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.

### 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.

### **Major Activities**

### "TORCH": A Program for New Business Creation by Young Employees

We launched a program in which young employees create new businesses in 2017 and named it "TORCH." Business ideas are presented to Group employees in a contest format, and ones that gain high evaluation will move to a commercialization process, where internal and external experts work together to launch them in the market. In December 2020, we released "taknal," an app that enables users to encounter new books by using the location data of smartphones, and received a positive response. Aiming



A TORCH presentation (By the "taknal" team)

for creating new businesses that are free from boundaries defining existing businesses, we will establish a culture of creating innovation firmly across the entire group.

### Optimization of LNG Tank Operation Plan

LNG tank operation plans at LNG terminals must be formulated taking into account the complex facility configurations, LNG ship acceptance, and demands of city gas. Accordingly, those plans heavily depend on experts who understand operations at the sites well. Therefore, LNG terminals and "Business Analysis Center" of the Information/Communication Systems Dept. collaborated to develop a model by combining expert knowledge and a mathematical programming approach to perform an initiative to automate and optimize formulation of LNG tank operation plans. In the

future, we will work on increasing the sophistication of our business with a view to optimize the entire LNG value chain.



LNG termina

### Business Creation and Human Resources Development through Capital Injection to Venture Funds

In June 2021, we invested in a fund operated by WiL, LLC, a venture capital company headquartered in Silicon Valley in the USA. Using this investment as a foothold, we aim to invest in and form alliances with ventures including those in DX-related areas mainly in Japan and the USA, and create convenient services and business solutions using digital technologies and

develop human resources by utilizing WiL's wealth of investment experiences and insight on advanced technologies and services.



A photo of workshop at WiL

Daigas Group's Getting to Know the Daigas Group Co-creation of Value

**Business Report** 

### 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
- 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 personnel assignment for their higher sense of fulfillment while maintaining

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\*3.

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.

- \*1 Lifestyles: Working styles that meet the needs required in one's various life stages such as raising children and caring for family members. \*2 Sexual orientation: The tendency of sexual attraction, such as
- homosexuality, heterosexuality, bisexuality. \*3 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. Items related to promoting diversity are also included in the Daigas Group's Employee Attitude Survey\* to ascertain the extent to which this sentiment has diffused throughout the entire Group.

\* Daigas Group's Employee Attitude Survey: A survey conducted annually to confirm changes over time in the attitudes of Group employees.

### Diversity Promotion Policy Formulation and Progress Reporting Process



### Promoting Diversity, Equal Opportunity and Inclusion

With a wide variety of business development and innovation, the Group strives to contribute to the comfortable living of customers and business growth through new value creation that corresponds to the times. In order to achieve these goals, we are working on hiring and developing a variety of human resources that are active in Japan and overseas.

In addition, we aim to become a company at which all employees can find not just employment but also personal growth through their work. We have introduced careercourse-specific human resources systems designed to respect and put to full use the individuality and autonomy



of employees, and we have been conducting a wide range of training.

Osaka Gas, for example, has introduced an employee evaluation system that is highly objective and a structure that allows employees to develop their careers voluntarily by offering a program to develop employees who can play active roles globally and Management by Objectives (MBO).

### [Major Initiatives]

- Overseas business training systems
- Studving-abroad programs
- Provision of human resources development menu to the Group

Also, we believe that it is essential for all Group employees to share the understanding that diversity is a management strategy and we have made various efforts such as arranging a forum for child rearing employees to participate in together with their supervisors, providing diversity training for all employees, and holding the Diversity Promotion Forum.

### Initiatives to Ensure Safety and Promote Health Maintenance

Convinced that ensuring employees' safety and maintaining/ improving their physical and mental well-being are keys to all our operations, the Group has been undertaking efforts to treat and prevent employees' diseases. In 1975, we raised "promoting fitness" in our management policy and established the Osaka Gas Health Development Center. Since then, the Company and Group companies have been working on thorough health checkups and individual health guidance by health care professionals.

Based on the idea that being healthy for an entire lifetime has great significance not only for employees but also for society, we put together our attitude for Kenkou Keiei\*

### Daigas Group Declaration of Health and Productivity Management

The Daigas Group believes that we can create value that meets the expectations of customers, society, shareholders and employees by ensuring that our employees stay healthy both mentally and physically, and fully exercise their abilities, individuality and initiative, and thereby remain motivated and satisfied with their jobs.

The Daigas group will work as one to maintain and improve the health of employees and create a vibrant workplace filled with people who are mentally and physically energetic, with the aim of becoming a corporate group that powers continuous advancement in customer and business life.

[Major Initiatives]

- Child Rearing Employee + Supervisor Forum
- Diversity promotion training for all employees
- Holding a Diversity Promotion Forum
- Extensive information provision through Group portal site and online newsletters
- Holding luncheon meetings on all sorts of themes

### [Major Activities] Raising awareness in Osaka Gas employees

In order to raise awareness of diversity promotion, we believe that it is important for male employees to understand and participate in childcare, and in addition to our system allowing employees to take childcare leave, we have set up an original method of providing paid leave we call "nurturing leave\*" as our system for providing support. About 90% of all eligible employees take nurturing leave, and more than 80%

of this population are male employees. As for childcare leave, the number of male employees who take childcare leave is gradually increasing, and male employees are becoming more aware of childcare and participating in more active roles.



Child Rearing Employee + Supervisor Forum

### Number of Employees Taking Childcare-related Leave System (persons)

	FY2017.3	FY2018.3	FY2019.3	FY2020.3	FY2021.3
Male employees who took childcare leave	1	4	5	14	17
Employees who took nurturing leave (Rate)		198 (88.8%)	201 (84.1%)	201 (93.1%)	111 (93.3%)
Of which, male employees	149	172	178	172	97

\* Osaka Gas's original system for providing paid leave. Employees can take one day off within the first 3 months after a child's birth

(employee health management), which we described in the "Daigas Group Corporate Principles," the "Daigas Group Charter of Business Conduct," and the "Daigas Group Code of Business Conduct," into the "Daigas Group Declaration of Health and Productivity Management" in March 2021."

In addition, in order to create a workplace where employees can work safely, based on the idea that ensuring safety and maintaining and improving physical and mental well-being are key to all operations, we declared in the "Daigas Group Code of Business Conduct" that we will prevent work accidents and promote fitness.

\* Kenkou Keiei<sup>®</sup> is a registered trademark of Nonprofit Organization Kenkokeiei.



### What We Aim to Be in FY2031.3 and Summary of Current Situation

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.

Number of Customer Accounts (million)



(Non-consolidated) Number of gas supply
 Number of low-voltage electricity supply
 Number of customer accounts
 Others

## Supply Systems for Safe and Secure Use

For our pipeline network with a total extended length of approximately 62,600 km (equivalent to 1.5 times the circumference of the earth), regular inspection and maintenance are conducted as preventative measures for ensuring safety. In addition, The Central Control Office operates 24 hours a day to monitor and control the status of gas supply in an integrated manner and is ready to promptly respond and dispatch staff from respective locations upon receiving reports from customers.



### [Daigas Group's Initiatives]

### Further Expansion of Electricity Rate Plans

Osaka Gas provides various rate plans, including the "Base Plan A-G" electricity rate plans which offer good value to gas contract customers, the "Style Plan," which meets diverse customer lifestyles and individual needs, and the "With Plan," which supports fun and enriched lives for our customers with other companies and groups based on their personal hobbies and preferences.

During the FY2021.3, for customers whose electricity consumption is high, we added "Style Plan E-ZERO B" and "Style Plan E-ZERO Power Sources" to "Style Plan E-ZERO" electricity rate plans that enable customers to use electricity derived 100% from renewable energy free of CO<sub>2</sub> emissions. We support customers' lives by offering these rate plans which is convenient, good value and meet customer lifestyles and needs

### "D-Green" Supplying Electricity Derived 100% from Renewable Energy

In April 2021, we started to accept applications for the "D-Green" series, new electricity rate plans that supply electricity derived 100% from renewable energy to corporate customers working to promote decarbonization.

The "D-Green Premium" rate plan offers electricity derived 100% from renewable energy with non-fossil fuel certificates for newly installed power sources that do not use the feed-in tariff system for renewable energy. Use of this rate plan contributes to promoting the development of new renewable energy sources.



### Status of Wide-area Energy and Services Development (As of June 30, 2021)

Himuka LNG Co., Ltd. (LNG) Stake: 34% Operation launch: FY2022.3 (Scheduled)	Ogishima Natural Gas Supply Co., Ltd. (Gas production/supply) Stake: 15% Operation launch: April 2020	Pro (Ga Sta Inve
Nagaoka Carbonic Co., Ltd. (Industrial gas) Stake: 100% Operation launch: November 2020	Reliance Energy Okinawa, Co., Ltd. (Energy service) Stake: 15% Investment period: March 2018	(Ga Sta Bus



Segment Profit\* (billion yen)



Domestic Energy / Gas Domestic Energy / Electricity

\* 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

In April 2020, Gas and Power Co., Ltd. (Domestic Energy / Electricity) was merged into Daigas Gas and Power Solution Co., Ltd. (Domestic Energy / Gas). FY20.3 results are calculated based on the contents after the change

### IoT-compatible Alarm Device "Sumapiko"

In August 2020, we launched the internet-connectable alarm device "Sumapiko," which was developed by providing an internet connection function to our household gas alarm device. "Sumapiko" provides information that is helpful to daily life, such as weather information, crime-prevention information, and monitoring notifications in addition to existing alarm devices' functions for detecting gas leaks and carbon monoxide. Based on our agreements with the Osaka City Government, disaster information issued by the Osaka City Government is provided\*1 to "Sumapiko" users as a voice alert. Additionally, crime prevention information issued by six prefectural polices in the Kansai region\*2 is also received and communicated as a voice alert. We aim to improve the safety and security of customers' homes through collaboration with the Osaka City Government and the

prefectural polices to disseminate information on disaster and crime prevention



\*1 To users who live outside Osaka City, disaster information provided by a private company will be distributed. \*2 The polices of Osaka, Kyoto, Hyogo, Nara, Shiga, and Wakayama prefectures (as of June 30, 2021)

### Demand Response Scheme Adjusts Supply-Demand Balance of Electricity

While use of renewable energy is currently expanding, renewable energy is susceptible to factors such as the climate. Therefore, the stability in the balance of supply and demand of electricity is a major challenge. Demand response (DR), which saves electricity by controlling customer facilities, is drawing attention as a method to adjust the supply-demand balance of electric power. By aggregating energy saved by customers as part of the demand response scheme and establishing VPP\*, the Group will contribute to a society with a stabilized power system and eventually to the expansion of renewable energy electricity.



ogressive Energy Co., Ltd. as supply, energy service) ake: 25% estment period: March 2019

D Energy Direct Co., Ltd. as, electricity, service) ake: 50% siness launch: August 2018 Biwako Blue Energy Co., Ltd. (Retail gas, security and services for gas/water) Stake: 74.8% Business launch: April 2019

ENEARC Co., Ltd. (LPG, electricity, service) Stake: 50% Business launch: October 2017



### What We Aim to Be in FY2031.3 and Summary of Current Situation

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.



### Anticipated FY2031.3 Consolidated Ordinary Profit





Note: Since FY18.3, Sumisho Osaka Gas Water UK Limited, an equity-method affiliate, changed its segment from "Life & Business Solutions" to "International Energy Business." FY17.3 results are calculated based on the contents after the change

### Investments in the International Energy Business (As of March 31, 2021)



\* Please refer to the Fact Book 2021 for investments in the International Energy Business.

### [Daigas Group's Initiatives]

### Business in North America

### Status of Investment for Growth

During FY2021.3, profits from investment for growth expanded as output of Sabine Oil & Gas Corporation grew steadily, and also, commercial operation of the 2 and 3 trains has started at the liquefaction business at the Freeport LNG Project in Texas, USA. We acquired all shares of Sabine Oil & Gas, a US upstream business in FY2020.3. We aim to achieve long-term and stable profit contribution by continuously promoting the businesses.



Sabine Shale Gas Project in USA

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

### Asia / Decarbonization

### Participated in a Fuel Switching Business at Food Plants in Vietnam

Sojitz Corporation and the Company's joint venture company Sojitz Osaka Gas Energy Company Ltd. (SOGEC) has concluded an agreement with Acecook Co., Ltd.'s subsidiary, Acecook Vietnam Joint Stock Company (ACV), to provide natural gas to ACV's food plants.

The objective is to improve the plants' work environment and reduce CO<sub>2</sub> emissions by replacing the coal-fired boilers at two of ACV's food plants with highly-efficient gas-fired boilers. This business will be a subsidized project under the Joint Crediting Mechanism scheme undertaken between Japan and Vietnam, and expects to reduce CO<sub>2</sub> emissions by approximately 76,300 tons over a 10-year period. Under this scheme, over half of this reduced CO2 amount will be credited to the Japanese government, which will help Japan to realize its reduction targets for CO2 emissions.



Hung Yen plant of Acecook Vietnam Binh Duong plant of Acecook Joint Stock Company

Vietnam Joint Stock Company

### Participated in Distributed Solar Power Projects

As for the IPP projects in North America, we invested in SolAmerica Energy, LCC, a U.S. distributed solar energy project developer, in March 2020. This investment marks the Group's first participation in the U.S. renewables market. Through the investment, in addition to distributed solar power generation projects in the U.S., we will participate in projects such as a fuel cell project that is promoted together with distributed solar power as well as a community solar project that enables to offer solar power energy to broader consumers. In June 2021, we entered into an joint venture with Summit Ridge Energy, LLC to cooperate in distributed solar power projects. We will acquire distributed solar power plants, which Summit Ridge Energy will build in Maine, through the joint venture company and will operate the plant over the long term. We will continue to actively explore development investment opportunities on renewable energy power sources that are expected to expand in the USA.

### Investment in a Green Ammonia Start-up Company

In March 2021, the Group invested in Starfire Energy Inc., a company developing technology to produce the carbon-free fuel known as "Green Ammonia" from renewable energy, air and water. Starfire Energy Inc. is a U.S. start-up company developing small-scale distributed green ammonia production modules and technology for cracking ammonia into hydrogen. Green ammonia has no CO2 emissions in manufacturing and combustion, and efforts are ongoing to rapidly commercialize it for manufacturing and supply businesses as a leading energy source for achieving a carbon neutral society. We will support Starfire Energy Inc.'s technology development for realizing commercialization in the future.



Green Ammonia Production Module (under development) Source: Documents of Starfire Energy Inc.

### Business Report

# Life & Business Solutions (LBS) Business

FY2021.3 Results

Net Sales ¥216.5 billion Segment Profit\* ¥19.2 billion

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

## What We Aim to Be in FY2031.3 and Summary of Current Situation

The Daigas Group actively applies the technologies and knowhow 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 Develpment, Materials Solutions, and Information Solutions-aiming to consistently increase profits through fiscal 2031.3.





Segment Profit\* (billion yen)



Note: 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. Since FY18.3, Sumisho Osaka Gas Water UK Limited, an equity-method affiliate, changed its segment from "Life & Business Solutions" to "International Energy Business." FY17.3 results are calculated based on the contents after the change.

### [Daigas Group's Initiatives]

Urban Develpment 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, provide comprehensive facility management services in the building maintenance business, and provide interaction opportunities and a business environment that triggers creating innovation in the research park business

### Won GOOD DESIGN AWARD for "SCENES Tsukaguchi" Condominium

The "SCENES Tsukaguchi" condominium developed by Osaka Gas Urban Development Co., Ltd. won the GOOD DESIGN AWARD 2020. This property has a design feature that creates connections between the community, greenery, and a safe and secure future with the concept of "Re:CONNECT." Designed with open town blocks, the apartment encourages interactions with neighboring areas and the three gardens create a living environment with abundant nature. In addition, various types of energy generating equipment, such as "ENE-FARM," were adopted, providing a safe and secure living that considers the environment and disaster prevention. We will continue to develop products that pursue value creation for our customers and society.





### Osaka Gas Chemicals Group Materials Solutions Business

We develop, manufacture and sell highly functional materials based on our own coal chemistry technologies and pharmaceutical- and agrochemicalrelated 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 Materials

Development of various applications for fluorene with its excellent optical properties and heat resistance

Expanded sales of DONACABBO carbon fiber with its excellent heat insulation and abrasion resistance





photovoltaic cells

Resins for camera lenses in smartphones and other devices semiconductor materials, liquid crystal displays

Acoustic insulation material for train cars

### OGIS-RI Group Information Solutions Business

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.

and water filters

### 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.

Activated carbon for

### 50-Year Anniversary of the Launch of Xyladecor in Japan

Wood preservative and coating agent Xyladecor marked its 50-year anniversary in 2021 since it started to be sold in Japan. Initially, it was imported from Germany to sell, but after research and development in Japan intended to supply a product that is suited to Japanese climate and culture, it is now completely produced in Japan. Xyladecor's performance has been highly evaluated by Japanese professionals who hold strict standards for construction and aesthetic consciousness, and is used in many cultural properties and community facilities. In addition, with the booming DIY activities at home, the use of these products in households expanded during FY2021.3. We will continue to provide high-quality material solutions.

### Activated Carbon

Expanded global value chain through cooperation between the Jacobi Group and Osaka Gas Chemicals Co., Ltd.



purification processes in food. alcohol and pharmaceutical manufacturing, air purifiers

### Silica- and Aluminabased Materials

Expanded sales of adsorbents and additives and efforts toward developing new applications



Activated clay for petroleum processing and for refining cookina oi



Xyladecor wood preservative, Xylamon termite control agent



# **Technological Development**

The Daigas Group is accelerating the development of technologies to strengthen the businesses in the energy domain, contribute to the realization of a low carbon / carbon neutral society, and create businesses in growth fields.

### Key Initiatives

Responding to intensified competition in energy markets

Technological development contributing to the evolution of the electricity business

- Increase accuracy of solar power output forecasting
- Develop energy management systems for storage battery

Development of ENE-FARM Type S

- Develop higher-efficiency and downsized SOFC
- VPP verification project utilizing ENE-FARM

### Contributing to achieving a low carbon / carbon neutral society

### R&D contributing to decarbonization

- Develop the innovative SOEC methanation technology\* Commence the research and development
  - of chemical looping combustion technology

### Contribution to hydrogen and ammonia society

- Develop hydrogen producing equipment (HYSERVE®) Develop technologies for the effective
- utilization of ammonia

### Effective utilization of biomass

- Expand business of refining / upgrading the quality of biogas, targeting Southeast Asia
- Demonstrate biogas methanation using kitchen waste at Expo 2025

\*The initiatives for the innovative SOEC methanation technology to achieve a low and decarbonized society are introduced on page 31.

## Responding to Intensified Competition in Energy Markets

### Technological development contributing to the evolution of the electricity business

In order to contribute to reducing CO<sub>2</sub> emissions across society as a whole, the Daigas Group is working to expand its sources of renewable energy and increase the proportion of renewable energy in its energy portfolio. In addition, the Group is working to establish VPP utilizing customers' resources and develop related technology.

Output of renewable energy sources fluctuates depending on the weather and other factors. For this reason, accurate forecasts of the amount of power output that will be generated are required to use renewable power effectively, and Osaka Gas therefore enhances

the accuracy of such forecasts through proof-of-concept testing, etc. of forecasting methods that employ our weather forecasting technologies.

Creating new businesses in

growth fields

Development and commercialization

Commence sales of a radiative sky

cooling material SPACECOOL®

Initiatives in the health sector

Develop manufacturing technology

and promote sales of ketone bodies

(3HB) as raw materials of health foods

Develop a fiber for strengthening resin

of environmental materials

Fluorene Cellulose

Additionally, as the number of renewable power sources increases in future, a new market for electric power will be established to provide a stable supply of power. In anticipation of this future new market, we are developing technology for energy management using storage batteries, which are a promising resource for the market.



### Development of "ENE-FARM Type S," realized the world's highest power generation efficiency in a significantly smaller size

We have been making efforts to sell "ENE-FARM" fuel cells and spread its use since 2009, as a residential cogeneration system contributing to saving energy and cutting CO<sub>2</sub> emissions. In April 2020, we released a new product, the "ENE-FARM Type S." With this product, we have achieved the world's highest power generation efficiency of 55%, and have also made it easier to install by significantly reducing its size. The power generation efficiency and small size of the product has attracted praise, with the "ENE-FARM Type S" being the first commercial residential fuel cell model to be selected as one of the "Top 10 Innovations" at ICEF 2020, an international conference. The "ENE-FARM Type S" has also won many awards, including the 7th Japan Resilience Award, the FY2020 Energy Conservation Grand Prize, and the Cogeneration Grand Prize 2020. Furthermore, in order to utilize ENE-FARM units as a resource for contributing to adjusting the supply and demand of renewable energy in the power grid, we created a VPP in FY2021.3 to control approximately 1,500 ENE-FARM units at customers' premises as if they were a single power plant, and conducted a demonstration of the utilization of the VPP to adjust supply and demand in the power grid (the VPP verification project). In FY2022.3, we will conduct a demonstration of a VPP to control approximately 3,600 ENE-FARM units\*.

\* Please refer to page 44 for the latest VPP verification project.

# Contributing to Achieving a Low Carbon / Carbon Neutral Society

### Commencement of R&D of chemical looping combustion technology which contributes decarbonization

In November 2020, Osaka Gas and the JAPAN COAL FRONTIER ORGANIZATION (JCOAL) were jointly selected as the parties to implement a project contracted\*1 by the New Energy and Industrial Technology Development Organization (NEDO) related to the research and development of chemical looping combustion technology to contribute to decarbonization. In January 2021, the Company entered into a business consignment contract with NEDO in relation to this contracted project.

Based on the results of this contracted project, the Daigas Group aims to commercialize a plant that produces hydrogen, electric power, and CO2 from biomass fuel. We envision to supply the hydrogen produced by the plant to customers who wish to





use low-cost green hydrogen, and the CO2 to supply as liquefied carbon dioxide and dry ice. In future, we also aim to supply the CO<sub>2</sub> as a raw material for carbon recycling products, and utilize it in negative emission businesses<sup>\*2</sup> with CCS technology. We will also consider opportunities to utilize the electric power generated on markets for trading non-fossil value and sell it to customers looking to achieve RE100.

\*1 NEDO research projects "Development of Technologies for Carbon Recycling and Next-Generation Thermal Power Generation / Development of Foundational Technologies for Next-Generation Thermal Power Generation / Development of Technologies for CO<sub>2</sub> Separation and Recovery-Type Polygeneration Systems \*2 The businesses that immobilize carbon-neutral  $CO_2$  that will not be counted in GHG

emissions to ensure that it is not dispersed into the atmosphere, thereby achieving negative GHG emissions

### Technological Development

### Contribution to a hydrogen society Development of hydrogen production equipment (HYSERVE<sup>®</sup>)

In response to growing demand for hydrogen, Osaka Gas is developing "HYSERVE," onsite hydrogen production equipment.

In April 2019, Osaka Gas Liquid Co., Ltd. began selling "HYSERVE-5," small hydrogen production equipment with a hydrogen manufacturing capacity of 5 Nm<sup>3</sup>/ h. This has enabled us to offer hydrogen at low prices matched to demand, even to customers only using small amounts of hydrogen. With "HYSERVE-5," we have expanded the "HYSERVE" series to meet

demand from a wide range of customers, using both city gas and LPG, and requiring both small and large-size equipment. Looking ahead, we will contribute to achieving a hydrogen society by enhancing our hydrogen supply infrastructure and developing and selling equipment for the production of hydrogen.



HYSERVE-5

Development of technologies for the effective utilization of ammonia, which is attracting attention as an alternative to fossil fuels

Ammonia is attracting attention as an alternative to fossil fuels, based on the fact that it does not release CO2 when burned, and existing infrastructure technologies for storage and transportation can be used. On the other hand, there are some challenges we must tackle to use ammonia as a fuel for engines, which include low combustibility.

Following our selection for a project contracted by the Ministry of the Environment in April 2021\*, the Company began technical development and trials of small engine systems that use ammonia as fuel. Our aim is to create the world's first small engine system usable with ammonia fuel alone.



\* FY2021 Project for the Low Carbon Technology Research, Development and Demonstration Program (First Applications)

### Osaka Gas's unique hybrid type biogas refining / upgrading system

In order to use biomass resources more efficient, we have developed an original biogas refining / upgrading technology that removes CO<sub>2</sub> and other impurities from biogas. Our technology produces high purity methane gas with methane recovery rate over 99%, the world's highest-level. This was achieved by the hybrid system which combines gas separation membrane and pressure swing adsorption (PSA), a technology that selectively adsorbs and removes CO<sub>2</sub>.

