



Sustainability Report 2023



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Sustainability Report Editorial Policy

Principle and Outline

The Daigas Group deems that it is necessary for the Group to listen to people's voices sincerely, and conduct its business activities based on such voices, if it is to fulfill its corporate social responsibility (CSR).

In the "Daigas Group Medium-Term Management Plan 2023 'Creating Value for a Sustainable Future,'" we positioned the period of the plan as a period for creating "value for a sustainable future" with our stakeholders and achieve further growth as a group that can help solve social issues in building a sustainable society, and selected "materiality" for enhancing and accelerating the practice of ESG management based on the concept of "Creating Value for a Sustainable Future." The Daigas Group identified materiality by referring to the GRI Sustainability Reporting Standards (GRI Standards), a global standard for sustainability reports compiled by the Global Reporting Initiative (GRI), while taking into account current social issues and holding dialogue with outside experts.

On its sustainability site, the Daigas Group reports on the status of management and progress of related initiatives for each of the identified materiality as "Priority Initiatives," and it also posts activities other than materiality reports to the extent possible so that the overall picture of the Group's initiatives can be made known to parties outside and inside the Group.

This Sustainability Report is an integrated and edited PDF of the main contents previously posted on the sustainability site.

[Coverage and Materiality](#) Materiality of the Daigas Group

In selecting topics to be covered in the report and prioritizing them, we took into consideration both the impact on society and the environment and the future financial impact on the Group.

For more information on consideration to importance, click the above link for Materiality of the Daigas Group.

[Readability and Ease of Understanding](#)

To ensure that a wide range of readers can understand the information provided in the report, careful consideration is given to visual design, including the text size, use of colors, pictures, and diagrams, and technical terms are supplemented with annotations and other explanations.

[Reliability](#)

To ensure the reliability of the content of the report and the data that it contains, environmental performance data is reported on this website after undergoing third-party verification by Bureau Veritas Japan, Inc.

[Scope of This Report](#)

Reporting Period:

Fiscal year 2023.3 (April 1, 2022 to March 31, 2023)

*Matters on other periods are partially included.

Reporting Boundary:

Osaka Gas Co., Ltd. and its consolidated subsidiaries

- **Financial data:**

Osaka Gas Co., Ltd. (1), and its consolidated subsidiaries (154)

- **Environmental data:**

63 companies in total, including Osaka Gas Co., Ltd. and 62 companies among 154 consolidated subsidiaries are subject to calculation of environmental performance data. 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. Energy consumption and greenhouse gas emissions for a total of 65 companies exclude overseas subsidiaries, except for two overseas subsidiaries.

- **Social, Governance data:**

Data ranges are described in the respective articles.

Publication Information

This report will be published annually as an annual report.

Publication: September 2023

Last update of the sustainability website: September 2022

[About the Notation](#)

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

[Guidelines Referred to](#)

- ISO 26000 (Guidance on social responsibility)
- Sustainability Reporting Standards of the Global Reporting Initiative (GRI)
This report contains information corresponding to disclosure requirements of the GRI Sustainability Reporting Standards.
- Environmental Reporting Guidelines 2018 of the Ministry of the Environment
- Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- International Integrated Reporting Framework of the IFRS Foundation
- Guidance for Collaborative Value Creation of the Ministry of Economy, Trade and Industry
- SASB Standards
- The United Nations Global Compact COP* Policy

*COP

COP stands for Communication on Progress. COP is an annual report that provides information on the status of participants' commitment to the 10 principles of the UN Global Compact. It is an important requirement for participation in the UN Global Compact.

Outline of the Daigas Group

Corporate Profile of Osaka Gas Co., Ltd. (As of March 31, 2023)

Head Office	4-1-2, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan
Date of Establishment	April 10, 1897
Date of Founding	October 19, 1905
Net Sales*1	[Non-consolidated] 1,716.7 billion yen [Consolidated] 2,275.1 billion yen
Ordinary Profit*1	[Non-consolidated] -77.4 billion yen [Consolidated] 75.6 billion yen
Profit*1	[Non-consolidated] -45.2 billion yen [Consolidated] 57.1 billion yen*2
Capital	132,166 million yen
Number of Employees	[Non-consolidated] 1,163 (including executive officers, directors and temporary employees; excluding employees temporarily transferred to affiliated companies) [Consolidated] 21,017

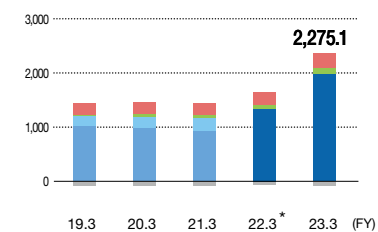
*1 Fiscal year ended March 31, 2023

*2 Profit attributable to owners of parent

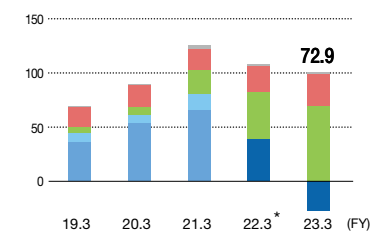
Main Business Lines of the Daigas Group (As of March 31, 2023)

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

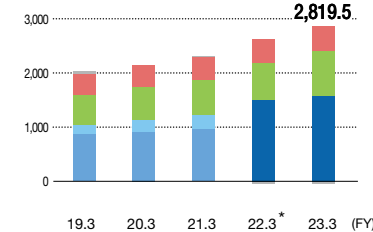
Net sales by segment (billion yen)



Segment profit (billion yen)



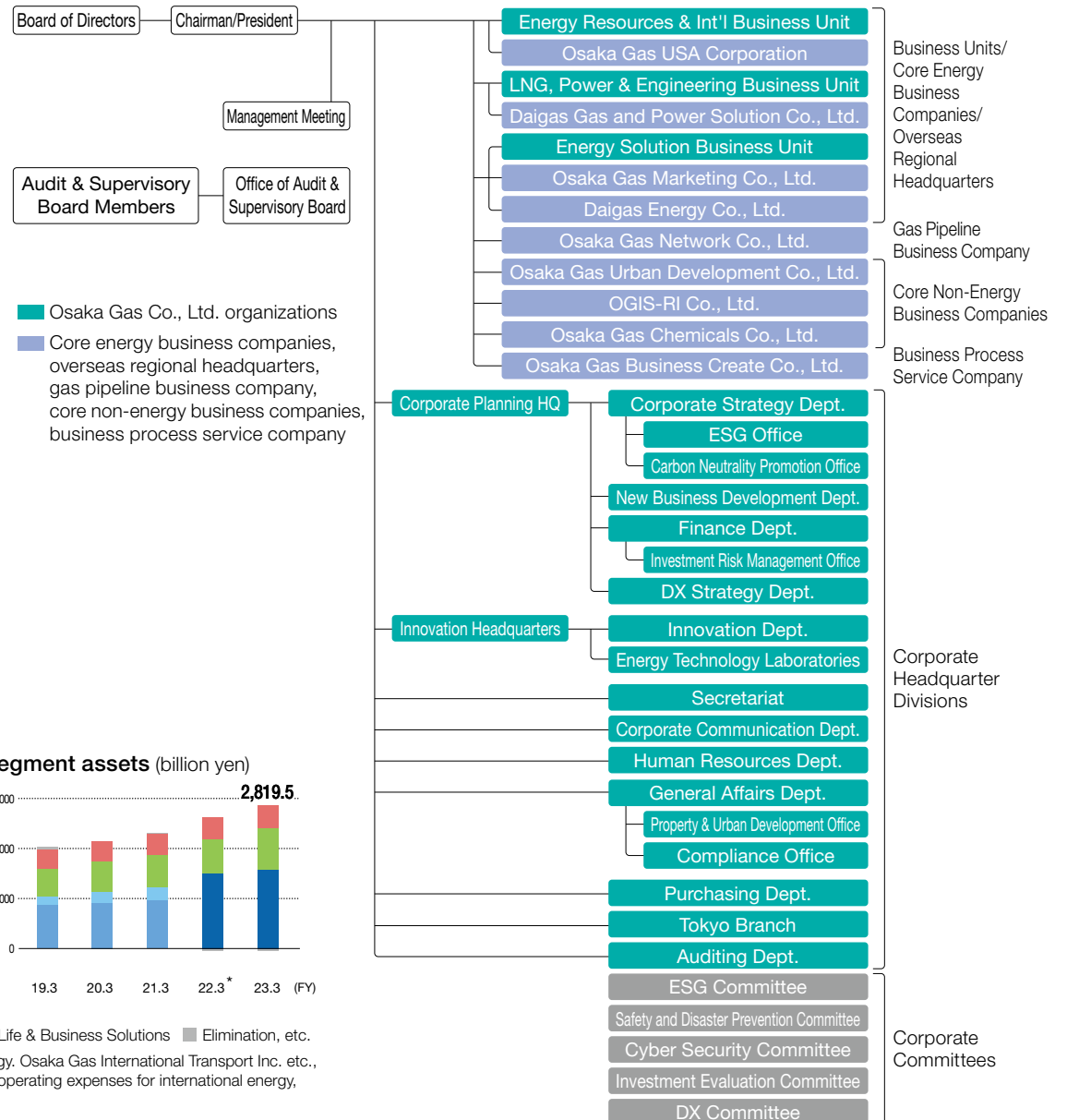
Segment assets (billion yen)



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

*From FY2022.3, Domestic Energy/Gas and Domestic Energy/Electricity were integrated into Domestic Energy. Osaka Gas International Transport Inc. etc., which were previously included in International Energy, were transferred into Domestic Energy. Osaka Gas' operating expenses for international energy, which were previously included in Domestic Energy/Gas, were transferred into International Energy.

Daigas Group Organization (As of April 1, 2023)

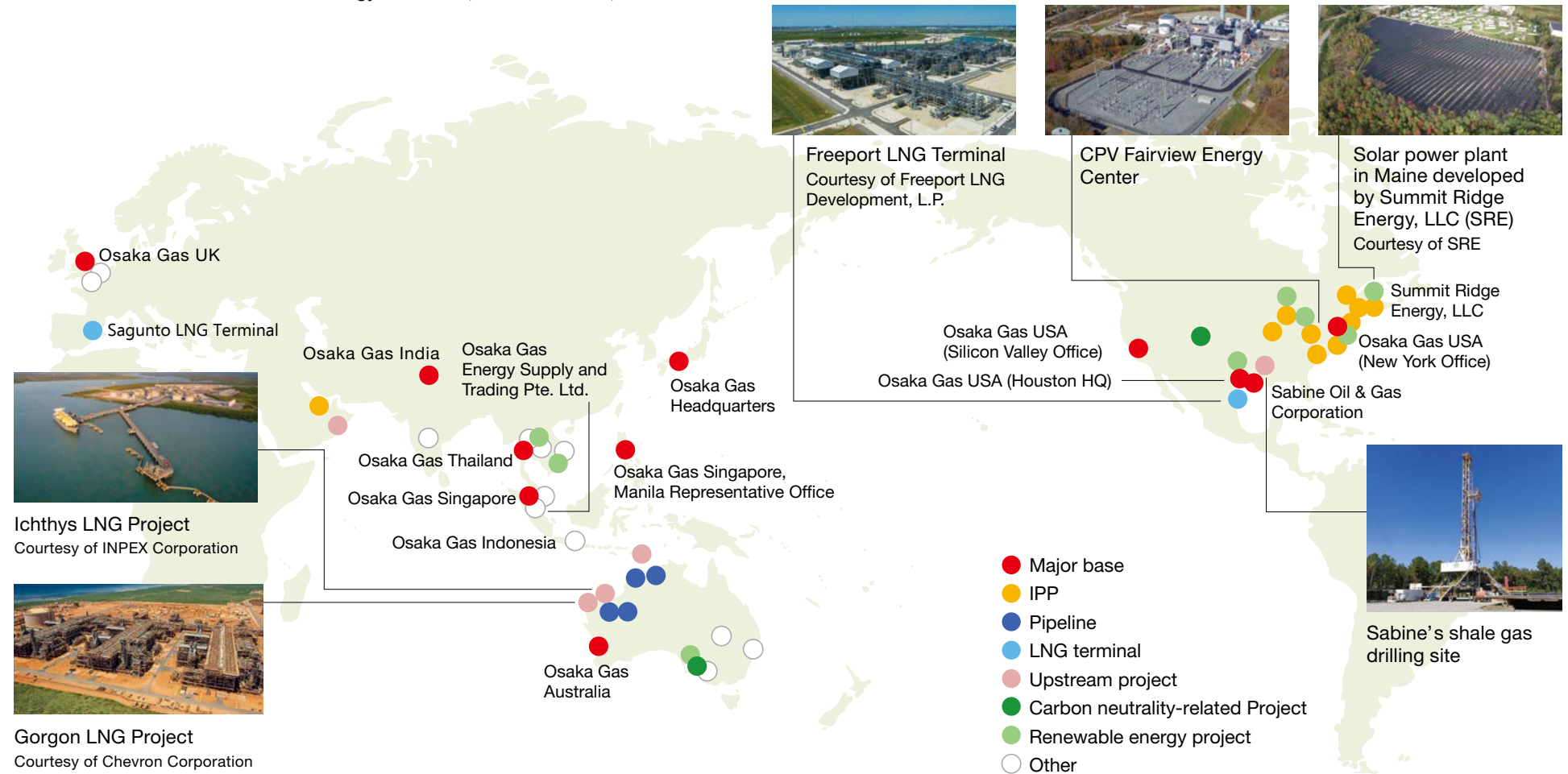


Daigas Group's Businesses

Overseas Energy Infrastructure

In the International Energy Business, we strive to ensure the stable procurement, supply, and wider use of natural gas, a key transition fuel, and strengthen our efforts in businesses in the fields of renewable energy and new energy and businesses that aim to achieve carbon neutrality.

Investments in the International Energy Business (As of March 31, 2023)



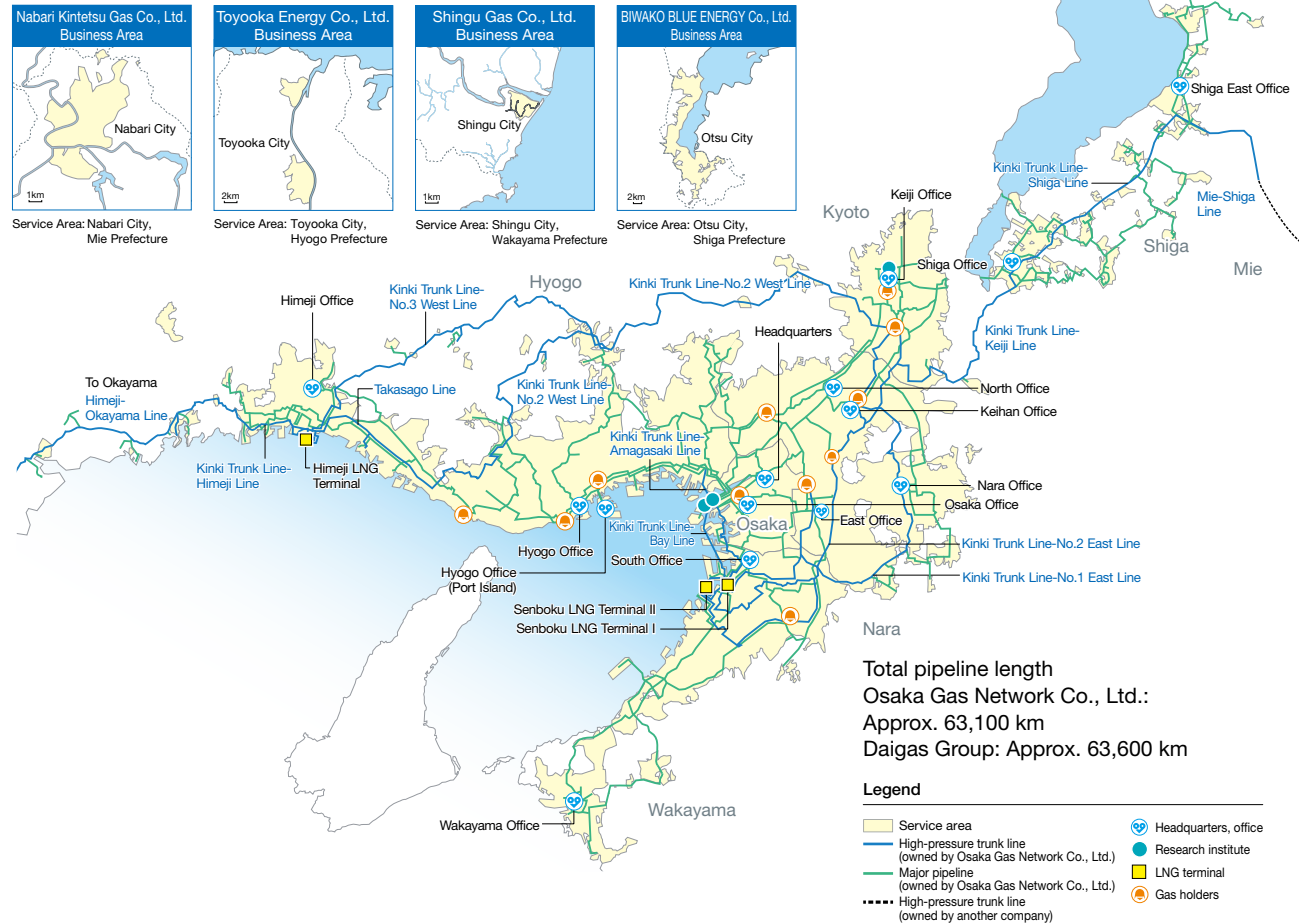
*Please refer to the Fact Book for investments in the International Energy Business.



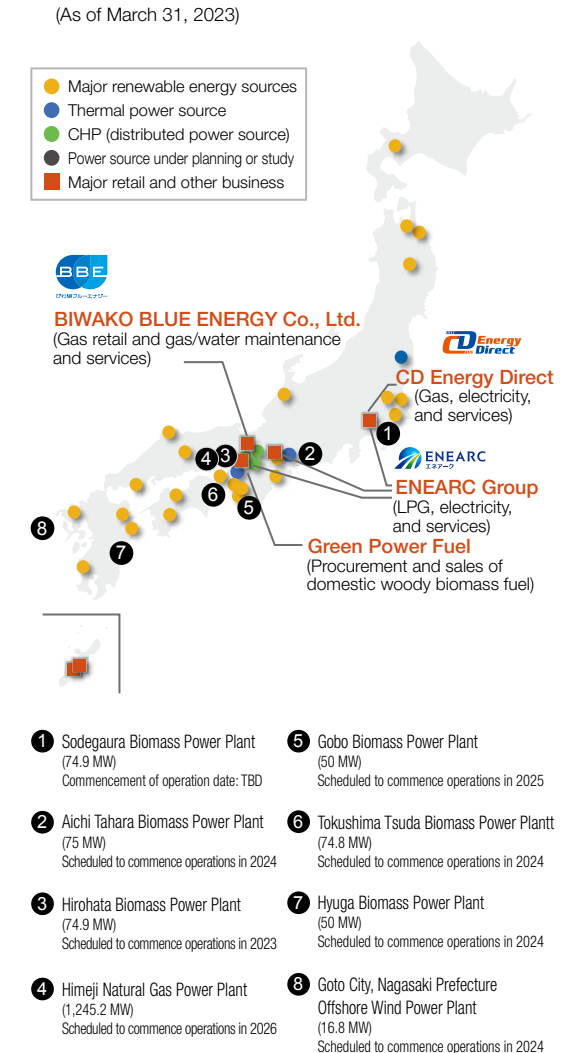
Domestic Energy Infrastructure

The Daigas Group systematically extends and expands the gas pipeline network for wider use and expansion of city gas and improved capacity for stable supply. In addition to the city gas business centered on the Kansai region, we will work to expand the development and acquisition of renewable energy in all parts of Japan. We will also leverage the strengths that we have built up to promote the construction of competitive infrastructure and the provision of services nationwide.

Gas Service Area of the Daigas Group (As of March 31, 2023)



Major Energy Infrastructure in Japan (As of March 31, 2023)



Life & Business Solutions (LBS) Business

To further develop the LBS business as our core business, we will promote the growth of existing fields and the expansion of business domains. Described below are major activities in each business field.

Urban Development Business



Providing comfortable, healthy, and high-quality living space and productivity-boosting office space

Osaka Gas Urban Development Group

The Urban Development Business rolls out real estate business, which extends widely to include the development of properties such as sale and rental apartments, office buildings, management of buildings and facilities, and so on.

Osaka Gas Urban Development Co., Ltd. has adopted ZEH-M Oriented^{*1} as standard features of its condominiums planned from April 2022 onward. This facilitates the provision of condominiums that save and create energy and allow residents to contribute to the environment.

We will continue to 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 continue to develop and supply quality housing that address social issues (SDGs, etc.) and customer needs, accelerate new businesses such as logistics real estate and private-placement REIT, provide comprehensive facility management services in the building maintenance business, expand out-of-area projects in the research park business, and provide interaction opportunities and a business environment that triggers the creation of innovations.

^{*1} ZEH-M Oriented condominiums aim to reduce primary energy consumption by 20% or more for the entire condominium including communal areas. This is materialized by significantly improving outer surface insulation and other functions of buildings and achieving significant energy saving through the introduction of highly efficient facility systems.



Materials Solutions Business



Providing value and contributing to a sustainable society through high-quality materials solutions

Osaka Gas Chemicals Group

The Materials Solutions Business develops, manufactures, and sells a variety of highly functional materials based on our own coal chemistry technologies and pharmaceutical- and agrochemical-related technologies. Specific business fields include fine materials, carbon fiber materials, activated carbon, silica- and alumina-based materials, and preservatives. In 2014, we acquired activated carbon producer Jacobi Carbons AB (Sweden) and are developing our business globally.

Frontier Materials Laboratories of Osaka Gas Chemicals Co., Ltd. develops new materials and technologies to create future-oriented materials conducive to value creation, focusing on the three fields of organic synthesis,^{*2} polymerization and compounds,^{*3} and bioscience.

We will continue to 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.

^{*2} New monomers for optoelectronic materials and semiconductors are mainly developed in the organic synthesis field.

^{*3} Optoelectronic materials, resin modifiers, and carbon dispersion materials are mainly developed in the polymerization and compounds field.