This technology is installed in a palm oil mill owned by Agriculture of Basin Company Limited, a company based in Thailand, to produce high purity methane gas from biogas which is generated from palm oil mill's waste water. The upgraded methane gas is supplied as fuel for natural gas vehicles.



### Demonstration at the World Expo 2025 | Biogas methanation from food waste

In order to achieve carbon-neutral methane generation, we are developing biogas methanation systems that use hydrogen produced from biogas generated from the decomposition of food waste and other organic waste, together with electric power generated with renewable energy. We have proposed demonstrating this technology at the World Expo 2025, as part of our aim to realize a locally produced locally consumed energy supply system suitable for urban areas in a decarbonized society.



# Creating New Businesses in Growth Fields

### Commencement of sale of a "radiative sky cooling material," a new material with world-class cooling performance

We developed the "radiative sky cooling material," a new material which lowers the temperature compared to the outside air temperature without using energy under direct sunlight by releasing heat into outer space. A demonstration test conducted by Osaka Gas found that the surface temperature of the material was up to about 6°C lower than the outside air temperature under direct sunlight, realizing world-class cooling performance. Additionally, in a demonstration experiment using this material for a tent, we confirmed that the feeling temperature was lower by up to 10°C less than that of a normal tent, while in a test using this material in a prefabricated house for construction sites, we confirmed the ability to significantly reduce electric power usage during the day

The material is expected to be deployed as products for implementing measures against global warming, achieving energy conservation and ensuring cooling comfort. Potential applications vary, including canvas-covered structures



### Demonstration experiment at the World Expo 2025 | Verification of the value of SPACECOOL® radiative sky cooling material

In a demonstration experiment at Yumeshima, the site of the World Expo 2025, we will collaborate with a diverse range of companies\* to evaluate the energy-saving qualities, economic performance, comfort, and safety of this radiative sky cooling material in a variety of expected applications, such as tents and power distribution boards.



For everyone's future Yumeshima demonstration experiment \* Conducted jointly with KANBO PRAS CORPORATION, SPACECOOL Inc., Seiritsu Industries Co., Ltd., and TAKENAKA CORPORATION

### Development of fluorene cellulose as a fiber for strengthening resin

In response to the issue that cellulose fibers are difficult to mix with resin, we have developed fluorene cellulose, a cellulose fiber with uniform dispersion, which does not mix easily with water but mixes easily with resin by causing a surface reaction with a proprietary fluorene derivative developed by the Daigas Group. Fluorene cellulose is a resin fiber material with low environmental impact and has strong potential for use in home appliances and as a structural material in automobiles. Zoomed in





Electron microscope image of fluorene cellulose

and container warehouses. This material was also selected for a demonstration experiment\* in Yumeshima, the planned site of the World Expo 2025\*.

Marketing, manufacturing, and sales of this radiative sky cooling material is conducted by SPACECOOL Inc., which is jointly operated by Osaka Gas and WiL, LLC. We will aim to reduce greenhouse gas emissions and improve the environmental performance by means of zero-energy cooling.



Demonstration cases were put out to tender and selected by the Japan Association for the 2025 World Exposition and the Osaka Chamber of Commerce and Industry.



"SPACECOOL " × Tent



### Successful production of ketone bodies (3HB), known for their use in diets

We have developed a method for manufacturing ketone bodies, (R)-3-hydroxybutyric acid (3HB), using bioprocess (fermentation) technology cultivated in collaboration with the National Institute of Advanced Industrial Science and Technology. Recent years have seen rising interest in ketone bodies for their effectiveness in dieting and improving athletic performance. We have succeeded for the first time in effectively generating and isolating 3HB using bioprocesses. We anticipate new applications for their use in the future in health foods, supplements, and cosmetics.

Fermentative production of (R)-3-hydroxybutyric acid (3HB)



Business Report

Please see our website for reports on sustainability activities at the Daigas Group. rified by a third party A third-party verification has been conducted by Bureau Veritas Japan Co., Ltd.

# **Environment** Results and evaluation of former materiality indicators (FY2019.3 – FY2021.3)

### Harmonizing with the Environment and Contributing to Realizing a Sustainable Society

**ESG** Highlights

Fundamental Concept

By responding to environment issues including climate change, developing and promoting innovative technologies, and providing environmentally friendly products and services including natural gas, the Daigas Group strives to reduce the environmental impact of business activities. By harmonizing its business activities with the environment, the Group will create a sustainable society.

Environmental conservation on a local and a global scale is an extremely important mission for the Daigas Group, whose operations center on the energy business. Greenhouse gases in particular are a leading cause of climate change, which is a global issue with huge impact on society, ecosystems, and the world as a whole. Because emissions of greenhouse gases are a large part of the environmental impact caused by the business activities of the Daigas Group, we actively engage in taking appropriate measures. In accordance with our "Daigas Group Environmental Policy," the Daigas Group makes efforts to lessen the environmental impact of its business activities and customers through the expansion of utilization of natural gas and renewable energies, the provision of environmentally friendly products and services. And through our business activities, we contribute to environmental improvement and the development of sustainable societies locally, nationally, and internationally by pursuing harmony with the environment and making efficient use of energy and resources.

### Materiality

### Energy / Emissions

(Contribution to reduction in amount of CO2 emissions)



Several initiatives have been taken from FY2018.3 to FY2021.3. The initiatives in Japan include: cryogenic power generation at our city gas production facilities, the introduction of renewable energy sources and high-efficiency thermal power generation, 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. The introduction of high-efficiency thermal power generation and fuel conversion to natural gas were also promoted overseas. These efforts have resulted in a total reduction in CO<sub>2</sub> emissions of approximately 5.60 million tons. In FY2021.3, we did not achieve our target, partly as a result of delayed progress on new projects in previous fiscal years. We have set new targets for FY2022.3 onward, and will further promote related initiatives

### **Environmental Impact throughout** the Daigas Group Value Chain in FY2021.3

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 27.78 million tons in FY2021.3. The sum breaks down into about 5.51 million tons, or about 20%, for GHG emitted through business activities by the Daigas Group (Scope 1 and Scope 2), and about 22.27 million tons, or about 80%, emitted by others in our value chain (Scope 3).

GHG emissions from city gas combustion on the customer side amounted to 16.39 million tons in the reporting year in terms of CO<sub>2</sub>, accounting for about 59% of the total. To reduce CO<sub>2</sub> emissions in society as a whole, it is important for Osaka Gas to promote energy conservation using natural gas, an energy source with low CO2 emissions, and further popularize high-efficiency equipment and systems such as its "ENE-FARM" and cogeneration systems.

GHG emissions through electricity generation by the Daigas Group, as measured in terms of CO2, came to 5.05 million tons, representing about 18% of the total emissions from the Group's own business activities. With the power generation business expanding, the ratio of CO<sub>2</sub> emissions from that business has been increasing. 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 5.03 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. However, the recycling rates are high for such waste, a situation we will try to maintain in the future. 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 control.



Companies subject to the calculation of GHG emissions: Osaka Gas Co., Ltd. and 56 companies among 154 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.

	6,464 thousand tons	City gas	1,753 n	nillion m <sup>3 (ind</sup> val	cluding gas whose calori ue has yet to be adjuste	ic I)	Gas	7,157 million m <sup>3</sup>
	The figure above includes the amounts of the items	Purchased electricity	453 n	nillion kWh		-	Electricity	16,133 million kWh
Amount of LNG handled	<ul><li>Isted below:</li><li>Materials of city gas</li></ul>	Other energy sources 13,465 TJ				_		
	<ul> <li>Fuels at LNG terminals</li> <li>Fuels used by Group companies for power</li> </ul>	Amount of Vehicle	Amount of Vehicle Fuel Used Amount of Water Intake					
	generation	Gasoline 1,649 kl		General water,	13.807 million n	.3	<u></u>	istomers
LPG used for calorific adjustment of city gas	188 thousand tons	City gas 45 th	ousand m <sup>3</sup>	industrial water Underground		_		1310111613
		Diesel 732 kl		water	3.530 million n	_		City gas
<u><u></u></u>		LPG 8th	ousand m <sup>3</sup>	Seawater	551.419 million n	<sup>3</sup>		ony gas
							E	Electricity
	curement of	Dusiness		- h. O-				LNG
	ials and fuels	Business	activities	s by Us	aka Gas		Gas	appliances
	y outeride companied)	City gas pro	City gas production/supply Business office			Chen	nical products	
LNG	G, natural gas		Se Cont	and	- 1			Comisso
City gas us	se / power generation			A.	Contraction of the local data			Services
USE /	/ marketing use	Contraction of the	ANE		THE REAL PROPERTY OF		GHG	(Scope 3 <del>*3</del> )
	LPG	Power	generation		Heat supply			Emissions
City gas	use / marketing use						Combustion	(1,000 t-CO <sub>2</sub> ) 1 16,390
Qual Lineare							of city gas	,
Coal, biomass				2	200 -		of LNG	753
Powe	er generation use	I BS business (I	ifa & Rusinass Sr	olution)	Others		Total	17,143
Other purchased goods		LBS business (Life & Business Solution) Others					4	
Materials / consumable goods /		Energy services						
capital goods / gas equipment for			· Renovation, maintenance			5		vaste disposa
ale / electric	city / gasoline and others	Urban Ma development	terials	IT ·	R&D etc.			ctivities by companies the Daigas Group)
GHG (S	Scope 3 <sup>*1</sup> )	GHG (Scope	1 and 2)				Commu	ting, business trips
	Emissions			Emissions	; (1,000 t-CO2)	-	Dreed	ust shipmont
	(1,000 t-CO <sub>2</sub> )	City gas production			105	-	Piou	uct shipment
G, natural g	gas 3,680	Business office (including supply) 30				providing sales rt to Osaka Gas		
G, coal, bio	omass 185	Power generation				_		
chased go	ods 1,165	LBS and others			91 234	-	Wa	ste disposal
al	5,031	Total		5	,513	_	Leas	ing of assets
		Waste		Che	mical Substances			
		Generati	ed Recycled		Discharge of Wat		GHG	(Scope 3 <sup>*2</sup> )
Sources of emission factors used for			Amour		Amount of discharge		Emiss	ons (1,000 t-CO2)
Production and transmission of city gas:		Industrial waste 114,436	tons 97%	NOx	853 tons	- 1		
"Life cycle evaluation of city gas" on the		Excavated soil 701,910	tons 0.3%	SO <sub>X</sub>	185 tons			97
vebsite of the Japan Gas Association Production and shipment of LNG:		PE pipe 146	tons 100%	Toluene	a 37.6 tons			
Calculation of life cycle greenhouse gas		Used gas		Xylene	10.8 tons	_		due to energy consumptio
emissions of LNG and City Gas 13A (papers		appliances 1,703	tons 86%	COD*	2.9 tons	_		ous activities, including mployees, business trips,
presented at research presentation meetings of the 35th Meeting of the Japan Society		recovered			Sewer 1.205 million	m <sup>3</sup>	transportation o	f products, business activiti
of Energy and Resources, June 2016)				Discharge of	River 3.196 million	_		rovide sales support to bosal of own waste, dispos
	d shipment of LPG and coal: t for life cycle greenhouse gas		* At time of ci	ity water		-		e, and leasing of assets.
ature iorecas	NG and City Gas 13A		gas product		Sea 554.149 million	117		

### Sourc

- ealcul Proc "Life
- web: Prod Calo emis pres of th of Er Prod
- Futu 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. 3.1) published in March 2021 by the Ministry of Environment

### CO2 emission factors used

- electricity sources)

- Electricity: 0.65 kg-CO2/kWh (2016 anti-global warming plan; FY2014.3 average emission factor for fossil-based
- 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

- Breakdown of Scope 3 categories \*1 Category 1–4 (purchased products, capital goods, fuel procurement, upstream transportation) 2 Category 5–9, 12–14 (waste, business trips, commuting,
- leased assets, downstream distribution, end-of-life treatment of sold products, franchises)
- \*3 Category 11 (use of sold products)

### Social Results and evaluation of former materiality indicators (FY2019.3 - FY2021.3)

### **Creating Value for Customers**

Fundamental Concept

The Daigas Group will endeavor to ensure stable procurement, stable supply, and security to enable customers to utilize energy safely. In so doing, the Group will provide products and services of value to its customers.

The Daigas Group is committed to making a positive contribution to realizing a higher level of comfort and development in the business activities of its customers through safe and stable supply of natural gas and other energy sources including electricity and LPG, and by ensuring safe use of gas and equipment with an improved level of services for its customers. We believe that an important foundation in realizing this will be improvement of energy resilience so that customers can use energy without worry. We will endeavor to provide products and services that give utmost reassurance to safety and will take on the challenge of creating value in line with customers' wishes in order to be a corporate group that continually evolves and develops alongside its customers.



Customer Health and Safety\*



In FY2021.3, all procedures were conducted based on guidelines in accordance with laws and regulations as well as in-house rules for processes such as quality control of gas in LNG terminals, safety inspection of gas pipelines and supply facilities, and safety inspection of gas appliances with customer consent.

\* Percentage of city gas for which health and safety impacts are assessed for improvement against total city gas provided by Osaka Gas

### Being a Good Corporate Citizen Contributing to Society

Fundamental Concept

Through communication with society, we aim to advance the sustainability of local communities.

Through business activities rooted in communities, the Daigas Group works to build good relationships with various stakeholders, based on an understanding of changes in the environments and issues faced by local communities. While actively disclosing information to promote better understanding of our business, we are working on creating value with society (joint efforts with local communities) including the "Small Light Campaign" by our employees, with the focus on five areas which are "Regional Community," "History and Culture," "Sports and Health," "Safety and Security," and "Diet." We are undertaking these activities by making active use of the Daigas Group's business resources. By doing so, we will contribute to the development of sustainable local communities in which people can enrich their lives in comfort.

Materiality

Communities

Local





In FY2021.3, all major business offices undertook various activities tailored to their characteristics.

We promoted communication enhancement activities to deepen the public's understanding of business projects run by the Daigas Group. In addition, we filed proposals aimed at building resilient cities and communities while developing programs for making regional communities attractive by adding new value.

## Complying with Laws and Regulations and Respect for Human Rights

Fundamental Concept

The Daigas Group believes that observing compliance and respecting human rights are the most important factors for the Group in winning trust from customers and society, and constitute the basis of business continuity.

Based on our notion that compliance extends beyond just following laws and regulations to include exhibiting decent behavior as a member of society, the Daigas Group recognizes fulfilling compliance as continuing to live up to the expectations of customers, employees, society and shareholders while winning their trust and sympathy. The Group thus endeavors to maintain fair and honest relations with customers, business

continue endeavoring to ensure complete management of all customer data. Customer Privacy FY2021.3 target

Supplier Assessment\* (Impact on the environment and society human rights and labor practices)



\* Percentage of new suppliers that have been screened using criteria regarding environment, social impact, human rights and labor practices

### Management Policy for Human Growth

Fundamental Concept

The Daigas Group is working to become a corporate group that promotes the growth of its employees through work by employing a personnel management system that promotes an environment in which individuality and initiative are respected and diverse talent is cultivated.

The Daigas Group strives to secure employment, and aims to be a corporate group where all employees can achieve personal growth through their work. To that end, we have introduced career-coursespecific human resources systems designed to respect and put to full use the individuality and autonomy of employees, and we have been conducting a wide range of training. We have also formulated

Materiality	FY2021.3 target Development of human resources,	FY2021.3 result Average hours of training per employee
Education	improvement of work environment	25.1 hours
Materiality	FY2021.3 target	FY2021.3 result
Diversity and Equal Opportunity	Promotion of diversity	Percentage of women among personnel hired for career-track positions 26.8%
	Training and Education Materiality Diversity and Equal	Training and EducationDevelopment of human resources, improvement of work environmentMaterialityFY2021.3 targetDiversity and EqualPromotion of diversity

partners, and all other parties, and to respect human rights. Ensuring compliance is the most important thing we can do to gain the trust of customers and the society, and is the basis for continuing our business. Recognizing that every management and employee is the key to compliance, we are continually conducting training sessions and employee surveys to raise awareness.

Although there were no substantiated complaints regarding breaches of customer privacy, the Daigas Group will

sult	A total of 41 suppliers began new business transactions with Osaka Gas in FY2021.3. In the year, no business deals were
6	barred from being started due to violations of standards set in the fields of environmental and social impacts, human rights and labor practices.

the "Daigas Group Diversity Promotion Policy" to ensure that a diverse range of people can play active roles at the Daigas Group. Convinced that ensuring employees' safety and maintaining/ improving their physical and mental well-being are keys to all our operations, we are also undertaking efforts to prevent work accidents and to promote fitness.

e-Learning (safety, information security, environment, human rights) program \* Includes some temporary employees and No. of participants: 5,411 / course No. of hours: 3.61 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.

Percentage of women in management positions

5.0%

\* Percentage of women in managerial or higher positions

Based on the Act for Measures to Support the

Development of the Next Generation and the Act on the

Promotion of Women's Participation and Advancement

in the Workplace, we have been promoting initiatives

personnel ratio in career-track positions and achieving

with the aim of maintaining a 30% or higher female

a female manager ratio\* of 5% by 2020.

### Information Disclosure to Stakeholders - Responding to TCFD Recommendations -

Fundamental Concept

For the Daigas Group, climate change represents an important management challenge. We support the TCFD recommendations, and utilize them as indicators to validate our climate change response.

The Daigas Group recognizes that climate change has the potential to impact business revenue and expenditures. We understand the business risks and opportunities presented by climate change, and believe that implementing measures, and making our responsibility to do so clear to our stakeholders, will lead to the sustainable development of both our business and local communities.

Economic Performance\*

Please refer to "Climate Change Initiatives -Recognition of and Action on Risks and Opportunities-" on P.33 for recognition of risks and opportunities of climate change and details associated with climate change in the areas of governance, strategy, risk management, and indicators and targets - the core elements recommended by the Task Force on Climate-related Financial Disclosures (TCFD). We also report these matters on our sustainability website.

\* Financial implications and other risks and opportunities due to climate change

### Formulation of Human Rights Policy

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

The Group believes that the utmost respect should be given to human rights in all aspects of our operations. As such, when engaging in business activities, we have complied with laws and regulations in different countries and regions, respected international standards, and taken into consideration different cultures, customs, and the interest of stakeholders. In response to the announcement of "Japan's National Action Plan on Business and Human Rights (2020-2025)" by the Japanese government in October 2020, we formulated a human rights policy and at the same time separated the section on "Respect for Human Rights" from the chapter on "Complying with Laws and Regulations and Respect for Human Rights" in the "Daigas Group Charter of Business Conduct\*" and made revisions to the

### 1 Endorsement of international agreements

We support international agreements on human rights, including the International Bill of Human Rights and the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO). We commit to respect human rights as set out in the United Nations Guiding Principles on Business and Human Rights.

### 2 Scope of application

This policy applies to all directors, officers, and employees of the Daigas Group.

### 3 Legal compliance and respect for internationally recognized human rights

We comply with the applicable laws and regulations of the countries and regions where we operate. In case where there is a conflict between internationally recognized human rights standards and the laws and regulations of each country or region, we will pursue ways to respect international human rights principles.

### 4 Respect for human rights in all process of business activities

In all processes of our business activities, we strive to prevent and reduce negative impacts on the human rights of stakeholders involved in the Daigas Group's business

- 4-1 We respect the human rights of our employees and provide a healthy and comfortable work environment.
- 4-2 We respect human rights of customers and business partners. In case where negative impacts on human rights by business partners or other related parties are directly linked to the Daigas Group's businesses, products or services, we will demand that such business partners and related parties respect human rights and not infringe upon them
- 4-3 We assess and address the impact of our business activities on local communities.

"Daigas Group Code of Business Conduct," in order to demonstrate the Daigas Group's stance toward respecting human rights. Additionally, we revised the "Daigas Group Diversity Promotion Policy," aiming to become a corporate group where a diverse range of personnel respect and accept each other without discrimination, and experience a sense of purpose at work.

As we look to expand the scope of our business fields, the Daigas Group will focus on promoting diversity. At the same time, we will also fulfill our responsibility to respect the human rights of Daigas Group stakeholders in all aspects of our business activities, across the Group as a whole, in accordance with the "Daigas Group Human Rights Policy."

\* The "Daigas Group CSR Charter," which was a set of guiding principles for the actions of Directors, Audit & Supervisory Board Members, and employees, was revised to form the "Daigas Group Charter of Business Conduct," which expresses our stance as a company.

### 5 Human rights due diligence

We conduct human rights due diligence, in which we identify and assess the negative human rights impact of our business activities and take steps to prevent or mitigate such risks.

### 6 Remedy

If it becomes clear that the Daigas Group's business activities are causing or contributing to negative impacts on human rights, we will work to correct and remedy the situation through appropriate procedures.

### 7 Stakeholder engagement

We engage in sincere dialogue and consultation with affected stakeholders on how to address actual or potential impacts on human rights.

### 8 Education and awareness

We provide education to ensure that all directors, officers, and employees of the Daigas Group understand this Policy and act in accordance with this Policy in our business activities.

### 9 Reporting

We report the progress on our human rights efforts that we make based on this Policy through our website and other communication channels

### Efforts Under the Spread of COVID-19 Infections

In response to the COVID-19 pandemic, Osaka Gas, Osaka Gas Marketing Co., Ltd., Daigas Energy Co., Ltd., and Daigas Gas and Power Solution Co., Ltd. have all implemented the following initiatives since the COVID-19 pandemic was confirmed in Japan and abroad in late January 2020, until the

### Measures to secure a stable supply of gas and electricity and ensure safety

In March 2020, we established a task force to secure a stable supply and transitioned to a system tailored to the circumstances. Through these measures, we have been working to secure a stable supply of gas and electricity and ensure safety.

Measures at LNG terminals	<ul> <li>In order to secure a stable supply of gas ar initiatives.</li> <li>At production sites and power plants, we are lim and are also taking measures such as disinfection control rooms. Additionally, there is no contact be conferencing system is used.</li> <li>When receiving materials from LNG and LPG sh loading operations on a non-contact basis from</li> </ul>
Measures to secure supply and ensure safety	<ul> <li>In order to secure a stable supply of gas ar have implemented the following initiatives.</li> <li>We monitor and control the status of the supply of Control Office, which issues directions for the property from customers, we have taken measures enter the room, and distributing offices. In Septem the assumption of an ongoing COVID-19 pandem and operation of general supervisory headquarter</li> </ul>

### New safety-conscious initiatives at showrooms and events

- In order to assist customers unable to visit showrooms during the COVID-19 pandemic in their consideration of household furnishings and appliances, we are providing online viewings and 3D virtual viewings utilizing a communication app at the "hu+gMUSEUM," a center for providing information about food and living.
- For the "Gas-ten," which previously we held at facilities, etc., we held an online "Tsunagaru Gas-ten" in consideration of customers' safety. (Held from October 1 to December 20, 2020) See P.40 for details.

### Measures to ensure the safety of employees

- In offices, we are taking measures to prevent the spread of infection, such as providing disinfectants, encouraging handwashing, and setting up partitions in offices and other places.
- In order to prevent infection among employees, we have set up an environment for working from home by developing a remote access environment and introducing online conference systems, internal SNS, etc. Additionally, we are promoting the active utilization of working from home and

present, based on the "Act on Special Measures for Pandemic Influenza and New Infectious Diseases." At the same time, we are also working together with local communities on social contribution activities.

### nd electricity, we have implemented the following

niting entry to central control rooms by persons other than operators, ions and measuring temperatures when employees enter central between employees when changing shifts, and instead a video

hips, our employees do not board the ships. Instead they perform land.

### nd ensure the safety of supply facilities (pipelines, etc.), we

of gas in an integrated manner, using a 24-hour system. At the Central ompt dispatch of staff from respective locations in the event of any s such as disinfections and measuring temperatures when employees mber 2020, we held a company-wide disaster-prevention drill under nic. Additionally, we have formulated guidelines for the establishment ers at sites and area task forces in the event of emergency.



Image of virtual tour of hu+gMUSEUM (Users can see explanations by pressing the round orange buttons during virtual tours)

staggered shifts by expanding the range of employees eligible for these programs and increasing the frequency of their use. Looking ahead, we will continue actively utilizing working from home and staggered shifts from the perspective of preventing infection and controlling the flow of people.

• We are cancelling and delaying business trips and group training sessions, seminars, etc., or moving these events online, depending on the status of the spread of infection.

# Governance Compliance

### Improving Compliance Awareness: In-house Training Efforts, etc.

We are continually working to improve compliance awareness through such efforts as training sessions and awareness surveys. For example, we conduct case method training to sharpen the ability to think ethically, and offer Compliance Coordinator and Staff Seminars for compliance coordinators and staff who serve as key personnel in the compliance efforts of organizations and affiliated companies (including all subsidiaries), training sessions for organizational heads and higher-ranked managerial personnel featuring outside

### Compliance Promotion Systems

The Daigas Group has established "Compliance / Risk Management Subcommittees" under the "ESG Committee," in order to consider cross-organizational measures and share information, etc. The Compliance Office in the General Affairs Department promotes compliance across the Daigas Group as a whole, and we have also selected "Heads of Compliance" at each Business Unit, Company, and Core Affiliate, as well as "Compliance coordinators" and "staff who serve as key personnel in the compliance efforts" in each organization of Osaka Gas and each affiliate, as part of efforts to enhance compliance across the Daigas Group as a whole.



instructors, and education arranged by job level for managers and new employees. In addition, we have achieved our goal of 100% for the training participation rate among Daigas Group employees used as an indicator by extending the compliance training directed by individual organizations and affiliate companies. In addition, we undertake educational activities such as soliciting "Compliance Slogans" from employees each year (10,354 submissions were received group-wide in FY2021.3).

### Compliance Education

The Daigas Group believes that ensuring compliance is the most important thing we can do to gain the trust of customers and the society, and is the basis for continuing our business. Recognizing that every management and employee is the key to compliance, we are continually conducting training sessions and employee surveys to raise awareness.



### **Promotion of Global Compliance**

In view of expanding business operations abroad, an English version of the leaflet summarizing the "Daigas Group Corporate Principles," the "Daigas Group Charter of Business Conduct," the "Daigas Group Code of Business Conduct" and Compliance Desks used for the internal reporting system was posted on the intranet for dissemination to employees. As in FY2020.3, in

### **Reporting Systems and Compliance Desks**

The Daigas Group has established "Compliance Desks" as a system aimed at quickly identifying cases of violations of laws and regulations, misconduct, etc., and responding guickly and appropriately. "Compliance Desks" have been established within Osaka Gas, key affiliates, an external attorney's office, and elsewhere, to accept consultations and reports from employees of the Daigas Group, business partners, and other

### Number of Consultations / Reports



### **Strengthening Information Security Measures**

The evolution of the Internet has led to sharp rises in leaks of confidential information. infections by computer viruses and other serious social issues, and the harm suffered by companies from such incidents increasingly extends beyond direct damage, even resulting in the loss of public trust.

As a business operator responsible for social infrastructure, Osaka Gas recognizes the importance of managing customer information and other data, and has established Cyber Security Committee as a corporate committee in August 2019. Under the leadership of the Information Security Subcommittee, which is placed under the Cyber Security Committee, we have sought to enhance the security measures.

### Information Security Management Structure

Representative Director and President All Company Committee Meetings

ESG Committee

directions for improvement pertaining to information security measures

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FY2021.3, we utilized the Osaka Gas proprietary risk management system "G-RIMS," with revisions to certain items for overseas subsidiaries, as we endeavored to identify the status of measures toward risks at 18 key subsidiaries overseas

related parties. Furthermore, we have also established a "Human Rights Desk" in the Human Resources Department as a contact point for consultations about the human rights of employees, as well as "Harassment Desk" within respective organizations and affiliates as contact points for consultations about harassment from employees.

### Breakdown of Report Content





# **Corporate Governance**



Representative Director Takeshi Matsui Chairman Representative of the Board Director Takehiro Honjo Tadashi Miyagawa Representative Director and President Masataka Fuiiwara

business efficiently and appropriately.

(the "Group") will respond appropriately to the exercising of

addition, the Group will continue to enhance and strengthen

make transparent, fair and decisive decisions, and execute

shareholder rights, and work toward maintaining and increasing a

sense of trust by dialogue and cooperation with its stakeholders. In

corporate governance in order to respond quickly and appropriately

to changes in the business environment surrounding the Group,

Representative Director Takayuki Tasaka

### 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

### Corporate Governance Organization Chart (as of June 25, 2021)

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 appointment of Directors and Audit & Supervisory Board Members and Director remuneration. The Company considers its current governance system best suited in order for responding swiftly to changes in the business environment, ensuring transparency, fairness and boldness in decision-making, and implement efficient and appropriate actions.



### 1 Board of Directors, Directors of the Company

The Board of Directors consists of 10 Directors (including four outside Directors). Its mission is to formulate the Board of Directors Regulations and standards for voting on resolutions in the Board of Directors, 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 guorum 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. 12 Board of Directors meetings were held in the fiscal year ended March 31, 2021. Meetings discussed the Group's management plans, the establishment of important organizations, important human resources matters, execution of important investments and agreements greater than a certain amount, and operational status reports etc. from executive Directors. The rate of attendance at meetings was 100%.

### 2 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.

### 3 Executive Board

The Company examines basic management policies and important management issues at the Executive Board and fully deliberates the foregoing before decision-making. In accordance with internal regulations, the Executive Board consists of the Executive President, Executive Vice President, Senior Executive Officer, Head of Corporate Headquarters, and Head of Business Unit (including the President of Network Company). In principle, the Executive Board is held three times per year as "ESG Council," which deliberates on activity plans for reports on activities related to promotion of ESG management.

### 4 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.



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### 5 Auditing Department

The Company established the Auditing Department 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 Executive Board. The Auditing Department is subject to periodical evaluation from an outside party to maintain and improve its auditing abilities.

### 6 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 ensuring objectivity and transparency in the decisionmaking process, the Advisory Committee deliberates on 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.

### 7 ESG Committee

The Company has established the ESG Committee to coordinate and advance group-wide ESG management, which is chaired by the Head of ESG Promotion, who is the Officer in charge of overseeing the promotion of Group's ESG management, and is composed of the General Managers, etc. of relevant divisions. The ESG Committee promotes activities relating to the Group's sustainability, including the environment, compliance, social contribution, respect for human rights, and risk management.

### 8 Cyber Security Committee

The Company has established the Cyber Security Committee to reinforce the cyber security measures of the Group, which is chaired by the Officer in charge of the Information/Communication Systems Department, and is composed of the General Managers, etc. of relevant divisions.

### 9 DX Committee

In April 2021, the Company established the DX Committee chaired by the President of the Corporate Planning Headquarters and consisting of the General Managers of relevant divisions, etc. The Committee promotes 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.

### 10 Investment Evaluation Committee

The Committee is chaired by the President of the Corporate Planning Headquarters and composed of the General Managers of relevant divisions, etc. It examines risk and return and assesses investments in excess of a certain amount, and it reports findings to the Executive Board to help make appropriate investment decisions.
# Directors



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 Chairman of the Board (current)
- capable of contributing to the improvement of the Group's corporate value and has appointed him as Director.

Chairman of the Board

He has accumulated

xtensive knowledge in

[Reason for appointment]

extensive knowledge in

considerable experience and

corporate and organizationa

management, particularly in social contribution, production of

gas and power generation, and technologies. 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

He has accumulated



Representative Director Executive Vice-Presiden

# 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 (current)



1985, 4 Joined the Company

2015. 4 General Manager of Planning Dept.,

2016. 4 Head of Residential Energy Business Unit

2018. 4 Head of Commercial & Industrial Energy

Residential Energy Business Unit 2016. 4 Senior Executive Officer

2018. 6 Director, Senior Executive Officer

2020. 4 President of Corporate Planning

2021. 1 Representative Director, Executive Viceresident (current)

Head of Energy Solution Business Unit (current)

Business Unit

Headquarters

2015. 4 Executive Officer

[Biography]

Representative Director Executive Vice-President Head of Energy Solution Business Unit

# Takayuki Tasaka

[Reason for appointment] He has accumulated 2011. 4 General Manager of Corporate Strategy Dept. considerable experience and extensive knowledge in corporate and organizational management, particularly in sales, marketing, and business strategies. 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 and President . 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

- Vice-President 2020. 4 Head of Energy Solution Business Unit



### [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)



# Senior Executive Officer

[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

considerable experience and extensive knowledge in corporate and organizational management, particularly in governance and risk management. 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



[Biography]

# Outside Director Hideo Miyahara

Reason for appointment

in the field of information

engineering. In addition, he

held positions as Dean of

Information Science and

and President of Osaka

University, and has deep

information science and

extensive knowledge in

he Company therefore

technology as well as

insight particularly in

Technology, Osaka University

considerable experience and

organizational management

believes that he is capable of

contributing to the improvement of the Group's

. corporate value and has

appointed him as Director.

Graduate School of

He has made considerable

research-related achievements

- 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 (current)
- 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, 2020–March 31, 2021)

Attended 12 of 12 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.



# Outside Director Tatsuo Kijima

### [Biography]

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

Board of Directors Meetings Attendance Record (April 1, 2020-March 31, 2021)

Attended 10 of 10 meetings of the Board of Directors held after he assumed the office of Director of the Company on June 26, 2020. 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 and Executive Officer of West Japan Railway Company and has considerable experience and extensive knowledge particularly in corporate and organizational management. 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

# Fumitoshi Takeguchi

Representative Director

Executive Vice-President

Takeshi Matsui

[Reason for appointment]

extensive knowledge in

considerable experience and

corporate and organizationa

nanagement, particularly in

international energy business

and business strategies. 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.

finance and accounting, the

He has accumulated

2021. 6 Director, Senior Executive Officer (current)

[Reason for appointment] He has accumulated

[Reason for appointment] He has accumulated considerable experience and extensive knowledge in corporate and organizational nanagement, particularly in sales and marketing, business strategies, and technologies. 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.

[Reason for appointment] considerable experience and corporate and organizationa management, particularly in business strategies, sales and narketing. The Company therefore believes that he is

- - Headquarters 2016. 6 Representative Director, Executive

  - 2021. 1 Representative Director and President, Executive President (current)



Outside Director Kazutoshi Murao

[Biography]

Diogre	Ap.	.11
976.	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, 2020-March 31, 2021)

Attended 12 of 12 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 considerable experience and extensive knowledge particularly in corporate and organizational management. 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.



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 Otemon Gakuin University, Special Professor of Institute for Creating Local Culture of Otemon Gakuin University 2014. 5 Director of Mature Society Research Institute,

- Otemon Gakuin Educational Foundation 2015. 4 Professor of Faculty of Regional Development
- Studies, Otemon Gakuin University (current) 2016. 4 Director of Mature Society Research Institute,
- Otemon Gakuin University 2020. 6 Trustee of Otemon Gakuin Educational
- Foundation (current) 2021. 6 Director of the Company (current)

[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 nstitute of Suntory Co., Ltd. and Trustee of Otemon Gakuin Educational Foundation, and has deep insight particularly in life and culture as well as considerable experience and extensive knowledge in organizational management. The Company therefore believes that she is capable of contributing to the improvement of the Group's corporate value and 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)



Outside Audit & Supervisory Roard Member

# Yoko Kimura

[Biography]

- 1987. 12 Assistant Professor, Faculty of Home Economics, Nara Women's University 1993. 10 Assistant Professor, Faculty of Human Life and Environment, Nara
- Women's University 2000. 4 Professor, Faculty of Human Life and Environment, Nara Women's University
- 2000. 12 Member of Local Public Finance Council 2010. 4 Chairperson of the Board of Directors, Council of Local Authorities for
- International Relations 2014. 4 Advisor of Japan Center for Cities
- 2014. 6 Audit & Supervisory Board Member of the Company (current) 2015. 4 Director, Nara Prefectural University (current)

Board of Directors Meetings Attendance Record (April 1, 2020–March 31, 2021)

Attended 12 of 12 meetings of the Board of Directors and attended 13 of 13 meetings of the Audit & Supervisory Board. She made comments as appropriate based on her considerable experience and extensive knowledge n organizational management and from her independent position as an outside Audit & Supervisory Board Member



Outside Audit & Supervisory Roard Membe

# Shigemi Sasaki

[Biography]

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

Board of Directors Meetings Attendance Record (April 1, 2020–March 31, 2021)

Attended 12 of 12 meetings of the Board of Directors and attended 13 of 13 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.



[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 Roard Membe 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 Vice President, Baseball Federation of Japan 2015. 6 Audit & Supervisory Board Member of the Company (current)
- 2015. 9 Director, Japan High School Baseball Federation (current)
- 2017. 4 President, The Doshisha (current)
- 2017. 4 Chancellor, The Doshisha (current)

Board of Directors Meetings Attendance Record (April 1, 2020-March 31, 2021)

Attended 12 of 12 meetings of the Board of Directors and attended 13 of 13 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

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

Each fiscal year, the Company analyzes and evaluates the effectiveness of the Board of Directors, centering on outside officers (Outside Directors and Outside Audit & Supervisory Board Members).

Specifically, taking into consideration the evaluation by an external specialist institution, the Board of Directors Secretariat conducted questionnaires and interviews with all Directors and Audit & Supervisory Board Members individually on questions such as matters regarding the operation of the Board of Directors and the Advisory Committee, whether information provision to outside officers were immediate and sufficient, and whether the opinions received from outside officers during evaluation last year (e.g., measures to deepen understanding of proposals at meetings of the Board of Directors, such as the provision of information related to the results of investments and financial strategies) have been

# Outside Directors and Outside Audit & Supervisory Board Members

Osaka Gas appoints four Outside Directors and three outside Audit & Supervisory Board Members.

To attain sustainable growth and improve medium and long-term corporate value, Directors and Audit & Supervisory Board Members are in principle composed of a diverse group of people without regard to sex or nationality, taking their knowledge, experiences, abilities, and personalities, etc. into account. In addition, when selecting outside officer candidates, the Company takes into consideration the individual's independent-mindedness for making objective judgments, and whether they have wideranging knowledge, wealth of experience, and expertise in their specialized fields. The Company expects Outside Directors to participate in decision-making as members of the Board of Directors' meetings and monitor and supervise the execution of duties of the Executive Directors from an independent position based on their knowledge and experience. Outside Audit & Supervisory Board Members to use their knowledge and experience to conduct strict audits on the execution of duties of the Directors. also from an independent standpoint. Outside Directors and

# Training Policy for Directors and Audit & Supervisory Board Members

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

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addressed, and in light of the results thereof, held discussions with outside officers, and made its evaluations, which confirmed that such matters have been appropriately addressed.

Furthermore, as a result of the outside officers reporting the results of these evaluations to the Board of Directors and holding relevant discussions in turn, the Company has confirmed that the Board of Directors conducts lively exchanges of guestions and answers based on necessary and sufficient information, including materials provided in advance and other explanations, and sufficiently ensures that it is operating in an effective manner.

The Company will take into consideration the opinions of outside officers, and take initiative to enhance discussions by further increasing the provision of information on important management challenges of the Group, etc., and otherwise further enhance the effectiveness of the Board of Director going forward.

Outside Audit & Supervisory Board Members are provided with information at meetings of the Board of Directors, etc., related to matters such as the operational status of internal control systems pursuant to the Companies Act, the evaluation of internal control related to financial reporting pursuant to the Financial Instruments and Exchange Act, the status of internal audit, and the status of sustainability measures. In addition, Outside Directors and Outside Audit & Supervisory Board Members also confirm the content of accounting audit reports.

In addition, Outside Directors Hideo Miyahara, Kazutoshi Murao, Tatsuo Kijima, Yumiko Sato, and outside Audit & Supervisory Board Members Yoko Kimura, Eiji Hatta, and Shigemi Sasaki have no special interest relationships with the company affecting decision-making, and as they meet the criteria for the independence of outside officers stipulated by the company, they are judged to have sufficient independence. Based on the above. they are reported as independent officers to the financial instruments exchanges on which the company is listed.

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. <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

(c) Performance-Infixed 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 as the main indicator 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.

# (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.

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

# Delegation of Decision of Content of Remuneration, etc. for Each Individual Director 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 under review is in line with the Policy on Determining Remuneration.

# Resolution of the Annual Meeting of Shareholders and Decision on Remuneration, etc. for Audit & Supervisory Board Members

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.

# 5. 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 Under Review

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

# 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)\*," which systematizes the selfassessment 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.

To prepare for emergencies, regulations for disaster countermeasure and business continuity plans are prepared. We

# 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 FY2021.3.

# (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 and information leaks

(9) Quality issues with products or services

1 Non-compliance with laws and regulations

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

Fiscal	year		200th	201st	202nd
Fiscal year			FY2018.3	FY2019.3	FY2020.3
Profit attributable to	million yen	Plan	42,500	46,500	55,000
owners of parent	Thinion yer	Results	37,724	33,601	41,788

# Total Amount of Remuneration by Officer Classification and by Type of Remuneration, and Number of Eligible Officers

-	, ,,		0		
Classification	Total amount of remuneration	Total amount of remuneration by type of remuneration (million yen)		Number of payees	
	(million yen)	Fixed	Performance-linked	payooo	
Directors (excluding Outside Directors)	386	235	150	10	
Audit & Supervisory Board Members (excluding outside members)	69	69	_	3	
Outside Directors	29	29	-	3	
Outside Audit & Supervisory Board Members	32	32	_	3	

Note: The number of persons and amounts include four internal Directors and one Audit & Supervisory Board member who retired as of the close of the Company's 202nd General Meeting of Shareholders held on June 26, 2020.

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. In addition to the measures preparing for the above risk, the Daigas Group aims to mitigate impact on our 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. 76

carried out company-wide disaster-prevention drills, which consist of earthquake drills and BCP exercises. During the fiscal year under review, in addition to drills assuming disasters occurred amid a pandemic, we carried out collaboration training and exercises on a remote basis to ensure collaboration between gas pipeline operators and gas retailers in case of disaster.

The Cyber Security Committee is working to further strengthen countermeasures against cyberattacks from outside the Group network.

\* 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.

# (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. 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 problems, 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 and worsening economic conditions

# Messages from Outside Directors



Hideo Miyahara Outside Director

# Implementing decarbonization initiatives based on scientific verification; DX initiatives in parallel with human resource development

In corporate governance, what is most important would be the idea of autonomous systems, as in autonomous distributed systems used in information networks, which is my field of expertise. In an autonomous system, governance is achieved in the entire network, not by forcefully controlling it as a whole but by having every organization work toward the same objective based on predefined principles. At Osaka Gas, I feel that the Company is pursuing the idea of an autonomous organization as I have been supervising the corporate governance of Osaka Gas while participating in active discussions with other Board Members, as an Outside Director since 2013.

Among the initiatives under the Medium-Term Management Plan, I place particular emphasis on our efforts for carbon neutrality and digital transformation (DX). Regarding carbon neutrality, we recognize the importance of implementing decarbonization initiatives that are based on scientific verification in terms of establishing and achieving numerical targets. As we work toward our carbon neutrality goal, we will continue enhancing our initiatives by reviewing results based on objective data and working on simulations.

DX is also a vital issue for an energy company like us. In implementing DX initiatives, it is crucial to strengthen internal systems through developing human resources with IT skills and hiring external talent. As it will require significant investment, I will ensure with other Board Members that decisions will be made based on the results of thorough discussions within the Company.

The Internet of Things (IoT) will make rapid advancements over the coming years with the telecommunications environment expected to continue developing with 5G (fifth generation mobile telecommunications systems), and 6G. Although technological evolution will bring merits for people's lifestyles and industry, it will also increase security risks and electricity consumption. In light of these points, we will make decisions through careful discussions at meetings of the Board of Directors to implement our initiatives and execute strategies leveraging the strengths of Osaka Gas.



Tatsuo Kijima Outside Director

# Creating a shared understanding on the necessity of think-and-act approach, with each employee working with a higher sense of ownership

The Daigas Group aims to create the four types of value stated in its Corporate Principles. In order to support the Group's efforts to achieve it, I am committed to strengthening the Group's governance as an Outside Director. At the Board of Directors, we strive to make decisions on initiatives for the Group in light of whether our actions will be understood from the perspective of all stakeholders including those outside the Group. This is especially important when engaging in risk management for the Group's businesses and evaluating the transparency of the decision-making process as well as the consistency of each proposal with the Group's growth strategies and the validity of their content.

Over the past twelve months since I was appointed Outside Director, I have seen the Daigas Group demonstrating its strength in enhancing governance. Going forward, we will continue discussing constructively the Group's major policies, such as management strategies and targets. While I admire the Group's corporate culture that welcomes opinions from all members, I intend to encourage higher participation among all members in exchanging views on these themes regardless of positions and titles



Kazutoshi Murao Outside Director

# Becoming a leading company in the energy business, pioneering initiatives to solve social issues for a sustainable future

When I consider Osaka Gas' approach to management. my view is that governance is functioning effectively at the Company. Lively discussions take place at meetings of the Board of Directors, and when I observe the actual worksites where operations are executed, I feel strongly that the intentions of management are reflected in the ways employees work. We will ensure that the Daigas Group will utilize its corporate culture of approaching everything in a genuine and studious manner to further pursue its social mission as a company operating an energy business.

Over many years, I have developed much experience in corporate management through the activities of companies and business associations. I intend to contribute to the Daigas Group's management enhancement by utilizing my expertise and knowledge on energy business strategies, approaches to governance, potential risks and scenarios to respond to those risks such as in investments, collaboration proposals and new businesses.

We aim to realize that Osaka Gas will become a leading company in the energy business, pioneering initiatives to solve social issues for a sustainable future. It is important that the Company does not just follow national policies and the

actions of other companies, but instead take the lead in solving these issues, looking ahead to the times.

In this regard, the Daigas Group has devised its strategies for carbon neutrality and digital transformation in the Medium-Term Management Plan. I have great hopes for the future development of the Group, in particular, the Group's commitment announced at the President's inaugural press conference, to the development of methanation, a technology to synthesize methane, one of the main constituents of natural gas, from hydrogen and CO<sub>2</sub>. With regard to DX, we will not stop at simple digitalization but utilize DX to create solutions to future changes in business models, lifestyles and ways of work.

Achieving success in carbon neutrality and DX requires technical breakthroughs and effective funding plans. To that end, I will support the steady implementation of the Medium-Term Management Plan by providing appropriate advice as an Outside Director. The Daigas Group will strive to create value for a sustainable future while quickly responding to changes in the business environment as the COVID-19 pandemic further affects lifestyles and businesses.



Yumiko Sato Outside Director

# Taking on new challenges to solve management issues, deviating from conventional approaches

As a new Outside Director appointed in June this year, I am committed to maintaining high standards of corporate governance for Osaka Gas, which is working earnestly to provide social value through its business activities. I feel optimistic about the Company's future business development as the Company is looking not just to protect its existing businesses, but also actively taking on new challenges and working toward breakthroughs.

As the times change rapidly, companies in any industry cannot simply maintain the status quo as they used to do, if they wish to survive. We must anticipate future trends and define our vision, then work backwards from there to think about what we need to do at this moment. It is also crucial that we focus not just on the ideas of senior management, but also sufficiently incorporate the views of employees working close to customers, in order to achieve a breakthrough. I will visit as many worksites as possible and provide senior management with views from an external perspective as an Outside Director. I intend to contribute to decision-making that is not bound by conventional ways of thinking.

At the Board of Directors, I will work closely with other members to enhance corporate value based on a shared understanding among all Directors on the prospects for proposals for future developments and the necessity of implementing major reforms at the Daigas Group from a longterm perspective. I will also flexibly take an aggressive approach in governance when we take appropriate risks in order to promote growth.

In implementing the new Medium-Term Management Plan announced in March 2021 (Plan 2023), it is important that we incorporate a mindset rooted in the customer contact points, together with think-and-act approach, in which each employee thinks from the customer's perspective before acting. In order to spread within the Daigas Group the concept of "value for a sustainable future" under the Plan 2023, we will ensure that the management communicates with employees in an easy-to-understand manner how their day-to-day work will create value for a sustainable future. We will continue building a corporate culture that increases management's engagement with employees and encourages each employee to work with a higher sense of ownership.

For a company engaged in businesses with regional roots like Osaka Gas, co-creation with local communities is highly important. We will continue engaging in activities that contribute to local communities, and we would like to ensure broader awareness of our activities in this area.

Osaka Gas is a large organization that has been maintaining an earnest and hardworking corporate culture with an enterprising spirit. We will accelerate our efforts to solve management issues. such as promoting more active participation of women, by taking on new challenges with innovative approaches in a timely manner.

With regard to the Medium-Term Management Plan, we will ensure that the Daigas Group will reach the targets while fulfilling its social mission as an energy company to a greater extent than now. To that end, we will continue encouraging all members to work with a higher sense of responsibility and take the initiative in contributing to solving social issues through the Group's business activities.