Information Solutions Business



Contributing to the evolution of corporations and individuals in the digital age

OGIS-RI Group

OGIS-RI traces its roots back to developing and managing systems for the gas business of Osaka Gas Co., Ltd. It rolls out services for general consumers as well. Through various acquisitions, the company has organized a group of IT companies that offer services to the manufacturing and financial industries or have strength in ERP,^{*4} thereby expanding business domains. By sharing the expertise within the group, we provide comprehensive IT services ranging from consulting, design, development, and operation of information systems to cloud data centers, and security.

In addition, the strength of OGIS-RI Group, which is the ability to accelerate the evolution of business by asking essential questions and finding answers without fail, is set as the company's PURPOSE. We strive to secure and develop talented human resources to resolve customers' issues by using technology.

We will continue to help improve the competitiveness of the Daigas Group, responding to new customer needs in the fields of energy, manufacturing, and finance; ERP; clouds; and digital transformation.

^{*4} ERP is the abbreviation for enterprise resource planning. ERP has been adopted in a wide range of industries as a system that centrally manages customers' corporate activities and contributes to efficient management.



Management

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Message from the President

The Daigas Group continues to take on proactive challenges in various fields to earn our stakeholders' overwhelming support.

藤原正隆

Masataka Fujiwara
Representative Director and
President



FY2023.3 was a year of intensified change in the social and economic environments, where the international situation became increasingly unstable, the exchange rate experienced heightened volatility, and inflation continued during the COVID-19 pandemic persisting.

Faced with the accelerating trend of decarbonization and the growing importance of energy security, we recognize the significance of fulfilling our role required by society in contributing significantly to resolving long-term social issues, such as achieving carbon neutrality, while discharging our duties to ensure a stable energy supply.

Resolving social issues at the core of our business since its inception

In recent years, companies' business activities have been increasingly scrutinized to see whether they contribute to resolving social issues, such as decarbonization to counter climate change. It has become clear that addressing those challenges to contribute to society is at the forefront of companies' purpose today.

At the Daigas Group, we have strived to resolve social issues through the energy business for over 100 years since the inception of Osaka

Gas. One of the company's founding goals was to promote the wide usage of safe and economical gas lamps to replace oil lamps, major causes of fires in urban areas in the late nineteenth century. Our company's business is rooted in tackling social issues.

While achieving sustained growth by fulfilling our founding purpose of resolving social challenges, we have reshaped the Group and reinvented its businesses in response to changes in the times and the business environment, such as our business diversification in the 1980s, return to natural gas-focused business development in the 1990s,

expansion into overseas markets and businesses from the 2000s, and competition in the fully deregulated energy markets from the late 2010s. Throughout our long history, the company has evolved and advanced to higher stages by building new portfolios. Our endeavor continues as we now face many different social issues, including those related to the environment, such as climate change, and those related to society, such as human rights and human capital.

Meanwhile, no matter what changes in the times and business situations we may face, we have always aimed at a goal as our unwavering anchor, which is what we aim to be in the Daigas Group Corporate Principles, “a corporate group that powers continuous advancement in customers’ lives and businesses.” Under this goal, we have strived to resolve social issues, with each and every one of us being mindful of being of service to customers and society, our commitment that drives and propels our activities. “Being of service” to customers is our Corporate Motto, “Service First,” that is, to devote ourselves to putting our customers first. Far and away, the most integral part of that is to practice Sangen Shugi, or the “Three Actuals Principle,” which places emphasis on *genba* (the actual site), *genbutsu* (the actual article), and *genjitsu* (the actual situations).

As a member of the Daigas Group, I have valued the spirit of Service First and Sangen Shugi, the importance of which I have recognized firsthand through my experience of intense competition with other energy players and close engagement with customers since I joined the company. “We are not supplying gas to customers; our customers are choosing to use our gas.” “To continue to be the

first choice of customers, we must seek out our customers’ real issues and resolve them.” These values have remained unchanged from the past and at present and will continue into the future.

In resolving social issues, we always adhere to Service First based on Sangen Shugi. By offering solutions that exceed the expectations of customers and society, we aim to power continuous advancement in customers’ lives and businesses and evolve the business portfolio of the Daigas Group.



Highlights of the past two years in executing CVS2023

Over the past two years of the CVS2023 period, we stepped up our efforts to develop methanation technologies for producing and introducing e-methane* and build its supply chains. Despite the increased volatility in energy procurement and sales due to growing global instability, such as Russia’s invasion of Ukraine, we have managed to maintain a stable energy supply to customers through close cooperation among our Group companies.

In the Domestic Energy segment, the number of customer accounts, which is the fruit of our efforts, has reached 10 million, our target for 2030 in the Long-Term Management Vision. In addition, we have been expanding our business foundations through various measures; Starting the construction of the Himeji Natural Gas Power Plant: Introducing new services into the market, such as Sumai LINK, a life-service platform business for enhanced customers’ daily lives, and D-Lineup, which assists commercial and industrial customers’ emissions reduction and decarbonization: Entering the fixed-line telecommunications and other businesses in new domains. In the International Energy segment, Sabine Oil & Gas Corporation in the United States has been steadily increasing its shale gas production, growing into a pillar of revenue for the Daigas Group. In Life & Business Solutions (LBS) segment, the three core companies in the real estate, information, and materials fields have advanced their performances and expanded their business domains by leveraging their

*Synthetic methane produced from non-fossil fuel-based feedstocks, such as green hydrogen

respective strengths even in an unstable business environment.

While we succeeded in enhancing our business portfolio last year as described above, we experienced a major setback when the Freeport LNG, a natural gas liquefaction business in the United States, shut down its plant following a fire that broke out in June 2022. This incident at the Freeport LNG, where we participate as an equity holder and LNG off-taker, posed a serious threat to our LNG procurement amid the growing importance of energy security. We quickly acted to ensure a stable energy supply by seeking alternative sources and exploring other options to make up for the LNG shortfall caused by the plant shutdown. Taking this event as a lesson that a single accident could lead to considerable supply disruption and financial losses, we have been re-examining the risk management of our entire business to prevent similar incidents.

In addition, at the Sodegaura Biomass Power Plant, a fire broke out in a fuel storage silo in January 2023. This accident at the power plant, which an affiliate of Osaka Gas had built and was in the process of commissioning, occurred due to an issue regarding safety, a top priority for an infrastructure business operator. In the wake of this incident, we have been undertaking intensive and full inspections, besides daily checks, of our operations and maintenance in all our infrastructure businesses to make improvements. We have taken seriously to heart the great concern and inconvenience these accidents have caused our stakeholders, and we are determined to ensure no

repeat of similar accidents.

This fiscal year is the final year of CVS2023, when we finish executing the current medium-term plan to achieve the targets and formulate our next medium-term management plan. While fulfilling our mission as an energy business operator to deliver a stable energy supply, we aim to bring our efforts to date to fruition and accelerate the growth and evolution of the Group to reach our targets for 2030, the year we plan to inject our first e-methane into the gas grid, and 2050, the year we aim to achieve carbon neutrality. As the top of the Daigas Group, I will steer the management through deliberations in the Board of Directors and Advisory Committees, balancing the weight between addressing immediate changes and taking on challenges for our future growth.

ESG-focused management

In achieving the targets of CVS2023, it is vital to create and share value with our stakeholders. To maintain our stakeholders' confidence and execute our ESG-focused management steadily, we are building a resilient business foundation that will allow and encourage our members to continue taking on new challenges even amid growing uncertainty.

For the realization of the Daigas Group Corporate Principles, we have established the Daigas Group Charter of Business Conduct, which presents our corporate stance, and the Daigas Group Code of Business Conduct, which provides concrete standards of conduct for the Group's

officers and employees to adhere to.

In 2007, we announced our participation in the United Nations Global Compact, which is a first for a Japanese public utility enterprise. We fully support the principles to be followed by companies as members of the international community.

■ The Ten Principles of the UN Global Compact

Human Rights	Principle 1 : Businesses should support and respect the protection of internationally proclaimed human rights; and
	Principle 2 : make sure that they are not complicit in human rights abuses.
Labour	Principle 3 : Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
	Principle 4 : the elimination of all forms of forced and compulsory labour;
	Principle 5 : the effective abolition of child labour; and
Environment	Principle 6 : the elimination of discrimination in respect of employment and occupation.
	Principle 7 : Businesses should support a precautionary approach to environmental challenges;
	Principle 8 : undertake initiatives to promote greater environmental responsibility; and
Anti-Corruption	Principle 9 : encourage the development and diffusion of environmentally friendly technologies.
	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

As President, I have held meetings called “Mirai Open Talk” with the Group company employees as part of my workplace visit. In the session, I deliver my message in person from the perspective of the Corporate Principles and the Long-term Management Vision, emphasizing the importance of creating value for a sustainable future and resolving social issues. These meetings are invaluable opportunities for me to learn how our employees approach their daily work and address problems. In one of the Mirai Open Talks in FY2023.3, I held a session with our young employees, where I was deeply impressed by their efforts and serious attitude to improve themselves and serve customers and society even as they struggle.

These conversations help identify key management issues of enhancing value for employees, such as creating workplaces that encourage diverse talent to take on new challenges to achieve personal growth through them and allow

them to tackle social issues to contribute to society. One initiative to this end is the full-scale initiation of the Daigas transformation or Daigas X, in which we aim to enhance work efficiency within the Group by sharing the Daigas Group’s ways of productive working. We will develop a working environment to promote dynamic transformation and encourage members to challenge themselves.

We are also pursuing initiatives for further improving corporate governance. In addition to the Advisory Committees on appointment and remuneration, we established Advisory Committee on Management in FY2023.3. This new committee comprises the officer in charge of the Corporate Planning Headquarters, all Outside Directors, and me as President, with Outside Audit & Supervisory Board Members participating as observers. In these committees, each chaired by an Outside Director, members discuss critical issues, making the most of their respective specializations. In FY2024.3, we welcomed a new female Outside Director, and that has made discussions even livelier.

Through the practice of the above ESG-focused management, we intend to build resilient business foundations, aiming to continue earning the unwavering confidence of our stakeholders.

Toward the Future

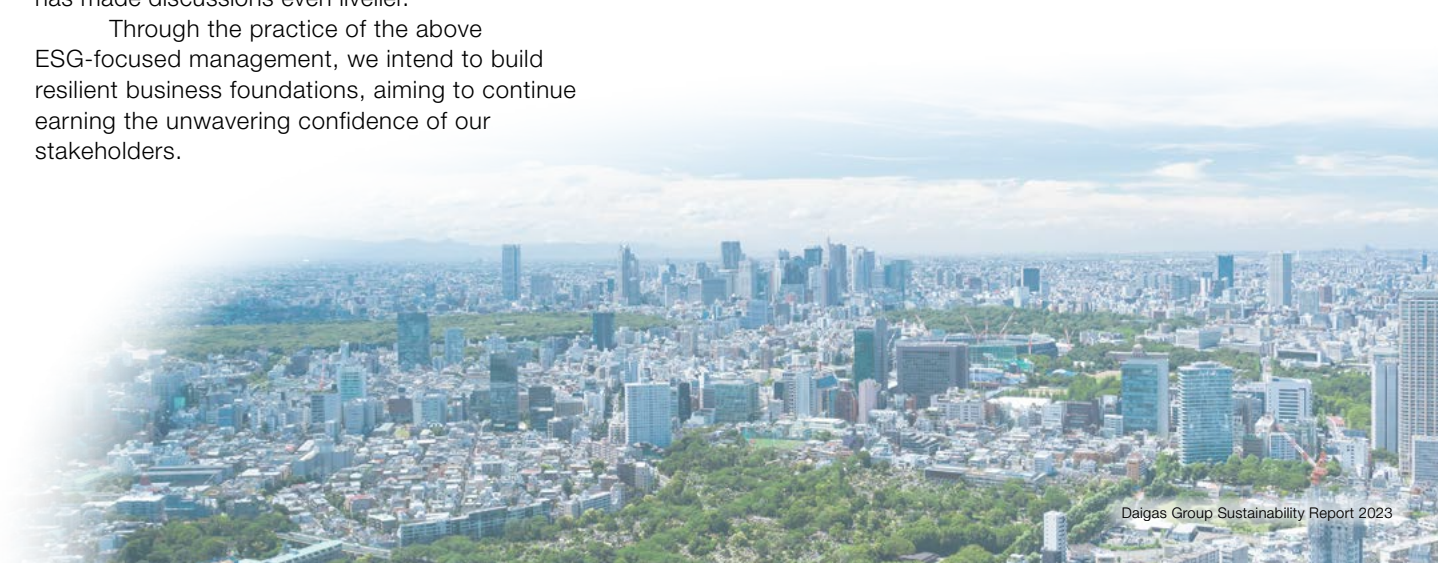
There has been a tremendous shift in the social paradigm. Even though the COVID-19 pandemic and the recent instability of social and economic conditions appear to have settled down somewhat, the world will not return to the way it was. The trend of decarbonization, digitalization, and the diversification of people’s values will only grow in speed and scale. To avoid being left behind, we will shift our efforts into an even higher gear on cocreating value for a sustainable future.

Centering on activities for resolving social issues, we will devote our every effort to realizing a sustainable society by taking on new challenges in various fields in Japan and overseas to earn the overwhelming support of our stakeholders. Please look forward to our best results.

September 2023



Discussion on the Group’s Future with the President
A video featuring scenes from the Mirai Open Talk with young employees was posted on the in-house company website for employees.



Daigas Group's Values

Daigas Group Philosophy

The Daigas Group has established the Daigas Group Corporate Principles, the Daigas Group Charter of Business Conduct, and the Daigas Group Code of Business Conduct. The Daigas Group Corporate Principles consist of What We Aim To Be, Our Commitment, and Our Corporate Motto.

The Group believes that the creation of four types of value is the fulfillment of its social responsibility by creating value primarily for customers, as well as for society, shareholders, and employees, aiming to become a corporate group that powers continuous advancement in customers' lives and businesses.

We have also established the Daigas Group Charter of Business Conduct as a statement of our corporate stance and the Daigas Group Code of Business Conduct as a specific code of conduct to be followed by our officers and employees, and we conduct our business activities based on them.

Daigas Group's Corporate Principles



–What the Daigas Group Aims To Be–

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

–Daigas Group's 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 [Daigas Group Charter of Business Conduct](#)

The Daigas Group places the highest priority on creating value for customers and aims to lead creating value for customers to creating value for society, for shareholders, and for employees through its business activities. We believe that our social responsibility lies in creating value for all these stakeholders through fair and transparent business activities.

We have established the Daigas Group Charter of Business Conduct in order to demonstrate our determination to match our stakeholders' expectations and fulfill our corporate social responsibility toward our Group's sustainable development. This Charter serves as the Group's fundamental guide to achieving sustainable economic growth and resolving social issues through its business activities in cooperation with customers, society, shareholders, and employees.

The Daigas Group's management members are expected to be role models in acting in accordance with the Charter. They will take strict corrective action in case of any infringement of the Charter.

Daigas Group Charter of Business Conduct

I. Creating Value for Customers

The Daigas Group aims to enhance energy resilience through a reliable and safe supply of energy, including natural gas, electricity, and LPG, while ensuring safety and providing services. The Daigas Group strives to create value through the development of various businesses and innovation for customers' comfortable lifestyles and sustainable business development.

II. Contributing to the Sustainability of the Environment and Society

The Daigas Group addresses the environmental issues both at regional and global levels as a matter of paramount importance in its business centered on energy supply. In light of the impacts of its business activities on the environment, the Daigas Group strives to tackle climate change and other environmental issues, develop innovative technologies and promote their wider use, and support the advanced use of resources and materials.

III. Engaging With and Contributing to Society

The Daigas Group ensures the transparency of its business operations and discloses information for the public's better understanding of its corporate activities. The Daigas Group promotes cooperation with various stakeholders through productive dialogue and makes positive contribution to the local community as a good corporate citizen.

IV. Respecting Human Rights

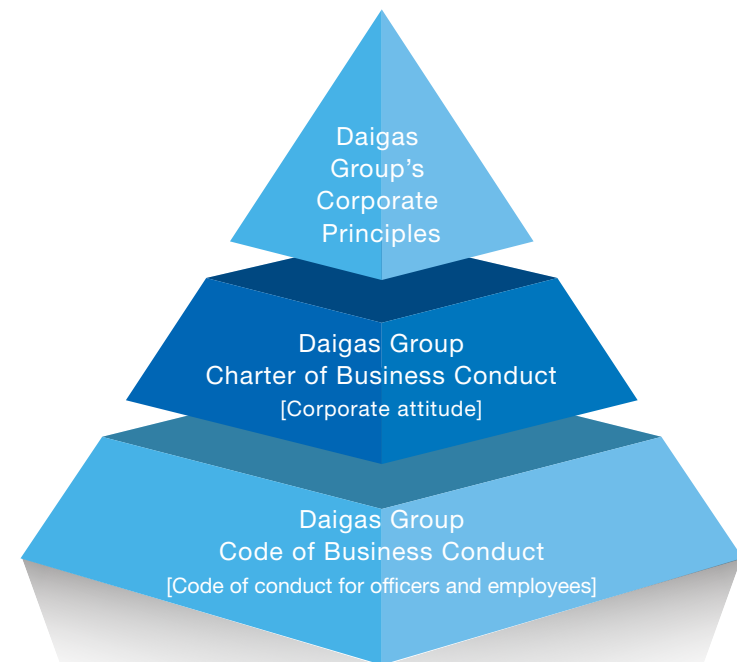
The Daigas Group respects human rights as basic rights inherent to all. The Group supports the international standards on human rights and promotes activities and programs to protect the human rights of its stakeholders.

V. Complying with Laws and Regulations

The Daigas Group strives to earn the trust of society through its compliance with laws and regulations on all levels, including the management and employees. The Group's compliance is not limited to observing laws and regulations but includes acting sensibly as a member of society. The Group conducts business activities with fairness and integrity, respecting the culture and customs of each country and region where it operates.

VI. Providing Work Environment That Supports Employees' Personal Growth

The Daigas Group provides a safe and healthy working environment for its employees while securing employment opportunities. The Group values its employees' individual uniqueness, respects their independence as individuals, supports their personal growth, and promotes diversity, equal opportunity, and inclusion at the workplace.



Daigas Group Policies [Daigas Group Policies](#)

The Daigas Group has established policies to demonstrate its corporate attitude in each field. The policies, including those related to sustainability, and declarations are as follows:

- Daigas Group Human Rights Policy
- Daigas Group Diversity Promotion Policy
- Daigas Group Procurement Policy
- Daigas Group Procurement Policy for Suppliers (the Daigas Group Procurement Guidelines for Suppliers)
- Daigas Group Environmental Policy
- Daigas Group Biodiversity Promotion Policy
- Green Purchasing Guidelines
- Privacy Policy
- Product Safety Voluntary Action Plan
- Declaration of Health and Productivity Management

Daigas Group Code of Business Conduct



The Daigas Group’s corporate social responsibility is to create new value through fair competition and thereby contribute to society. In fulfilling its corporate social responsibility, compliance is of utmost importance for the Daigas Group.

The Daigas Group Code of Business Conduct (“the Code”) sets forth the standards of conduct that all officers and employees of the Daigas Group are required to follow in order to achieve compliance management.

As we operate business in accordance with the Code, which also forms the basis of the Group’s other internal rules, we should always adhere to the spirit and intent of the Code even in face of any circumstances that fall outside its expected situations, which we might encounter in the rapidly changing business environment.

Daigas Group Code of Business Conduct

- | | |
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| <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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 proper |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

To make the Daigas Group Code of Business Conduct easier to understand for officers and employees working for the Group, we have extracted the essence of the 18 items in the Code to create “Our Declaration” (10 items).

“Our Declaration,” Summarizing the Daigas Group Code of Conduct



- I. We will achieve a workplace where human rights are respected and employees can work in comfort and with peace of mind.
- II. We will conduct business activities with legal compliance and decency.
- III. In conducting global business activities, we will comply with all local laws and regulations, and will respect international norms including those concerning human rights.
- IV. We will properly consider the global environment in all of our actions.
- V. We will conduct fair business transactions and competitions.
- VI. We will provide safe and high-quality products and services at reasonable prices, with the aim of enhancing customer satisfaction.
- VII. We will act modestly and sensibly in our relationships with those with whom we do business.
- VIII. We will appropriately handle and disclose information with proper recognition of its value and importance.
- IX. We will prohibit any association with anti-social forces.
- X. We will make appropriate tax payments and properly handle our financial accounts.



Revision of the Daigas Group Code of Business Conduct in line with the 10 principles of the UN Global Compact and ISO 26000

We fully embrace the UN Global Compact, and in June 2007, we became the first utility in Japan to join. The Global Compact encompasses 10 principles for enterprises to follow in the four fields of human rights, labor standards, the environment, and anti-corruption.

In May 2008, the Daigas Group revised its Code of Conduct to incorporate the 10 principles of the UN Global Compact and in doing so clearly prohibited activities such as bribes to foreign officials and the use of child labor (currently, details are described in the internal guide for understanding the Code). Because these principles also relate to the dealings that the Group has with its business partners, in June 2009 the “Policy for Purchasing” (currently the “Daigas Group Procurement Policy” and the “Daigas Group Procurement Policy for Suppliers (Daigas Group Procurement Guidelines for Suppliers)” was also revised to stipulate adherence to the UN Global Compact.

In July 2011, we revised the “Daigas Group Code of Conduct” again to reflect ISO 26000, which was published in November 2010, to add principles such as respecting international norms, including the laws and regulations of each country/region and those concerned with human rights, and promoting the understanding and requesting the cooperation of business partners.

Activities for dissemination of the Corporate Principles

In its “Long-Term Management Vision 2030,” the Daigas Group has set its sights on evolving into “an innovative energy & service company that continues to be the first choice of customers.” In the “Medium-Term Management Plan 2023,” we are 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.

These plans have been formulated based on the Daigas Group Corporate Principles (“Principles”), which the Group has valued since its founding. Based on the belief that it is important for each and every employee to understand the Principles in order to realize value creation, we designated October, which is the anniversary of our founding, as “Group Corporate Principles Month” in FY2022.3, and we have provided e-learning and workshops in continuous efforts to promote familiarization of the Principles among Group employees.

Setting up opportunities for direct dialogue between the President and Group employees

With the aim of fostering a sense of unity among employees, the Daigas Group provides opportunities for the President to visit workplaces and engage in direct dialogue with employees.