# Summary of Consolidated Operating Results

			2011.3	2012.3		2013.3	2014.3	2015.3	2016.3	2017.3	2018.3	2019.3	2020.3	2021.3
Financial Information														
Net sales		million yen	1,187,142	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
Operating profit		million yen	88,584	77,274	•	84,773	99,381	105,065	146,674	97,250	78,118	67,977	83,792	112,491
Ordinary profit		million yen	82,372	75,694		90,125	106,044	108,173	134,986	96,276	77,087	63,103	86,018	127,752
Profit attributable to owners of pare	rent	million yen	45,968	45,207		52,467	41,725	76,709	84,324	61,271	37,724	33,601	41,788	80,857
Comprehensive income		million yen	35,833	39,702		83,844	80,850	106,084	38,256	78,029	60,590	27,966	14,996	108,723
Capital expenditures for quality imp	provement	million yen	53,600	43,713		44,507	41,082	44,698	56,051	48,253	42,191	44,205	57,498	68,873
Depreciation + amortization of goo	odwill	million yen	97,569	93,624		82,818	83,806	87,785	86,747	86,206	88,723	99,745	91,925	101,444
R&D expenses		million yen	10,918	10,974		10,875	11,793	11,434	11,340	10,374	9,708	10,961	10,174	9,440
Total assets		million yen	1,437,297	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
Net assets		million yen	688,695	708,904		774,317	828,565	918,869	935,786	991,870	1,028,799	1,035,044	1,027,667	1,114,597
Shareholders' equity		million yen	664,959	684,584		747,802	798,964	888,496	906,623	961,905	999,569	1,004,340	997,492	1,081,881
Balance of interest-bearing debts		million yen	532,493	541,349		540,199	573,586	633,923	567,164	540,668	503,789	647,465	754,006	785,383
Cash flows from operating activitie	25	million yen	126,399	122,793		129,597	154,225	156,908	281,819	148,801	168,731	65,116	182,892	219,797
Cash flows from investing activities	S	million yen	(82,408)	(107,764)		(116,791)	(175,591)	(110,704)	(144,198)	(137,527)	(110,456)	(204,192)	(232,266)	(198,354)
Cash flows from financing activities	is	million yen	(41,257)	(8,279)		(27,897)	4,163	22,892	(90,716)	(50,530)	(51,591)	85,262	79,272	(1,636)
Cash and cash equivalents at end	of period	million yen	116,230	122,448		109,456	90,359	162,793	209,367	166,912	171,061	115,769	146,813	166,762
Free cash flow (Cash	n flows from operating activities - Cash flows from investing activities)	million yen	43,991	15,028	•••••	12,805	(21,365)	46,204	137,620	11,274	58,274	(139,076)	(49,374)	21,443
Capital expenditures		million yen	69,600	87,171		112,987	124,146	119,398	114,418	88,657	81,716	107,259	131,010	189,454
Per Share information %1														
Earnings per share (EPS)		yen	108.08	108.55		125.99	100.21	184.31	202.64	147.29	90.71	80.80	100.50	194.48
Net assets per share (BPS)		yen	1,596.63	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
Dividends		yen	40.0	40.0		42.5	45.0	47.5	50.0	50.0	50.0	50.0	50.0	52.5
Key Ratios	tin and the Department of the standard of the standard of the standard for the standard for the standard of the		100.015	170 500		170.007	101 105	100.040	000.000	100,400	107 100	150.010	100.040	007 554
	ting profit + Depreciation + Amortization of goodwill + Share of profit of entities accounted for using equity method)	million yen	188,315	176,536		173,927	191,105	199,840	228,883	188,403	167,100	159,916	180,943	227,554
	reholders' equity / Total assets (as of the end of the fiscal year)) rest-bearing debts / Shareholders' equity (as of the end of the fiscal year))	%	46.3 0.80	46.4 0.79		47.7 0.72	47.9 0.72	47.7 0.71	49.5 0.63	51.0 0.56	52.7 0.50	49.5 0.64	46.6 0.76	46.8 0.73
	t attributable to owners of parent / Average shareholders' equity during the fiscal year)	%	6.9	6.7		7.3	5.4	9.1	9.4	6.6	3.8	3.4	4.2	7.8
	it attributable to owners of parent / Average shareholders' equity during the fiscal year)	%	3.1	3.1		3.4	2.6	4.3	4.6	3.3	2.0	1.7	2.0	3.6
•••••••	ual dividends / Earnings per share (EPS))	%	37.0	36.8		33.7	44.9	25.8	24.7	33.9	55.1	61.9	49.8	27.0
Gas sales volume														
		million m <sup>3</sup>	8,560	8,711		8,534	8,554	8,290	8,052	8,694	8,580	7,935	7,362	7,157
Number of employees														
		employees	19,684	19,818		19,870	21,250	20,982	20,844	20,762	19,997	20,224	20,543	20,941

\*1 Calculated in consideration of share consolidation.

\*\* 2 "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.

# [Consolidated Financial Statements and Notes]

[Consolidated Financial Statements] This English integrated report is not subject to an audit by an independent auditor. The following Consolidated Financial Statements and Notes and Annexed Consolidated Detailed Schedule are translated by Osaka Gas Co., Ltd. based on the original one attached in the original Annual Securities Report.

Osaka Gas Co., Ltd. and Consolidated Subsidiaries, the Fiscal Years Ended March 31, 2020 and 2021

# Consolidated Balance Sheet

sets			(million yen)
	Previous Year (As of March 31, 2020)	Current Yea (As of March 31,	
n-current assets			
pperty, plant and equipment			
Production facilities	84,2		89,701
Distribution facilities	264,6	57	268,755
Service and maintenance facilities	55,0	72	53,481
Other facilities	542,1	01	546,456
Construction in progress	68,4	82	112,215
Total property, plant and equipment	± 1, ± 2, ± 3 1,014,5		1,070,610
angible assets	* 1 98,3	22 * 1	97.912

# Investments and other assets

Investment securities	* 4	332,200	* 4	377,074
Long-term loans receivable		25,981		25,686
Retirement benefit asset		44,264		83,494
Deferred tax assets		16,397		25,933
Other		49,526		50,099
Allowance for doubtful accounts		(802)		(800)
Total investments and other assets	<u>*</u> 1	467,568	<b>%</b> 1	561,487
Total non-current assets		1,580,462		1,730,009

Current assets				
Cash and deposits		147,201		167,083
Notes and accounts receivable - trade		210,515		211,696
Lease receivables and investment in leases		47,844		54,634
Inventories	* 5	108,092	* 5	94,187
Other		47,005		56,349
Allowance for doubtful accounts		(640)		(602)
Total current assets	<b>%</b> 1	560,019	¥ 1	583,347
Total assets		2,140,482		2,313,357

Note: Details of %1, 2, 3, 4, 5, and 7 are provided in "Notes to the Consolidated Balance Sheet" on page 89.

# Liabilities

	Ρ	revic
(As	of	Mar

Non-curre	nt liabilities
Bonds	s payable
Long-	term borrowings
Defer	red tax liabilities
Provis	sion for gas holder repairs
Provis	sion for safety measures
Provis	sion for gas appliance warranties
Retire	ement benefit liability
Other	
Total non-	current liabilities
Current lia	bilities

Total liabilities	1,112,815	1,198,759
Total current liabilities	* 1 312,312	* 1 322,784
Other	162,609	162,834
Income taxes payable	19,045	27,514
Notes and accounts payable - trade	59,363	60,453
Current portion of non-current liabilities	71,294	71,981
ourient liabilities		

# Net assets

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)	
Shareholders' equity			
Share capital	132,166	132,166	
Capital surplus	19,483	19,469	
Retained earnings	802,313	861,746	
Treasury shares	(1,802)	(1,852)	
otal shareholders' equity	952,160	1,011,530	

Total liabilities and net assets	2,140,482		2,313,35
Total net assets	1,027,667		1,114,59
Non-controlling interests	30,174		32,710
Total accumulated other comprehensive income	45,332		70,350
Remeasurements of defined benefit plans	8,809		34,028
Foreign currency translation adjustment	10,085		(2,383
Revaluation reserve for land	* 7 (737)	* 7	(737
Deferred gains or losses on hedges	(14,161)		(30,365
Valuation difference on available-for-sale securities	41,336		69,81 <sup>-</sup>
Accumulated other comprehensive income	41.000		6

# (million yen)

ious Year arch 31, 20	20)	Current Yea (As of March 31,	
	289,993		354,995
	363,757		333,263
	21,248		41,845
	1,290		1,138
	9,339		8,892
	13,074		12,195
	17,590		18,758
	84,207		104,886
<b>※</b> 1	800,502	* 1	875,975

(million yen)

# **Consolidated Statement of Income**

				(million yen)
	Previous Year (April 1, 2019 - March 31,	, 2020)	Current Year (April 1, 2020 - March	
Net sales	1,	368,689		1,364,106
Cost of sales	* 1, * 2	961,983	* 1, * 2	921,777
Gross profit		406,705		442,328
Selling, general and administrative expenses	¥ 1, ¥ 3	322,913	<b>※ 1, ※ 3</b>	329,836
Operating profit		83,792		112,491

on-operating income		
Interest income	4,262	2,348
Dividend income	7,070	3,378
Share of profit of entities accounted for using equity method	5,225	13,618
Gain on sales of investment securities in subsidiaries and associates	-	3,694
Miscellaneous income	8,187	9,901
Total non-operating income	24,746	32,941

	Total non-operating expenses	22,520	17,680
	Miscellaneous expenses	10,327	6,593
	Interest expenses	12,192	11,087
N	Ion-operating expenses		

|--|

Extraordinary losses				
Impairment losses	* 4	15,568	* 4	19,016
Total extraordinary losses		15,568		19,016
Profit before income taxes		70,449		108,735
Income taxes - current		23,451		33,302
Income taxes - deferred		4,056		(8,410)
Total income taxes		27,507		24,891
Profit		42,942		83,844
Profit attributable to non-controlling interests		1,153		2,986
Profit attributable to owners of parent		41,788		80,857

Note: Details of %1, 2, 3, and 4 are provided in "Notes to the Consolidated Statement of Income" on page 90.

# **Consolidated Statement of Comprehensive Income**

	Previ (April 1, 2019 -
Profit	
Other comprehensive income	
Valuation difference on availal	ble-for-sale securities
Deferred gains or losses on he	edges
Foreign currency translation a	adjustment
Remeasurements of defined b	
Share of other comprehensive in	come of entities accounted for using equity method
Total other comprehensive inc	come
Comprehensive income	
(Breakdown)	
Comprehensive income attrib	utable to owners of parent
Comprehensive income attrib	utable to non-controlling interests

Note: Details of %1 are provided in "Notes to the Consolidated Statement of Comprehensive Income" on page 91.

# **Consolidated Statement of Changes in Equity**

									•	<b>,</b>		(	million yen)
		Share	eholders' e	equity		A	ccumulate	ed other c	omprehen	sive incom	ie		
	Share capital		Retained earnings		Total shareholders' equity	Valuation difference on available-for- sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Fiscal year ended March 31	, 2020 (Ap	ril 1, 2019	- March 3	31, 2020)									
Balance at beginning of period	132,166	19,222	782,523	(1,744)	932,167	50,617	(4,007)	(737)	11,189	15,110	72,172	30,704	1,035,044
Cumulative effects of changes in accounting policies			(1,208)		(1,208)	1,215					1,215		-
Restated balance	132,166	19,222	781,314	(1,744)	930,959	51,833	(4,007)	(737)	11,189	15,110	73,388	30,704	1,035,05
Changes during period													
Dividends of surplus			(20,790)		(20,790)								(20,790
Profit attributable to owners of parent			41,788		41,788								41,788
Purchase of treasury shares				(60)	(60)								(60
Disposal of treasury shares		(0)		2	2								2
Change in ownership interest of parent due to transactions with non-controlling interests		260			260								260
Net changes in items other than shareholders' equity						(10,496)	(10,154)		(1,104)	(6,300)	(28,055)	(530)	(28,585
Total changes during period	_	260	20,998	(57)	21,201	(10,496)	(10,154)		(1,104)	(6,300)	(28,055)	(530)	(7,384
Balance at end of period	132,166	19,483	802,313	(1,802)	952,160	41,336	(14,161)	(737)	10,085	8,809	45,332	30,174	1,027,667
Fiscal year ended March 31	, 2021 (Ap	ril 1, 2020	) - March 3	31, 2021)									
Balance at beginning of period	132,166	19,483	802,313	(1,802)	952,160	41,336	(14,161)	(737)	10,085	8,809	45,332	30,174	1,027,66
Changes during period													
Dividends of surplus			(20,788)		(20,788)								(20,788
Profit attributable to owners of parent			80,857		80,857								80,857
Purchase of treasury shares				(52)	(52)								(52
Disposal of treasury shares		(0)		2	2								2
Change in scope of equity method			(635)		(635)								(635
Change in ownership interest of parent due to transactions with non-controlling interests		(13)			(13)								(13
Net changes in items other than shareholders' equity						28,474	(16,203)		(12,468)	25,215	25,018	2,541	27,560
Total changes during period	_	(13)	59,433	(49)	59,369	28,474	(16,203)	-	(12,468)	25,215	25,018	2,541	86,930
Balance at end of period	132,166	19,469	861,746	(1,852)	1,011,530	69,811	(30,365)	(737)	(2,383)	34,025	70,350	32,716	1,114,597

(million yen)

vious Year 9 - March 31, 2020) Current Year (April 1, 2020 - March 31, 2021) 42,942 83,844 (10,455) 28,421 (1,442) (10,143) (1,638) (13,730) (6,189) 25,536 (8,219) (5,204) ж1 (27,945) **※**1 24,879 14,996 108,723 105,876 13,728 1,268 2,847

# **Consolidated Statement of Cash Flows**

(Api	Previous Year ril 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
h flows from operating activities		
Profit before income taxes	70,449	108,73
Depreciation	91,925	101,44
Amortization of long-term prepaid expenses	5,159	5,10
Impairment losses	15,568	19,01
Decrease (increase) in retirement benefit asset	(3,511)	(3,360
Interest and dividend income	(11,332)	(5,72)
Interest expenses	12,192	11,08
Share of loss (profit) of entities accounted for using equity method		(13,61
Loss (gain) on sales of investment securities in subsidiaries and as	sociates 411	(3,69
Decrease (increase) in trade receivables	12,239	(1,20
Decrease (increase) in inventories	4,014	26,11
Increase (decrease) in trade payables	664	1,20
Increase (decrease) in accrued expenses	3,316	(12
Other, net	512	(5,33
Subtotal	196,384	239,63
Interest and dividends received	21,844	15,46
Interest paid	(12,280)	(11,37
Income taxes paid	(23,056)	(23,92
Net cash provided by (used in) operating activities	182,892	219,79

# Cash flows from investing activities

Purchase of property, plant and equipment	(117,574)	(	169,607)
Purchase of intangible assets	(9,173)		(13,148)
Purchase of long-term prepaid expenses	(9,045)		(6,320)
Purchase of investment securities	(7,997)		(7,088)
Purchase of shares of subsidiaries and associates	(22,965)		(6,309)
Purchase of shares of subsidiaries resulting in change in scope of consolidation	× 2 (63,350)	* 2	(5,914)
Proceeds from sale of shares of subsidiaries resulting in change in scope of consolidation	558		9,096
Payments for sales of shares of subsidiaries resulting in change in scope of consolidation	-		(373)
Other, net	(2,719)		1,311
Net cash provided by (used in) investing activities	(232,266)	(	198,354)

# Cash flows from financing activities

Cash hows north intal citig activities			
Net increase (decrease) in short-term borrowings	(2,579)		(14,659)
Net increase (decrease) in commercial papers	(46,000)		—
Proceeds from long-term borrowings	44,170		35,946
Repayments of long-term borrowings	(47,418)		(44,572)
Proceeds from issuance of bonds	175,000		75,000
Redemption of bonds	(20,000)		(30,000)
Proceeds from share issuance to non-controlling shareholders	240		206
Dividends paid	(20,799)		(20,793)
Dividends paid to non-controlling interests	(1,165)		(749)
Other, net	(2,174)		(2,013)
Net cash provided by (used in) financing activities	79,272		(1,636)
Effect of exchange rate change on cash and cash equivalents	1,145	i de la companya de l	838
Net increase (decrease) in cash and cash equivalents	31,043	i	20,644
Cash and cash equivalents at beginning of period	115,769		146,813
Decrease in cash and cash equivalents resulting from exclusion of subsidiaries from consolidat	ion —		(695)
Cash and cash equivalents at end of period	×1 146,813	*	1 166,762

Note: Details of %1 and 2 are provided in "Notes to the Consolidated Statement of Cash Flows" on page 93.

# [Notes]

(million ven)

# Significant Accounting Policies for Preparation of Consolidated Financial Statements

# 1. Scope of consolidation

Number of consolidated subsidiaries:

156 (Previous fiscal year), 154 (Current fiscal year) The names of consolidated subsidiaries are omitted as they are stated in "Group Companies" on page 115.

The Company has acquired shares in GlobalBase Corporation, RenoBase Design Corporation, Osaka Gas Three Rivers, LLC, PaletteCloud Inc., Finex Oy, Kiinteisto Oy Kotkan Huumantie 5, and Shikoku Central Energy K.K., making them the new subsidiaries of the Company. As a result, those subsidiaries are included as consolidated

# 2. Application of the equity method

Number of equity method affiliates:

23 (Previous fiscal year), 27 (Current fiscal year) The names of equity method affiliates are omitted as they are stated

in "Group Companies" on page 115. The Company has acquired equity in TOPS Pipeline, LLC and CPV Three Rivers, LLC. As a result, they are included as equity method affiliates from the current fiscal year. Fukushima Gas Power Co., Ltd. and Ichihara Biomass Power Co., Ltd. are included as equity method affiliates from the current fiscal year due to their increased importance. The silent partnership where GK Aomori Wind Power is the operator is included as an equity method affiliate from the current fiscal year because the Company invested in the silent partnership.

# 3. Fiscal year, etc. of consolidated subsidiaries

Consolidated subsidiaries whose fiscal year-ends are different from the consolidated fiscal year-end are Osaka Gas Australia Pty Ltd, Osaka Gas Gorgon Pty Ltd, Osaka Gas Ichthys Pty Ltd, Osaka Gas Ichthys Development Pty Ltd, Osaka Gas UK, Ltd., Osaka Gas USA Corporation and other companies, totaling 85 companies. Of the consolidated subsidiaries whose fiscal year-ends are different from the consolidated fiscal year-end, GlobalBase

# 4. Accounting policies

# (1) Basis and methodology for the valuation of significant assets

(1) Inventories

Primarily stated at cost based on the moving-average method Inventories held for trading recorded on the balance sheet are depreciated to write down the carrying amount based on depreciation of profitability.

(2) Investment securities

Bonds held to maturity Stated at amortized cost

Other securities

Securities for which it is practical to determine fair value Stated at fair value based on the market price, etc. at the fiscal vear-end (unrealized valuation gains and losses are accounted for as a component of net assets; cost of sales is determined primarily using the moving-average method.) Securities for which it is not practical to determine fair value Primarily stated at cost based on the moving-average method

③ Derivatives

Stated at fair value

# (2) Depreciation and amortization method of significant depreciable assets

① Property, plant and equipment (excluding leased assets)

Primarily the declining-balance method However, the straight-line method has been used for buildings (excluding facilities attached to buildings) acquired on or after April 1, 1998 and for facilities attached to buildings and structures acquired on or after April 1, 2016.

subsidiaries of the Company from the current fiscal year.

OGCTS CO., LTD. (merged into Daigas Energy Co., Ltd.), Gas and Power Co., Ltd. (merged into Daigas Gas and Power Solution Co., Ltd.), Osaka Gas Engineering Co., Ltd. (merged into Daigas Gas and Power Solution Co., Ltd.), Osaka Gas Resources Canada Ltd. (sold), OG Road Co., Ltd. (liquidated), Osaka Gas Niugini Pty Ltd (sold), Osaka Gas Niugini E&P Pty Ltd (sold), OJV Cayman 4 Limited (liquidated), and OJV Cayman 6 Limited (liquidated) are no longer consolidated subsidiaries of the Company from the current fiscal year.

Aurora Solar Holdings Corporation (sold) is excluded as an equity method affiliate from the current fiscal year.

A major affiliate for which the equity method is not applied is ENNET Corporation

With regard to affiliates for which the equity method is not applied, their impact on profit or loss and retained earnings, etc. for the current fiscal year is not significant and immaterial on the whole. Therefore, investments in those affiliates are measured at cost.

When the fiscal year-end of equity method affiliates is different from the consolidated fiscal year-end, the financial statements for the fiscal year of such affiliates are used.

Corporation and RenoBase Design Corporation have a fiscal yearend of February 28, and the other consolidated subsidiaries have a fiscal year-end of December 31. However, since the difference between those dates and the consolidated fiscal year-end (March 31) does not exceed 3 months, the consolidated financial statements are prepared using their financial statements as of their fiscal vear-end.

Intangible assets (excluding leased assets)

Primarily the straight-line method

For internal-use software, the straight-line method based on the term available for use within the Company and each subsidiary has been applied.

③ Leased assets

Leased assets resulting from non-ownership-transfer finance leases The straight-line method over the useful life equal to the lease terms assuming no residual value

# (3) Basis for recording significant allowances

1 Allowance for doubtful accounts

To provide for the bad debts loss of accounts receivable, loans receivable, etc., an estimated uncollectible amount is provided by considering the default ratio in the past for general receivables and the individual collectability for certain receivables including receivables with default possibility.

2 Provision for gas holder repairs

To provide for the necessary expenditure for periodical repairs of spherical gas holders, an estimated amount for the next scheduled repair is provided based on the actual expenditure for the previous repair, which is proportionally allotted for the period up to such next scheduled repair.

③ Provision for safety measures

To provide for the necessary expenditure to ensure the safety of the gas business, an estimated amount of the expenditure necessary for promoting the widespread use of safety-enhanced models, for strengthening inspections and ensuring increased awareness as well as for countermeasure works on aged gas pipelines is provided.

# (4) Provision for gas appliance warranties

To provide for the payment of any service costs under warranty after the sale of appliances, an estimated amount of such costs is provided.

# (4) Accounting for retirement benefits

① Method for attributing projected retirement benefits to periods of service

In calculating retirement benefit obligations, the benefit formula basis is mainly applied to attribute projected retirement benefits to periods of service until the end of this consolidated fiscal year.

# (2) Method for recognizing actuarial gains and losses and past service costs

Past service costs are expensed mainly in the fiscal year when such costs are incurred. Actuarial gains and losses are amortized on a straight-line basis mainly over a period of 10 years beginning from the next fiscal year after each occurrence.

# (5) Criteria for translating significant assets or liabilities denominated in foreign currencies into Japanese currency

Assets and liabilities of overseas subsidiaries are translated into Japanese ven at the spot exchange rate as of the fiscal year-end. Revenues and expenses of overseas subsidiaries are translated into Japanese yen at the average exchange rate during the fiscal year. The resulting translation differences are included in foreign currency translation adjustment and non-controlling interests in net assets.

# (6) Significant hedge accounting method

# (1) Hedge accounting method

Deferred hedge accounting is adopted. When applicable requirements are met, exceptional accounting for interest rate swaps and allocation accounting for forward exchange contracts, etc. are adopted.

# (2) Hedging instruments and hedged items

- Hedging instruments · Interest rate swaps
  - · Forward exchange contracts or currency options
  - Loans payable denominated in foreign currencies
  - Swaps and options on energy prices, etc.
- Hedged items · Bonds, loans payable
  - · Forecast transactions denominated in foreign currencies (purchase prices of raw materials, etc.)
  - Interests in overseas subsidiaries and associates
  - · Purchase prices of raw materials, etc.

# Significant Accounting Estimates

# 1 Impairment of property, plant and equipment, intangible assets, and investment in entities accounted for using equity method

# (1) Amounts recorded on the consolidated financial statements for this consolidated fiscal year

	(million yen)
	Fiscal year ended March 31, 2021
Property, plant and equipment	1,070,610
Intangible assets	97,912
Investment in entities accounted for using equity method	210,091

# (2) Information on details of significant accounting estimates for identified items

The Company and its consolidated subsidiaries assess whether there is any indication of impairment of property, plant and equipment and intangible assets. If there is any indication, they conduct an impairment test. For investments in equity method affiliates, the Company and its consolidated subsidiaries assess whether there is any indication of impairment, and if there is any indication, they conduct an impairment test. The Company and its consolidated subsidiaries estimate future cash flows and discount rates for calculating their present value as the basis for calculating the recoverable amount, etc.

In the event that the recoverable amount, etc. deteriorates due to a decline in profit/loss or cash flows from future operating activities or an increase in the discount rate caused by factors such as a decline in energy prices such as crude oil prices, it may be necessary to record impairment losses.

During the current fiscal year, Osaka Gas Australia Pty Ltd ("Osaka Gas Australia") recognized an indication of impairment on LNG Development Project, in which it had invested, due to the low level of crude oil prices and conducted an impairment test. Having found that the recoverable amount was less than the carrying amount, Osaka Gas Australia recorded impairment losses of ¥14,208 million. (Reference) Amount recorded on the balance sheet of Osaka Gas Australia (seven consolidated companies) for the current fiscal year: Property, plant and equipment and intangible assets ¥106,474 million

# ③ Hedging policy

The Group hedges foreign exchange rate and interest rate risk based on its internal rules. Derivative transactions are not entered into unless they are backed by actual demand.

(4) Method for assessing the hedge effectiveness

Hedge effectiveness is assessed by identifying the corresponding relationship between hedging instruments and hedged items.

# (7) Method and period for amortization of goodwill

Goodwill is amortized on a straight-line basis over its estimated useful life within 20 years after initial recognition; provided, however, that immaterial goodwill is recognized as income or expense in full upon acquisition.

# (8) Scope of funds in the consolidated statement of cash flows

Funds stated in the consolidated statement of cash flows (cash and cash equivalents) comprise cash on hand, demand deposits and short-term investments that are readily convertible and subject to an insignificant risk of changes in value with original maturities of three months or less.

# (9) Other significant matters on the preparation of the consolidated financial statements

(1) Accounting for consumption taxes

Transactions subject to consumption taxes are recorded at amounts exclusive of consumption taxes.

(2) Accounting policies and procedures adopted in the absence of requirements in relevant accounting standards, etc. that specifically apply to events or transactions that are accounted for Basis for recording significant revenue and expenses

Revenue from gas and electricity sales is recorded based on the meter reading date, in which gas or electricity usage is measured in a monthly meter reading and the calculated fees are recognized as revenue for that month.

# 2 Collectability of deferred tax assets

# (1) Amounts recorded on the consolidated financial statements for this consolidated fiscal year

The amount of deferred tax assets is the same as the amount stated in "Consolidated Financial Statements and Notes, Consolidated Financial Statements, Notes (Tax Effect Accounting), 1 Breakdown of major causes for deferred tax assets and deferred tax liabilities.

# (2) Information on details of significant accounting estimates for identified items

For tax loss carryforwards, tax deductions, and deductible temporary differences, the Company and its consolidated subsidiaries recognize deferred tax assets only for those highly likely to reduce future taxable income. The Company and its consolidated subsidiaries estimate the amount of taxable income expected to be generated in the future and the timing of such generation based on business plans, etc. In the event that the expected future taxable income has not been generated, the

deferred tax assets recorded may not be collected and tax expenses may increase.

# 3 Calculation of retirement benefit obligations

(1) Amounts recorded on the consolidated financial statements for this consolidated fiscal year

-	(million yen)

Fiscal year ended March 31, 2	
Retirement benefit asset	83,494
Retirement benefit liability	18,758
Remeasurements of defined benefit pla	ans 34,025

# (2) Information on details of significant accounting estimates for identified items

The Company and its consolidated subsidiaries have adopted funded and unfunded defined benefit plans and defined contribution plans for the purpose of providing retirement benefits to employees. The defined benefit plan obligations and defined benefit expenses as of the end of the current fiscal year are recorded based on actuarial assumptions for pensions such as discount rate, retirement rate, mortality rate, and longterm expected rate of return.

If the actual results differ from these assumptions, or if there is a change in the assumptions, the retirement benefit obligations and expenses of the Company and its consolidated subsidiaries may be affected.

# Changes in Accounting Policies

# (Accounting standards, etc. not yet applied)

- "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29; March 31, 2020)
- "Implementation Guidance on Accounting Standard for Revenue Recognition"
- (ASBJ Guidance No. 30; March 26, 2021)

# (1) Summarv

These are comprehensive accounting standards on revenue recognition. Revenue is recognized by applying the following five-step approach:

- Step 1: Identify the contracts with customers
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price Step 4: Allocate the transaction price to the performance
- obligations in the contract Step 5: Recognize revenue when (or as) the entity satisfies a
- performance obligation

# (2) Scheduled date of application

Effective from the beginning of the fiscal year ending March 31, 2022.

# (3) Effects of application

In the process of measuring the effects at the time of preparing the accompanying consolidated financial statements.

- "Accounting Standard for Fair Value Measurement" (ASBJ Statement No. 30; July 4, 2019)
- · "Implementation Guidance on Accounting Standard for Fair Value Measurement"
- (ASBJ Guidance No. 31; July 4, 2019)

# Changes in Presentation

# 1 Application of "Accounting Standard for Disclosure of Accounting Estimates"

The Company has applied the "Accounting Standard for Disclosure of Accounting Estimates" (ASBJ Statement No. 31; March 31, 2020) from the consolidated financial statements for the current consolidated fiscal year-end, and notes regarding significant accounting estimates are included in the consolidated financial statements.

However, in accordance with the transitional treatment set forth in the provisions of Paragraph 11 of said accounting standard, the details for the previous consolidated fiscal year are not included in said notes.

# 2 Notes to the Consolidated Balance Sheet

"Deferred tax assets" included in "other" under "investments and other assets" for the previous fiscal year are stated as a separate item from the current fiscal year due to increased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, "other" under "investments and other assets" in the consolidated balance sheet for the previous fiscal year is reclassified into "deferred tax assets" of ¥16,397 million and "other" of ¥49.526 million.

"Deferred tax liabilities" included in "other" under "non-current liabilities" for the previous fiscal year are stated as a separate item from the current fiscal year due to increased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, "other" under "non-current liabilities" in the consolidated balance sheet for the previous fiscal year is reclassified into "deferred tax liabilities" of ¥21,248 million and "other" of ¥84,207 million.

"Income taxes payable" included in "other" under "current liabilities" for the previous fiscal year are stated as a separate item from the current fiscal year due to increased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, "other" under "current liabilities" in the consolidated balance sheet for the previous fiscal year is reclassified into "income taxes payable" of ¥19,045 million and "other" of ¥162.609 million.

- "Accounting Standard for Measurement of Inventories" (ASBJ Statement No. 9; July 4, 2019)
- "Accounting Standard for Financial Instruments" (ASBJ Statement No. 10; July 4, 2019)
- "Implementation Guidance on Disclosures about Fair Value of Financial Instruments' (ASBJ Guidance No. 19; March 31, 2020)

# (1) Summary

In order to increase comparability with rules of international accounting standards, the "Accounting Standard for Fair Value Measurement" and "Implementation Guidance on Accounting Standard for Fair Value Measurement" ("Fair Value Measurement Standards") have been developed, defining guidance, etc., on methods for fair value measurement. The Fair Value Measurement Standards will be applied to fair values of the following items.

- Financial instruments in "Accounting Standard for Financial Instruments"
- Inventories held for the purpose of trading in "Accounting Standard for Measurement of Inventories'

In addition, the "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" has been revised to stipulate notes for each level of fair value for financial instruments, including breakdowns.

# (2) Scheduled date of application

Effective from the beginning of the fiscal year ending March 31, 2022

# (3) Effects of application

In the process of measuring the effects at the time of preparing the accompanying consolidated financial statements.

# 3 Notes to the Consolidated Statement of Cash Flows

"Loss (gain) on sales of investment securities in subsidiaries and associates" included in "other, net" under cash flows from operating activities for the previous fiscal year is stated as a separate item from the current fiscal year due to increased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, ¥411 million presented in "other, net" under cash flows from operating activities in the previous fiscal year's consolidated statement of cash flows is reclassified into "loss (gain) on sales of investment securities in subsidiaries and associates.

"Increase (decrease) in accrued consumption taxes." stated as a separate item under cash flows from operating activities for the previous fiscal year, is included in "other, net" under cash flows from operating activities from the current fiscal year due to decreased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, ¥4,568 million presented in "increase (decrease) in accrued consumption taxes" in the previous fiscal year's consolidated statement of cash flows is reclassified into "other, net" under cash flows from operating activities.

"Long-term loan advances," stated as a separate item under cash flows from investing activities for the previous fiscal year, is included in "other, net" under cash flows from investing activities from the current fiscal year due to decreased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, ¥(5,443) million presented in "long-term loan advances" in the previous fiscal year's consolidated statement of cash flows is reclassified into "other. net" under cash flows from investing activities. "Net increase (decrease) in short-term borrowings" included in "other, net" under cash flows from financing activities for the previous fiscal vear is stated as a separate item from the current fiscal year due to increased materiality. The previous fiscal year's consolidated financial statements are reclassified to reflect this change in presentation.

As a result, ¥(2,579) million presented in "other, net" under cash flows from financing activities in the previous fiscal year's consolidated statement of cash flows is reclassified into "net increase (decrease) in short-term borrowings."

The Company has applied the "Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections" (ASBJ Statement No. 24; March 31, 2020) from the consolidated financial statements for the current consolidated fiscal year-end, and disclosed "accounting policies and procedures adopted in the absence of requirements in relevant accounting standards, etc. that

specifically apply to events or transactions that are accounted for." For details, please refer to "Consolidated Financial Statements and Notes, Consolidated Financial Statements, Notes (Significant Matters Forming the Basis of Preparation of the Consolidated Financial Statements), 4 Accounting policies, (9) Other significant matters on the preparation of the consolidated financial statements."

# Notes to the Consolidated Balance Sheet

# %1 Assets pledged as collateral and liabilities with collateral

Assets pledged as collateral are as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Other facilities	125,258 million yen	102,770 million yen
Investment securities	92,135	94,397
Intangible assets	39,445	34,073
"Other" under investments and other assets	33,116	28,769
Cash and deposits	18,628	22,421
Other	9,107	14,395
Total	317,691	296,828

In addition to the above, shares of subsidiaries and affiliates, etc. of ¥27,481 million for the previous fiscal year and ¥25,044 million for the current fiscal year, which were offset as a result of consolidation, were pledged as collateral.

### Liabilities with collateral are as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Long-term borrowings	73,006 million yen	96,984 million yen
(current portion thereof	1,347	2,603 )
Short-term borrowings	499	255
Other	100	100
Total	73,605	97,339

# %2 Accumulated advanced depreciation deducted from the acquisition cost of assets related to contribution for construction, etc. is as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Production facilities	826 million yen	826 million yen
Distribution facilities	262,736	263,561
Service and maintenance facilities	719	640
Other facilities	5,908	6,587
Total	270,190	271,616

# %3 Accumulated depreciation of property, plant and equipment is as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Accumulated depreciation of property, plant and equipment	2,704,741 million yen	2,754,029 million yen

# %4 Items for affiliates are as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)	
Investment securities (stock)	229,227 million yen	229,618 million yen	
(including investments in joint ventures	127,661	124,817 )	

# %5 The breakdown of inventories is as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Merchandise and finished goods	21,579 million yen	34,583 million yen
Work in process	8,965	11,982
Raw materials and supplies	77,548	47,621

# %6 Contingent liabilities

(1) Guarantees and quasi-guarantees for bank loans, etc. to companies other than consolidated companies are as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Aichi Tahara Biomass Power Plant G.K.	— million yen	2,257 million yen
Ruwais Power Company PJSC	1,086	1,139
Ichthys LNG Pty Ltd	1,396	719
Fukushima Gas Power Co., Ltd.	4,600	_
Aurora Solar Corporation	1,147	_
Other	1,138	507
Total	9,368	4,624

# %7 Revaluation reserve for land

Commercial land of certain consolidated subsidiaries has been revalued in accordance with the Act on Revaluation of Land (Law No. 34 of March 31, 1998) and the Amendment to Act on Revaluation of Land (Law No. 19 of March 31, 2001). Any difference (excluding any amount associated with tax effect accounting) resulting from the revaluation is included in net assets as revaluation reserve for land.

# Notes to the Consolidated Statement of Income

# **%1**

# Previous Year (April 1, 2019 - March 31, 2020)

The R&D expenses included in "Selling, general and administrative expenses" and in the manufacturing expenses for the fiscal year are ¥10,174 million.

# %2 The balance of inventories at the end of the fiscal year is an amount after write-down of the carrying amount due to decreased profitability, and the following loss on valuation of inventories is included in cost of sales.

Previous Year (April 1, 2019 - March 31, 2020)	
1,289 million yen	

# %3 The major expense items and amounts thereof are as follows:

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Salaries	45,736 million yen	49,515 million yen
Retirement benefit expenses	(1,014)	(633)
Provision for gas holder repairs	137	144
Provision of allowance for safety measures	-	1,844
Provision of allowance for doubtful accounts	574	234
Depreciation	47,983	48,672
Consigned work expenses	64,413	65,563

# %4 Impairment losses

# Previous Year (April 1, 2019 - March 31, 2020)

# (1) Concept of grouping

① All non-current assets used in operating the gas business from production to sales of gas are categorized into one asset group as these assets generate cash flows from the gas business in an integrated manner.

(1) Method for revaluation

The revaluation is made by making reasonable adjustments to the valuation by road rating which is provided for in Article 2, Item 4 of the Enforcement Order of the Law Concerning the Revaluation of Land (Cabinet Order No. 119 of March 31, 1998).

(2) Date of revaluation March 31, 2002

Current Year (April 1, 2020 - March 31, 2021)

The R&D expenses included in "Selling, general and administrative expenses" and in the manufacturing expenses for the fiscal year are ¥9,440 million.

> Current Year (April 1, 2020 - March 31, 2021) 30 million yen

- (2) Non-current assets used for businesses other than those described above are generally categorized into groups based on business divisions controlling such non-current assets.
- ③ Generally, other non-current assets are treated individually.

# (2) Details of impairment losses

In accordance with the grouping described in (1) above, impairment losses of ¥15,568 million were recognized. Significant losses included in this are as follows:

	Asset	Location	Туре	Impairment losses (million yen)
		Northern Territory of Australia / East Timor	Intangible assets	10,036
Property for business use	Property for business use	Northern Territory of Australia	Property, plant and equipment	2,524
			Intangible assets	1,909
			Total	4,434

These properties were acquired for the purpose of participating in the gas and condensate development business. The Company reassessed the business value, taking into account the effects of reviewing the development plan and other matters, and accordingly the carrying amount of the assets was reduced to their recoverable amount, and the reduction was recorded as impairment losses in extraordinary losses.

The recoverable amount of these assets was measured at net sale value determined based on reasonable estimates in consideration of past transactions, etc., or market value.

# Current Year (April 1, 2020 - March 31, 2021)

# (1) Concept of grouping

- ① All non-current assets used in operating the gas business from production to sales of gas are categorized into one asset group as these assets generate cash flows from the gas business in an integrated manner.
- (2) Non-current assets used for businesses other than those described above are generally categorized into groups based on business divisions controlling such non-current assets.
- ③ Generally, other non-current assets are treated individually.

# (2) Details of impairment losses

In accordance with the grouping described in (1) above, impairment losses of ¥19,016 million were recognized. Significant losses included in this are as follows:

	Asset	Location	Туре	Impairment losses (million yen)
Property for business use		Property, plant and equipment	12,271	
	Western Australia of Australia	Intangible assets	1,937	
			Total	14,208

These assets were acquired for projects such as refining, liquefying and selling natural gas produced in the region. The Company reassessed the business value, taking into account the effects of factors such as the decline in crude oil prices, and accordingly, the carrying amount of the assets was reduced to

their recoverable amounts, and the reduction was recorded as impairment losses in extraordinary losses.

The recoverable amount of these assets was measured by value in use, which is calculated by discounting future cash flows at 9.6% or 11.5%.

# Notes to the Consolidated Statement of Comprehensive Income

%1 Reclassification adjustments and tax effects related to other comprehensive income

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Valuation difference on available-for-sale securities		
Incurred in the fiscal year	(14,537) million yen	39,760 million yen
Reclassification adjustments	168	(102)
Before tax effect adjustments	(14,368)	39,658
Tax effect	3,913	(11,236)
Valuation difference on available-for-sale securities	(10,455)	28,421
Deferred gains or losses on hedges		
Incurred in the fiscal year	244 million yen	(10,873) million yen
Reclassification adjustments	604	(1,407)
Before tax effect adjustments	848	(12,280)
Tax effect	(2,290)	2,137
Deferred gains or losses on hedges	(1,442)	(10,143)
Foreign currency translation adjustment		
Incurred in the fiscal year	(2,317) million yen	(13,526) million yen
Reclassification adjustments	679	(204)
Before tax effect adjustments	(1,638)	(13,730)
Tax effect	_	—
Foreign currency translation adjustment	(1,638)	(13,730)

Remeasurements of defined benefit plans		
Incurred in the fiscal year	(5,171) million yen	38,404 million yen
Reclassification adjustments	(3,438)	(2,915)
Before tax effect adjustments	(8,609)	35,488
Tax effect	2,420	(9,951)
Remeasurements of defined benefit plans	(6,189)	25,536
Share of other comprehensive income of entities accounted	for using equity method	
Incurred in the fiscal year	(10,018) million yen	(8,177) million yen
Reclassification adjustments	1,798	2,972
Share of other comprehensive income of entities accounted for using equity method	(8,219)	(5,204)
Total other comprehensive income	(27,945)	24,879

Remeasurements of defined benefit plans		
Incurred in the fiscal year	(5,171) million yen	38,404 million yen
Reclassification adjustments	(3,438)	(2,915)
Before tax effect adjustments	(8,609)	35,488
Tax effect	2,420	(9,951)
Remeasurements of defined benefit plans	(6,189)	25,536
Share of other comprehensive income of entities accounted Incurred in the fiscal year	for using equity method (10,018) million yen	(8,177) million yen
Reclassification adjustments	1,798	2,972
Share of other comprehensive income of entities accounted for using equity method	(8,219)	(5,204)

# Notes to the Consolidated Statement of Changes in Equity

Previous Year (Apri	l 1, 2019 - March	31, 2020)						
1 Matters on shares issued	and outstanding							
Type of shares	As of April 1, 2	2019	Increase	Decrease	As of March 31, 2020			
Common shares (thousand shares)		416,680	-	-	- 416,680			
2 Matters on treasury shares Type of shares As of April 1, 2019 Increase Decrease As of March 31, 2020								
Common shares (thousand shares)	-	867	29		1 895			
(Overview of reasons for change)     Increase by repurchase of fractional shares     29 thousand shares								
The major reason for degree	co ic ac followe:	Doorooco by	disposal of fractional sh	aroc	1 thousand shares			

The major reason for deareas		Deereese		1 thousand shares		
The major reason for increas	e is as follows:	Increase by repurchase of fractional shares			29 thousand shares	
(Overview of reasons for cha	nge)					
Common shares (thousand shares)		867	29		1	895
Type of shares	As of April 1,	2019	Increase	Decrease		As of March 31, 2020
2 Matters on treasury share	S					
Common shares (thousand shares)		416,680	_		_	416,680
Type of shares	As of April 1,	2019	Increase	Decrease		As of March 31, 2020
T Watters off shares issued	and outotailaing					

T Matters on shares issued and outstanding									
Type of shares	As of April 1, 2	019	Increase	Decrease		As of March 31, 2020			
Common shares (thousand shares)	416,680		_		-	416,680			
2 Matters on treasury shares									
Type of shares	As of April 1, 2	019	Increase	Decrease		As of March 31, 2020			
Common shares (thousand shares)		867	29		1	895			
(Overview of reasons for change)         The major reason for increase is as follows:       Increase by repurchase of fractional shares       29 thousand shares									
The major reason for decrea	se is as follows:	Decrease by disposal of fractional shares			1	1 thousand shares			

# 3 Matters on subscription rights to shares, etc.

Not applicable.

# 4 Matters on dividends

# (1) Dividends paid

Resolution	Type of shares	Total dividends paid (million yen)	Dividends per share (yen)	Record date	Effective date
Annual General Meeting of Shareholders held on June 20, 2019	Common shares	10,395	25.00	March 31, 2019	June 21, 2019
Board of Directors' Meeting held on October 29, 2019	Common shares	10,394	25.00	September 30, 2019	November 29, 2019

# (2) Of the dividends whose record date belongs to the fiscal year, the dividends whose effective date falls in the following fiscal year

Resolution	Type of shares	Total dividends paid (million yen)	Dividends per share (yen)	Record date	Effective date	Source of dividends
Annual General Meeting of Shareholders held on June 26, 2020	Common shares	10,394	25.00	March 31, 2020	June 29, 2020	Retained earnings

Matters on shares issued	and outstanding					
Type of shares	As of April 1, 2	2020	Increase	Decrease		As of March 31, 2021
Common shares(thousand shares)		416,680	-		-	416,68
Matters on treasury share						
Type of shares	As of April 1, 2	2020	Increase	Decrease		As of March 31, 2021
Common shares (thousand shares)		895	25		1	92
(Overview of reasons for cha The major reason for increas	0,	Increase	by repurchase of fractional s	shares	25 1	thousand shares
The major reason for decrease is as follows:		Decrease by disposal of fractional shares			1 thousand shares	

Not applicable.

# 4 Matters on dividends

# (1) Dividends paid

Resolution	Type of shares	Total dividends paid (million yen)	Dividends per share (yen)	Record date	Effective date
Annual General Meeting of Shareholders held on June 26, 2020	Common shares	10,394	25.00	March 31, 2020	June 29, 2020
Board of Directors' Meeting held on October 29, 2020	Common shares	10,394	25.00	September 30, 2020	November 30, 2020

# (2) Of the dividends whose record date belongs to the fiscal year, the dividends whose effective date falls in the following fiscal year

Resolution	Type of shares	Total dividends paid (million yen)	Dividends per share (yen)	Record date	Effective date	Source of dividends
Annual General Meeting of Shareholders held on June 25, 2021	Common shares	11,433	27.50	March 31, 2021	June 28, 2021	Retained earnings

# Notes to the Consolidated Statement of Cash Flows

# %1 The relationship between the balance of cash and cash equivalents at end of period and the amount of cash and deposits in the consolidated balance sheet is as follows:

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Cash and deposits	147,201 million yen	167,083 million yen
Time deposits with more than 3 months to maturity	(388)	(320)
Cash and cash equivalents	146,813	166,762

# %2 Primary components of assets and liabilities of companies that newly became consolidated subsidiaries through acquisition of shares

# Previous Year (April 1, 2019 - March 31, 2020)

The following are components of assets and liabilities at the time of commencing consolidation following the new consolidation of Sabine Oil & Gas Corporation ("Sabine") through acquisition of shares, as well as the relationship between the acquisition cost of shares in Sabine and the expenditures (net) associated with acquiring Sabine.

Current assets	4,765 million yen
Non-current assets	70,092
Current liabilities	(8,558)
Non-current liabilities	(3,263)
Cost of share acquisition	63,036
Cash and cash equivalents	(733)
Foreign currency translation adjustment	(374)
Balance: Expenditures associated with acquisition of shares	61,929

# Current Year (April 1, 2020 - March 31, 2021)

This information is omitted due to lack of materiality.

# Notes to Leases

# 1 Finance lease transactions

# (As lessor)

(1) Breakdown of lease investment assets (Current assets)

	(As of March 31, 2020)	
Lease payments receivable component	46,292 million yen	56,399 million yen
Estimated residual value component	501	512
Amount equivalent to interest income	(9,339)	(12,834)
Lease investment assets	37,454	44,076

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(2) Amounts of lease receivables and lease payments receivable components of lease investment assets expected to be collected after the fiscal year end (Current assets)

	Previous Year (As of March 31, 2020)					
	One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four year (million yen)	More than four years, up to five years (million yen)	More than five years (million yen)
Lease receivables	1,587	1,447	1,298	1,131	981	4,97
Lease investment assets	8,032	7,421	6,819	5,942	4,830	13,24

	Current Year (As of March 31, 2021)					
	One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years (million yen)	More than four years, up to five years (million yen)	More than five years (million yen)
Lease receivables	1,789	1,631	1,455	1,284	1,103	5,444
Lease investment assets	9,065	8,454	7,567	6,402	5,372	19,536

# 2 Operating lease transactions (As lessee)

# Future lease payments payable for non-cancellable operating leases

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Due within one year	1,230 million yen	1,491 million yen
Due over one year	3,959	4,010
Total	5,190	5,501

# (Lessor)

Future lease payments receivable for non-cancellable operating leases

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Due within one year	2,154 million yen	2,125 million yen
Due over one year	4,657	4,460
Total	6,812	6,586

# 3 Amounts recorded on the consolidated balance sheet before deducting amounts equivalent to interest for sublease transactions

	Previous Year	Current Year
	(As of March 31, 2020)	(As of March 31, 2021)
Current assets	10,714 million yen	15,628 million yen
(2) Lease obligations		
2) Lease Obligations		
(2) Lease obligations	Previous Year	Current Year
(2) Lease obligations	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Current liabilities		

# Notes to Financial Instruments

# 1 Matters on the status of financial instruments

# (1) Policies for dealing with financial instruments

It is the Group's policy to raise its operating funds through loans from financial institutions and the issuance of bonds and to conduct fund management through a conservative financial portfolio which limits exposure to losses. The Group uses derivative transactions to hedge the risks described later and does not engage in speculative transactions.