The President communicates his thoughts on “a corporate group that powers continuous advancement in customers’ lives and businesses,” which is clearly stated in the Daigas Group Corporate Principles as what the Group aims to be, and engages in a frank exchange of opinions with the members at each workplace, thereby working to foster a sense of unity within the Group.

In FY2023.3, a total of eight workshops were held for the Energy Technology Laboratories, Osaka Gas Urban Development Co., Ltd., Osaka Gas Australia Pty. Ltd. and other organizations. Also, roundtable discussions with young employees were held three times.



The President's visit to a workplace

Familiarization of the Daigas Group Code of Business Conduct

To promote understanding of the Daigas Group Code of Business Conduct, we have prepared Our Declaration (10 items) as a summary version extracting the essence of the Code and have made it known to all employees by distributing a portable card and posting it on the intranet.

Sustainability Management

Principle and Outline

The Daigas Group aims to become a corporate group that helps further the evolution of customers' livelihoods and businesses. To this end, the management and employees act based on the "Daigas Group Charter of Business Conduct ("the Charter")," which stipulates the basic concept of our CSR. As the Group's business field expands, the range of stakeholders that our business affects will further expand, including customers, local communities, shareholders and investors, and employees.

In order to recognize the impact our business activities may have on society and the environment, and conduct business while taking such impact into account, the Daigas Group has been promoting CSR activities. Specifically, in 2009, the Group introduced indicators under each chapter of the Charter to promote CSR activities and visualize their processes. In FY2015, we identified important aspects for the Group (materiality) by turning to the opinions of outside knowledgeable people.

We are promoting sustainability activities to achieve sustainable economic growth and solve social issues by addressing the Sustainable Development Goals (SDGs), including climate change and human rights issues.

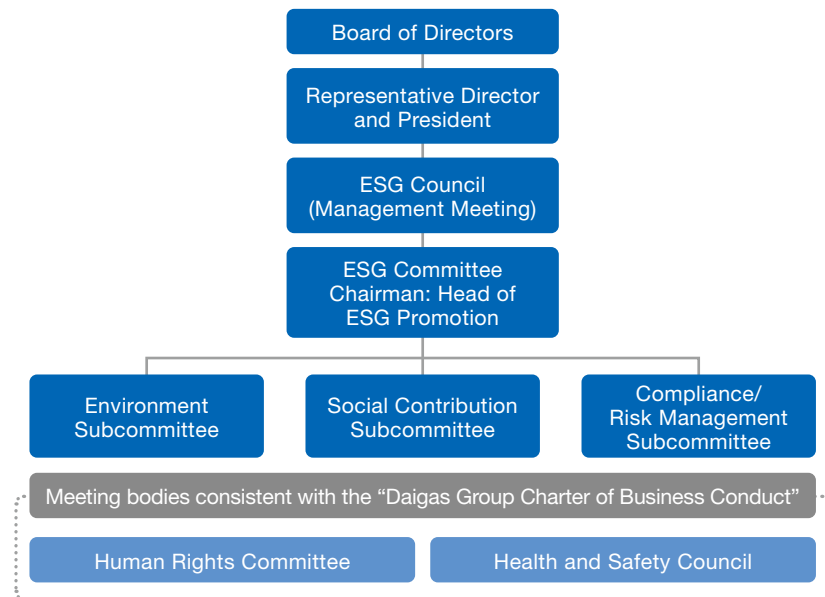
Sustainability Promotion System

The Daigas Group has an ESG Committee, chaired by the Head of ESG Promotion (Representative Director and Vice President), who supervises the Group's sustainability activities, and consisting of the heads of related organizations and other members. In principle, the ESG Committee meets four times a year for cross-organizational deliberation and coordination of sustainability activities. In principle, the Management Meeting, chaired by the Representative Director and President, is held three times per year as the ESG Council, which deliberates on established material issues (materiality), indicators and targets in ESG management, and their progress. The Board of Directors is then consulted on key matters related to sustainability activities for decision-making and supervision.

The Environment Subcommittee, the Social Contribution Subcommittee, and the Compliance/Risk Management Subcommittee have been established to promote sustainability activities in a cross-departmental manner.

All these moves represent the Group's efforts to strengthen sustainability activities to live up to higher social expectations for the Group through communication with internal and external stakeholders.

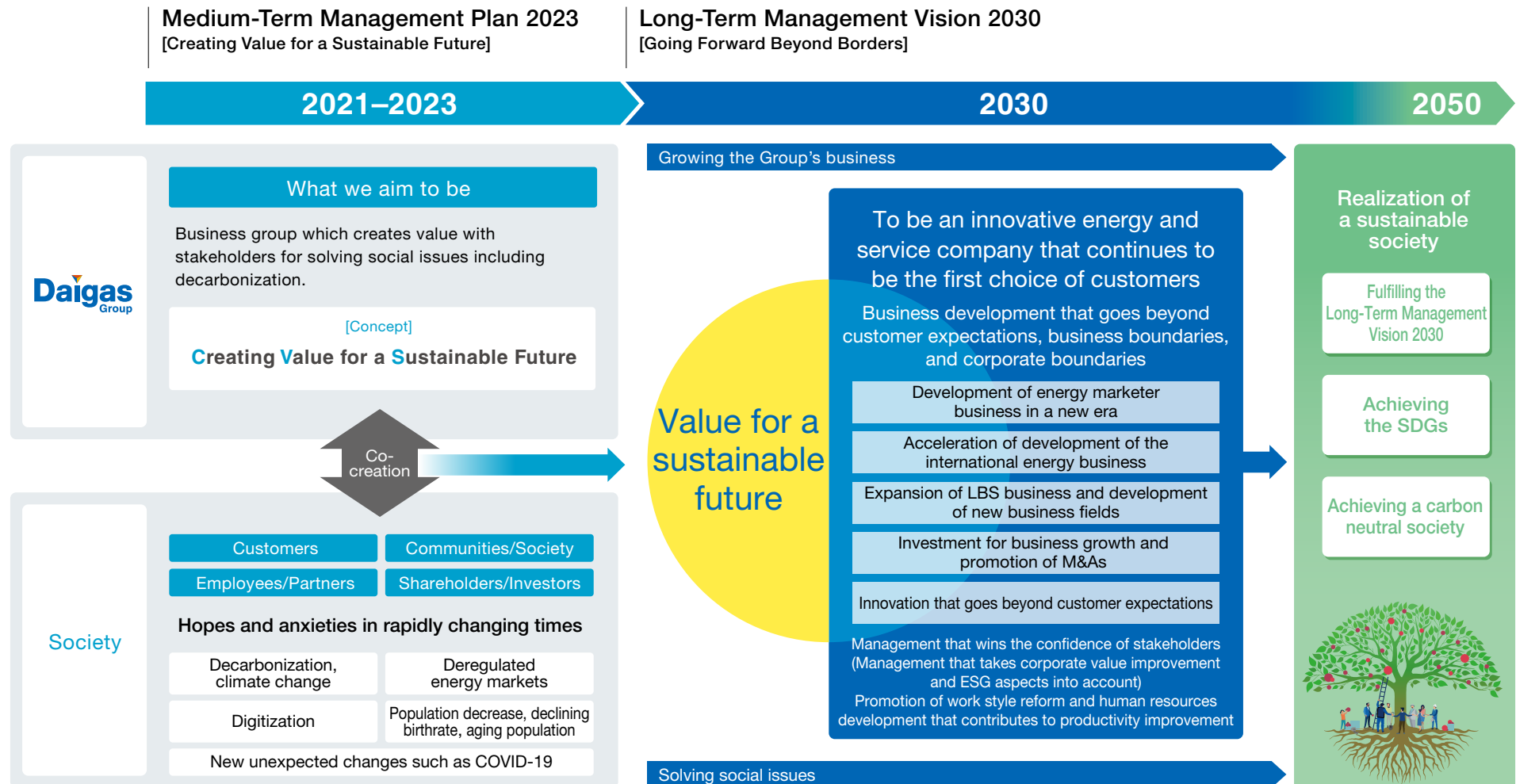
■ Sustainability Promotion System (as of April 1, 2023)



Medium-Term Management Plan 2023 and Sustainability

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

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



In formulating the Medium-Term Management Plan 2023 (Plan 2023), in addition to introducing ROIC as a management indicator, we newly identified important aspects (materiality) for the acceleration of ESG management and set each indicator. Please refer to P.20-21 for the results of the key performance indicators related to materiality.

■ Medium- to Long-term Management Indicators

		FY2024.3 Targets	FY2031.3 Targets	FY2051.3 Targets	
Profitability indicators	ROIC*1	Nearly 5%	Nearly 7%*2		
Financial soundness indicators	Debt equity ratio	Nearly 0.7%			
	Shareholders' equity ratio	Nearly 50%			
Shareholder returns	Payout ratio	30% or higher			
Investment for growth		500.0 billion yen*3	1,450.0 billion yen*4		
	Domestic Energy	174.0 billion yen*3	520.0 billion yen*4		
	International Energy	168.0 billion yen*3	550.0 billion yen*4		
	Life & Business Solutions Business	158.0 billion yen*3	380.0 billion yen*4		
Investment for quality improvement		237.0 billion yen*3	550.0 billion yen*4		
Materiality key performance indicators (KPI)	Establishing lifestyles and businesses adjusted to the new normal	Number of customer accounts		10 million or more	
		Customer satisfaction rate	90%		
	Enhancing resilience of customers and society	Number of serious accidents	Continued zero serious accidents		
		Build resilient energy supply facilities	Implementation of measures for disaster prevention and aging pipes*2		
	Achieving a low-carbon/carbon-neutral society	CO ₂ emissions of Daigas Group	27.02 million tons*5 (5 million tons reduction from FY2018.3)		
		Percentage of renewables in our power generation portfolio in Japan		Nearly 50%*2	Carbon Neutral
		Contribution to developing renewables capacity on a global basis	2.5 GW	5.0 GW*2	
		Avoided emissions (Baseline: FY2017.3)		10 million tons*2	
	Building foundations that support the realization of value for a sustainable future	Number of our participation in local governments' activities	14 cases		
		Number of joint efforts with local communities	170 times		
		Appropriate new supplier ratio	100%		
		Number of serious violations of laws and regulations	Continued zero serious violations		
		Employee attitude survey	Maintained and improved employee engagement*2		
		Annual average hours of training per employee	Development of human resource and work environment improvement*2		
		Percentage of female officers/Percentage of female Directors*6		20% or more*2	
Percentage of women in members newly promoted to middle management positions			30% or more*2		
Percentage of women in new recruits for career-track positions			Continue 30% or more*2		

Striving to achieve carbon neutrality by 2050

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

Under that Vision, we released "Energy Transition 2030 (ET2030)," which outlines the overall path toward a low-carbon/decarbonized energy transition, in March 2023. In ET2030, we declared new CO₂ emissions reduction targets for FY2031.3 for the Group.

Please refer to P.39-40 for details of "Energy Transition 2030."














1 NOPAT (Ordinary profit + Interest expenses - Interest income - Income taxes) / Invested capital
 *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.

*2 Targets for FY2031.3 newly set in the Medium-Term Management Plan 2023
 *3 FY2024.3 targets are cumulative for FY2022.3 - FY2024.3.
 *4 FY2031.3 targets are cumulative for FY2018.3 - FY2031.3.
 *5 Emissions throughout the domestic supply chain (scope 1, 2 & 3). Target newly set in March 2023
 *6 Target for percentage of female Directors newly set in March 2023

Materiality and Daigas Group Charter of Business Conduct

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

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

Charter of Business Conduct	Important issues (Materiality)	Value for a sustainable future	Initiatives to create value for a sustainable future	Indicators	Goals	Fiscal year to be achieved	FY2023.3 results	Contribution to SDGs	
I Creating value for customers	Maintain and expand customer base	Establishing lifestyles and businesses adjusted to the new normal	Maintain and expand customer base	Number of customer accounts	10 million or more	2031.3	10.02 million	   	
	Improvement of customer satisfaction and quality of services		Enhance customer relationship management	Customer satisfaction rate	90%	2024.3	90%		
	Customer health and safety GRI Standards: 416-1	Enhancing resilience of customers and society	Maintain safety and quality levels	Number of serious accidents	Continued zero serious accidents	2031.3	Zero serious accidents		
	Stable supply of services		Strengthen resilience of energy supply	Build resilient energy supply facilities	Implementation of measures for disaster prevention and aging pipes	2031.3	Ratio of strengthening of earthquake resistance: about 89% Number of supply area subdivisions: 713 blocks		
II Contributing to the sustainability of the environment and society	Climate change GRI Standards: 302-1 305-5	Achieving a low-carbon/ carbon-neutral society	Implement carbon-neutral measures	CO ₂ emissions of Daigas Group	Net zero emissions	2051.3	25.98 million tons	    	
			Provide clean energy and expand renewable energy value chain		Percentage of renewables in our power generation portfolio in Japan*2	Nearly 50%	2031.3		13.0%
			Promote advanced utilization of natural gas and environmental products	Avoided emissions (Baseline: FY2017.3)	Contribution to developing renewable capacity on a global basis*2	5 GW	2031.3		2.11 GW
					2.5 GW	2024.3			
III Engaging with and contributing to society	Coexistence with local community GRI Standards: 413-1	Building foundations that support the realization of value for a sustainable future	Promote communication with local communities	Number of our participation in local governments' activities (i.e. community development planning)	14 cases	2024.3	38 cases	   	
				Number of joint efforts with local communities	170 times	2024.3	326 times		

*1 Emission throughout the domestic supply chain (Scope 1, 2 & 3) (New targets for FY2031.3 set in Energy Transition 2030) *2 Including power sources under the feed-in tariff (FIT) system.

Charter of Business Conduct	Important issues (Materiality)	Value for a sustainable future	Initiatives to create value for a sustainable future	Indicators	Goals	Fiscal year to be achieved	FY2023.3 results	Contribution to SDGs
IV Respecting human rights	Supply chain management GRI Standards: 308-1 414-1	Building foundations that support the realization of value for a sustainable future	Build a responsible supply chain	Appropriate new supplier ratio	100%	2024.3	100%	
	V Complying with laws and regulations		Compliance GRI Standards: 307-1 418-1 419-1	Promote the Group's compliance	Number of serious violations of laws and regulations	Continued zero serious violations	2024.3	Zero serious violations of laws and regulations
VI Providing a work environment that supports employees' personal growth	Employee engagement		Create a workplace where employees can feel a sense of fulfillment	Attitude survey (Loyalty Score)	Maintained and improved employee engagement	2031.3	Four comprehensive indicators remained at appropriate levels	
	Development of employee skills GRI Standards: 404-1		Promote diversity and inclusion	Annual average hours of training per employee	Implementation of human resource development and work environment improvement	2031.3	26.3 hours/person Hours of e-Learning courses were taken*: 5.83 hours ¹ /person	
	Diversity and inclusion GRI Standards: 405-1		<ul style="list-style-type: none"> ① Percentage of female executives/Percentage of female Directors*² ② Percentage of women in members newly promoted to middle management positions ③ Percentage of women in new recruits for career-track positions 	<ul style="list-style-type: none"> ① 20% or more for each category ② 30% or more ③ Continue 30% or more 	2031.3	<ul style="list-style-type: none"> ① 13.3%/10.0% ② 14.3% ③ 28.1% 		

*1 Includes some temporary employees and part-time workers. Covers e-learning programs on safety, information security, environment, digital transformation, etc. *2 Target for percentage of female Directors newly set in March 2023

Materiality

In identifying materiality, the Group held discussions with the relevant organizations within the Group and extracted medium- to long-term items with an impact on society and the environment, followed by items with future financial impacts on the Group, based on changes in the business environment and social trends related to sustainability. After considering the impacts of each item, material issues concerning the impact on society and the environment were identified with reference to the opinions of outside experts. Based on these processes, the Group’s medium-term management plan advocates “Co-create value for a sustainable future” as it positions the pursuit of value creation for solving social issues and achieving it together with stakeholders as one of its priority strategies.

Process of Materiality Identification

We consulted the Global Reporting Initiative (GRI) Standards for the procedure for identifying our material issues. Referring to material topics (economic, environmental, and social topics) in topic-specific GRI Standards (the 200, 300, and 400 series), we assessed the social and environmental impacts of various issues and their financial impacts on the Daigas Group’s future. Based on the assessment results, we positioned those issues according to their importance as shown by the impact evaluation chart below right. Finally, we identified issues positioned at **1** in the chart as our material issues. The identified material issues and KPI targets associated with them were discussed by the ESG Committee and the ESG Council (Management Meeting) and then approved together with the Medium-Term Management Plan by the Board of Directors. We strive to achieve the KPI targets for our material issues while making the PDCA (plan-do-check-act) cycle function well and report the progress every year.

■ Process of Materiality Identification

Step1

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.

Step2

For “future financial impacts on the group,” we considered what we aim to be, issues, and risks for FY2031.3 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.

Step3

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.

Step4

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.

Step1

Analyzed the external environment in 2030 in areas such as economy, society, and the environment

Step2

Considered what we aim to be, issues, and risks for 2030 by each business domain	In addition to the analysis in STEP 1, held interviews with external experts
Considered “future financial impacts on the group”	Considered “impacts on society and the environment”

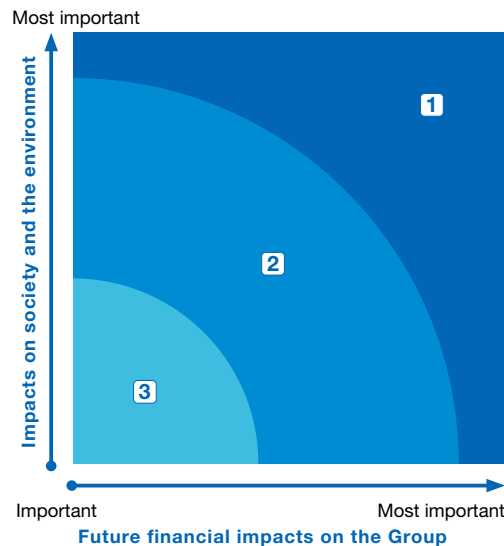
Step3

Identified materiality in view of the impacts on both

Step4

Approved and decided at the Board of Directors

■ Impact Evaluation Chart



1

- Climate change
- Customer health and safety
- Stable supply of services
- Maintain and expand customer base
- Coexistence with local community
- Improvement of customer satisfaction and quality of services
- Supply chain management
- Compliance
- Employee engagement
- Development of employee skills
- Diversity and inclusion

2

- Occupational health and safety
- Development of regional economies (in emerging markets)
- Provision of information to customers and consumers
- Pollution prevention and chemical materials
- Tax
- Ethical actions
- Securing employment
- Freedom of association and collective bargaining rights

3

- Recycling-oriented economy (use of raw materials)
- Political donation
- Biodiversity
- Appropriate use of water

■ Why the Issue Is Material

Materiality	Reason
Maintain and expand customer base	The Daigas Group's business began more than a hundred years ago with gas lamps. Since then, the Group has continued to meet the various needs of its customers by developing uses for gas in cooking, water/space, heating, power generation, and more. We also use our strong relationship with customers as a basis for expanding into new territories such as industrial gas, real estate, information communication, new materials, and home services. The Group considers its meaning for society to be in striving to improve the livelihoods and businesses of its numerous customers, based on its aim to become a corporate group that helps customers both on the livelihood and business fronts for their "further evolution".
Improvement of customer satisfaction and quality of services	We believe it is important to strive to improve our security and service quality as well as appropriately provide customers with information regarding the safety aspects of our products and services so that they can use them in a safer and more convenient manner.
Customer health and safety	The Daigas Group announced the Long-Term Management Vision 2030 in March 2017 and the Medium-Term Management Plan 2023 in March 2021. Ensuring the safety of city gas as well as gas and power generation facilities is of the utmost priority for the Group. To that end, we consider it important to work towards enhancing safety and improving preparedness for accidents and disasters.
Stable supply of services	For the Daigas Group, which aims to enhance the resilience of customers and society, we believe that it is important to systematically upgrade our processing facilities, maintain gas pipeline networks, and take disaster prevention measures in accordance with meticulously devised plans to ensure a stable city gas supply, thereby strengthening our ability to secure greater stability in the gas supply.
Climate change	Tackling climate change is seen as one of the Sustainable Development Goals (SDGs) adopted by the United Nations. For the Daigas Group, climate change represents an important management challenge, and initiatives to reduce CO ₂ emissions are a crucial mission.
Coexistence with local community	The Daigas Group operates a business that is rooted in and supported by local communities. We believe that our various contributions to local communities will lead to a virtuous cycle leading to the development of both the Group and society.
Supply chain management	Our broad-based city gas value chain is built on the cooperation of various business partners. Fulfilling our social responsibility by working with our suppliers in the value chain builds relationships of trust with our stakeholders and furthers the development of the entire value chain.
Compliance	The Daigas Group's view on compliance is that it entails sensible corporate activities based on sound ethics with a particular focus on observing laws and regulations. To maintain the trust of stakeholders, it is vital to ensure that our directors, officers, and employees uphold compliance.
Employee engagement	In the Daigas Group Corporate Principles, the Group declares its aim to create "value for society," "value for shareholders," and "value for employees," as well as "value for customers," its top priority. We believe that developing human and intellectual capital is a source of value creation. Based on the belief that developing human and intellectual capital is a source of value creation, the Group considers it important to implement better measures to promote a workplace culture where employees can take on challenging work.
Development of employee skills	In the Daigas Group Corporate Principles, the Group declares its aim to create "value for society," "value for shareholders," and "value for employees," as well as "value for customers," its top priority. We believe that developing human and intellectual capital is a source of value creation. The Daigas Group's Long-Term Management Vision 2030 lists the promotion of work style reform and development of human resources as important goals to be attained by that year. We consider it vital to develop personnel who are capable of working actively in a rapidly changing business environment, and to that end we offer a range of training and educational programs aimed at developing individual capabilities.
Diversity and Inclusion	In order to expand into new fields of business, it is vital to build a corporate infrastructure that promotes diversity and allows everyone to participate. The Daigas Group recognizes the need for the Group to foster a corporate culture that encourages the free expression of opinions and a transformation into a corporate entity that promotes diversity in its ranks and corporate structure in a way that encourages employees to maximize their potential, irrespective of gender, age, physical ability, or nationality. This intention is spelled out in the Daigas Group Diversity Promotion Policy.