# (2) Details of financial instruments, risks thereof and risk management structure

Notes and accounts receivable - trade, which are operating receivables, are exposed to customer credit risks. To deal with this risk, the Company and the Group companies manage due dates and balances for each counterparty in accordance with their accounting rules and manuals regarding receivable management, etc. and seek to mitigate collectability concern.

Securities and investment securities, which comprise mainly shares of companies with which the Group has business relationships, are exposed to risks including market price fluctuation risk. The Group continuously reviews its shareholding position by periodically monitoring their market price and the financial condition of the issuers (customer companies), as well as considering the relationship with such customer companies.

Notes and accounts payable - trade, which are operating payables, are mostly settled within one year. Of bonds and loans payable, short-term borrowings are mainly to procure funds for operational transactions, while bonds and long-term borrowings are mainly to procure funds for capital expenditures. Bonds and long-term borrowings procure funds with fixed interest rates.

In derivative transactions, the Group uses interest rate swaps for adjusting the ratio between fixed and floating interest rates and fixing the interest level for bonds and loans payable, forward exchange contracts and currency option contracts for reducing the fluctuation of cash flows due to change in foreign exchange

rates, swap contracts and option contracts on energy prices, etc. for reducing the fluctuation of cash flows due to change in energy prices, etc., and weather derivative contracts, etc. for reducing the fluctuation of cash flows due to change in temperature. Matters on hedge accounting including hedging instruments, hedged items, hedging policy and methods for assessing hedge effectiveness are as described in "Consolidated Financial Statements and Notes, Consolidated Financial Statements, Notes (Significant Matters Forming the Basis of Preparation of the Consolidated Financial Statements), 4 (6) Significant hedge accounting method."

In conducting derivative transactions, the Group primarily enters into contracts only with financial institutions, etc. with high ratings in order to minimize credit risks. Execution and management of derivative transactions are performed by the finance department of each Group company, and the finance department of the Company controls their activities. Transactions by Group companies are conducted in accordance with the internal rules.

Although operating payables, loans and bonds payable are exposed to liquidity risk, the Company maintains high credit ratings and secures stable fund procurement measures. In addition, the Group has implemented a cash management system (CMS) and a global cash management system (GCMS) to facilitate funding for Group companies.

# (3) Supplementary explanation to fair value of financial instruments

Please note that contract amounts of derivative transactions in "2 Matters on fair value, etc. of financial instruments" do not, in themselves, indicate the market risk pertaining to the derivative transactions.

# 2 Matters on fair value, etc. of financial instruments

The carrying amount in the consolidated balance sheet, fair value and difference between them are as follows. Financial instruments whose fair value is deemed to be extremely difficult to determine are not included in the table below (see Note 2).

# Previous Year (As of March 31, 2020)

	Carrying amount in the consolidated balance sheet (million yen)	Fair value (million yen)	Difference (million yen)
(1) Cash and deposits	147,201	147,201	-
(2) Notes and accounts receivable - trade	210,515	210,515	—
(3) Securities and investment securities	86,329	86,329	—
Total assets	444,046	444,046	-
(1) Notes and accounts payable - trade	59,363	59,363	-
(2) Short-term borrowings	20,029	20,029	—
(3) Bonds payable (%1)	319,992	327,165	7,172
(4) Long-term borrowings (※1)	401,827	420,116	18,288
Total liabilities	801,213	826,674	25,461
Derivative transactions (%2)	(675)	(675)	_

(%1) Includes those due within one year

(\*2) Assets and liabilities arising from derivative transactions were offset and indicated by parentheses () when the amount offset was a liability.

# Current Year (As of March 31, 2021)

	Carrying amount in the consolidated balance sheet (million yen)	Fair value (million yen)	Difference (million yen)
(1) Cash and deposits	167,083	167,083	-
(2) Notes and accounts receivable - trade	211,696	211,696	-
(3) Securities and investment securities	127,620	127,620	—
Total assets	506,399	506,399	_
(1) Notes and accounts payable - trade	60,453	60,453	_
(2) Short-term borrowings	13,546	13,546	-
(3) Bonds payable (※1)	364,995	366,069	1,073
(4) Long-term borrowings (※1)	392,244	407,656	15,412
Total liabilities	831,240	847,726	16,486
Derivative transactions (%2)	(2,980)	(2,980)	_

(%1) Includes those due within one year.

(32) Assets and liabilities arising from derivative transactions were offset and indicated by parentheses () when the amount offset was a liability.

Note 1: Method for measuring fair value of financial instruments and matters on securities and derivative transactions

# Assets

# (1) Cash and deposits, and (2) Notes and accounts receivable - trade

As these items are settled within a short term, the fair value is approximately equal to the carrying amount. Therefore, the fair value is determined by the carrying amount.

# Liabilities

# (1) Notes and accounts payable - trade, and (2) Short-term borrowings

As these items are settled within a short term, the fair value is approximately equal to the carrying amount. Therefore, the fair value is determined by the carrying amount.

# (3) Bonds payable

The fair value of bonds payable issued by the Company is based on their market prices.

# (3) Securities and investment securities

The fair value of shares is based on the market prices at the exchange. The fair value of bonds is based on the market prices at the exchange or the prices provided by counterparty financial institutions. For information on securities classified by holding purpose, please refer to "Notes to Securities."

# (4) Long-term borrowings

The fair value of long-term borrowings with fixed interest is measured by discounting the sum of the principal and interest at the rate assumed for new similar loans.

The fair value of long-term borrowings with floating interest is determined by the carrying amount, as the fair value is deemed approximately equal to the carrying amount. Interest rate swap contracts which determine the interest rate level of long-term borrowings with floating interest qualify for exceptional accounting. Long-term borrowings with floating interest accompanied by such interest swaps are accounted for as a whole, and the fair value is determined by discounting the sum of their principals and interests at a reasonably estimated rate applied for similar loans.

# Note 2: Carrying amount in the consolidated balance sheet of financial instruments whose fair value is extremely difficult to determine

Category	March 31, 2020	March 31, 2021
Shares of affiliates	229,227	229,618
Unlisted stocks, etc.	16,643	19,835

As the above financial instruments do not have market prices and their future cash flows cannot be estimated, their fair value is extremely difficult to determine. Therefore, they are not included in "(3) Securities and investment securities."

# Note 3: Expected redemption amounts of monetary receivables and securities with maturities after the consolidated fiscal year-end

# Previous Year (As of March 31, 2020)

	One year or less (million yen)	More than one year, up to five years (million yen)	More than five years, up to ten years (million yen)	More than ten years (million yen)
Cash and deposits	147,201	-	-	-
Notes and accounts receivable - trade	210,515	_	_	_
Securities and investment securities				
Held-to-maturity bonds(Corporate bonds)	-	-	—	180
Available-for-sale securities with maturities (Government bonds and municipal bonds)	-	_	-	98
Available-for-sale securities with maturities (Other)	43	2,211	2,339	0
Total	357,760	2,211	2,339	279

# Current Year (As of March 31, 2021)

	One year or less (million yen)	More than one year, up to five years (million yen)	More than five years, up to ten years (million yen)	More than ten years (million yen)
Cash and deposits	167,083	-	-	-
Notes and accounts receivable - trade	211,696	-	_	_
Securities and investment securities				
Held-to-maturity bonds (Corporate bonds)	-	—	—	4,040
Available-for-sale securities with maturities (Government bonds and municipal bonds)	-	-	-	98
Available-for-sale securities with maturities (Other)	167	1,576	2,831	0
Total	378,946	1,576	2,831	4,139

Note 4: Expected repayment amounts of bonds payable, long-term borrowings and other interest-bearing debts

# Previous Year (As of March 31, 2020)

	One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years (million yen)	More than four years, up to five years (million yen)	More than five years (million yen)
Short-term borrowings	20,029	_	—	_	_	_
Bonds payable	30,000	10,000	30,000	10,000	_	240,000
Long-term borrowings	38,070	69,332	39,703	48,713	47,651	158,356
Total	88,099	79,332	69,703	58,713	47,651	398,356

# Current Year (As of March 31, 2021)

	One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years (million yen)	More than four years, up to five years (million yen)	More than five years (million yen)
Short-term borrowings	13,546	-	-	-	-	-
Bonds payable	10,000	30,000	10,000	_	_	315,000
Long-term borrowings	58,981	36,484	53,703	49,026	43,112	150,936
Total	82,528	66,484	63,703	49,026	43,112	465,936

Derivative transactions

(million yen)

# Notes to Securities

# 1 Available-for-sale securities

# Previous Year (As of March 31, 2020)

	Carrying amount in the consolidated balance sheet (million yen)	Acquisition cost (million yen)	Difference (million yen)
1 Available-for-sale securities whose carrying amount in the consolidated balance sheet exceeds the acquisition cost			
(1) Stocks	78,384	21,297	57,087
(2) Bonds			
Government bonds and municipal bonds, etc.	-	-	
Subtotal	78,384	21,297	57,087
2 Available-for-sale securities whose carrying amount in the consolidated balance sheet does not exceed the acquisition cost			
(1) Stocks	7,845	8,045	(199)
(2) Bonds			
Government bonds and municipal bonds, etc.	98	98	-
Subtotal	7,944	8,143	(199)
Total	86,329	29,441	56,887

Note: As unlisted stocks (carrying amount in the consolidated balance sheet: ¥11,859 million), etc. do not have market prices and their future cash flows cannot be estimated, their fair value is extremely difficult to determine. Therefore, they are not included.

# Current Year (As of March 31, 2021)

	Carrying amount in the consolidated balance sheet (million yen)	Acquisition cost (million yen)	Difference (million yen)
1 Available-for-sale securities whose carrying amount in the consolidated balance sheet exceeds the acquisition cost			
(1) Stocks	126,094	29,042	97,052
(2) Bonds			
Government bonds and municipal bonds, etc.	-	-	-
Subtotal	126,094	29,042	97,052
2 Available-for-sale securities whose carrying amount in the consolidated balance sheet does not exceed the acquisition cost			
(1) Stocks	1,426	1,544	(118)
(2) Bonds			
Government bonds and municipal bonds, etc.	98	98	-
Subtotal	1,525	1,643	(118)
Total	127,620	30,686	96,933

Note: As unlisted stocks (carrying amount in the consolidated balance sheet: ¥11,209 million), etc. do not have market prices and their future cash flows cannot be estimated, their fair value is extremely difficult to determine. Therefore, they are not included.

# 2 Available-for-sale securities sold during the fiscal year

revious Year (April 1, 2019	- March 31, 2020)	
Total sales	1,147 million yen	
Total gain on sales	1,128	
Total loss on sales	1	
	Total sales Total gain on sales	Total gain on sales 1,128

	Current real (April 1, 2020 -	Warch 31, 2021)
Stocks	Total sales	987 million yen
	Total gain on sales	197
	Total loss on sales	0

Current Veer (April 1, 0000 Merch 21, 0001)

# 3 Securities for which impairment losses are recognized

For the previous fiscal year, impairment losses of ¥1,041 million for shares of subsidiaries and associates and impairment losses of ¥205 million for available-for-sale securities were recognized. There is no applicable information for the current fiscal year.

# Derivatives

# 1 Derivative transactions to which hedge accounting is not applied

Pre	vious Year (As of March 31, 2020	))					
		<b>T</b> (1) (1)	Contract amou	int (million yen)	Fair value	Valuation gain	
Underlying asset	Derivative instrument	Derivative instrument Type of transaction		More than one year	(million yen)	(loss) (million yen)	
(a) Commodities	Swap contracts and option contracts on energy prices, etc.	Other than market transactions	42,448	31,129	(1,112)	(1,112)	
(b) Currencies	Forward exchange contracts	Other than market transactions	258	—	(10)	(10)	
Total			42,706	31,129	(1,123)	(1,123)	

Note 1: The fair value is measured mainly based on the prices provided by counterparty financial institutions. Note 2: As certain derivative transactions no longer satisfy the requirements for hedge accounting, hedge accounting is discontinued for such transactions.

Cu	rrent Year (As of March 31, 2021)						
Linderh ing egent	Derivative instrument	Turne of transportion	Contract amount (million yen)		Fair value	Valuation gain	
Underlying asset	Derivative instrument	Type of transaction		More than one year	(million yen)	(loss) (million yen)	
(a) Commodities	Swap contracts and option contracts on energy prices, etc.	Other than market transactions	35,875	19,959	(1,208)	(1,208)	
(b) Currencies	Forward exchange contracts	Other than market transactions	55	—	8	8	
Total			35,931	19,959	(1,200)	(1,200)	

Note 1: The fair value is measured mainly based on the prices provided by counterparty financial institutions. Note 2: As certain derivative transactions no longer satisfy the requirements for hedge accounting, hedge accounting is discontinued for such transactions.

# 2 Derivative transactions to which hedge accounting is applied

Pre	Previous Year (As of March 31, 2020)					
Underlying asset	Derivative instrument	Hedge accounting	Major hedged item	Contract amount (million yen)		Fair value
,g					More than one year	(million yen)
/		Exceptional accounting of interest rate swaps	Long-term borrowings	65,962	65,642	See (Note 2)
(a) Interest fates	(a) Interest rates Interest rate swap contracts	Principal method of accounting	Long-term borrowings and bonds payable	116,353	110,473	(6,235)
(b) Curropoioo	Forward exchange contracts and	Allocation accounting of forward exchange contracts, etc.	Forecast transactions denominated in foreign currencies	7,012	203	See (Note 3)
(b) Currencies	(b) Currencies Currency option contracts	Principal method of accounting	Forecast transactions denominated in foreign currencies	139,829	134,509	13,859
(c) Commodities	Swap contracts and option contracts on energy prices, etc.	Principal method of accounting	Purchase prices of raw materials, etc.	62,937	35,982	(7,186)
Total				392,095	346,812	437

Note 1: The fair value is measured mainly based on the prices provided by counterparty financial institutions. Note 2: As interest rate swaps subject to exceptional accounting are accounted for together with the hedged long-term borrowings, their fair

value is included in that of the long-term borrowings. Note 3: As forward exchange contracts, etc. subject to allocation accounting are accounted for together with the hedged accounts payable trade, etc., their fair value is included in that of the accounts payable - trade, etc.

# Current Year (As of March 31, 2021)

Underlying asset Derivative instrument		Hedge accounting	Major hedged item	Contract amount (million yen)		Fair value
		neuge accounting	Major neugeu item		More than one year	(million yen)
		Exceptional accounting of interest rate swaps	Long-term borrowings	66,572	66,572	See (Note 2)
(a) Interest rates Interest rate swap contracts	Principal method of accounting	Long-term borrowings and bonds payable	136,203	132,403	(8,181)	
(b) Curronaica	Forward exchange contracts and	Allocation accounting of forward exchange contracts, etc.	Forecast transactions denominated in foreign currencies	10,166	265	See (Note 3
(b) Currencies currency option contracts		Principal method of accounting	Forecast transactions denominated in foreign currencies	136,474	133,143	13,515
(c) Commodities	Swap contracts and option contracts on energy prices, etc.	Principal method of accounting	Purchase prices of raw materials, etc.	74,778	45,160	(7,111)
Total				424,194	377,545	(1,777)

Note 1: The fair value is measured mainly based on the prices provided by counterparty financial institutions. Note 2: As interest rate swaps subject to exceptional accounting are accounted for together with the hedged long-term borrowings, their fair value is included in that of the long-term borrowings.

Note 3: As forward exchange contracts, etc. subject to allocation accounting are accounted for together with the hedged accounts payable trade, etc., their fair value is included in that of the accounts payable - trade, etc.

# Notes to Retirement Benefits

# 1 Summary of the adopted retirement benefit plans

The Company and its consolidated subsidiaries have adopted funded and unfunded defined benefit plans and defined contribution plans. As for defined benefit plans, the Company and most consolidated subsidiaries provide lump sum retirement payment plans, and the Company and certain consolidated subsidiaries provide defined benefit corporate pension plans or corporate pension fund plans.

The Company has adopted a defined benefit corporate pension

plan since August 1, 2006 and a defined contribution pension plan to which part of the defined benefit plan transitioned since January 1, 2005.

As certain consolidated subsidiaries participate in the corporate pension fund of the multi-employer pension plans, they cannot determine the amount of pension assets corresponding to their contribution. Therefore, such plans are accounted for in the same manner as defined contribution plans.

# 2 Defined benefit plans

(1) Reconciliations of the opening and closing balances of retirement benefit obligations

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Balance at beginning of year	290,819 million yen	287,683 million yen
Service cost	8,596	9,281
Interest cost	912	868
Actuarial loss (gain)	(298)	(7,718)
Benefits paid	(14,531)	(14,992)
Increase associated with an increase in consolidated subsidiaries	2,179	-
Other	5	265
Balance at end of year	287,683	275,388

Note: Consolidated subsidiaries which have adopted the simplified method are included.

# (2) Reconciliations of the opening and closing balances of plan assets

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Balance at beginning of year	322,665 million yen	314,358 million yen
Expected return on plan assets	6,749	6,805
Actuarial loss (gain)	(5,478)	30,667
Contributions paid by the employer	1,802	1,744
Benefits paid	(13,376)	(14,032)
Increase associated with an increase in consolidated subsidiaries	1,997	_
Other	(0)	581
Balance at end of year	314,358	340,124

Note: Consolidated subsidiaries which have adopted the simplified method are included.

### (3) Reconciliations of the closing balances of retirement benefit obligations and plan assets, and retirement benefit liability and asset recorded in the consolidated balance sheet

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Funded retirement benefit obligations	270,077 million yen	256,387 million yen
Plan assets	(314,358)	(340,124)
	(44,280)	(83,737)
Unfunded retirement benefit obligations	17,606	19,000
Total net defined benefit liability (asset) recorded in the consolidated balance sheet	(26,674)	(64,736)
Retirement benefit liability	17,590	18,758
Retirement benefit asset	(44,264)	(83,494)
Total net defined benefit liability (asset) recorded in the consolidated balance sheet	(26,674)	(64,736)

Note: Consolidated subsidiaries which have adopted the simplified method are included.

# (4) Retirement benefit costs and components thereof

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Service cost	8,596 million yen	9,281 million yen
Interest cost	912	868
Expected return on plan assets	(6,749)	(6,805)
Net actuarial loss amortization	(3,396)	(2,884)
Past service cost amortization	(30)	(15)
Total retirement benefit costs	(667)	443

Note: The retirement benefit cost for consolidated subsidiaries which have adopted the simplified method is included in "Service cost."

# (5) Remeasurements of defined benefit plans

Items (before tax effect) recorded in remeasurements of defined benefit plans are as follows:

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Past service cost	30 million yen	15 million yen
Actuarial gain (loss)	8,579	(35,503)
Total	8,609	(35,488)

# (6) Remeasurements of defined benefit plans

Items (before tax effect) recorded in remeasurements of defined benefit plans are as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Unrecognized past service cost	(15) million yen	— million yen
Unrecognized actuarial gain (loss)	(12,388)	(47,909)
Total	(12,404)	(47,909)

# (7) Plan assets

(1) Major components of plan assets

The proportion of major categories to total plan assets is as follows:

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)
Bonds	23.9 %	19.6 %
Stocks	31.3	31.3
Cash and deposits	28.3	32.5
Other	16.5	16.6
Total	100.0	100.0

Note: The main assets of "Other" are beneficiary securities in the real estate investment trust fund.

(2) Method for setting long-term expected rate of return In determining the long-term expected rate of return, the current and projected allocations of plan assets and the current and expected long-term investment returns on various assets constituting plan assets are taken into account.

# (8) Actuarial assumptions

Major assumptions for actuarial calculations are as follows:

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Discount rate	Mainly 0.3 %	Mainly 0.5 %
Long-term expected rate of return	Mainly 2.1 %	Mainly 2.2 %

# 3 Defined contribution plans

The contribution required to the defined contribution plan of the Company and its consolidated subsidiaries was ¥1,272 million for the previous fiscal year and ¥1,291 million for the current fiscal year.

# 4 Multi-employer pension plans

The multi-employer pension plans were accounted for in the same manner as the defined contribution plan. The contribution required to the corporate pension fund of the multi-employer pension plans was ¥84 million for the previous fiscal year and ¥86 million for the current fiscal year.

# (1) Recent funded status of multi-employer pension plans

	Previous Year (As of March 31, 2019)	Current Year (As of March 31, 2020)
Amount of plan assets	245,472 million yen	245,064 million yen
Total amount of actuarial obligation and minimum actuarial reserve in pension financing	200,586	202,774
Balance	44,885	42,289

# (2) Share of the Group's contribution to overall multi-employer pension plans

Previous fiscal year 1.16% (weighted average) (March 1, 2019 - March 31, 2019) Current fiscal year 1.22% (weighted average) (March 1, 2020 - March 31, 2020)

# (3) Supplementary explanation

The major factor contributing to the balance in (1) above was retained earnings (¥44,936 million for the previous fiscal year and ¥42,324 million for the current fiscal year).

# Notes to Stock Options

Not applicable.

# **Tax Effect Accounting**

# 1 Breakdown of major causes for deferred tax assets and deferred tax liabilities

	Previous Year (As of March 31, 2020)	Current Year (As of March 31, 2021)	
eferred tax assets			
Tax loss carryforwards (Note 2)	83,123 million yen	91,478 million yen	
Petroleum resource use tax for international business	17,447	18,997	
Excess depreciation of depreciable assets	23,917	15,488	
Other	55,015	57,421	
Subtotal deferred tax assets	179,504	183,385	
Valuation allowance on tax loss carryforwards (Note 2)	(31,113)	(35,967)	
Valuation allowance on the total of deductible temporary differences	(58,833)	(46,192)	
Subtotal valuation allowance (Note 1)	(89,946)	(82,159)	
Total deferred tax assets	89,557	101,226	
eferred tax liabilities			
Temporary differences related to investments in affiliates	(43,960)	(42,248)	
Valuation difference on available-for-sale securities	(15,586)	(24,752)	
Retirement benefit asset	(12,399)	(23,391)	
Other	(22,463)	(26,746)	
Total deferred tax liabilities	(94,409)	(117,138)	
Net deferred tax assets (liabilities)	(4,851)	(15,912)	

Note 1: Valuation allowance has decreased by ¥7,786 million compared with the previous fiscal year. The primary component of this decrease is a decrease of ¥5,180 million in valuation allowance of Osaka Gas Liquefaction USA Corporation, a consolidated subsidiary. Note 2: Tax loss carryforwards and associated deferred tax assets by carryforward period

# Previous Year (As of March 31, 2020)

	One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years (million yen)	More than four years, up to five years (million yen)	More than five years (million yen)	Total (million yen)
Tax loss carryforwards (a)	53	11	13	87	85	82,871	83,123
Valuation allowance	35	11	13	87	57	30,908	31,113
Deferred tax assets	18	_	_	_	28	51,963	52,010 (b)

(a) A tax loss carryforward is the amount obtained by multiplying the effective statutory tax rate.

(b) Deferred tax assets of ¥52,010 million are recorded for tax loss carryforwards of ¥83,123 million (amount obtained by multiplying by the effective statutory tax rate). The Company does not recognize valuation allowances for the portion of the tax loss carryforwards deemed to be recoverable due to the prospect of future taxable income from the North American IPP business, the Freeport LNG Project, and the Australian upstream business.

# Current Year (As of March 31, 2021)

	One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years( million yen)	More than four years, up to five years (million yen)	More than five years (million yen)	Total (million yen)
Tax loss carryforwards (a)	32	15	31	55	98	91,245	91,478
Valuation allowance	13	15	31	52	98	35,755	35,967
Deferred tax assets	19	_	_	2	—	55,489	55,511 (b)

(a) A tax loss carryforward is the amount obtained by multiplying by the effective statutory tax rate.