Stakeholder Engagement

Dialogue and Cooperation with Stakeholders

The Daigas Group focuses on active engagement with stakeholders through dialogue to recognize various possible issues involved in its business activities and to work toward mutually acceptable solutions to such issues, based on the Daigas Group Charter of Business Conduct and Daigas Group Code of Conduct. For example, the Group has been promoting dialogue with the Kansai Consumers' Association Liaison Commission, the Osaka Voluntary Action Center, and the Osaka Gas Labor Union. Furthermore, the Group shares information and cooperates as a member of the Global Compact Network Japan and actively takes part and makes recommendations in the formulation of various policy measures by the government and municipalities. One of the results of such engagement is that five business associations formed by partner companies undertaking gas-related services established a Code of Ethics in response to the Group's policy. In addition, we are actively pursuing collaborative projects with companies, universities, NPOs and other organizations.

■ Main Opportunities and Tools for Contacts with Stakeholders, and Value Provided through the Contacts

Stakeholders	Main contact opportunities and contact tools		Value provided
Customers	<ul style="list-style-type: none"> Business opportunities such as safety check and sale "Customer Centers" Service shops Showrooms 	<ul style="list-style-type: none"> Corporate PR events Advertisements via TV and other media Website Catalogs for products and services 	Creating value for customers We will continue to meet customer expectations by co-creating services that offer customers greater comfort, convenience and security in various fields.
Business partners and suppliers	<ul style="list-style-type: none"> Business opportunities Various regular meetings 	<ul style="list-style-type: none"> Joint training and drills 	
Consumers groups	<ul style="list-style-type: none"> Meetings Tours 	<ul style="list-style-type: none"> Seminars, study meetings 	
Local communities	<ul style="list-style-type: none"> Social contribution activities Tours 	<ul style="list-style-type: none"> "Energy and environmental education" 	
Students and educational institutions	<ul style="list-style-type: none"> Joint study "Energy and environmental education," "food education," "fire education," "education on disaster prevention" 	<ul style="list-style-type: none"> Acceptance of interns Recruitment meetings Website 	Creating value for society We will strive to ensure fairness and transparency in our business activities and contribute to sustainable development of society and improvement of the global environment.
Knowledgeable people	<ul style="list-style-type: none"> Joint study 	<ul style="list-style-type: none"> Meetings 	
Administrative authorities	<ul style="list-style-type: none"> Submission of various documents Meetings 	<ul style="list-style-type: none"> Cooperation for regional development 	
NPOs/NGOs	<ul style="list-style-type: none"> Joint research Joint work and cooperation for solving regional issues 	<ul style="list-style-type: none"> Meetings 	
Shareholders/investors	<ul style="list-style-type: none"> Issuance of various reports (Securities Reports, Integrated Reports, etc.) 	<ul style="list-style-type: none"> Briefings Website 	Creating value for shareholders We will strive to maximize our corporate value through long-term and stable growth based on a sound financial foundation.
Employees	<ul style="list-style-type: none"> Labor-management meetings Education and training sessions Interviews "Compliance Desks" 	<ul style="list-style-type: none"> "Human Rights Desk" "Harassment Desk" Intranet, in-house publications 	Creating value for employees We will respect the diverse individualities of our employees and support them so that they can find their work rewarding and achieve self-development.

**Dialogue with stakeholders
(FY2023.3 results of activities)**

■ Stakeholders of the Daigas Group



Dialogue with Customers

To provide services in excess of customer expectations, we are listening to their voices through various contacts with them, with the aim of improving our products and services.

- Phone calls received by customer centers: approx. 3.43 million
- No. of replies to a survey on customer satisfaction: approx. 33 thousand



Customer Center

Dialogue with Various Groups

The groups with which we held meetings included the Kansai Consumers' Association Liaison Commission, the Osaka Voluntary Action Center, and the Osaka Gas Labor Union.

- A total of 826 meetings were held



Kansai Consumers' Association Liaison Commission

Dialogue with Local Communities

To realize vibrant local communities, we engage in dialog with local governments, NPOs, corporations, experts, next-generation people, and other stakeholders.

Through communication with local communities, we help solve social issues and realize a sustainable society.

- Urban development and city planning outreach: 38 cases
- Activities contributing to regional revitalization in collaboration with experts and NPOs: 326 times
- Activities contributing to next-generation education: 1,505 times



Food education

Dialogue with Shareholders and Investors

The Daigas Group has been stepping up information disclosure to the general public and dialog with shareholders and investors, using a variety of media and briefing sessions, aiming to generate profit in a stable manner by strengthening our management base and return part of it to shareholders continuously.

Osaka Gas responded to ESG interviews conducted by institutional investors and other parties and exchanged views on action against climate change, corporate governance and other topics with them.

In addition, we were given opportunities to explain ESG-conscious management in conformity with global standards, which the Daigas Group advocates in its Long-Term Management Vision 2030 and Medium-Term Management Plan 2023, including our initiatives to contribute to achievement of the SDGs.

We will continue our efforts to create value for shareholders through dialogues with institutional investors and other parties.

- Briefings on financial results, management plans and ESG efforts
- Dialog with institutional investors (Japan: approx. 110 times, Overseas: approx. 50 times)



Integrated Report

Dialogue between Supervisors and Subordinates

Osaka Gas implements an evaluation system that leads to the growth of each and every employee. While enhancing opportunities for meetings between supervisors and subordinates, we clarify each employee's strengths and areas for improvement, which leads to skill development.

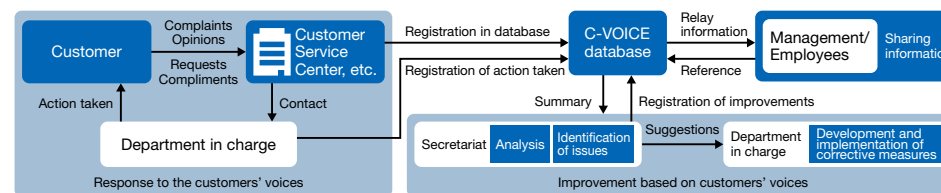
- Meetings based on Management by Objectives (MBO): twice a year
- Interviews based on role expectation evaluation: once a year

System for reflecting the opinions of stakeholders

The Daigas Group considers it a matter of course to listen and respond sincerely to questions/requests regarding our products and services, but we also hear a variety of questions, concerns and comments from numerous stakeholders in the course of conducting our business activities. We believe these opinions to be extremely important to enhancing the quality of the Group’s management.

Under these circumstances, we have built the “C-VOICE” database, whereby these customer voices are shared by top-management officials and rank-and-file employees, and are put to good use in improving our business operations and enhancing our service quality. In particular, with regard to complaints, we try to share not only the factual process and the status of our response to customers but also measures to prevent recurrence and improve our systems.

Overview of C-VOICE



Mechanism for receiving stakeholder grievances

The Daigas Group responds to the opinions and requests in accordance with the Group’s Code of Business Conduct which incorporated international standards such as the Universal Declaration of Human Rights and the United Nations Global Compact, while observing domestic laws such as the Act on the Promotion of Global Warming Countermeasures and the Whistleblower Protection Act.

To deal with voices on the environment, Osaka Gas operates a company-wide Environmental Management System (EMS) according to the ISO 14001. As for the voices of local people who are concerned about the possible effects on local communities of our operations, we set up contact desks including “Customer Centers.” To address issues associated with human rights and labor practices, we set up “Compliance Desks” at Osaka Gas’s headquarters, major affiliated companies and outside law firms representing Osaka Gas, to receive reports and offer consultation regarding the observance of laws and in-house rules. 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. Other systems established for the benefit of employees include the conducting of surveys designed to measure their work-related awareness, periodically holding meetings for the management to hold talks with labor union members, as well as meetings for employees and their superiors.

Theme	International and domestic standards	In-house policy and standards	Responsibilities
Environment	<ul style="list-style-type: none"> • ISO 14001 • Act on Basic Policy on the Rationalizing Use of Energy and Shifting to Non-fossil Energy • Act on Promotion of Global Warming Countermeasures • Waste Management and Public Cleansing Law 	<ul style="list-style-type: none"> • Daigas Group Code of Business Conduct • Daigas Group Environmental Policy • Daigas Group Procurement Policy • Rules for Environment Management Systems • Customer Service Rules 	Osaka Gas operates a unified ISO 14001-registered environmental management system (EMS) across the Company under the supervision of the Head of ESG Promotion (Representative Director and Vice President), and all employees work to reduce the environmental impact of business activities and ensure compliance with environmental laws and regulations. In addition, the Daigas Group’s domestic affiliates operate their own EMSs, such as ISO 14001-registered systems, Eco Action 21, and the Daigas Group Environmental Management System (OGEMS).
Local communities	<ul style="list-style-type: none"> • ISO 26000 • Basic Act on Consumer Policies 	<ul style="list-style-type: none"> • Daigas Group Code of Business Conduct • Customer Service Rules 	We have improved systems that directly deal with customers, including “Customer Centers,” to enable our customers to express their opinions of our services more expeditiously. We utilize the “C-VOICE” system to share customer opinions and requests throughout the company for use in business improvement measures, product development, and other activities.
Human rights	<ul style="list-style-type: none"> • Universal Declaration of Human Rights • U.N. Global Compact • Whistleblower Protection Act 	<ul style="list-style-type: none"> • Daigas Group Human Rights Policy • Daigas Group Code of Business Conduct • Customer Service Rules • Rules for the systems of consultation and reporting on legal compliance 	For the protection of human rights we have set up “Customer Centers,” which are open to stakeholders such as customers and local community members. We have also established the “Human Rights Desk” at the Human Resources Department, and posted “Human Rights Awareness Promotion Leaders” at each Business Unit and major affiliated companies. In addition, we have also set up “Compliance Desks” at Osaka Gas’s headquarters, major affiliated companies and outside law firms representing Osaka Gas to receive reports and offer consultations regarding the observance of laws and in-house rules.
Labor practices	<ul style="list-style-type: none"> • Universal Declaration of Human Rights • U.N. Global Compact • Whistleblower Protection Act 	<ul style="list-style-type: none"> • Daigas Group Human Rights Policy • Daigas Group Code of Business Conduct • Rules for the systems of consultation and reporting on legal compliance 	We have established “Compliance Desks” at Osaka Gas’s headquarters, major affiliated companies and outside law firms representing Osaka Gas in order to receive reports and offer consultations regarding the observance of laws and in-house rules. Furthermore, the “Harassment Desk” has been set up at each in-house organization and each affiliated company to assist employees facing harassment-related problems in their work. Others systems established for the betterment of employees include the conducting of surveys designed to measure their work-related awareness, periodically holding meetings for the management to hold talks with labor union members, as well as meetings for employees and their superiors.

Initiatives and Organizations the Daigas Group Participates In

We fully embrace the United Nations Global Compact, and in June 2007, we became the first utility in Japan to join. Furthermore, we actively take part and make recommendations in the formulation of various policy measures by the government and municipalities. Through our participation in sustainability initiatives, we will fulfill our role toward the achievement of a sustainable society.

■ Initiatives and Organizations the Daigas Group Participates In

Name	Activity
UN Global Compact	<p>The Global Compact encompasses 10 principles for enterprises to follow in the four fields of human rights, labor standards, the environment, and anti-corruption.</p> <p>Osaka Gas signed and joined the Global Compact in June 2007. We report the progress of our initiatives under the 10 principles of the UN Global Compact on an annual basis.</p>
Women's Empowerment Principles (WEPs)	<p>The Women's Empowerment Principles (WEPs), a partnership initiative of UN Women and UN Global Compact, are a set of seven principles offering practical guidance to companies and private organizations in advancing women's empowerment in the workplace, in the market, and in the community. The seven Women's Empowerment Principles are as follows: Establish high-level corporate leadership for gender equality; Treat all women and men fairly at work - respect and support human rights and nondiscrimination; Ensure the health, safety and well-being of all women and men workers; Promote education, training and professional development for women; Implement enterprise development, supply chain and marketing practices that empower women; Promote equality through community initiatives and advocacy; and Measure and publicly report on progress to achieve gender equality.</p> <p>The Daigas Group endorsed the objective of the Principles and expressed its support in September 2010.</p>
Task Force on Climate-Related Financial Disclosures (TCFD)	<p>The recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) encourage companies to disclose climate change-related financial information to promote appropriate investment decisions by investors.</p> <p>Osaka Gas endorsed the TCFD recommendations in May 2019, and utilize them as indicators to validate our 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.</p>
World Wide Fund for Nature Japan (WWF Japan)	<p>The World Wide Fund for Nature is a conservation organization active in approximately 100 countries. It aims to build a future in which humans live in harmony with nature by reducing the human impact on the environment and wildlife.</p> <p>Osaka Gas has been supporting WWF Japan as a corporate member since 1983.</p>
Japan Business Initiative for Biodiversity (JBIB)	<p>The initiative was launched in 2008 with the aim of truly contributing to the conservation of biological diversity within and outside Japan through joint research by a wide range of companies, thus generating results that cannot be achieved when a company acts alone.</p> <p>Osaka Gas has participated in the initiative as a regular member since 2011.</p>
Keidanren (Japan Business Federation)	<p>As a member company of Keidanren, we respect and practice the spirit of its Charter of Corporate Behavior.</p>
Committee on Nature Conservation	<p>The Committee on Nature Conservation is an organization affiliated with Keidanren. It provides its members information on donations and social contribution activities, as well as conducting projects aimed at deepening the general public's understanding of companies' nature conservation activities.</p> <p>Osaka Gas has participated in the committee as a member company since 2003.</p>
Keidanren Initiative for Biodiversity Conservation	<p>The Keidanren Initiative for Biodiversity Conservation is open to companies and organizations that are committed to more than one of the seven items listed in the Declaration of Biodiversity by Keidanren (Revised Edition) or that agree with the overall objectives of the Initiative. Osaka Gas has been participating in it since 2023.</p>

Commendation from the Outside

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, 2023. The Company has been selected as a constituent of all six ESG indices for Japanese equities used by the Government Pension Investment Fund (GPIF).

■ Inclusion in SRI Indices



FTSE Blossom Japan Sector Relative Index*1



Dow Jones Sustainability Indexes



ECPI World ESG Equity



MSCI ESG Leaders*2



FTSE4Good Index Series



FTSE Blossom Japan Index



MSCI Japan ESG Select Leaders Index*2



MSCI Japan Empowering Women Index*2



Sompo Sustainability Index



Ethibel Excellence



EuroNext World 120 Index



Morningstar Japan ex-REIT Gender Diversity Tilt Index



S&P/JPX Carbon Efficient Index

■ Outside Assessment of Sustainability Activities

Medium	Evaluation of our company
CDP Climate Change Report 2022	Leadership A-
CDP Water Security 2022	Leadership A
Ministry of the Environment Eco-First Program	Certified as an Eco-First Company
Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange 2023 Health & Productivity Stock Selection program	Selected as a 2023 Health & Productivity Stock Selection Brand
Toyo Keizai Japan CSR Ranking 2023	44th (of about 1,350 companies)
Ministry of the Environment ESG Finance Awards Japan	Selected as an Environmentally Sustainable Company

*1 FTSE Russell (a registered trademark of FTSE International Limited and Frank Russell Company) hereby confirms that Osaka Gas has been independently assessed according to the index criteria, and has satisfied the requirements to become a constituent of the FTSE Blossom Japan Sector Relative Index as a result of a third-party survey and has become a constituent of this index. The FTSE Blossom Japan Sector Relative Index is used by a wide variety of market participants to create and assess responsible investment funds and other products.

*2 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 Index names and logos are trademarks or service marks of MSCI or its affiliates.

Environmental

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Environment

Summary


Why the topic is material	<p>Contributing to regional and global environmental conservation is a pivotal mission of the Daigas Group, which conducts business mainly in the field of energy. Being seriously aware of the close linkage between all its activities and the environment, the Daigas Group will respond to environmental issues, including climate change, develop and promote innovative technologies, address the most critical challenge of working out low-carbon/carbon-neutral energy solutions, and achieve more efficient use of energy, raw materials, and other resources.</p> <p>In March 2017, the Daigas Group unveiled Long-Term Management Vision 2030, which shows the Group's vision for FY2031, and Medium-Term Management Plan 2020. Under these, we have devoted active efforts to helping increase the use of natural gas, developing and facilitating more widespread use of highly efficient equipment, including fuel cells, offering customers proposals for the use of energy-saving products and services, and introducing renewable energy.</p> <p>The Daigas Group announced the Daigas Group Carbon Neutral Vision in January 2021, and Medium-Term Management Plan 2023 in March of the same year. Thus, the Group indicated its aim to become carbon neutral by 2050 by decarbonizing the raw materials of city gas through methanation* using renewable energy and hydrogen and by decarbonizing power sources through introduction of renewable energy, in addition to conventional efforts to expand the use of natural gas.</p> <p>In March 2023, we announced the Daigas Group Energy Transition 2030 (ET2030), in which we presented to our stakeholders the overall picture of the transition path toward low-carbon/carbon-neutral energy solutions and the Group's specific initiatives and solutions for our customers toward 2030.</p> <p>We have positioned climate change as one of our material issues.</p> <p>* A technology for synthesizing methane, which is the main component of city gas, from hydrogen and carbon dioxide (CO₂)</p>
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Specific initiatives

Policy and promotion system

To achieve our medium- to long-term vision, measures, and targets in the environmental field and in line with the Daigas Group Environmental Policy and other bylaws, important environmental matters are monitored by the Environment Subcommittee and the ESG Committee, reported to and deliberated by the ESG Council (Management Meeting), and submitted to the Board of Directors.

	Items to be addressed	Specific initiatives	
Environmental management/ Environmental targets	<ul style="list-style-type: none"> Strengthening environmental governance Maintenance and continuation of the environmental management system Follow-up and raising awareness toward achievement of environmental targets Enhancing environmental compliance 	Initiatives undertaken in FY2023.3 <ul style="list-style-type: none"> Continued operation of the environmental management system Monitored the environmental impacts in the value chain Developed environmental human resources through e-learning (5,704 people) 	
Climate change measures/ Disclosure based on the TCFD Recommendations	<ul style="list-style-type: none"> Carbon neutrality Reduction of CO₂ emissions from the Group's own business activities Reduction of CO₂ emissions from customers' activities and their value chains Contribution to CO₂ emissions reduction in society as a whole <p>Materiality Climate change</p>	Environmental targets KPIs based on the materiality	FY2023.3 results
		CO ₂ emissions of the Daigas Group	25.98 million t 25.05 million t *Emissions in domestic supply chain (Scopes 1, 2 and 3)
		Percentage of renewables in our power generation portfolio in Japan	13.0%
		Contribution to developing renewables capacity on a global basis	2.11 GW
		Avoided emissions (Baseline: FY2017.3)	3.86 million t
		Initiatives undertaken in FY2023.3 <ul style="list-style-type: none"> Operating LNG carriers efficiently and increasing the use of low-emission vehicles Accelerating low-carbon/carbon-neutral solutions by using natural gas and facilitating more widespread use of highly energy-efficient and high-value-added equipment Providing environmental value by disseminating high-quality solutions in the fields of information, real estate, and materials 	

	Items to be addressed	Specific initiatives
<p>Contributing to creating a resource recycling society</p>	<ul style="list-style-type: none"> • Promoting 3R efforts in business activities • Promoting 3R efforts in the value chain • Plastic resource recycling activities • Response to water risks • Chemical substance management in business activities 	<p>Environmental targets (every year until FY2031.3)</p> <ul style="list-style-type: none"> • Osaka Gas (including Network Company and core energy business companies) (1) Final disposal rate of industrial and general waste: 2% or less, (2) Final disposal rate of soil excavated during piping works: 1% or less, (3) PE pipe recycling rate: 100%, (4) Gas meter reuse rate: 98% or more • Affiliates (1) Final disposal rate of industrial and general waste: 4% or less • Promoting 3R efforts concerning used equipment collected from customers or business activities <hr/> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Osaka Gas (including Network Company and core energy business companies) (1) Final disposal rate of industrial and general waste: 1.0%, (2) Final disposal rate of soil excavated during piping works: 0.1%, (3) PE pipe recycling rate: 100%, (4) Gas meter reuse rate: 98.7% • Affiliates (1) Final disposal rate of industrial and general waste: 3.6% • Water usage reduced through water saving in operations • Response to CDP
<p>Biodiversity</p>	<ul style="list-style-type: none"> • Promoting ecosystem conservation efforts • Efforts to minimize impact on natural capital 	<p>Environmental targets (every year until FY2031.3)</p> <ul style="list-style-type: none"> • Paying due attention to biodiversity in business activities in line with the Daigas Group Biodiversity Promotion Policy <hr/> <p>Initiatives undertaken in FY2023.3</p> <p>Continued efforts to avoid or reduce impacts on biodiversity in the value chain</p> <ul style="list-style-type: none"> • Management of ballast water • Conservation of native seeds, seedlings, and rare species • Utilization of native seeds and seedlings in urban development business • Reduced excavated soil due to non-excavating method • Education and training on biodiversity provided for local communities and customers
<p>Development of environmental technology</p>	<ul style="list-style-type: none"> • Contribution to carbon neutrality • Utilization of unused energy 	<p>Environmental targets (every year until FY2031.3)</p> <p>Facilitating the development of technologies that will contribute to realizing a low-carbon or decarbonized society and provide a strong business foundation</p> <hr/> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Promotion of development of methanation technology, etc. • Promotion of development of hydrogen/ammonia combustion technology, etc. • Sale of radiative cooling materials
<p>Green procurement and purchase Please see  P.89</p>	<ul style="list-style-type: none"> • Promotion of green procurement and purchase 	<p>Environmental targets (every year until FY2031.3)</p> <p>Promoting green purchase, the Green Partner Initiative,* etc. in cooperation with business partners *A system for evaluating proactive environmental initiatives such as building an environmental management system and obtaining certification</p> <hr/> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • 85 suppliers registered with the Green Partner Initiative

Environmental Management

Environmental Governance Promotion Structure

To carry out appropriate and robust activities toward sustainability under the leadership of the Representative Director and President, the Daigas Group has established the ESG Council, which comprises executives and deliberates sustainability action plans and reports, and the ESG Committee chaired by the Head of ESG Promotion (Representative Director and Vice-President), who supervises the Group’s sustainability activities. The ESG Promotion Committee meets four times a year to discuss and report to the Board of Directors on important matters, including the status of performance against ESG management targets related to sustainability and business plans that are expected to have a significant financial impact due to climate change.

In addition, the Environment Subcommittee has been set up to advance environmental management in coordination with the ESG Committee. Under the supervision of the Head of ESG Promotion, Osaka Gas operates a company-wide integrated environmental management system (EMS) based on ISO 14001 to ensure that all employees reduce the environmental impact of our business activities and comply with environmental laws and regulations.

Domestic Daigas Group companies also operate under EMS standards, such as ISO 14001 and the Daigas Group Environmental Management System and others.

■ Environmental Management Promotion Structure



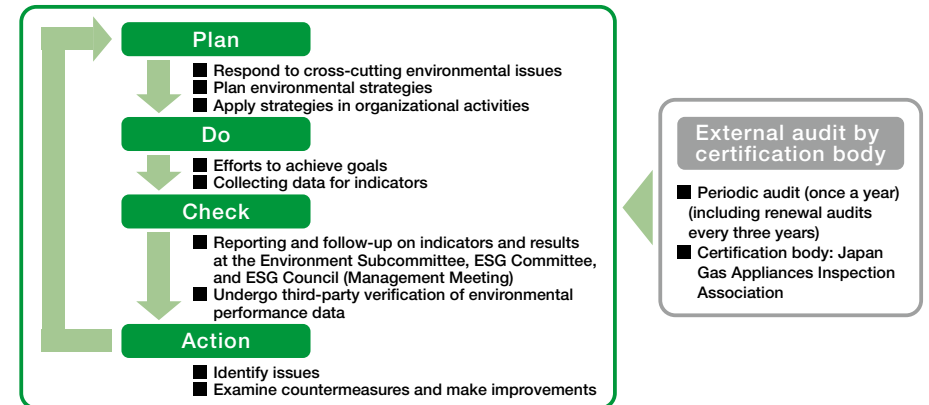
How the Daigas Group’s Environmental Management System Works

To reduce the environmental impact of its Group-wide business activities in line with the Daigas Group Environmental Policy, the Daigas Group has set medium-term environmental targets in its Long-Term Management Vision 2030 and other plans and manages progress in achieving the targets. The environmental targets include those for CO₂ emissions reduction, more widespread use of renewable energy, waste reduction and recycling, and the reduction of excavated soil for final disposal. We also annually calculate GHG emissions that affect climate change from the activities throughout our Group’s value chain and use that data to advance our efforts to reduce GHG emissions. These targets and the results of our efforts to achieve the targets are managed by following a PDCA (plan-do-check-act) cycle, which utilizes the mechanism of the EMS.

Please see [□ P.45, P.47](#) for information on the climate change-related framework.



■ PDCA Cycle utilizing the Mechanism of EMS



Remuneration system for executives with environmental value taken into account

Osaka Gas at its Board of Directors meeting held on December 23, 2021 resolved that remuneration for the executives would reflect the ESG indicators achievement coefficient of the previous fiscal year in order to help improve short- and medium- to long-term improvements in corporate value. In the environmental field, the ESG indicators achievement coefficient takes into account how much the target for CO₂ emissions reduction has been achieved for achieving carbon neutrality. The resolution took effect with remuneration for July 2023 and thereafter, paid based on the results for FY2023.3

Introduction of ICP

Osaka Gas introduced the concept of “Environmental Management Efficiency” in 2003, which is used to quantify the environmental impact of business activities by converting environmental impacts per volume of gas produced into monetary values. In addition, from FY2022.3, we have adopted internal carbon pricing (ICP) to identify the carbon impact of our invested projects. From FY2024.3, we also reference ICP when making decisions on new investments in business fields that have a large carbon impact.

ISO 14001 Certification Acquisition Status

In FY1998.3, Osaka Gas launched efforts to acquire certification of each business unit's compliance with ISO 14001, a set of international standards for EMSs, resulting in seven business-unit-specific EMSs covering the entire Company by FY2006.3. In FY2007.3, the Company began to work to integrate all the different EMSs into a unified one and obtained certification of its Company-wide compliance with ISO 14001 in December 2007. Since 2009, the Company has undergone triennial ISO 14001 renewal audit and has continued to obtain integrated certification in response to organizational restructuring, including the transfer of functions to three Core Energy Business Companies in 2020 and Osaka Gas Network Co., Ltd. in 2022.



Certificate of Registration for ISO14001



External audit meeting for renewal of ISO 14001 certification

All affiliates in Japan completed EMS building and certification

As a general, all affiliates in Japan have constructed and operate an EMS, and these efforts are based on the Group common rules “Environmental Management Rules.”

The EMSs introduced by affiliate companies include ISO 14001 and an EMS established under the leadership of local governments as well as the Daigas Group Environmental Management System (OGEMS), a voluntary EMS that functions in a similar way to such an EMS.

Violations of Laws and Fines

During FY2023.3, Osaka Gas did not impose any administrative sanction due to the violation of environment-related laws.

Osaka Gas Certified as the Eco-First Company

On April 5, 2023, Osaka Gas was certified as an Eco-First company by the Minister of the Environment. Under this certification program, companies declare Eco-First Commitments, which are commitments to advanced and unique environmental conservation activities that have ripple effects, and the Minister of the Environment certifies environmentally advanced companies in each industry. We are the first Eco-First company in the energy industry.



From left, Masataka Fujiwara, President of Osaka Gas; Miki Yamada, State Minister of the Environment (Job titles are as of the time of the certification ceremony.)



Environmental Communication

Environmental education

Various events during the Environment Month

Every year in June, designated as Environment Month, employees of the Daigas Group engage in various environmental activities. Among them are energy-saving efforts at offices, environmental preservation activities, environmental education both inside and outside the Company, and participation in regional environmental events such as cleaning activities. By participating in these activities, each and every employee comes to recognize the great connection existing between his or her activities, and their impact on the environment. Such activities provide the Group with opportunities to continue efforts to build an environmentally harmonious society.

E-learning and collective training programs for employees

The Daigas Group provides e-learning and collective training programs as part of operating the environmental management system to ensure that employees are capable of keeping up with the environmental initiatives.

In the ISO Environmental Education Course via e-learning, employees learn basic knowledge about the environment, details of group initiatives, and knowledge of environmental laws and regulations.



E-learning

In addition, in collective training programs, employees learn about the latest trends in environmental issues and practical examples of initiatives, increasing their awareness of the environment.

Environmental awareness-raising activities

Environmental communication based on the assets we have accumulated through business activities

As a corporate group operating in a community-based manner, the Daigas Group believes that its good relationships with local communities is an indispensable foundation for its management. In addition to disseminating knowledge on energy conservation and information useful for familiar energy conservation activities through media such as the “My Osaka Gas” membership site, we are also striving to foster the next generation through “energy and environmental education” and other programs that leverage the resources the Group has cultivated through its business activities.

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

Environmental Impact throughout the Daigas Group Value Chain

Main materials and fuels

Amount of LNG procured	6,488 thousand tons
	The figure above includes the amounts of the items listed below: <ul style="list-style-type: none"> ● Materials of city gas ● Fuels at LNG terminals ● Fuels for power generation by Group companies
LPG used for calorific adjustment of city gas	210 thousand tons

Procurement of materials and fuels (Business activities by companies outside the Group)

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

Amount of energy used

City gas	1,232 million m³ (including gas whose calorific value has yet to be adjusted)
Purchased electricity	493 million kWh
Other energy sources	13,568 TJ

Amount of vehicle fuel used

Gasoline	1,553 kl
City gas	31 thousand m³
Diesel	699 kl
LPG	4 thousand m³

Business activities by Osaka Gas

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

* Engineering/energy services/renovation/maintenance service/R&D etc.

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

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

Sales volume of main products

Gas	6,845 million m³
Electricity	15,883 million kWh

Use at customer site

City gas	Gas appliances
Electricity	Chemical products
LNG	Services

GHG (scope 3^{*1})

	Emissions (1,000 t-CO ₂ e)
LNG, natural gas	3,362
LPG, coal, biomass	192
Other procurement items	1,051
Total	4,606

GHG (scope 1 and 2)

	Emissions (1,000 t-CO ₂ e)	
	Scope 1	Scope 2
City gas production	34	82
Business office (including supply)	16	15
Power generation	3,869	21
Heat supply	56	34
LBS and others	431	172
Total	4,406	324

GHG (scope 3^{*2})

Emissions (1,000 t-CO ₂ e)
99

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

GHG (scope 3^{*3})

	Emissions (1,000 t-CO ₂ e)
Combustion of city gas	15,675
Combustion of LNG	867
Total	16,542

Companies subject to the calculation of GHG emissions: 63 companies in total, including Osaka Gas Co., Ltd. and 62 companies among 154 consolidated subsidiaries. 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 two companies.

Please refer to □□ P.35 for CO₂ emission factors used.

Breakdown of Scope 3 categories

*1 Category 1-4 (purchased products, capital goods, fuel procurement, upstream transportation)

*2 Category 5-7, 9, 12-14 (waste, business trips, commuting, leased assets, product shipment, end-of-life treatment of sold products, franchises)

*3 Category 11 (use of sold products)

Waste

	Generated	Recycled
General waste	1,103 t	96%
Industrial waste	101,654 t	96%
Excavated soil	580,000 t	100%
PE pipe	137 t	100%
Used gas appliances recovered	1,569 t	86%

Amount of water intake and water discharge Stated on □□ P.49

Calculation of environmental impacts in the value chain P.34

■ CO₂ emission factors used (GHG scopes 1 and 2)

- Electricity: 0.65 kg-CO₂/kWh (Average emission factor of thermal power plants in FY2014.3, stipulated in the Plan for Global Warming Countermeasures issued by the government in 2021)
- City gas: 2.29 kg-CO₂/m³ (based on Osaka Gas data)
- Others: Factors listed under the Law Concerning the Promotion of Measures to Cope with Global Warming

■ Sources of emission factors used for calculating CO₂ emissions (GHG scope 3)

- Production and transmission of city gas: “Life cycle evaluation of city gas” on the website of the Japan Gas Association
- Production and shipment of LNG: Calculation of life cycle greenhouse gas emissions of LNG and City Gas 13A (papers presented at research presentation meetings of the 35th Meeting of the Japan Society of Energy and Resources, June 2016)
- Production and shipment of LPG and coal: Future forecast for life cycle greenhouse gas emissions of LNG and City Gas 13A (Energy and Resources, Vol. 28, No. 2, March 2007)
- Other main emission factors: Emission factors for calculating supply-chain greenhouse gas emissions, etc. (Database Ver. 3.3) published in March 2023 by the Ministry of Environment

LCA comparison of GHG emissions by fossil fuel (CO₂ equivalents)

The chart below uses life cycle assessment (LCA^{*1}) to show a comparison of fossil fuel greenhouse gas emissions (as carbon dioxide equivalents), covering all processes from production to combustion. LNG is the cleanest energy of all fossil fuels in terms of GHG emissions.

■ Greenhouse gas emissions comparison (g-CO₂/MJ, Total Calorific Value)

	Coal ^{*2}	Oil ^{*2}	LPG ^{*2}	LNG ^{*2}	City gas 13A ^{*3}
Production	4.58	4.06	4.94	8.62	7.57
Transport	1.71	0.79	1.80	1.83	1.48
Domestic manufacturing	–	–	–	–	0.48
Infrastructure	0.11	0.08	0.11	0.05	0.34
Combustion	88.53	68.33	59.85	49.40	50.96
Total	94.93	73.26	66.70	59.90	60.83
Ratio	160	122	111	100	

*1 LCA

Life Cycle Assessment. A comprehensive quantitative method of survey, analysis, and evaluation for best assessing the amount of environmental impact of products and services. The assessment covers all processes related to products and services from resource extraction to waste disposal including production, transportation, consumption, recycling, and disposal.

*2 Source

Future Forecast for Life Cycle Greenhouse Gas Emissions of LNG and City Gas 13A (Energy and Resources, Vol. 28, No. 2, March, 2007)

*3 Source

Emission factors related to the production and transportation of city gas: “City Gas’s Life Cycle Assessment” on the Japan Gas Association’s website However, for domestic manufacturing, the figures are based on the Company’s emissions in FY2023.3.

Environmental Accounting

FY2023.3 results of environmental accounting

In FY2001.3, we introduced environmental accounting, which we see as an important tool for quantifying environmental costs and economic benefits toward more efficient environmental activities and continuous enhancement of our environmental performance. Environmental conservation costs—both environmental investment and expenses—for FY2023.3 decreased from the previous fiscal year mainly due to decreases in the amount of green purchasing and the environmental R&D-related costs. In terms of internal economic effects, cost reduction progressed due to reducing and recycling excavated soil.

We will continue to follow up on our environmental initiatives in monetary terms to ensure efficient environmental investment and expenses.

(1) Environmental conservation costs

Environmental conservation costs item			Investment (million yen)			Expense (million yen)		
Details			FY2021.3	FY2022.3	FY2023.3	FY2021.3	FY2022.3	FY2023.3
In-house activities	Global environment	Capital investment in and management and labor costs incurred by energy conservation, efficient energy use, the protection of the ozone layer, etc.	111	216	48	692	577	597
	Pollution prevention	Capital investment in and management and labor costs incurred by the prevention of air, water, and noise pollution	61	54	6	85	49	31
	Resource recycling	Capital investment in and management and labor costs incurred by the reduction and recycling of excavated soil, waste management, etc.	2	0	2	29	32	20
	Environmental management	Costs of green purchasing, environmental education, the development of environmental management systems, the operation of environmental organizations, etc.	0	0	0	8,351	8,927	4,320
	Other	Greening at plants, environmental preservation grants, etc.	2	3	2	14	50	15
Environmental impact reduction at customers' sites	Environmental R&D	Cost of researching and developing technologies for environmental impact reduction, environmentally sustainable products, etc.	324	127	128	93	328	156
Environmental impact reduction by recycling	Recycling of used gas appliances	Cost of collecting and recycling sold gas appliances, their packaging, etc.	0	0	0	32	47	37
Social contribution activities		Costs of voluntary greening, environmental advertising, the disclosure of environmental information, etc.	1	1	22	129	7	115
Total			502	400	208	9,424	10,018	5,291

(2) Internal economic benefits

	Economic benefits (million yen)		
	FY2021.3	FY2022.3	FY2023.3
Saving from reducing and recycling excavated soil	2,812	1,847	1,836
Sales of valuable resources (LNG cold heat)	180	169	195
Saving from conserving energy, resources, etc.	323	128	-940
Total	3,314	2,143	1,091

(3) Environmental conservation results

	Impact per output			Total amount			Reduction		
	Unit	FY2022.3	FY2023.3	Unit	FY2022.3	FY2023.3	Unit	FY2022.3	FY2023.3
NOx emissions from LNG terminals in the city gas business	mg/m ³	1.53	2.35	t	10.81	16.01	t	38.20	94.18
COD at all LNG terminals	mg/m ³	0.39	0.40	t	2.77	2.72	t	8.63	9.55
CO ₂ emissions from LNG terminals	g-CO ₂ /m ³	15.77	16.25	1,000 t-CO ₂	111.90	116.30	1,000 t-CO ₂	0.00	0.00
CO ₂ emissions from other sites	g-CO ₂ /m ³	4.35	4.35	1,000 t-CO ₂	30.87	31.15	1,000 t-CO ₂	34.13	34.41
Excavated soil for final disposal	t/km	3.30	0.00	1,000 t	1.38	0.65	1,000 t	20.20	22.20
General waste for disposal	g/m ³	0.00	0.00	t	10.67	11.15	t	1,053.73	1,062.40
Industrial waste for disposal (including used gas appliances)	g/m ³	0.03	0.03	t	179.06	223.64	t	3,359.96	1,238.76

(4) Social benefits of environmental conservation efforts (monetary value)

	FY2021.3 monetary value (million yen)	FY2022.3 monetary value (million yen)	FY2023.3 monetary value (million yen)
NOx emissions from LNG terminals in the city gas business	17	14	34
COD at all LNG terminals	14	13	14
CO ₂ emissions from LNG terminals	17	0	0
CO ₂ emissions from other sites	117	120	121
Excavated soil for final disposal	994	447	491
General waste for disposal	3	3	3
Industrial waste for disposal (including used gas appliances)	141	103	38
Total	1,303	700	702

Environmental Targets

Principle and Outline

Contributing to regional and global environmental conservation is a pivotal mission of the Daigas Group, which is mainly engaged in the energy business. In line with its Charter of Business Conduct, Code of Business Conduct, and Environmental Policy, the Daigas Group promotes environmental conservation activities.

Having set the medium-term environmental targets for the reduction of GHG emissions from its business activities, resource recycling, and the like, we have devoted active efforts to helping increase the use of natural gas, developing and facilitating more widespread use of highly efficient equipment, including fuel cells, offering customers proposals for the use of energy-saving products and services, and introducing renewable energy.

In line with the worldwide trend toward action against climate change, we are striving to reduce GHG emissions from its business activities, including CO₂ and methane (CH₄), to help realize a low-carbon or decarbonized society. Specifically, we devote positive efforts to reduce CO₂ emissions from liquefied natural gas (LNG) transportation, city gas production, and power generation. We also implement various energy-saving measures at offices.

In addition, as the trend toward decarbonization further accelerates, and as global economic stagnation and increased volatility in the energy market become apparent, it is becoming more important from the perspective of “S + 3Es”^{*}—the basic policy of the nation’s energy policy—to make energy carbon-neutral without compromising stability and security of energy supply.

In line with the “Carbon Neutral Vision” announced in January 2021 and “Medium-Term Management Plan 2023” in March of the same year, we are further accelerating our efforts toward low-carbon/decarbonized business operations. In March 2023, we announced “Energy Transition 2030 (ET2030),” which provided an overall picture of the path toward low-carbon/carbon-neutral energy solutions.

We will accelerate our efforts to combat climate change toward our medium- to long-term targets.

The results for each target established based on the Daigas Group Environmental Policy and “Medium-Term Management Plan 2023” are presented below.

^{*} S + 3Es: safety, energy security, economic efficiency, and environment

Environmental targets (FY2024.3 targets) and results Osaka Gas underwent a third-party verification by Bureau Veritas Japan Co., Ltd. (Verified items are indicated with an asterisk [*].)

Field	Indicators	Targets	Target fiscal year	FY2023.3 results	
Climate change	CO ₂ emissions of Daigas Group [*]	Net zero emissions	2051.3	25.98 million tons	
		27.02 million tons ^{*1} (5 million tons less than FY18.3)	2031.3	25.05 million tons	
	CO ₂ emissions reductions from our own business activities	Percentage of renewables in our power generation portfolio in Japan	Nearly 50%	2031.3	13.0%
		Contribution to developing renewables capacity on a global basis	5 GW	2031.3	2.11 GW
	2.5 GW		2024.3		
	CO ₂ emissions reductions at customer sites and through the value chain	<ul style="list-style-type: none"> Accelerating low-carbonization/decarbonization by facilitating more widespread use of highly energy-efficient and high value-added equipment using natural gas, renewable energy, etc. Operating LNG carriers efficiently and increasing the use of low-emission and other environmentally sustainable vehicles Providing environmental value by disseminating high-quality solutions in the fields of information, real estate, and materials 		Every year until 2031.3	Please see □□ P.43-44 for major initiatives.
Contribution to CO ₂ emissions reductions across society	Avoided emissions (Including reductions contributed at customer sites and overseas)	10 million tons (Baseline: FY2017.3)	2031.3	3.86 million tons	
Resource recycling	3R (reduce, reuse, and recycle) efforts in the Group's own business activities	Osaka Gas (including network company and the core energy business companies)	Industrial and general waste (final disposal rate) [*]	2% or below	1.0%
		Value chain	Soil excavated during piping works (final disposal rate) [*]	1% or below	0.1%
			Soil excavated during piping works (final disposal rate) [*]	100%	100%
			Industrial and general waste (final disposal rate) [*]	98% or above	98.7%
		Affiliates	Gas meters (reuse rate) [*]	4% or below	3.6%
			Promoting 3R efforts concerning used equipment collected from customers or business activities		
Biodiversity	Paying due attention to biodiversity in business activities in line with the Daigas Group Biodiversity Promotion Policy		Every year until 2031.3	Please see □□ P.51-54 for major initiatives.	
Development of technology	Facilitating the development of technologies that will contribute to realizing a low-carbon or decarbonized society and provide a strong business foundation		Every year until 2031.3	Please see □□ P.55-57 for major initiatives.	
Green procurement and purchase	Promoting green purchase, the green partner system, etc. in cooperation with business partners		Every year until 2031.3	Please see □□ P.89 for major initiatives.	

^{*1} Emissions in domestic supply chain (Scopes 1, 2 and 3) (Targets for FY2031.3 newly set in “ET2030”)

Actions for Climate Change

Principle and Outline

In response to the growing social need for measures against global warming, the Daigas Group aims to become carbon neutral by 2050 by decarbonizing the raw materials of city gas through methanation* using hydrogen and CO₂ produced powered by renewable energy and by making power sources carbon neutral through the introduction of renewable energy, in addition to the conventional efforts to expand the use of natural gas.

*A technology for synthesizing methane, which is the main component of city gas, from hydrogen and CO₂

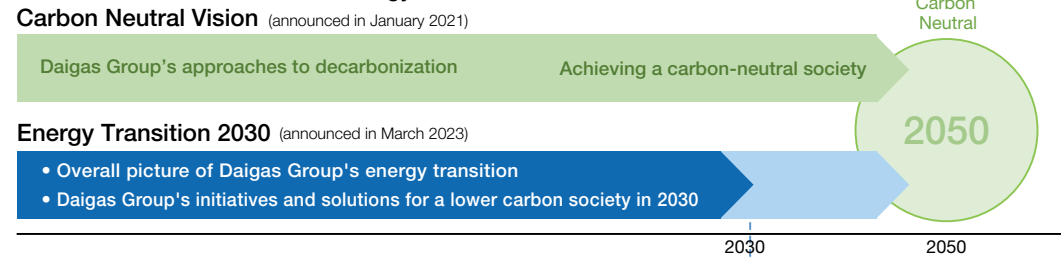
Carbon Neutral Vision

In response to the further increase in social demands for global warming countermeasures, 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 addition to continuing efforts to expand the use of natural gas to date.