(b) Deferred tax assets of ¥55,511 million are recorded for tax loss carryforwards of ¥91,478 million (amount obtained by multiplying by the effective statutory tax rate). The Company does not recognize valuation allowances for the portion of the tax loss carryforwards deemed to be recoverable due to the prospect of future taxable income from the North American IPP business, the Freeport LNG Project, and the Australian upstream business.

# 2 Breakdown of major items causing the difference between the statutory effective tax rate and the burden rate of income taxes after applying tax effect accounting

app.j	Previous Year (As of March 31, 2020)	Current Year ((As of March 31, 2021)
Statutory effective tax rate	28.0 %	28.0 %
(Reconciliation)		
Share of loss (profit) of entities accounted for using equity method	(2.1)	(3.5)
Valuation allowance	10.9	(1.9)
Difference between the parent's and subsidiaries' effective statutory tax rates	1.9	0.4
Other	0.3	(0.1)
Burden rate of income taxes after applying tax effect accounting	39.0 %	22.9 %

# **Business Combinations**

Not applicable.

# Notes to Asset Retirement Obligations

Not applicable.

# Real Estate for Lease, etc.

The Company and certain consolidated subsidiaries own office buildings and other properties for lease (including land) in Osaka Prefecture and other areas. Gains from the lease of such leased properties (recorded mainly as operating profit) are ¥7,258 million for the fiscal year ended March 31, 2020 and ¥8,225 million for the

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Carrying amount in the consolidated balance sheet		
Balance at beginning of year	128,315 million yen	143,553 million yen
Increase (decrease)	15,237	18,210
Balance at end of year	143,553	161,763
Fair value at end of year	232,263	241,772

Note 1: The carrying amount in the consolidated balance sheet is stated at acquisition cost less accumulated depreciation and accumulated impairment losses. Note 2: The main factor contributing to an increase was the acquisition of properties (previous fiscalyear: ¥15,500 million, current fiscal year: ¥22,770 million). Note 3: The fair value at the end of the fiscal year is the amount (including the amount adjusted using the index, etc.) determined based mainly on the method prescribed by the "Real Estate Appraisal Standard" and other similar methods.

Note 4: Properties in development (amount recorded on the consolidated balance sheet: ¥3,763 million) are not included in the table above as development is currently underway and therefore it is difficult to determine fair value.

# Segment Information, etc.

# [Segment Information]

# 1 Summary of reportable segments

The Daigas Group's reportable segments are organizational units for which separate financial information is available, and they are regularly reviewed by the Board of Directors to determine the allocation of management resources and assess business results. The Daigas Group classifies its products and services into business segments on the basis of two business domains: the Domestic and International Energy Business, and the Life & Business Solutions Business. It then divides those business segments into the following four reportable segments by considering the similarities of products and services: the Domestic Energy/Gas Business, the Domestic Energy/Electricity Business, the International Energy Business, and the Life & Business Solutions Business.

The Domestic Energy/Gas Business manufactures, supplies, and sells city gas, sells gas appliances, conducts gas pipeline fiscal year ended March 31, 2021.

The carrying amount in the consolidated balance sheet, changes during the fiscal year, and the fair value of the leased properties are as follows:

installation, and sells LNG, LPG and industrial gas. The Domestic Energy/Electricity Business produces and sells electricity. The International Energy Business conducts development and investment related to petroleum and natural gas, supplies energy, and transports LNG. The Life & Business Solutions Business conducts development and leasing of real estate, information processing services, and sales of fine materials and carbon material products.

In addition, due to the reorganization of affiliated companies in the energy field on April 1, 2020, certain consolidated subsidiaries that were previously included in the Domestic Energy/Electricity segment are included in the Domestic Energy/Gas segment from the current fiscal year. The segment information presented for the previous fiscal year is based on the reportable segment classification after the reorganization.

# 2 The method of measurements of sales, profit (loss), assets, liabilities, and other items by reportable segment

The method of accounting for reportable segments is generally the same as that stated in "Consolidated Financial Statements and Notes, Consolidated Financial Statements, Notes (Significant Matters Forming the Basis of Preparation of the Consolidated Financial Statements)." Transactions with other segments are determined according to prevailing market prices.

# 3 Information of sales, profit (loss), assets, liabilities, and other items by reportable segment

# Previous Year (April 1, 2019 - March 31, 2020)

							(million yen)
		Reportable	Segment				O a ma a l'idata d
	Domestic Energy/Gas	Domestic Energy/ Electricity	International Energy	Life & Business Solutions	Total	Adjustments (Note 1)	Consolidated (Note 2)
Net sales							
Revenues from external customers	964,377	200,365	33,430	170,516	1,368,689	-	1,368,689
Transactions with other segments	12,586	1,195	27,823	48,916	90,522	(90,522)	-
Total	976,963	201,561	61,254	219,432	1,459,211	(90,522)	1,368,689
Segment profit							
Operating profit	52,666	8,373	2,952	19,676	83,669	122	83,792
Share of profit (loss) of entities accounted for using equity method	534	(517)	5,209	-	5,225	-	5,225
Total	53,200	7,855	8,162	19,676	88,895	122	89,018
Segment assets	911,159	208,403	625,410	390,693	2,135,666	4,815	2,140,482
Other items							
Depreciation	55,511	7,438	16,800	11,676	91,428	(1,469)	89,958
Amortization of goodwill	—	242	17	1,705	1,966	—	1,966
Investment in entities accounted for using equity method	14,408	470	195,768	_	210,647	_	210,647
Increase in property, plant and equipment and intangible assets	66,007	26,809	8,914	32,216	133,947	(2,937)	131,010

Note 1: Adjustments are as follows:

(1) A major adjustment in segment profit (loss) is the elimination of intersegment transactions.

(2) A major adjustment in segment assets is for investment securities held by the Company.

Note 2: Segment profit (loss) is adjusted by adding share of profit (loss) of entities accounted for using equity method to operating profit (loss).

# Current Year (April 1, 2020 - March 31, 2021)

							(million yen)
		Reportable	Segment			Adjustments	Consolidated
	Domestic Energy/Gas	Domestic Energy/ Electricity	International Energy	Life & Business Solutions	Total	(Note 1)	(Note 2)
Net sales							
Revenues from external customers	903,488	246,162	45,761	168,694	1,364,106	-	1,364,106
Transactions with other segments	12,601	1,129	23,438	47,891	85,059	(85,059)	-
Total	916,089	247,291	69,199	216,585	1,449,166	(85,059)	1,364,106
Segment profit							
Operating profit	64,285	15,739	8,841	19,250	108,116	4,375	112,491
Share of profit (loss) of entities accounted for using equity method	1,050	(706)	13,274	-	13,618	-	13,618
Total	65,335	15,032	22,115	19,250	121,734	4,375	126,109
Segment assets	955,934	274,463	634,126	419,172	2,283,697	29,659	2,313,357
Other items							
Depreciation	56,908	8,550	23,329	12,315	101,103	(1,948)	99,155
Amortization of goodwill	210	393	(7)	1,692	2,288	—	2,288
Investment in entities accounted for using equity method	15,256	3,922	190,912	-	210,091	-	210,091
Increase in property, plant and equipment and intangible assets	80,174	47,592	29,270	35,601	192,640	(3,185)	189,454

Note 1: Adjustments are as follows:

(1) A major adjustment in segment profit (loss) is the elimination of intersegment transactions.

(2) A major adjustment in segment assets is for investment securities held by the Company.

Note 2: Segment profit (loss) is adjusted by adding share of profit (loss) of entities accounted for using equity method to operating profit (loss).

# [Information associated with reportable segments]

# Previous Year (April 1, 2019 - March 31, 2020)

# 1 Information by product and service

The information is omitted as similar information is disclosed in "Segment Information."

# 2 Information by geographical area

# (1) Net sales

The information is omitted as net sales in Japan account for more than 90% of net sales in the consolidated statement of income.

# (2) Property plant and equipment

(million y						
Japan	USA	Australia	Other areas	Total		
784,218	100,168	123,503	6,681	1,014,572		

# 3 Information by major customer

The information is omitted as there is no external customer who accounts for 10% or more of net sales in the consolidated statement of income.

# Current Year (April 1, 2020 - March 31, 2021)

# 1 Information by product and service

The information is omitted as similar information is disclosed in "Segment Information."

# 2 Information by geographical area

# (1) Net sales

The information is omitted as net sales in Japan account for more than 90% of net sales in the consolidated statement of income.

# (2) Property, plant and equipment

				(million yen)
Japan	USA	Australia	Other areas	Total
849,366	113,973	100,114	7,154	1,070,610

# 3 Information by major customer

The information is omitted as there is no external customer who accounts for 10% or more of net sales in the consolidated statement of income.

# [Information about impairment losses for non-current assets by reportable segment]

# Previous Year (April 1, 2019 - March 31, 2020)

							(million yen)
		Reportable	e Segment		Unallocated		
	Domestic Energy/Gas	Domestic Energy/ Electricity	International Energy	Life & Business Solutions	Total amounts and elimination	Total	
Impairment losses	61		14,816	690	15,568	—	15,568

# Current Year (April 1, 2020 - March 31, 2021)

	Reportable Segment					Unallocated	
	Domestic Energy/Gas	Domestic Energy/ Electricity	International Energy	Life & Business Solutions	Total	Total amounts and elimination	Total
Impairment losses	1,355	—	14,214	3,446	19,016	—	19,016

(million yen)

# [Information about the amortized amount and unamortized balance of goodwill by reportable segment]

# Previous Year (April 1, 2019 - March 31, 2020)

							(million yen)
		Reportable	e Segment			Unallocated	
	Domestic Energy/Gas	Domestic Energy/ Electricity	International Energy	Life & Business Solutions	Total	amounts and elimination	Total
Amortized amount during year	_	242	17	1,705	1,966	-	1,966
Unamortized balance at end of year	_	4,868	(14)	7,285	12,139	_	12,139

# Current Year (April 1, 2020 - March 31, 2021)

							(million yen)
		Reportable Segment				Unallocated	
	Domestic Energy/Gas	Domestic Energy/ Electricity	International Energy	Life & Business Solutions	Total	amounts and elimination	Total
Amortized amount during year	210	393	(7)	1,692	2,288	_	2,288
Unamortized balance at end of year	3,299	4,475	(6)	5,938	13,707	_	13,707

# [Information about gain on bargain purchase by reportable segment]

# Previous Year (April 1, 2019 - March 31, 2020)

Current Year (April 1, 2020 - March 31, 2021)

Not applicable.

Not applicable.

# **(Related Party Information)**

Not applicable.

# **Per Share Information**

	Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Net assets per share	2,399.06 yen	2,602.18 yen
Earnings per share	100.50 yen	194.48 yen

Note 1: Since there were no potential shares with a dilutive effect, data on diluted earnings per share is not presented in this document. Note 2: The following data was used for calculating earnings per share:

		Previous Year (April 1, 2019 - March 31, 2020)	Current Year (April 1, 2020 - March 31, 2021)
Profit attributable to owners of parent	(million yen)	41,788	80,857
Amount not attributable to common shareholders	(million yen)	—	_
Profit attributable to owners of parent attributable to common share	(million yen)	41,788	80,857
Average number of common shares during the fiscal year	(thousand shares)	415,798	415,773

# Significant Events after Reporting Period

# 1 Conclusion of an Absorption-type Split Agreement for Spinoff of the Gas Pipeline Service Business

By resolution of the Board of Directors' meeting held on April 23, 2021, it was decided that on April 1, 2022, as a tentative date, the Company will transfer the general gas pipeline service business through a company split to Osaka Gas Network Co., Ltd. (hereinafter referred to as "Osaka Gas Network" or the "succeeding company"). On the same date, we executed an absorption-type split agreement with the succeeding company (this company split shall be hereinafter referred to as the "Split"). The Split is subject to the approval for the absorption-type split agreement at the Annual Meeting of Shareholders on June 25, 2021, and the relevant authorities' approvals necessary for the Split.

# (1) Background and purpose of the Split

Pursuant to the June 2015 amendment of the Gas Business Act, the Company, a general gas pipeline service business operator, will be prohibited from engaging also in the retail gas business or the gas production business from April 2022. The purpose of this amendment is to further secure neutrality of the gas pipeline service business.

In order to comply with the regulatory requirement and to establish an organizational structure to increase the value of our Group, we established Osaka Gas Network, a wholly-owned subsidiary of the Company, on April 1 of this year and executed an absorption-type split agreement with the subsidiary to transfer our general gas pipeline service business to the subsidiary which will become effective on April 1, 2022. After the absorption-type split, our Group, including Osaka Gas Network, will continue to be a group of companies taking responsibility for the infrastructure sector, including the energy business, and to increase the value of our Group by fulfilling the obligation of the companies in our Group and maximizing the value we provide in our businesses.

# (2) Outline of the Split

(1) Schedule of the Split

Board of Directors' meeting to approve the absorption-type split agreement (the Company)	April 23, 2021
Determination by directors to approve the absorption- type split agreement (succeeding company)	April 23, 2021
Execution of the absorption-type split agreement	April 23, 2021
General shareholders meeting to approve the absorption-type split agreement (the Company)	June 25, 2021
Extraordinary general shareholders meeting to approve the absorption-type split agreement (succeeding company)	June 25, 2021
Effective date of the absorption-type split	April 1, 2022(tentative)

# (2) Outline of partice to the Split

<ol><li>Outline of parties to the Split</li></ol>			
	Splitting company (As of March 31, 2021)	Succeeding company (As of April 1, 2021)	
(1) Company name	Osaka Gas Co., Ltd.	Osaka Gas Network Co., Ltd.	
(2) Location	4-1-2, Hiranomachi, Chuo-ku, Osaka, Japan	4-1-2, Hiranomachi, Chuo-ku, Osaka, Japan	
(3) Title and name of authorized representative	Masataka Fujiwara, President and Representative Director	Tsuyoshi Nakamura, President and Representative Directo	
(4) Description of business	Manufacturing, supply, and sale of city gas, sale of LPG, and generation and sale of electricity, etc.	Does not conduct business	
(5) Share capital	132,166 million yen	100 million yen	
(6) Date of establishment	April 10, 1897	April 1, 2021	
(7) Total number of issued shares	416,680,000 shares	2,000 shares	
(8) End of accounting period	March 31	March 31	
	The Master Trust Bank of Japan, Ltd. (Trust Account) 8.13%		
	Custody Bank of Japan, Ltd. (Trust Account) 4.96%		
9) Major shareholders and ratio of shareholding	Nippon Life Insurance Company (Standing Proxy: The Master Trust Bank of Japan, Ltd.) 4.63%	Osaka Gas Co., Ltd. 100%	
	Custody Bank of Japan, Ltd. (Trust Account 7) 2.78%		
	MUFG Bank, Ltd. 2.69%		
(10) Operating results and financial position for th	e most recent fiscal year	•	
Fiscal year	Fiscal year ended March 31, 2021, consolidated	-	
Net assets	1,114,597 million yen	100 million yen	
Total assets	2,313,357 million yen	100 million yen	
Net assets per share	2,602.18 yen	50,000 yen	
Net sales	1,364,106 million yen	-	
Operating profit	112,491 million yen	-	
Ordinary profit	127,752 million yen	-	
Profit attributable to owners of parent	80,857 million yen	—	
Earnings per share	194.48 yen	—	

Note: Since the succeeding company was incorporated on April 1, 2021 and has no preceding fiscal year, (10) Operating results and financial position for the most recent fiscal year show the Net assets, Total assets and Net assets per share as of the date of incorporation.

2 Type of Split

This is an absorption-type split in which the Company is a splitting company, and Osaka Gas Network, our wholly-owned subsidiary, is a succeeding company.

- ③ Particulars of allotment due to the Split As part of the Split, Osaka Gas Network, the succeeding company, will issue 6,700,000 common shares and allot all of them to the Company.
- (4) Treatment of the Company's share options and corporate bonds with share options

The Company has not issued any share options or corporate bonds with share options.

- (5) Increase or decrease in share capital due to the Split There will be no change in share capital due to the Split.
- (6) Rights and obligations transferred to the succeeding company In accordance with the absorption-type split agreement, which was executed between the Company and the succeeding company on April 23, 2021, the rights and obligations of the Company in relation to the general gas pipeline service business and its incidental businesses will be transferred to Osaka Gas Network on the effective date of the agreement. With respect to the assumption of obligations by Osaka Gas Network through the Split, Osaka Gas Network will assume the obligations on a non-cumulative basis. In addition, the succeeding company will not assume the obligations associated with the existing bonds we have offered publicly.
- ⑦ Expectation of performance of obligations

It is expected that the Company and the succeeding company will continue to have assets in excess of liabilities after the Split, and presently, we do not expect the occurrence of any events that would cause an impediment to the performance of obligations arising after the Split. For these reasons, we have determined that there will be no concerns with respect to the ability of the Company and the succeeding company to perform the obligations after the Split.

# (4) Outline of business unit to be split

1 Description of business unit to be split

General gas pipeline service business and its incidental businesses

② Operating results of business unit to be split (Fiscal year ended March 31, 2021)

Description of business unit to be split	Net sales of business subject to split (a)	Non-consolidated net sales of the Company (b)	Ratio (a/b)
General gas pipeline service business and its incidental businesses	58,983 million yen	1,053,584 million yen	5.6%

Note: External net sales are stated.

③ Items and amounts of assets and liabilities to be split (As of March 31, 2021)

Assets		Liabilities	
Item	Book value	Item	Book value
Current assets	49,149 million yen	Current liabilities	32,116 million yen
Non-current assets	327,898 million yen	Non-current liabilities	10,105 million yen
Total	377,048 million yen	Total	42,222 million yen

Note: The amounts shown above are estimates pursuant to the current status as of March 31, 2021. The amounts that will actually be transferred will reflect any increase or decrease that may occur up to the day immediately preceding the effective date of the Split.

# (5) Status after the Split (As of April 1, 2022 (Scheduled))

	Splitting company	Succeeding company
(1) Company name	Osaka Gas Co., Ltd.	Osaka Gas Network Co., Ltd.
(2) Location	4-1-2, Hiranomachi, Chuo-ku, Osaka, Japan	4-1-2, Hiranomachi, Chuo-ku, Osaka, Japan
(3) Title and name of authorized representative	Masataka Fujiwara, President and Representative Director	Tsuyoshi Nakamura, President and Representative Director
(4) Description of business	Manufacturing and sale of city gas, sale of LPG, and generation and sale of electricity, etc.	General gas pipeline service business, etc.
(5) Share capital	132,166 million yen	6,000 million yen
(6) End of accounting period	March 31	March 31

# 2 Issuance of Bonds

Based on the resolution of the Board of Directors' meeting held on March 10, 2021, the Company decided to issue the 41st, 42nd, and 43rd series of domestic unsecured bonds on May 28, 2021, and issued them under the following conditions. A summary of the issuance is as follows:

	41st domestic unsecured bond	42nd domestic unsecured bond	43rd domestic unsecured bond
(1) Type	Straight bond	Straight bond	Straight bond
(2) Issue amount	20,000 million yen	10,000 million yen	10,000 million yen
(3) Issue price	20,000 million yen	10,000 million yen	10,000 million yen
(4) Interest rate	0.220% per year	0.576% per year	0.851% per year
(5) Method of redemption	Lump-sum redemption at maturity	Lump-sum redemption at maturity	Lump-sum redemption at maturity
(6) Maturity	June 3, 2031	June 3, 2041	June 2, 2051
(7) Date of issuance	June 3, 2021	June 3, 2021	June 3, 2021
(8) Collateral	Unsecured	Unsecured	Unsecured
(9) Use of funds	Repayment of loans	Repayment of loans	Repayment of loans

# **Annexed Consolidated Detailed Schedules**

# [Annexed consolidated detailed schedule of corporate bonds]

Company	Name of issue	Date of issuance	Balance at the beginning of current fiscal year (million yen)	Balance at the end of current fiscal year (included portion due within 1 year) (million yen)	Interest rate (%)	Collateral	Maturity
Osaka Gas	The 18th domestic unsecured bond	February 12, 2003	19,996	19,997	1.47	None	December 20 2022
Osaka Gas	The 20th domestic unsecured bond	August 17, 2005	19,999	_	1.79	None	September 18 2020
Osaka Gas	The 21st domestic unsecured bond	June 23, 2006	9,997	9,997	2.33	None	June 23, 2026
Osaka Gas	The 28th domestic unsecured bond	March 9, 2011	10,000	_	1.345	None	March 9, 2021
Osaka Gas	The 29th domestic unsecured bond	December 9, 2011	10,000	10,000 (10,000)	1.16	None	December 9 2021
Osaka Gas	The 30th domestic unsecured bond	December 14, 2012	10,000	10,000	0.759	None	December 14 2022
Osaka Gas	The 31st domestic unsecured bond	October 18, 2013	10,000	10,000	0.748	None	October 18, 2023
Osaka Gas	The 32nd domestic unsecured bond	March 24, 2014	15,000	15,000	1.606	None	March 24, 2034
Osaka Gas	The 33rd domestic unsecured bond	October 24, 2014	20,000	20,000	1.402	None	October 24, 2034
Osaka Gas	The 34th domestic unsecured bond	March 5, 2015	10,000	10,000	1.685	None	March 3, 2045
Osaka Gas	The 35th domestic unsecured bond	December 9, 2016	10,000	10,000	0.986	None	December 8, 2056
Osaka Gas	The 36th domestic unsecured bond	June 6, 2019	20,000	20,000	0.642	None	June 4, 2049
Osaka Gas	The 37th domestic unsecured bond	June 6, 2019	20,000	20,000	0.818	None	June 6, 2059
Osaka Gas	The 38th domestic unsecured bond	September 5, 2019	20,000	20,000	0.4	None	September 3 2049
Osaka Gas	The 39th domestic unsecured bond	September 5, 2019	5,000	5,000	0.545	None	September 5 2058
Osaka Gas	The 40th domestic unsecured bond	September 5, 2019	10,000	10,000	0.7	None	September 5 2069
Osaka Gas	#1 Unsecured corporate bonds with interest deferrable clause and early redeemable option (subordinated corporate bonds)	December 12, 2019	50,000	50,000	0.44	None	December 12 2079
Osaka Gas	#2 Unsecured corporate bonds with interest deferrable clause and early redeemable option (subordinated corporate bonds)	December 12, 2019	50,000	50,000	0.6	None	December 12 2079
Osaka Gas	#3 Unsecured corporate bonds with interest deferrable clause and early redeemable option (subordinated corporate bonds)	September 10, 2020	_	27,000	0.490	None	September 10 2080
Osaka Gas	#4 Unsecured corporate bonds with interest deferrable clause and early redeemable option (subordinated corporate bonds)	September 10, 2020	_	48,000	0.630	None	September 10 2080
Total	-	_	319,992	364,995 (10,000)	_	-	-

Note: The redemption schedule within 5 years after the consolidated fiscal year-end is as follows:

One year or less (million yen)	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years (million yen)	More than four years, up to five years (million yen)
10,000	30,000	10,000	-	-

# [Annexed consolidated detailed schedule of borrowings]

Category	Balance at beginning of year (million yen)	Balance at end of year (million yen)	Average interest rate (%)	Payment due
Short-term borrowings	20,029	13,546	0.3	-
Current portion of long-term borrowings	38,070	58,981	1.0	-
Current portion of lease obligations	1,582	1,693	—	_
Long-term borrowings (excluding current portion)	363,757	333,263	1.0	From April 2022 to December 2047
Lease obligations (excluding current portion)	10,574	12,902	—	From April 2022 to February 2039
Total	434,013	420,387	_	-

Note 1: "Average interest rate" shows weighted average interest rates with respect to the year-end balances of borrowings. "Average interest rate" for lease obligations is not stated because lease obligations are recorded in the consolidated balance sheet at the amount before deducting the interest-equivalent

component included in the total lease payment. Note 2: The repayment schedule within 5 years after the consolidated fiscal year-end for long-term borrowings and lease obligations (excluding current portion) is as follows:

	More than one year, up to two years (million yen)	More than two years, up to three years (million yen)	More than three years, up to four years (million yen)	More than four years, up to five years (million yen)
Long-term borrowings	36,484	53,703	49,026	43,112
Lease obligations	1,891	1,402	1,295	1,217

# [Annexed consolidated detailed schedule of asset retirement obligations]

The amount of asset retirement obligations was 1% or less of total liabilities and net assets at the beginning of the current fiscal year as well as at the end of the current fiscal year. Therefore, the schedule of asset retirement obligations is not disclosed.