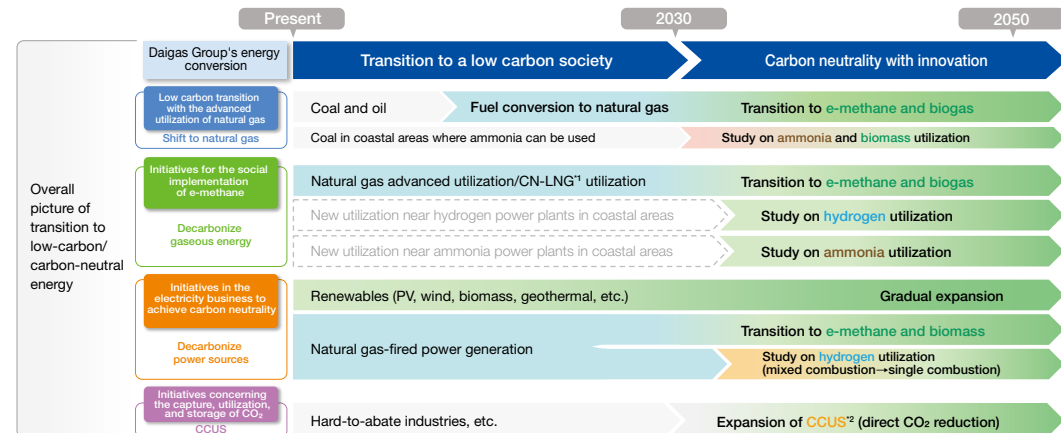
Energy Transition 2030 (ET2030)

Under Energy Transition 2030 (ET2030), the Daigas Group outlines the overall picture of its transition to low-carbon and carbon-neutral energy. In order to achieve carbon neutrality, a steady transition to low-carbon energy is crucial, as a great deal of time and social cost will be required for technological innovation and the building of new supply chains. It is also important to choose optimal energies and supply methods to suit the customer's energy use characteristics, such as the balance of electricity and heat use and their location. Focusing on the transition to low-carbon energy by 2030 through a shift from coal and oil to natural gas, and the seamless transition to carbon-neutral energy with the introduction of "e-methane" and biogas in the future, we will continue to pursue the decarbonization of power sources in ways that meet customer needs. This will include the use of hydrogen and ammonia, the decarbonisation of power sources, such as renewable energy generation and zero-emission thermal power plants.

Carbon Neutral Vision and Energy Transition 2030



FY2031.3 Targets	Contribution to developing renewables capacity on a global basis	5 GW	Percentage of renewables in our power generation portfolio in Japan	Nearly 50%	Avoided emissions	10 million tons (baseline: FY2017.3)
	Reduction of Daigas Group CO ₂ emissions	5 million tons (relative to FY2018.3)	e-methane	1% introduction		

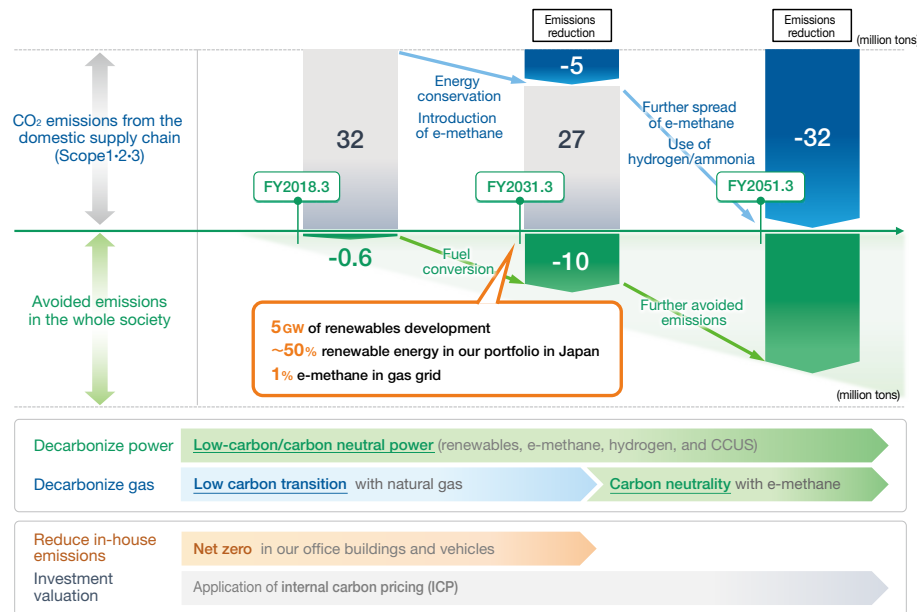


*1 CN-LNG: Carbon Neutral LNG, which is considered to produce no CO₂ on a global basis when greenhouse gases emitted in the supply chain from natural gas production to combustion are offset by CO₂ absorbed and reduced in a separate process from the value chain.

*2 CCUS: Carbon dioxide Capture, Utilization and Storage

Daigas Group's CO₂ Emissions Reduction Roadmap

In Energy Transition 2030, we have declared targets for 2030 and 2050 regarding CO₂ emissions in our domestic supply chain and avoided emissions in the whole society, and presented a CO₂ emissions reduction roadmap. Through such measures as the 1% introduction of e-methane into existing infrastructure, we will aim to reduce the CO₂ emissions of the Daigas Group's supply chain in Japan by 5 million tons, and 10 million tons of avoided emissions in society as a whole in FY2031.3 through the Group's activities. After the introduction of "e-methane" in FY2031.3, we will pursue decarbonization through its wider use.

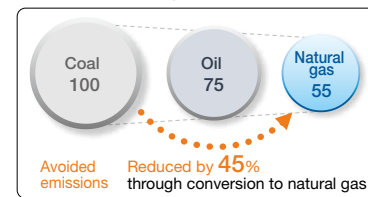


Approach to Avoided Emissions in Society

The following sums up our approach to avoided emissions in society. For example, we can reduce approximately 45% of CO₂ emissions with the switch from coal to natural gas. However, if we have supplied the natural gas, our gas sales volumes increase, which means an increase in Scope 3 CO₂ emissions according to the GHG Protocol*1 that is commonly used by companies to calculate their CO₂ emissions. For this reason, in the transition phase until 2030, our CO₂ emissions will increase by promoting fuel conversion from oil and coal to natural gas. On the other hand, by switching to natural gas, CO₂ emissions per the same calorific value will be reduced, which means that we can contribute to CO₂ emissions reduction in the whole society. However, under the current GHG Protocol, there is no way of evaluating the CO₂ reduction effect on society as a whole through contributions to other parties.

To steadily promote the transition to low-carbon/decarbonization together with our many customers, we believe that it is important to understand our progress with an indicator that shows the effect of CO₂ emissions reduction in the whole society (avoided emissions) and to obtain the understanding of our stakeholders.

CO₂ emissions per same calorific value*2



What is "avoided emissions"?

Quantified CO₂ emissions reduction through products and services provided to others

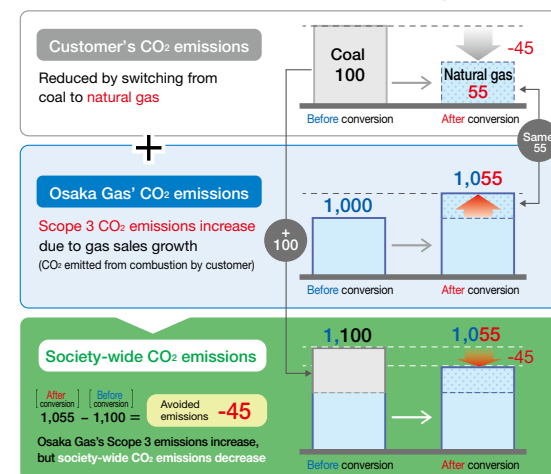
Calculated based on the "Guidelines for Quantifying GHG emission reductions of goods or services through Global Value Chain" (Ministry of Economy, Trade and Industry, March 2018)

Indicator of society-wide avoided emissions through contribution to other companies' emissions reduction

*1 International standard for calculating and reporting GHG emissions

*2 Prepared based on the "Ordinance Concerning Calculation of GHG Emissions from Business Activities of Specified Emitters" issued by METI and the Ministry of the Environment

Avoided emissions calculation example



Daigas Group's Avoided Emissions

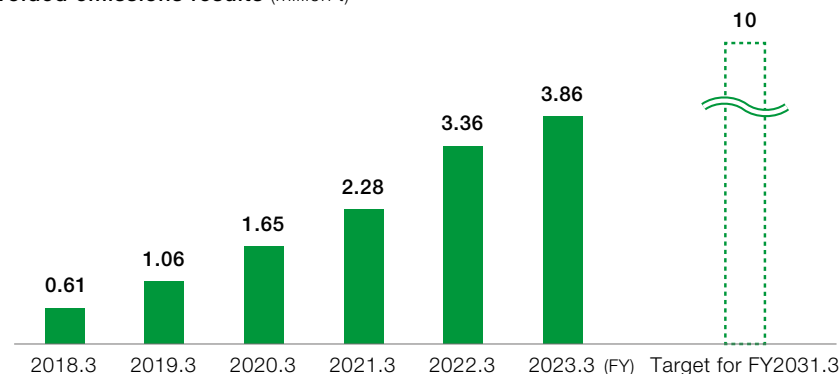
The Daigas Group is working to introduce various low-carbon or decarbonized systems both domestically and internationally at our customers' sites and in our own business activities. The avoided CO₂ emission is calculated for such systems that contribute to the reduction of CO₂ emissions in society as a whole.

The Osaka Gas Group contributed to a 3.86-million-ton CO₂ emissions reduction, as revealed by the results of calculations of the effect of reducing CO₂ emissions in FY2023.3 (FY2023.3 results) achieved by using the systems listed below that the Daigas Group has introduced since FY2018.3 at customer sites and in its own business activities.



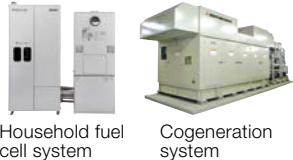



The results were calculated using the stock-based approach, based on the "Guidelines for Quantifying GHG Emission Reductions of Goods or Services through Global Value Chain" (published by the Ministry of Economy, Trade and Industry in March 2018), assuming the calculation method and baseline concept shown in the table below.

The calculation results were validated by a third-party review by Bureau Veritas Japan Co., Ltd.

■ Avoided emissions results (million t)



■ Calculation method

Area of reduction	Low-carbon/ carbon-neutral system	Reduction effect calculation method	Baseline concept	Area of reduction	Low-carbon/ carbon-neutral system	Reduction effect calculation method	Baseline concept
Reduction of CO ₂ emissions from business activities	Renewable energy sources  Wind farm Solar power plant  Biomass power plant etc.	Amount of electricity generated or procured × Average electricity emission factor of thermal power*	Substitution for thermal power generation	Reduction of CO ₂ emissions at customer sites	High-efficiency distributed system  Household fuel cell system Cogeneration system	Household fuel cell system: Number of installed units × Reduction per unit Cogeneration system: Installed capacity × Reduction per unit capacity	Substitution for conventional water heaters (boilers) and purchased electricity
	High-efficiency thermal power generation  High-efficiency thermal power plant	Amount of electricity generated × Difference in CO ₂ emission factor between high-efficiency and existing thermal power	Comparison with emission factor of existing thermal power generation		Expanded and advanced use of natural gas  Fuel conversion High-efficiency water heater	Fuel conversion: Amount developed × Difference in CO ₂ emission factor Gas-powered air conditioning: Capacity sold × Reduction per unit capacity	Emissions comparison with other fuels Substitution for conventional air conditioners
	Cryogenic power generation facilities using cold heat generated in the manufacturing process of city gas	Amount of electricity generated × Average electricity emission factor of thermal power	Substitution for thermal power generation		 Gas-powered air conditioning	High-efficiency water heater: Number of installed units × Reduction per unit	Substitution for conventional water heaters
				Proposals for energy saving (Solar power generation systems/ Conversion to LED lighting)	Amount of electricity generated or saved × Average electricity emission factor of thermal power*	Substitution for thermal power generation	

*Calculated using the average electricity emission factor of thermal power given in the Plan for Global Warming Countermeasures (approved by the Cabinet on October 22, 2021): 0.65 kg-CO₂/kWh (FY2014.3)

Efforts to achieve net zero emissions regarding the Group's CO₂ emissions (environmental impact throughout the Daigas Group value chain)

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 standard. 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 CO₂, totaled about 25.98 million tons in FY2023.3. The sum breaks down into about 4.73 million tons, or about 18%, for GHG emitted through business activities by the Daigas Group (Scope 1 and Scope 2), and about 21.25 million tons, or about 82%, emitted by others in our value chain (Scope 3). GHG emissions from city gas and LNG combustion on the customer side amounted to 16.54 million tons in the reporting year in terms of CO₂, accounting for about 64% of the total. GHG emissions through electricity generation, as measured in terms of CO₂ in the year, amounted to 3.89 million tons, accounting for about 15% of the total emissions, which represented the majority of GHG emissions from the Group's own business activities. As a way of reducing GHG emissions from power generation, the Group will continue to actively introduce highly advanced energy-efficient power generation facilities and use renewable energy sources.

GHG emissions from material and fuel procurement totaled 4.61 million tons, as measured in terms of CO₂ 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.

Reduction of CO₂ emissions from the Group's own business activities—Facilitating the development of renewable energy sources

The Daigas Group aims to raise by FY2031.3 the percentage of renewables in its power portfolio in Japan to about 50% and renewables development contribution on a global basis to 5 GW. To achieve these targets, it is engaged in renewable energy businesses such as wind, solar, and biomass.

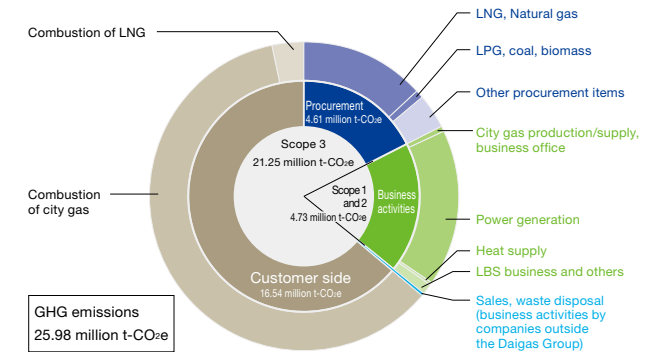
In FY2023.3, the percentage of renewables in our power portfolio was 13.0%, and renewable power development contribution was approximately 2.11 GW.

Domestically, we participated in a biomass power generation project in Gobo City, Wakayama Prefecture, and a solar power generation project in three locations in Japan, including Oita City, Oita Prefecture. In January 2023, the Noheji Mutsu Bay Wind Farm in Noheji-cho, Kamikita District, Aomori Prefecture, began commercial operation.

Overseas, Osaka Gas has concluded an agreement with Oriden LLC in the United States regarding the joint development of a solar power plant in the United States and with Summit Ridge Energy, LLC, an operator of distributed solar power generation business in Maine, U.S., to jointly implement the same business in Illinois, U.S.

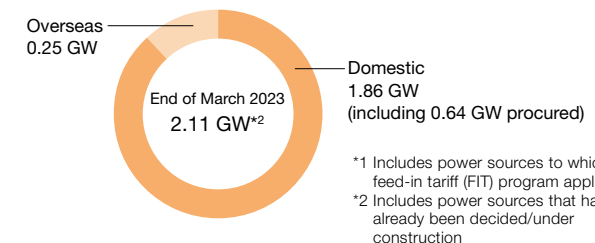
GHG emissions from the value chain (FY2023.3 results)

Please see P.34 for detailed data.



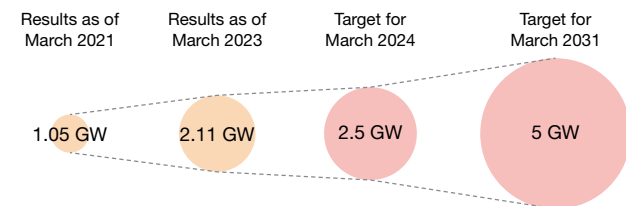
Companies subject to the calculation of GHG emissions: 63 companies in total, including Osaka Gas Co., Ltd. and 62 companies among 154 consolidated subsidiaries are subject to calculation of GHG emissions. Those housed in office buildings as tenants and whose environmental data are difficult to grasp and whose environmental effects are minimal are not subject to such calculation. Also excluded from the calculation are overseas companies, except two companies.

Contribution to developing renewables capacity on a global basis*1 (FY2023.3)



*1 Includes power sources to which the feed-in tariff (FIT) program applies
*2 Includes power sources that have already been decided/under construction

Contribution to developing renewables capacity on a global basis: Targets and results



CO₂ Reduction Initiatives at Customers and in the Value Chain

The Daigas Group believes that it is important to reduce not only GHG emissions from its own business activities but also CO₂ emissions at customers' sites. We are seeking to assist customers in reducing their CO₂ emissions by popularizing the use of natural gas and developing and proposing highly energy-efficient equipment. We are also cooperating with our business partners and affiliated companies to reduce CO₂ emissions from logistics.

Efforts to reduce CO₂ emissions in LNG transportation

In 2022, Osaka Gas began chartering the low-fuel-consumption LNG carrier Grace Freesia to achieve even greater energy savings when transporting LNG, an essential material for city gas. The new type of LNG carrier is equipped with a dual-fuel low-speed diesel engine and a reliquefaction device that effectively utilizes surplus boil-off gas to further reduce fuel consumption, CO₂ emissions, and transport costs.



Low fuel consumption LNG carrier chartered

Reducing CO₂ emissions in logistics

In Japan, the number of trucks accounts for less than 20% of the overall number of automotive vehicles, yet CO₂ emissions in the logistics sector are as high as about 35%. Large trucks generate particularly high emissions, so the introduction of natural gas-powered large trucks can have a significant effect on reducing CO₂ emissions. According to a road verification report by the Organization for the Promotion of Low Emission Vehicles (LEVO), large natural gas trucks have 12.9% lower CO₂ emissions than large diesel trucks. Osaka Gas is working to expand the use of large natural-gas trucks for long-distance transport between cities, and small and medium-sized natural-gas trucks for transport within municipalities.

We have also transported LNG using LNG tanker trucks fueled by compressed natural gas (CNG). These LNG tanker trucks can help reduce CO₂ emissions by about 7%, compared with diesel-fueled tanker trucks.

Japan's first commercial LNG station was opened in Osaka City in June 2018, allowing the start of transport using large LNG trucks. LNG features high-efficiency fuel storage, which lets trucks run for over 1,000 kilometers without refueling for further reductions in CO₂ emissions.



LNG tanker truck fueled by CNG

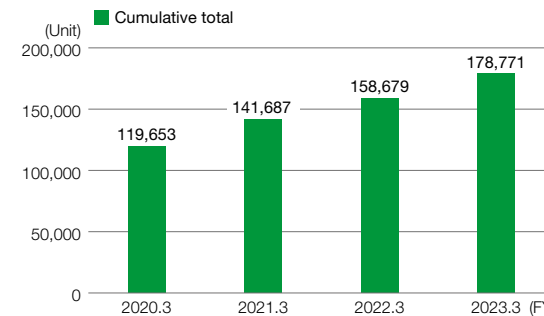
Approaches at customer sites

To help realize a low-carbon society, Osaka Gas is striving to sell and disseminate two types of fuel-cell systems that generate electricity through chemical reactions between the hydrogen extracted from city gas and oxygen in the air. Those are polymer electrolyte fuel cells (PEFC) and solid oxide fuel cells (SOFC) sold as "Ene-Farm" and "Ene-Farm type S," respectively as co-generation systems for household use that help conserve energy and reduce CO₂ emissions. These are high-efficiency energy systems that make effective use of the heat generated alongside electricity to supply hot water.

In FY2020, Osaka Gas developed a new product of ENE-FARM Type S^{*1} in collaboration with Aisin Seiki Co., Ltd., Kyocera Corporation, Noritz Corporation, Purpose Co., Ltd., and Rinnai Corporation. The new product was launched in April 2020. This product attains the highest power generation efficiency in the world^{*2} of 55%.^{*3} Installation has been improved by significantly downsizing the main unit. A convenient switch, which has been added to the remote controller, works with a special smartphone app, enhancing the product's IoT function.

The cumulative sales total of the fuel cell systems, Ene-Farm and Ene-Farm type S, reached 180,000 units^{*4} on May 11, 2023. These units have helped reduce CO₂ emissions by about 330,000 t-CO₂^{*5} annually, which is equivalent to the planting of about 23.95 million sugi cedar trees.^{*6}

Cumulative sales total of the fuel cell systems



^{*1} ENE-FARM Type S is an environmentally friendly energy system that generates power through a chemical reaction between hydrogen, which is extracted from clean natural gas, and oxygen in the air. The generated power can be used at home, and hot water generated in the power generation process can also be used effectively. In development, we utilized some of the results obtained from the project commissioned by the New Energy and Industrial Technology Development Organization (NEDO).

^{*2} The highest power generation efficiency in the world in terms of fuel cells for household use whose rated output is 1 kW or less (based on a survey conducted by Osaka Gas as of the end of January 2020).

^{*3} Power generation efficiency when rated power generation is continued for at least three hours (e.g. under the surplus electricity purchase system). In the cases other than the above, the rated power generation efficiency is 54% (overall efficiency: 87%). The power generation efficiency for LP gas is 53% (overall efficiency: 85%). The values were calculated based on the Lower Heating Value (LHV).

^{*4} Based on orders received by Osaka Gas

^{*5} Our estimated value when a "gas water heater and heating unit," which is the conventional system, is replaced by "ENE-FARM" or "ENE-FARM Type S" (in the case of a family of four who lives in a single-family detached home)

[Conventional system] A gas water heater/heating unit, gas hot water floor heating system (living/dining room), gas hot water bathroom heater/dryer equipped with a mist sauna function, gas stove, electric air conditioner [ENE-FARM/ENE-FARM Type S] ENE-FARM/ENE-FARM Type S, gas hot water floor heating system (living/dining room), gas hot water bathroom heater/dryer equipped with a mist sauna function, gas stove, electric air conditioner

[CO₂ emissions coefficient] Gas: 2.29 kg-CO₂/m³ (our data), electricity: 0.65 kg-CO₂/kWh (source: mean coefficient of thermal power sources of FY2014.3 in the Plan for Global Warming Countermeasures [approved by the Cabinet in October 2021])

^{*6} Unit CO₂ absorption of one sugi cedar tree = 13.9 kg-CO₂/year (on the supposition of a 50-year-old sugi cedar tree with a diameter of 26 cm and a height of 22 m; source: 1997 White Paper on Forestry)

About Green Power Fuel Corporation

In March 2019, Osaka Gas established Green Power Fuel Corporation (hereinafter, “GPF”), a joint venture company that procures and sells domestically grown woody biomass for biomass power plants, in cooperation with Seishin Shinrin Shigen Co., Ltd. and Nippon Paper Lumber Co., Ltd. The Daigas Group already operates or plans to operate seven biomass plants in Japan, including participating in operating the Matsusaka Woody Biomass Power Plant, which is fueled 100% by locally available biomass. In cooperation with Seishin Shinrin Shigen, which has abundant knowledge about forestry, and Nippon Paper Lumber, which has a long track record in dealing in domestically grown woody biomass, GPF procures and transports unused wood from woodlands in Japan as power generation fuel to ensure stable, long-term biomass supply for several biomass power plants owned or under development by the Daigas Group.

On December 17, 2021, Green Power Fuel Corporation signed a cooperation agreement with Shiso City, Hyogo Prefecture, on the utilization of fast growing trees*1 for fuel applications, aiming for local production and consumption of biomass fuels and sustainable growth of domestic forestry. GPF decided to start a demonstration project that aims to build a stable supply system of biomass fuels using fast growing trees, in cooperation with Shiso City, which has abundant forest resources (land suitable for project operationalization). The company focuses on fast growing trees, which are expected to have shorter growth and logging cycles than those of general tree species, from the viewpoint of further increasing its biomass procurement volume and reducing cost. As the first step of this project, the company plans to examine the growth of fast growing trees and evaluate their usefulness as biomass fuels through trial planting in the forests and on abandoned cultivated land owned by Shiso City. Through this demonstration project, GPF will work to build a sustainable business model for domestic forestry by utilizing fast growing trees as fuels. In addition, by utilizing the output of this project, the company will try to realize the independent operation*2 of biomass power plants after the purchase period under the FIT scheme expires.

*1 A general term for trees that grow faster than the commonly planted tree species. Some representative species include Chinaberry and Chinese Fir.

*2 Under the feed-in tariff (FIT) scheme, renewable electricity is purchased at fixed prices for 20 years at maximum. After this period, the generated electricity must be sold at market prices. For this reason, GPF aims to substantially reduce mainly transportation costs by using domestically produced fuels, thereby realizing sustainable fuel costs.

Participated in the “Keidanren Carbon Neutrality Action Plan” (formerly titled “Commitment to a Low Carbon Society”)

Recognizing that global warming is a global long-term issue to be solved, the Japan Business Federation (Keidanren) formulated a plan titled “Keidanren’s Commitment to a Low Carbon Society” in 2013 (revised in 2017), presenting a vision common to the Japanese industries of leveraging their technological prowess to play a central role in achieving the target of reducing global GHG emissions by half by 2050. This plan envisions that each member industry should work to reduce CO₂ emissions from business activities and people’s lives in Japan by introducing the best available technologies (BAT) to the maximum and that aspiring initiatives to stop global warming should be actively encouraged abroad. The plan also sets targets for strategically developing innovative technologies that will help achieve a breakthrough for the reduction of CO₂ emissions by half by 2050.

Among the industrial organizations participating in this plan, the Japan Gas Association and the Electric Power Council for a Low Carbon Society have established their own action plans to achieve a low-carbon society in the city gas industry and the electricity industry, respectively. Osaka Gas, a member of both organizations, participates in those plans for both industries and promotes initiatives to address global warming (climate change).

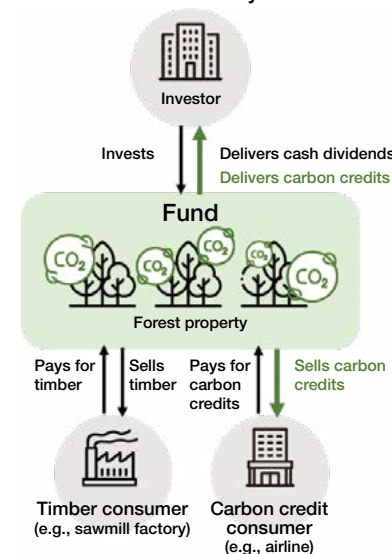
In June 2021, this plan was renewed as the “Keidanren Carbon Neutrality Action Plan.” From now on, we will formulate a plan to achieve carbon neutrality by 2050 and promote initiatives to serve that purpose.

Joint investment in a forestry fund formed by the Sumitomo Forestry Group –A Fund in the order of USD 415 million to contribute to the realization of a decarbonized society–

In July 2023, Osaka Gas, together with nine Japanese companies, announced a joint investment in a forestry fund formed by the Sumitomo Forestry Group.

The size of this fund is approximately USD 415 million, and the investment period is planned for 15 years. By 2027, the pooled capital will have been invested in the acquisition and management of 130 thousand hectares (more than 320 thousand acres) of forest, primarily in North America. Through this fund, we will increase the CO₂ absorption capacity of forests, generating approximately one million tons of additional CO₂ absorption capacity each year, and contribute to the realization of a decarbonized society by creating high-quality carbon credits and rewards. The value of forests as natural capital will also be enhanced, such as by maintaining biodiversity and conserving water resources. The fund will deliver global climate benefits by supporting responsible forest management at an area and financial scale beyond that which individual companies could achieve on their own.

Structure of forestry fund



Disclosure based on the TCFD Recommendations: Recognition of and Action on Risks and Opportunities

Principle and Outline

Tackling climate change is seen as one of the Sustainable Development Goals (SDGs) adopted by the United Nations. Since the Paris Agreement came into force in November 2016, initiatives to tackle climate change are being undertaken around the world. In Japan, the country declared carbon neutral by 2050 in October 2020, making it even more important to address climate change.

For the Daigas Group, which is engaged primarily in the energy business, climate change represents an important management challenge, and initiatives to reduce CO₂ emissions are a crucial mission. In January 2021, the Daigas Group established and announced the “Daigas Group Carbon Neutral Vision,” indicating its vision of how it strives to become carbon neutral by 2050. In March of the same year, the Company announced its “Medium-Term Management Plan 2023.”

In March 2023, we released “Energy Transition 2030,” which outlines the overall roadmap for the transition to low-carbon energy and decarbonization, as well as our Group’s specific initiatives of our group and the solutions we can offer our customers toward 2030.

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

* TCFD Consortium

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

Climate Change Governance

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

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

Directors other than Outside Directors are paid performance-linked remuneration, and one of the performance indicators is the ESG indicators achievement coefficient. For ESG indicators, CO₂ emissions aimed at carbon neutrality and other climate change-related indicators are employed.

Strategy

Scenario analysis

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

We assessed our energy businesses (gas, electricity and related businesses in Japan and overseas) which are expected to experience the greatest impact from climate change among the Group’s businesses, assuming a multi-track scenario (1.5°C Scenario (NZE2050), 2.6°C Scenario (STEPS)*) that takes into account the progress of energy conservation and changes in the composition of power sources, etc.

We steadily implement initiatives to increase the resilience of the 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.

Source: IEA “World Energy Outlook 2021”

■ Governance System for Climate Change



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

(As of June 23, 2023)

Recognition of risks and opportunities

Using a multi-track scenario analysis, the Daigas Group identified anticipated risks and opportunities, based on the environment surrounding its domestic and overseas energy businesses, evaluated them, and examined countermeasures in the short- to medium-term toward 2030 and the long-term toward 2050.

The Group is engaged in gas and electricity businesses, primarily in the Kansai region, which use natural gas as their main raw material and fuel. The external environment is undergoing various changes due to climate change. We have classified the major factors associated with these changes into “transition risks” and “physical risks,” and identified the major risks and opportunities. Significant risks for the Group related to climate change include the possibility that rising sea levels and natural disasters such as typhoons and torrential rains due to localized abnormal weather events, etc. may cause damage to our 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 and spread of renewable energy and decarbonization technologies also represents a significant opportunity for the Group.



The Group will respond appropriately to identified risks and opportunities by promoting diverse businesses through portfolio management.

Evaluation of Risks and Opportunities

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

Financial impact : Small □ □ Financial impact : Large ■ ■

Strategies/Countermeasures for Risks and Opportunities

		Short- and Medium-Term	Long-Term
Risks	Physical	● Implement disaster countermeasures for facilities	
	Transition	<ul style="list-style-type: none"> ● Diversify procurement sources ● Develop and expand sales of renewable energy power sources in Japan and abroad ● Engage in dialogue with investors Please see the following material for our major initiatives 	
		Transition	● Investigate, develop, and verify CCUS/“e-methane” technologies
Opportunity	Physical	● Development and sale of equipment with disaster response functions	
	Transition	<ul style="list-style-type: none"> ● Develop and expand sales of renewable energy power sources in Japan and abroad ● Develop and market high efficiency, compact decentralized power sources (CHP, fuel cells) ● Expand fuel switching, sales of high efficiency equipment in Japan and abroad ● Verify and participate in the decentralized power sources aggregation business Please see the following material for our major initiatives 	
		Transition	● Further develop energy-saving technologies

Financial Impact of Climate Change Risks and Opportunities

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

The Daigas Group is actively contributing to the spread of renewable energy, and estimates that the impact on sales of its renewable energy business expansion will be in the order of 100 billion yen in fiscal 2031.3.

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

Initiatives to Reduce Greenhouse Gas Emissions

Initiatives to reduce greenhouse gas emissions are a crucial mission for the Daigas Group. We focus on reducing CO₂ emissions, not only from our own business activities, but also from customers who use the energy we provide.

In the Daigas Group Energy Transition 2030 (ET2030), we have set a target of reducing CO₂ emissions in our domestic supply chain by 5 million tonnes by FY2031.3 compared to FY2018.3, and we are taking various initiatives to reduce CO₂ emissions.

Under the Daigas Group Carbon Neutral Vision, we have established the goal of contributing 10 million tons per year of CO₂ emissions reductions in FY 2031.3. This indicator will enable us to contribute to reductions throughout society, and we therefore use it as a management target linked to the Group's business initiatives.

Please see P.38-44 for details on the specific initiatives by the Daigas Group to reduce greenhouse gas emissions.

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.

Please see P.39 for an overall picture of the Daigas Group's efforts for low carbonization and decarbonization of energy.

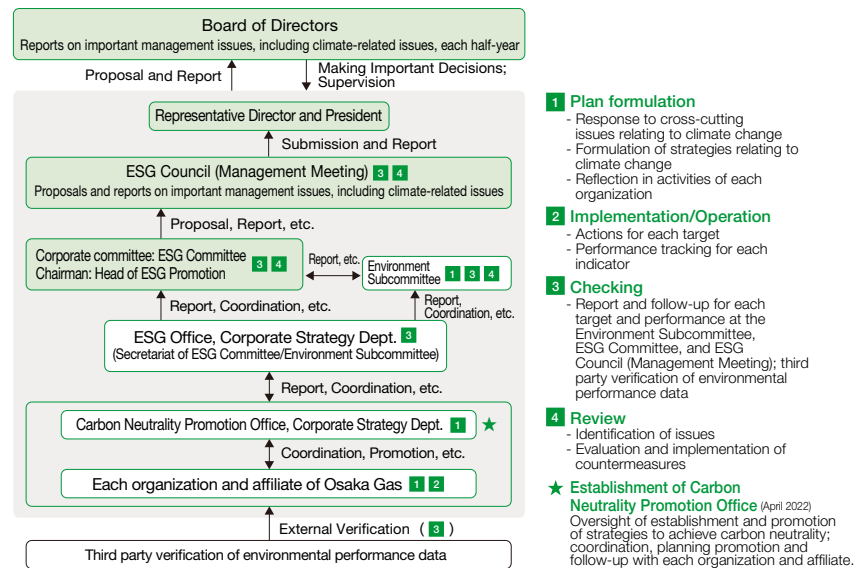
Risk Management

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 Management Meeting 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 (Management Meeting). The PDCA (plan-do-check-act) cycle is used to manage such actions.

Decisions on climate-related risk and sustainability, including investment decisions, are made by the Board of Directors and the Management Meeting. Matters related to climate change that were proposed or reported by March 31, 2023, included those listed to the right.

- Resolutions for collaboration and participation in projects for a decarbonized society, based on the Carbon Neutral Vision
- Formulation and disclosure of ET2030
- Monitoring of the results for indicators used to manage climate change response, etc.

Risk Management System for Climate Change



Indicators and Targets

The Daigas Group will proceed to contribute to radically reducing CO₂ 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	Indicators	Targets	Target FY
Climate Change	CO ₂ emissions of Daigas Group	Net-zero CO ₂ emissions	2051.3
		27.02 million tons* (5 million tons less than FY18.3)	2031.3
	Percentage of renewables in our power generation portfolio in Japan	Nearly 50%	2031.3
		Contribution to developing renewables capacity on a global basis	5 GW 2.5 GW
	CO ₂ emissions reductions at customer sites and through the value chain	<ul style="list-style-type: none"> • Promote carbon reduction and decarbonization through more widespread use of high efficiency, high value-added equipment with natural gas, renewable energy, etc. • Efficient operation of LNG tankers and expanded use of low emission vehicles, etc. • Provide environmental value through the dissemination of high-quality solutions in the fields of information, real estate, and materials 	Each year until 2031.3
Contribution to CO ₂ emissions reductions across society	Avoided emissions (t-CO ₂ e) (Including reductions contributed at customer sites and overseas)	10 million tons (baseline: FY2017.3)	2031.3

*Emissions in domestic supply chain (Scopes 1, 2 and 3) (Targets for FY2031.3 newly set in the "ET2030")

Contributing to the Resource-Recycling Society

Principle and Outline

With the aim of creating a recycling-oriented society, the Daigas Group strives to minimize waste emissions through efficient use of resources throughout its business activity value chain and through resource recycling by means of promoting the 3R + Renewable efforts. The Group also strives to conserve water through appropriate use of water and wastewater management.

More Specifically, Daigas Group is thoroughly implementing the 3Rs (reduce, reuse, recycle), cutting its resource consumption and waste generation, and endeavoring to reuse and recycle used resources. We are recycling resources throughout our business activity value chain by such means as striving for zero emissions at LNG terminals, reusing gas meters, recycling gas pipe materials, reusing excavated soil from gas pipe installation, and recycling used gas equipment.

Consumption of Resources by Daigas Group

Recycling of used gas pipes

The polyethylene (PE) pipes waste material generated at work sites is mainly used as covers to protect gas pipes and as post markers to indicate the location of supply pipes. In FY2023.3, 137 tons of polyethylene (PE) pipe waste was generated and all was reused. Metal pipes, such as steel and cast-iron pipes, are sold to electric furnace manufacturers and recycling companies, who use them as raw materials for products.

Reusing of gas meters

To measure the amount of gas used by customers, Osaka Gas has installed approximately 7.4 million gas meters. Under the Japanese Measurement Law, these devices must be replaced every 10 years.*1

After 10 years in use, gas meters are repaired (taken apart, inspected, and fixed) to make them perform as well as new ones. They are then installed at customer sites. In the past, this type of repair was conducted a third time to give the gas meters a total lifespan of 40 years. After conducting evaluations including durability tests*2 jointly with the gas meter manufacturers, we came to a decision that these gas meters can be used another 20 years if twice of additional repairs are conducted. Based on the result, the Company has decided to increase the maintenance of gas meters by two times since FY2010, and to use them for 60 years.

As a component material, around 2 kg*3 of aluminum is used in each gas meter body. Reusing gas meter reduce 80%*4 of CO₂ emissions, that includes CO₂ emission that would have been emitted in the process of casting a new gas meter body, giving a cumulative total reduction of 85,000 tons over the next 20 years, compared with producing new meters.

*1 Replacement of meters: Some exceptions apply. (Meters from #25 or higher need to be replaced every seven years)

*2 Durability test: Cyclic tests, accelerated temperature tests, etc.

*3 Calculation of aluminum use: A body of gas meter contains approximately 2 kg (average of from #2.5 to #6) of aluminum.

*4 Calculation of CO₂ emissions: Calculated with new meters also using regenerated aluminum.

Electronic issuance of a manifest certifying waste disposal via the Daigas Group's e-Cycle system

The Daigas Group operates a proprietary "e-Cycle" system that links appliance sales agents, collection and transportation companies, and disposal companies via the Internet. This system

enables prompt confirmation of "manifests," which certify that used equipment collected by sales agents has been appropriately handled by the shipping companies and the disposal companies.

The manifest is electronically issued, as the Daigas Group's e-Cycle system is connected to the Japan Industrial Waste Information Center (JWNET) through the EDI.*

* EDI

EDI stands for electronic data interchange. Electronic data are exchanged between the JWNET and Osaka Gas's e-Cycle system.

Compliance with the Home Appliance Recycling Law

The Daigas Group appropriately disposes of gas air conditioners for household use and clothes dryers, covered by the Home Appliance Recycling Law, in line with the law. In FY2023.3, about 111 tons of gas air conditioners for household use were collected, and 91% of them were recycled, higher than the minimum mandatory recycling rate of 80%. The amount of clothes dryers collected during the same year came to about 19 tons, 90% of which was recycled, far above the mandatory recycling rate of 82%.

■ Air Conditioners

	FY2019.3	FY2020.3	FY2021.3	FY2022.3	FY2023.3
Number of units recycled (units)	4,728	4,348	3,656	2,921	2,755
Gross weight recovered (t)	195 t	177 t	147 t	118 t	111 t
Weight recycled (t)	178 t	161 t	134 t	107 t	101 t
Recycling rate	91%	91%	90%	90%	91%

■ Clothes Dryers

	FY2019.3	FY2020.3	FY2021.3	FY2022.3	FY2023.3
Number of units recycled (units)	591	476	523	393	445
Gross weight recovered (t)	24 t	19 t	21 t	16 t	19 t
Weight recycled (t)	21 t	17 t	19 t	15 t	17 t
Recycling rate	88%	88%	89%	90%	90%

Compliance with the Act on Promotion of Recycling of Plastic Resources

The Daigas Group promotes resource recycling efforts through the promotion of the 3Rs (reduce, reuse, and recycle) plus renewable with the aim of creating a recycling-oriented society.

With regard to plastic resources, we are actively implementing material recycling in our business supply chain, including 100% recycling of waste polyethylene (PE) pipes, which are gas pipe materials, and recycling of resin used for gas alarms.

We will also continue our efforts to minimize the amount of landfill waste and other waste finally disposed of by effectively utilizing waste from other plastic products as thermal energy by, for example, converting it into refuse paper & plastic fuel (RPF).

Appropriate Use and Discharge of Water Resources

Water is not a primary material among the products handled by the Daigas Group. We recognize that the use of water does not pose a major business risk for our Group. However, the Group controls water discharge after using drinking water, industrial-use water, groundwater and seawater. At power plants, core facilities for its electricity business, the Group uses industrial water as a coolant in a steam turbine condenser, and vaporizes it inside the cooling tower. Drinking water, industrial-use water and groundwater are also used at LNG terminals, power plants and offices, and discharged. Seawater is mainly used for vaporization of LNG at city gas plants and for cooling in steam turbine condensers at some power plants. We discharge the seawater to the sea without consuming it or affecting its composition. In discharging water, we have conducted water quality inspections in line with relevant laws, ordinances and agreements with local municipalities, and there were no violations. The Group sees water as a limited natural resource. We will continue to use water adequately, control its discharge strictly, and promote water saving.

Osaka Gas has pleased to announce that we have been recognized for leadership in corporate transparency and performance on water security by global environmental non-profit CDP, achieving a place on the CDP A List for the second consecutive year.



■ Amount of water intake in FY2023.3

General water, industrial water	10,800 thousand m ³
Underground water	3,463 thousand m ³
Seawater	534,660 thousand m ³

■ Amount of water discharge in FY2023.3

Sewer	581 thousand m ³
River	3,089 thousand m ³
Sea	536,070 thousand m ³

Efforts to reduce water use

The Daigas Group is working together with business partners and customers to reduce water consumption.

In its employee activities at offices, the Group strives to conserve water and addresses the challenge of reducing the amount of water it uses.

Making use of its technological capabilities cultivated in the gas business, Daigas Energy Co., Ltd., a wholly owned subsidiary of Osaka Gas, provides customers with water purification and treatment services, including cooling water chemical services, to reduce water consumption.

Chemical substance management

Legal compliance and proper management

There are very few hazardous chemicals handled by the Daigas Group during the processing and supply of natural gas. The Group will continue to manage and reduce the amount of chemicals it uses under the policies shown below.

■ Daigas Group Chemical Substance Management Principles

1. We comply with laws and environmental regulations concerning the use of chemical substances.
2. We use ISO 14001-compliant and other environmental management activities to step up management and decrease emissions of chemical substances.
3. We disclose information on chemical substance management mainly on our website.

Soil and groundwater conservation



Inspecting soil and groundwater on former coal gas production sites

In compliance with relevant laws and regulations, Osaka Gas has checked the possibility of soil pollution at former coal gas production sites by measuring the amount of specified chemical substances contained in the soil and groundwater taken from the sites and assessing their impact on the sites and surrounding areas. The results of the surveys have been disclosed and response measures have been implemented where necessary. For example, when chemical substances (mainly cyanide compounds and benzene) in excess of the maximum amount allowed under the Soil Contamination Countermeasures Law were found, the incidents were reported to administrative authorities and adequate measures, including removal and cleaning the problematic soil, were taken promptly. Before changing the form of land, we conducted surveys based on relevant laws and regulations, followed by implementing appropriate response measures, including disposing of the contaminated soil and on-site containment of the soil. We have issued press releases regarding the results of investigations and the response measures, all of which have already been implemented. We will continue to take necessary measures based on the Soil Contamination Countermeasures Law.

Management of asbestos

The status of asbestos use at major facilities and buildings of the Group, and in its gas equipment, is given below.

Gas manufacturing and supply facilities	Gas equipment, combustion equipment	Daigas Group's buildings
Asbestos is not used in new facilities. The asbestos used in existing facilities as installed does not disperse into the air. When these facilities are serviced or reclaimed, nonasbestos material will be used in place of asbestos.	Asbestos is not used in new gas equipment or combustion equipment. Some of the gas equipment sold in the past used asbestos in gaskets or the like, which does not disperse into the air under ordinary conditions of use.	Measures to systematically eliminate spray-on asbestos insulation in buildings have been completed. Showrooms and other open spaces visited by customers do not use spray-on asbestos.