# [Cover]

[Document Title]	Internal Co
[Article of the Applicable Law Requiring Document Submission]	Article 24- Exchange
(Place of Filing)	Director-G
[Filing Date]	June 28, 2
[Company Name]	OSAKA GA
[Company Name in English]	OSAKA GA
[Name and Title of Representative]	Masataka
[Name and Title of Chief Financial Officer]	-
[Address of Registered Headquarter]	4-1-2 Hira Tokyo Stoo
[Place for Public Inspection]	(2-1 Nihon Nagoya St (8-20, Sak

Control Report

I-4-4, Paragraph 1 of the Financial Instruments and Act

General of the Kanto Local Finance Bureau

2021

GASU KABUSHIKI KAISHA

GAS CO., LTD.

a Fujiwara, Representative Director and President

anomachi, Chuo-ku, Osaka, Japan ock Exchange, Inc.

mbashi Kabutocho, Chuo-ku, Tokyo) Stock Exchange, Inc. (8-20, Sakae 3-chome, Naka-ku, Nagoya)

# 1. Basic framework of internal control over financial reporting

Masataka Fujiwara, Representative Director and President, is responsible for the maintenance and operation of a system for internal control over financial reporting of OSAKA GAS CO., LTD. (the "Company"), and maintains and operates the system for internal control over financial reporting in accordance with the basic framework for internal control set forth in the "Revisions to the Standards and Practice Standards for Management Assessment and Audit concerning Internal Control over Financial Reporting (Council Opinions)" published by the Business Accounting Council.

Internal control is intended to achieve its objectives to a reasonable extent by organically linking basic elements of internal control and having them function in a unified manner. For this reason, there are possibilities that internal control over financial reporting will fail to completely prevent or detect misstatements in financial reporting.

# 2. Assessment scope, base date, and assessment procedures

The assessment of internal control over financial reporting was conducted as of March 31, 2021, the base date or the last day of the fiscal year under review. In making the assessment, we complied with the assessment standards for internal control over financial reporting that are generally accepted as fair and appropriate.

In this assessment, we assessed internal control with a significant impact on overall financial reporting on a consolidated basis (company-wide internal control). Based on the results of such assessment, we selected business processes that we should assess. In assessing such business processes, we analyzed the selected business processes, identified key points in control with a significant impact on the reliability of financial reporting, and assessed the effectiveness of the internal control by assessing the maintenance and operation status of the said key points in control.

As for the scope of the assessment of internal control over financial reporting, we determined the necessary scope for the Company, its consolidated subsidiaries, and equity method associates, based on the materiality of the effect on the reliability of financial reporting. We determined the materiality of the effect on the reliability of financial reporting, while considering the materiality of the monetary and qualitative effects, and reasonably determined the scope of the assessment of internal control over business processes based on the result of the assessment of the company-wide internal control over the Company. 3 2 consolidated subsidiaries, and 7 equity method associates. 122 consolidated subsidiaries and 20 equity method associates were not included in the scope of the assessment of company-wide internal control, as they were judged to be insignificant in terms of monetary and qualitative importance.

With regard to the scope of assessment of internal control over business processes, one business location that generated approximately two-thirds of the consolidated net sales in the previous consolidated fiscal year (after transactions between the consolidated companies have been eliminated) was designated as a "significant business location." For the selected significant business location, we included the business processes leading to net sales, accounts receivable trade, and inventories in the scope of assessment, as they are accounts that are significantly related to the company's business objectives. Moreover, at business locations other than the selected significant business location, we included business processes related to significant accounts that have a high possibility of material misstatement and involve estimates and forecasts and business processes related to businesses or operations that involve transactions with high risk in the scope of assessment as we regarded them as business processes with high materiality, considering their impact on financial reporting.

# 3. Results of assessment

As a result of the above assessment, we concluded that the Company's internal control over financial reporting was effective as of the end of the fiscal year under review.

# 4. Supplementary information

Not applicable

# 5. Other

# Basis of Presenting Internal Control Report

The report on internal control over financial reporting of Osaka Gas Co., Ltd. ("Internal Control Report") is prepared on the basis of generally accepted assessment standards of internal control over financial reporting in Japan and is translated from the Internal Control Report prepared by Osaka Gas Co., Ltd. as required by the Financial Instruments and Exchange Act of Japan.

This English integrated report is not subject to an audit by an independent auditor The following Independent Auditor's Report and Internal Control Audit Report is translated by Osaka Gas Co., Ltd. based on the original one attached in the original Annual Securities Report.

# Independent Auditor's Report on the Financial Statements and Internal Control Over Financial Reporting

To the Board of Directors of Osaka Gas Co., Ltd.

# Report on the Audit of the Consolidated Financial Statements

# Opinion

We have audited the accompanying consolidated financial statements of Osaka Gas Co., Ltd. ("the Company") and its consolidated subsidiaries (collectively referred to as "the Group") provided in the "Financial Information" section in the company's Annual Report, which comprise the consolidated balance sheet as at March 31, 2021 and the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and a summary of significant accounting policies, other explanatory information and supplementary schedules, in accordance with Article 193-2(1) of the Financial Instruments and Exchange Act of Japan.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

### Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

# Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

### Appropriateness of the valuation of property, plant and equipment and inta

### The key audit matter

In the consolidated balance sheet of Osaka Gas Co., Ltd., property, plant and In equipment and intangible assets of ¥106.474 million (see "Notes to Consolidated Financial Statements (Significant Accounting Estimates)") owned by Osaka Gas r Australia Pty Ltd ("Osaka Gas Australia"), a consolidated subsidiary in the International Energy segment, are recorded. They represented 4.6% of total assets. Osaka Gas Australia applies International Financial Reporting Standards (IFRS) and procedures among others: conducts an impairment test for any property, plant and equipment and intangible (1) Internal control testing assets of a cash-generating unit for which there are indications of impairment, and if the recoverable amount is less than the carrying amount, the carrying amount is reduced to the recoverable amount, and the reduction in the carrying amount is recognized as impairment losses. The recoverable amount is the higher of either the value in use or fair value less cost of disposal.

Osaka Gas Australia has equity stakes in LNG development projects, and the profitability of those projects is affected by current and future crude oil price fluctuations, etc. As crude oil prices remained low during the current fiscal year, Osaka Gas Australia recognized indications of impairment for a portion of the cashgenerating unit and conducted an impairment test. Having found that the recoverable amount was less than the carrying amount, Osaka Gas Australia recorded impairment losses of ¥14 208 million (see "Notes to Consolidated Financial Statements, (Notes to the Consolidated Statement of Income), %4 Impairment losses").

Osaka Gas Australia used the value in use as the recoverable amount in the impairment test. The future cash flows used to measure the value in use were estimated based on the business plan prepared by management. Key assumption underlying the business plan, such as the prospects for crude oil prices involved a high degree of uncertainty. Accordingly, management's judgment thereon had a significant effect on the estimated future cash flows. In addition, selecting appropriate models and input data for estimating the discount rate, used to calculate the value in use requires a high degree of expertise in valuation.

We, therefore, determined that our assessment of the appropriateness of the valuation of property, plant and equipment and intangible assets recorded by Osaka Gas Australia was one of the most significant in our audit of the consolidated financial statements for the current fiscal year, and accordingly, a key audit matter.

June 25, 2021

- KPMG AZSA LLC Osaka Office, Japan
- Daisuke Harada (Seal) Designated Limited Liability Partner Engagement Partner Certified Public Accountant
- Kenta Tsujii (Seal) Designated Limited Liability Partner Engagement Partner Certified Public Accountant
- Shoichiro Shigeta (Seal) Designated Limited Liability Partner Engagement Partner Certified Public Accountant

tangible assets recorded by Osaka Gas Australia Pty Ltd
How the matter was addressed in our audit
n order to assess the appropriateness of the valuation of property, plant an equipment and intangible assets recorded by Osaka Gas Australia, w equested the component auditors of Osaka Gas Australia to perform an audi Then we evaluated the report of the component auditors as to whethe sufficient and appropriate audit evidence was obtained from the followin

- Test of the design effectiveness of internal controls relevant to measuring the value in use used for the impairment test.
- (2) Assessment of the reasonableness of the estimated value in use Assessment of the reasonableness of the crude oil price and discount rates, which are the key assumptions used in calculating the value in use
- by performing the following procedures:
- Performance of the following procedures by engaging a valuation specialist within the network firms of the component auditors:
- Assessment of the appropriateness of the valuation model used to calculate the value in use
- · Comparison of the range of discount rates independently calculated by the specialist based on information published by external organizations with the discount rates adopted by management
- · Comparison of the range of the crude oil prices independently calculated by the specialist based on information published by externa organizations with the crude oil prices adopted by management
- Sensitivity analysis with regard to changes in crude oil prices and discount rates
- Comparison of business plan with actual business performance

ccuracy of gas sales and electricity sales excluding wholesale					
The key audit matter	How the matter was addressed in our audit				
<ul> <li>Net sales were ¥903,488 million in the Domestic Energy/Gas segment and ¥246,162 million in the Domestic Energy/Electricity segment. They represented 84.3% of consolidated net sales. Of these, gas sales in the Domestic Energy/Gas segment and electricity sales excluding wholesale in the Domestic Energy/Electricity segment (hereinafter collectively referred to as "Gas and Electricity Sales") are particularly important in terms of the number of transactions and the amount recorded.</li> <li>Gas and Electricity Sales are calculated using contract details data based on contracts with customers, sales volume data based on meter reading data, etc. There is a risk of material misstatement regarding the accuracy of the recorded amounts in recording Gas and Electricity Sales, mainly due to the following reasons:</li> <li>The amount of each transaction is small, but the number of customers and contracts is very large, and the number of transactions processed is extremely large.</li> <li>The recorded amount is automatically calculated and aggregated by the business processing system and linked to the accounting system. Therefore, the recording process is highly dependent on automated internal contract details data, sales volume data, etc. are incorrect or the automatic calculation logic is incorrect, the impact could be far-reaching and have a significant impact on financial reporting due to the high degree of dependence on automated internal controls.</li> <li>We, therefore, determined that our assessment of the accuracy of gas sales and electricity sales excluding wholesale was one of the most significant in our audit of the consolidated financial statements for the current fiscal year, and accordingly, a key audit matter.</li> </ul>	<ul> <li>and Electricity Sales. In the assessment, we focused on the following internal controls, based on our understanding of the revenue recognition process. In addition, our IT specialists we involved in the assessment.</li> <li>Approval procedures for entering into contracts</li> <li>Automated internal control over the output of error reports the indicate abnormal meter reading data that deviate from a certar range in comparison with the previous meter readings</li> <li>Verification procedures for error reports that indicate abnorm meter reading data</li> <li>Automated internal control over fee calculations based of contract details data, sales volume data, etc.</li> <li>Approval procedures for manually correcting the results automated calculations</li> <li>Automated internal control over the accuracy and completene of data linkage from the business processing system to the accounting system</li> <li>In understanding the revenue recognition process, we prepare process flow chart in order to clarify which areas have risk material misstatement and whether the corresponding intern controls are designed.</li> <li>(2) Substantive testing</li> <li>For Gas and Electricity Sales other than gas sales to large customers, we divided the population by categories of major radius and solution by categories of major radius and solutions of the population by categories of major radius and solutions of the population by categories of major radius and solutions of the population by categories of major radius and solutions of the population by categories of major radius and solutions of the population by categories of major radius and solutions of the population by categories of major radius and the population by categories of major rad</li></ul>				

### Responsibilities of Management and Corporate Auditors and the Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern in accordance with accounting principles generally accepted in Japan.

Corporate auditors and the board of corporate auditors are responsible for overseeing the directors' performance of their duties including the design, implementation and maintenance of the Group's financial reporting process.

### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of our audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- · Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- · Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the objective of the audit is not to express an opinion on the effectiveness of the Group's internal control
- · Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management
- · Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern
- · Evaluate whether the presentation and disclosures in the consolidated financial statements are in accordance with accounting standards generally accepted in Japan, the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- · Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide corporate auditors and the board of corporate auditors with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

# Report on the Audit of the Internal Control Report

# Opinion

We also have audited the accompanying internal control report of Osaka Gas Co., Ltd. as at March 31, 2021, in accordance with Article 193-2(2) of the Financial Instruments and Exchange Act of Japan

31, 2021, presents fairly, in all material respects, the results of the assessments of internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

### Basis for Opinion

We conducted our audit of the internal control report in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Internal Control Report section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the internal control report in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

# Responsibilities of Management and Corporate Auditors and the Board of Corporate Auditors for the Internal Control Report

Management is responsible for the design and operation of internal control over financial reporting and the preparation and fair presentation of the internal control report in accordance with assessment standards for internal control over financial reporting generally accepted in Japan. Corporate auditors and the board of corporate auditors are responsible for overseeing and examining the design and operation of internal control

over financial reporting

Internal control over financial reporting may not completely prevent or detect financial statement misstatements.

# Auditor's Responsibilities for the Audit of the Internal Control Report

Our objectives are to obtain reasonable assurance about whether the internal control report is free from material misstatement based on our audit of the internal control report and to issue an auditor's report that includes our opinion

As part of our audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- · Perform procedures to obtain audit evidence about the results of the assessments of internal control over financial reporting in the internal control report. The procedures for the audit of the internal control report are selected and performed, depending on the auditor's judgment, based on significance of effect on the reliability of financial reporting.
- · Evaluate the overall presentation of the internal control report, including the appropriateness of the scope, procedures and results of the assessments that management presents.
- · Obtain sufficient appropriate audit evidence about the results of the assessments of internal control over financial reporting in the internal control report. We are responsible for the direction, supervision and performance of the audit of the internal control report. We remain solely responsible for our audit opinion.

We communicate with corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of our audit of the internal control report, the results thereof, material weaknesses in internal control identified during our audit of internal control report, and those that were remediated.

requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

# Interest required to be disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Company and its subsidiaries which are required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan

# Notes to the Reader of Audit Report:

The Independent Auditor's Report herein is the English translation of the Independent Auditor's Report as required by the Financial Instruments and Exchange Act of Japan.

- From the matters communicated with corporate auditors and the board of corporate auditors, we determine those matters that were of most
- In our opinion, the accompanying internal control report, which states that the internal control over financial reporting was effective as at March

- We also provide corporate auditors and the board of corporate auditors with a statement that we have complied with relevant ethical

\* 1 The above is an electronic version of the original audit report, which is kept separately by the Annual Securities Report (Yuka Shoken

Houkokusho) filing Company. 2 XBRL data is not within the scope of the audit.

# **Group Companies**

As of March 31, 2021

# Consolidated subsidiaries

	Name of subsidiary	Main business	Capital (million yen)	Osaka Gas shareholding (indirect shareholding thereof) (%)
	Osaka Gas Finance Co., Ltd.	Leasing, assistance with installment payments, insurance agency business, and others	600	100.0
S	Osaka Gas Marketing Co., Ltd.	Sales of gas and electricity for residential customers, maintenance, sales of appliances, and home renovation, and others	100	100.0
y / Gas	Osaka Gas Liquid Co., Ltd.	Sales of liquefied nitrogen, liquefied oxygen, liquefied argon, and others	1,110	100.0
Energ	Kinpai Co., Ltd.	Gas piping works, and sales of gas appliances and housing equipment/appliances	300	100.0
Domestic Energy	Kansai Business Information Inc.	Call center operation, temporary staffing, and various research services and consulting, and others	100	100.0
Don	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; and engineering	100	100.0
city	Inami Wind Power Co., Ltd.	Electric power supply	495	100.0 (100.0)
Domestic Energy / Electricity	Hayama Wind Power Generation Co., Ltd.	Electric power supply	490	100.0 (100.0)
/El€	Hirogawa Myojin-yama Wind Power Generation Co., Ltd.	Electric power supply	490	100.0 (100.0)
ergy	Senboku Natural Gas Power Generation Co., Ltd.	Electric power supply	2,000	90.0
сEn	Daigas Oita Mirai Solar Co., Ltd.	Electric power supply	8	100.0 (100.0)
lesti	Nakayama Joint Power Generation Co., Ltd.	Electric power supply	300	95.0 (95.0)
Don	Nakayama Nagoya Joint Power Generation Co., Ltd.	Electric power supply	450	95.0 (95.0)
	Osaka Gas International Transport Inc.	LNG transport	3,190	100.0
	Osaka Gas Australia Pty. Ltd. (Note 1)	Development of and investment in petroleum and natural gas, and others	US\$1,327 million	100.0
Energy	Osaka Gas Gorgon Pty. Ltd. (Note 1)	Development of and investment in petroleum and natural gas, and others	US\$322 million	100.0 (100.0)
onal E	Osaka Gas Ichthys Pty. Ltd. (Note 1)	Development of and investment in petroleum and natural gas, and others	US\$152 million	100.0 (100.0)
International	Osaka Gas Ichthys Development Pty. Ltd. (Note 1)	Development of and investment in petroleum and natural gas, and others	US\$149 million	100.0 (100.0)
티	Osaka Gas UK, Ltd. (Note 1)	Investment relating to energy supply business, and others	€134 million	100.0
	Osaka Gas USA Corporation	Investment in petroleum and natural gas project, energy supply business, and others	US\$1	100.0
	Osaka Gas Chemicals Co., Ltd. (Note 1)	Manufacture and sales of fine materials, carbon material products, activated carbon, and wood protective coating	14,231	100.0
Solutions	Osaka Gas Urban Development Co., Ltd.	Development, leasing, management, and sales of real estate	1,570	100.0
	Osaka Gas Facilities Corporation	Operation, management, maintenance of buildings and facilities, and others	100	94.4
Business	OGIS-RI Co., Ltd.	Software development / Computer-based data processing services	440	100.0
∞	Sakura Information Systems Co., Ltd.	Development of computer software / Computer-based data processing services	600	51.0 (51.0)
Life	Jacobi Carbons AB	Manufacture and sales of activated carbon	549,000 Swedish Kronor	100.0 (100.0)
	Mizusawa Industrial Chemicals, Ltd.	Manufacture and sales of absorbent functional materials and resin additives	1,519	100.0 (100.0)

and others, totaling 154 companies

Note 1: Specified subsidiary

Note 1: Opeonies auditation of the Company has introduced a cash management system to make financial arrangements with group companies, and lending and borrowing of funds takes place between these companies and the Company.

# Equity method affiliates

Name of affiliate	Main business	Capital (million yen)	Osaka Gas shareholding (indirect shareholding thereof) (%)
Japan Gas Energy Corporation	Domestic Energy/Gas	3,500	29.0 (29.0)
CD Energy Direct Co., Ltd.	Domestic Energy/Electricity	1,750	50.0
Idemitsu Snorre Oil Development Co., Ltd.	International Energy	100	49.5 (49.5)
FLIQ1 Holdings, LLC	International Energy	-	25.0 (25.0)
Sumisho Osaka Gas Water UK Limited	International Energy	164 million British Pounds	50.0 (50.0)
and others, totaling 27 companies		l.	

and others, totaling 27 companies

Note: The column "Main business" shows segment names listed in "Segment Information" in this report.

# Company Data

As of June 30, 2021

Directory				
Directory				
541-0046, J Tel: (+81) 6-	omachi, Chuo-ku, O apan 6205-4715 (IR Team		Osaka Gas USA Corporation (Houston) 1330 Post Oak Blvd, Suite 1900 Houston, TX 77056, U.S.A.	0 Le 60
Tokyo Offi Shin-Otema	trategy Dept.) Ce chi Building 6F, 2-2- Chiyoda-ku, Tokyo	·1,	Osaka Gas USA Corporation (New York) 1 North Lexington Avenue, Suite 1400, White Plains, NY 10601, U.S.A.	0 0 P 18 Si
100-0004, J	apan		Osaka Gas USA Corporation (Silicon Valley) 440 North Wolfe Rd, Sunnyvale, CA 94085, U.S.A	0 55
,	arrington House, 126 et, London W1B 5SE		Sabine Oil & Gas Corporation 1415 Louisiana Street, Suite 1600, Houston, TX 77002, U.S.A.	W 10
Investor I	nformation			
Date of Es	tablishment	April 1	0, 1897	
Regular G	eneral Meeting		n June each year 21 regular general meeting was held on June 2	5)
Common S	Stock		ized: 700,000,000 shares : 416,680,000 shares	
Listing of S	Shares	Tokyo	Stock Exchange and Nagoya Stock Exchang	je
	f Shareholders ch 31, 2021)	85,163		
Stock Trar	saction Units	100 sh	ares	
Independe Public Acc	ent Certified countants	KPMG	AZSA LLC	
Transfer A	gent	Sumito	omo Mitsui Trust Bank, Limited	
Contact	Sumitomo Mitsui Stock Transfer Ag Tel: (+81) 120-782	ency Bus	iness Planning Department	
	ave created a pag red in a timely ma		vestors on our website, which is	
	L https	s://www.	.osakagas.co.jp/en/ir/	
	ies about this repor ail:keiri@osakagas.		ests for other materials, please contact:	
<ul> <li>Please no</li> </ul>	te that we do not ac	ccept files	s attached to e-mails, such as image files.	

Weight			
kg	Metric ton	Imperial (short) ton	U.S. (long) ton
1	1×10 <sup>-3</sup>	0.984×10 <sup>-3</sup>	1.102×10 <sup>-3</sup>
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	0.622×10 <sup>-3</sup>
0.3048	1	0.333	0.189×10 <sup>-3</sup>
0.9144	3	1	0.568×10 <sup>-3</sup>
1,609	5,280	1,760	1
Volume (Liquid)			
m³ (kl)	ft <sup>3</sup>	Imperial gallon	U.S. gallon
1	35.315	219.97	264.17
28.32×10 <sup>-3</sup>	1	6.288	7.481
4.55×10 <sup>-3</sup>	0.1606	1	1.2011
3.78×10 <sup>-3</sup>	0.1337	0.8327	1

Dsaka Gas Australia Pty Ltd Level 22, 108 St Georges Terrace, Perth, WA 5000, AUSTRALIA

# Osaka Gas Singapore Pte. Ltd. Osaka Gas Energy Supply and Trading Pte. Ltd.

182 Cecil Street #31-02 Frasers Tower Singapore 069547

# Osaka Gas (Thailand) Co., Ltd.

55 Wave Place Building 10th Floor, Unit10.04, Wireless Road Lumpini Pathumwan, Bangkok 10330, Thailand

# Osaka Gas Singapore Pte. Ltd. (Indonesia) PT OSAKA GAS INDONESIA

Summitmas I, lantai 9 Jl. Jend. Sudirman Kav 61-62 Jakarta-12190, Indonesia

### Osaka Gas Singapore Pte. Ltd. (Philippines)

Manila Representative Office 26th Floor, Twenty-Four Seven McKinley Building, 24th Street Corner 7th Avenue, Bonifacio Global City, Taguig, Metro Manila, Philippines

Major Shareholders (As of March 31, 2021)	Number of shares	Shareholding ratio
Shareholder	(Thousands)	(%)
The Master Trust Bank of Japan, Ltd. (Trust a/c)	33,787	8.13
Custody Bank of Japan, Ltd. (Trust a/c)	20,631	4.96
Nippon Life Insurance Company (Standing Proxy: The Master Trust Bank of Japan, Ltd.)	19,242	4.63
Custody Bank of Japan, Ltd. (Trust a/c 7)	11,561	2.78
MUFG Bank, Ltd.	11,188	2.69
Resona Bank, Ltd.	10,555	2.54
STATE STREET BANK WEST CLIENT-TREATY 505234 (Standing Proxy: Mizuho Bank, Ltd.)	6,320	1.52
Aioi Nissay Dowa Insurance Co., Ltd. (Standing Proxy: The Master Trust Bank of Japan, Ltd.)	5,973	1.44
Meiji Yasuda Life Insurance Company (Standing Proxy: Custody Bank of Japan, Ltd.)	5,838	1.40
JPMorgan Securities Japan Co., Ltd.	5,569	1.34

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



Volume (Gas)			
m³ (N)	m <sup>3</sup> (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	4.186×10 <sup>-3</sup>	1.162×10 <sup>-3</sup>
0.2520	1	1.055×10 <sup>-3</sup>	0.2929×10 <sup>-3</sup>
238.9	948.2	1	0.2778
860.1	3,414	3.600	1
Heating Value	e (Gas)		
kcal/m <sup>3</sup> (N)	Btu/SCF	MJ/m <sup>3</sup> (S)	
1	0.1063	3.97×10 <sup>-3</sup>	
9.406	1	3.73×10 <sup>-2</sup>	
252.1	26.81	1	
	$13 \times 10^6$ kcal = $52 \times 10^6$	6 D.	