Management of waste containing PCBs

Proper management and disposal of PCBs in line with government policy

Every company in the Daigas Group manages and disposes of waste containing PCBs in accordance with Japan's Act on Special Measures for Promotion of Proper Treatment of Polychlorinated Biphenyl (PCB) (PCB Special Measures Act). All capacitors and transformers with a high density of PCBs over 10 kg were disposed of by FY2013.3. All ballasts and other equipment that contain PCBs were also disposed of by the statutory processing deadline. Low-density PCBs have been consigned to approved decontamination facilities since FY2014.3 in a systematic process of disposal.

Going forward, we will continue to store and dispose of PCBs properly, in accordance with the government's disposal schedule and policies.

Gas appliance eco-design

Conform with all laws and take the environment into consideration, such as by restricting the use of chemical substances

July 2006 was the start of the RoHS Directive, which restricts the use of specified substances, such as lead and cadmium, in appliances. Also in July 2006, in Japan the revised Law for the Promotion of Effective Utilization of Resources went into effect, obligating companies to label products as containing the six substances of the RoHS Directive according to J-MOSS, the JIS standard for the labeling of electrical and electronic products containing chemical substances.

In line with the measures propelled in the automobiles and home appliances sectors, we are working together with gas appliance manufacturers on the development of environmentally-friendly gas appliances and its labeling. The Daigas Group currently does not manufacture or sell gas appliances containing any of the specified substances that require labeling under J-MOSS. The Group abides by Japanese regulations on chemical substances (the Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances, and the Law for the PRTR and Promotion of Chemical Management). We also engage in independent evaluations of chemical management according to the RoHS Directive and are working to reduce chemical substances outlined therein.

Biodiversity

Principle and Outline Daigas Group Biodiversity Policy

Recognizing the essential nature of the many blessings of biodiversity, the Daigas Group in April 2010 established the “Daigas Group Biodiversity Promotion Policy,” revised from the Daigas Group Biodiversity Promotion Policy in March 2018. In line with the Policy and through its business activities, the Group intends to offset its negative impacts on biodiversity and aims to build a nature-positive society.

Efforts live up to the Policy

The Daigas Group has long been striving to conserve biodiversity through various measures, including protecting rare native plants growing on the LNG terminal sites, reusing soil excavated during gas piping works, building multi-level gardens at the experimental residential complex NEXT 21,* and planting trees in Japan. Since we formulated the Daigas Group Biodiversity Promotion Policy in April 2010, we have made positive efforts in line with this policy and actively provided information thereon. Our efforts to conserve biodiversity, have been made under the guidance of government and research institutes, outside experts, and external consultants. We also exchange information with various research groups, including the Japan Business Initiative for Biodiversity (JBIB) to make progress in our efforts. Since 2003, Osaka Gas has been participating in the Keidanren Nature Conservation Council as a member company; we also participate in the Keidanren Initiative for Biodiversity Conservation to collaborate with stakeholders, including the government and regulatory bodies.

Based on its Green Purchasing Guidelines (formulated in 2000, revised in 2022), Osaka Gas works with business partners to promote green purchasing: prioritized procurement of biodiversity-friendly goods and construction works that have less impact on the environment.

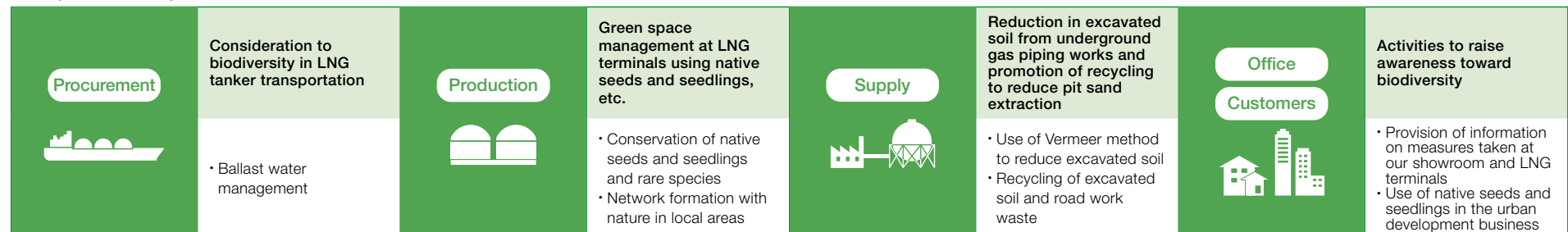
In the Daigas Group, every new investment and development project, whether in Japan or abroad, follows an environmental impact assessment at the planning stage when required by law. We survey the water environment, flora and fauna on land, and ecosystems to assess environmental impacts and take necessary measures to achieve a sustainable society.

We have set environmental targets in line with our environmental management system (EMS) and the Group Medium-Term Management Plan 2023, both of which are aimed at the complete implementation of the Daigas Group Environmental Policy, a pledge by the Head of ESG Promotion. These environmental targets also include paying due consideration to biodiversity in business activities.

* Experimental Residential Complex “NEXT 21”

The “NEXT 21” was constructed in October 1993 by Osaka Gas to propose an ideal neo-futuristic urban multiple-unit housing under the concept of “Achieving both comfortable and convenient life and energy-saving/ environmental preservation.” With Osaka Gas’s employees and their families actually living there, NEXT21 has conducted demonstrative experiments based on the themes that are in tune with the times. Such themes include energy saving for the entire building, reducing its CO₂ emissions, greenery restoration and environmental symbiosis in urban areas, ideal forms of residence that reflect diverse lifestyles, and product development. Also, many proposals and presentations that may lead to ideal multiple-unit housing in the future have been made at a time when the liberalization of the energy market is advancing. Some of the proposals have been commercialized.

Key Biodiversity Efforts in the Value Chain



Biodiversity conservation actives

The Daigas Group is committed to helping build a society harmonious with nature that can conserve biodiversity and enjoy the bounties of nature into the future, and will undertake efforts that promote the conservation of biodiversity and sustainable use, based on the “Daigas Biodiversity Promotion Policy”.

We promoted the following initiatives in FY2023.3.

Procurement

We manage ballast of LNG tankers we use in accordance with regulations of the country where the port of call is located. In addition, our tankers are equipped with water-processing facilities that meet the conditions set under the International Convention for the Control and Management of Ships’ Ballast Water and Sediments stipulated by the International Maritime Organization (enacted in September 2017).

We have reduced the impact of ballast on ecosystems by, for example, replacing ballast taken on at a Japanese port with water from the open ocean before releasing the ballast in a foreign port.

Production

At our LNG terminals (Senboku LNG Terminals I and II, Himeji LNG Terminal), green areas were managed in a way that contributes to biodiversity. In addition, native seeds and seedlings, etc. were maintained, biotopes were created, and biodiversity monitoring studies were conducted at LNG terminals.

Supply

The Daigas Group works to reduce the amount of excavated soil and waste asphalt generated as a result of gas pipe installation, which contributes to reduce impact on the ecosystem. Ways to achieve this include the Vermeer method, which requires soil excavation of only two points, and the shallow pipe installation method. In FY2023.3 these methods allowed us to reduce the amount of excavated soil generated by approx. 222 thousand tons compared to what would have been generated using conventional methods. Our soil and asphalt recycling system promotes the reuse of waste asphalt and excavated soil as either recycled asphalt, regenerated roadbed material, or improved soil. These efforts allowed us to reuse 98% of material excavated during gas pipeline construction in FY2023.3 and send to final disposal approx. one thousand tons.

* In April 2022, Osaka Gas Network Co., Ltd. took over the city gas pipeline business of Osaka Gas Co., Ltd.

Customers

We conduct community and environmental communication and environmental education in approximately 100 m² of rice paddies and 12 m² of fields created on the roof of its own facilities. In addition, our group company engaged in urban development projects is working on planting plants that take biodiversity into consideration at its facilities and the condominiums they develop, encouraging interaction with the local community and creating connections between people and the city.

Habitat conservation for biodiversity: Use of native seedlings in green space management at LNG terminals

At Osaka Gas LNG terminals, we are conducting afforestation activities that recreate the area’s original ecosystems and are capable of supporting a high level of biodiversity. We are also regularly conducting biodiversity monitoring studies to verify the effectiveness of our biodiversity efforts.

At the Senboku LNG Terminal, our concept is “a network of greenery that brings us closer to the community.” We are striving to create a green belt that will be home to a diverse range of life through efforts such as planting native seedlings in a green area, the “Senboku no Mori,” and planting a field of Japanese blood grass as described in “The Pillow Book,” an ancient Japanese essay written in the Heian Period.

Since 2002, under the guidance of the Museum of Nature and Human Activities in Hyogo Prefecture, the Himeji LNG Terminal has been preserving rare plants native to the area of Nishi Harima, Hyogo Prefecture. We are currently growing rare plants including Gardneria multifolia “CHITOSEKAZURA”

and Red-root Lithospermu (both rated level 2 endangered on the Ministry of the Environment’s endangered species list). The new biotope created in FY2014.3 reproduces satoyama woodlands, grasslands and marshes with plants indigenous to Nishi Harima, preserving such rare species as the Platycodon or Japanese Bellflower.

These native species are originally suited to the local climate and are easy to grow. Therefore, they do not require any special consideration or burden in the management of green spaces in the plant to conserve rare species.

As there are indications that these efforts are resulting in an increase in the number of insect and bird species, it is hoped that these trends will also spread to neighboring green belts.

In the future, we will continue to monitor these areas under the guidance and advice of experts.

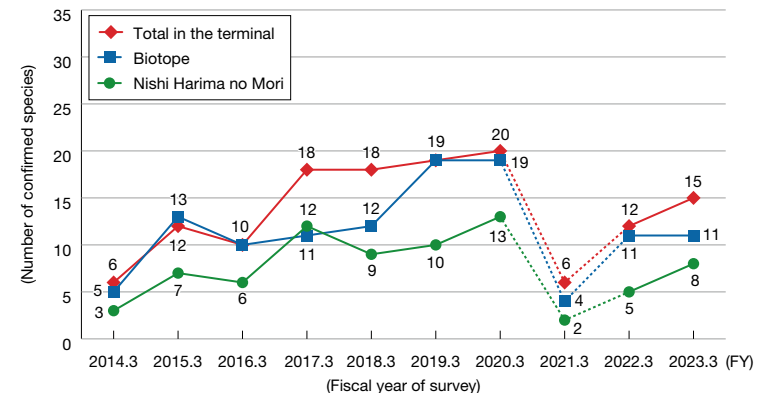


At Senboku LNG Terminal: Green belt planted with Cogon Grass



Biotope at Himeji LNG Terminal

Changes in Butterfly Species Confirmed at Himeji LNG Terminal



Preservation of biodiversity habitats: Development of condominiums introducing the indigenous species in their gardens

Osaka Gas Urban Development Co., Ltd. is a real estate company and is engaged in the development and management of office buildings and condominiums/rented apartments. In addressing “co-existence with the environment,” one of its “five focuses” for urban and property development, Osaka Gas Urban Development Co., Ltd. is pursuing a planting plan that takes biodiversity into consideration.

The planting of native seedlings of “Chimakizasa,” a species of bamboo grass called Sasa, were introduced to the garden of The Urbanex Kyoto Matsugasaki, which was completed in March 2014. Chimakizasa has been recognized as an endangered plant in Kyoto City as a result of excessive eating by wild deer, whose population in the city has been increasing in recent years. All of the 10 bamboo grass plants that were planted in the garden of the “Urbanex Kyoto Matsugasaki” were donated by the Chimakizasa revival committee, a local team formed to increase numbers of the plant, with members being mainly residents of Sakyo Ward, Kyoto City and researchers from Kyoto University.

At the “Urbanex Kobe Okurayama”, completed in February 2016, Osaka Gas Urban Development has planted Japanese blue oaks, gooseneck loosestrife, and other local seeds/seedlings with support from the Museum of Nature and Human Activities, Hyogo. Signs describing plant names and their characteristics were also installed to help local residents learn about the importance of biodiversity. These combined efforts, including the active use of native seedlings, earned the 2016 Good Design Award.

Since FY2019.3, Osaka Gas Urban Development Co., Ltd. has transplanted native seeds and seedlings from green spaces at Osaka Gas facilities to the planting areas of condominiums it has developed. Examples of these properties completed in FY2021.3 are Scenes Osaka Honmachi and Scenes Otemachi. In this way, we share our in-house know-how in conserving biodiversity across the Daigas Group. Osaka Gas Urban Development will continue to standardize biodiversity-friendly planting plans as specifications and work on such plans at the condominiums it develops.



Scenes Tsukaguchi

As of July 31, 2023, 31 properties have introduced local biodiversity-friendly planting.
(including properties for sale and for rent)

Biodiversity risk assessment

The Daigas Group, being aware of the environmental impact of its value chain, strives to minimize its impact on biodiversity and expand its contribution.

We conduct questionnaires regarding sustainability activities at our LNG suppliers to check on the status of their monitoring activities for local ecosystems and their efforts to conserve the biodiversity of local ecosystems.

In the Group, every new development project, whether in Japan or abroad, follows an environmental impact assessment at the planning stage when required by law.

For example, in the process of constructing the Senboku Natural Gas Power Plant, the core facility for the Group’s electricity business, between 2002 and 2006, we conducted an environmental impact assessment. It covered the construction work (the impact of transportation of construction materials, such as air pollution, noise, and vibration) and the presence and shared use of land and workpieces (the impact of ground modification and the facility’s existence on local flora and fauna and the impact of exhaust gas and wastewater from the facility in operation on the quality of air and water). We also adopted environmental conservation measures against air pollution, noise, vibration, and wastewater in order to further reduce the environmental impact of the project.

Also, in the Himeji Natural Gas Power Plant construction project, which Himeji Natural Gas Power Generation Co., Ltd., a wholly owned subsidiary of Osaka Gas, is implementing, an assessment process has been completed in compliance with the Environmental Impact Assessment Act.

Biodiversity-conscious initiatives at the Scenes Tsukaguchi condominium selected for the 10th ABINC Certification and Good Design Award 2020

In February 2021, Scenes Tsukaguchi, a condominium in Amagasaki City, Hyogo Prefecture, developed by Osaka Gas Urban Development Co., Ltd., acquired the 10th Ikimono Kyosei Business Establishment *1 certification organized by the Association for Business Innovation in harmony with Nature and Community (ABINC)*2.

The ABINC certification aims to foster harmony between nature and human beings in business activities. ABINC conducts a third-party assessment of biodiversity-conscious initiatives to create, manage and use green spaces, and it certifies eligible business sites as “Business Sites in Harmony with Nature.” Osaka Gas Urban Development constructed Scenes Tsukaguchi while implementing biodiversity-conscious initiatives in cooperation with experts, including those from the Museum of Nature and Human Activities, Hyogo. On the condominium site, native plant species, such as the bamboo-leaf oak and the sawtooth oak, were planted to create green spaces in consideration of local vegetation. These green spaces were designed to create a network with other small green spaces dotted nearby and help birds and butterflies find places to inhabit. In addition, seedlings thinned in the planting management process on land owned by the Daigas Group were transplanted to the condominium site to help preserve the genes of plant species native to the Rokko mountains in Hyogo prefecture.

Scenes Tsukaguchi also won the Good Design Award 2020 organized by the Japan Institute of Design Promotion. Following the Good Design Award 2016, this was the second time that Osaka Gas Urban Development had won the same award. The 2020 award came to the company in recognition of its success in facilitating interactions between the condominium and the neighborhood and creating a linkage between residents and the local community by designing the condominium to be open under the concept of “Re:CONNECT,” and in fostering communication between people from different areas or age groups in the living environment abundant with rich natural features by building three gardens with different themes on the condominium site.



Scenes Tsukaguchi



*1 “Ikimono Kyosei Business Establishment” (lit. “Business Sites in Harmony with Nature”) is the registered trademark of the Japan Business Initiative for Biodiversity (JBIB).

Development of Environmental Technology

Principle and Outline

The Daigas Group views technology as the foundation for its corporate competitiveness and views research and development as one of its most important strategies for differentiating itself from the competition. While accelerating low-carbon transitions through development of technologies contributing to the reduction of CO₂ emissions, we take on the challenge of technical research and development for the decarbonization of our gas and electricity. We will actively tackle a wide range of subjects, from the advanced use of natural gas to the further utilization of renewable energy and the research and development of gas decarbonization technologies such as methanation, to accelerate development of technologies that will contribute to achieving carbon neutrality.

Development of New Technologies that Contribute to Low-Carbon/Carbon-Neutral Solutions

The Daigas Group believes that “e-methane,”* which is synthesized from hydrogen produced using renewable energy and CO₂, is the key to making city gas carbon-neutral. The Group is working on establishing a variety of methanation technologies toward full-scale introduction of “e-methane” in 2030. Moreover, we are promoting development of technologies that contribute to further low-carbon/carbon-neutral solutions by making use of the gas synthesis/catalyst technology, combustion technology, and material technology that Osaka Gas has developed so far. The Company has developed a variety of natural gas combustion technologies tailored to our customers’ uses, and it is now leveraging that know-how to develop hydrogen and ammonia combustion technologies. Such efforts include development of a small ammonia engine system in cooperation with Toyota Industries Corporation. The Company is also working on the development of chemical looping combustion technology as a technique for producing carbon-neutral hydrogen and electricity from biomass. In addition to energy, Osaka Gas also develops and sells SPACECOOL, a radiative cooling material. The Carbon Neutral Research Hub of Osaka Gas conducts these research and development projects, disseminates information, and forms business alliances. To further accelerate these efforts, we are establishing a new research and development base in the Torishima district of Osaka City, with full-scale operations scheduled for FY2026.3.

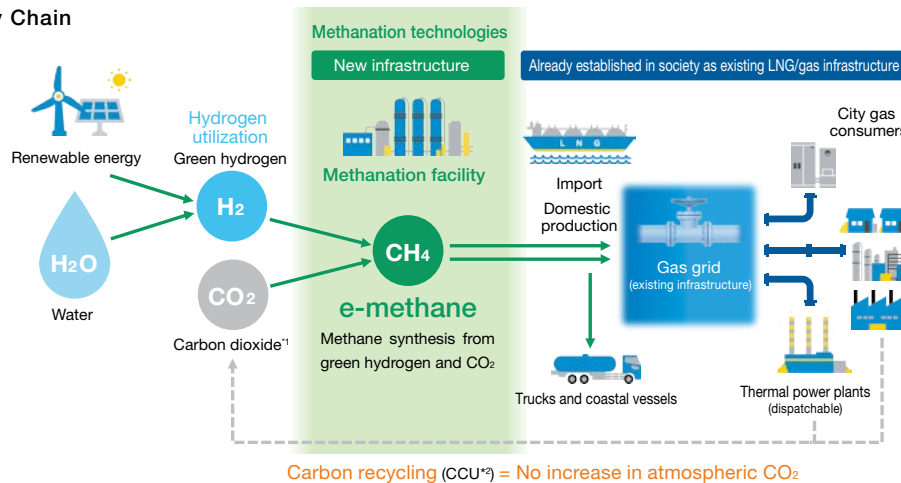
*Synthetic methane produced from non-fossil energy sources, such as green hydrogen, is called “e-methane”.

“e-methane” – the key to low-carbon/carbon-neutral solutions created by methanation technology

“e-methane,” which is produced by recycling CO₂ otherwise emitted into the atmosphere and synthesizing it with hydrogen, is a carbon-neutral hydrogen carrier.

Since “e-methane” has almost the same composition as city gas, existing city gas infrastructure and combustion equipment at customers’ sites can be used as is, enabling seamless decarbonization during the transition period and advantageously reducing the cost of its social implementation.

■ e-methane Supply Chain



*1 Biogenic CO₂ and possibly CO₂ derived from DAC (Direct Air Capture: a technology used to capture and remove CO₂ directly from the atmosphere) might be utilized in the future.

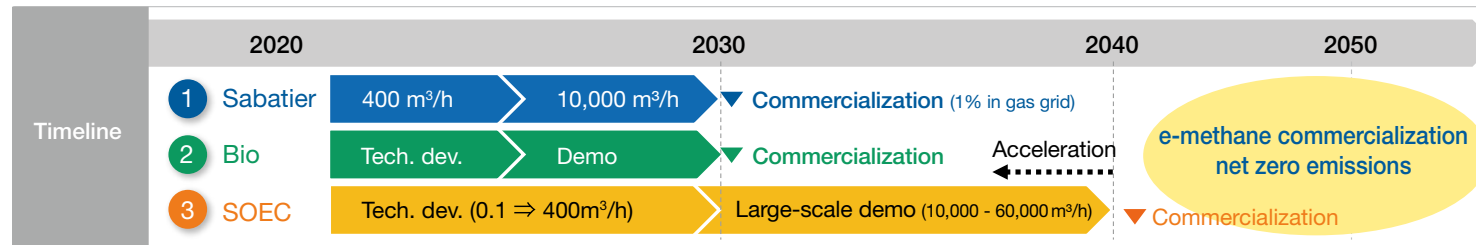
*2 Carbon dioxide Capture and Utilization

Efforts to establish three methanation technologies to enable the introduction of "e-methane"

In addition to working to scale up the existing technology, Sabatier methanation, we aim to commercialize biomethanation, a locally produced and locally consumed energy generation technology, and to achieve early introduction of highly efficient SOEC methanation, an innovative technology.

- 1 Sabatier methanation*1 (existing technology): Scaled up and implemented in society at an early stage
- 2 Biomethanation*2 (innovative technology): Produce and use energy locally for local consumption
- 3 SOEC methanation*3 (Innovative technology): Reduce cost by enhancing energy efficiency

Roadmap for Social Implementation of Methanation Technology



*1 CO₂ conversion by a catalytic reaction with hydrogen derived from renewable energy, etc. to synthesize methane.

*2 Technology that uses biological reactions to synthesize methane from CO₂ and hydrogen

*3 Use of SOEC equipment to electrolyze water and CO₂ into hydrogen and carbon monoxide using renewable energy, etc., and then synthesize methane by catalytic reaction of the hydrogen and carbon monoxide.

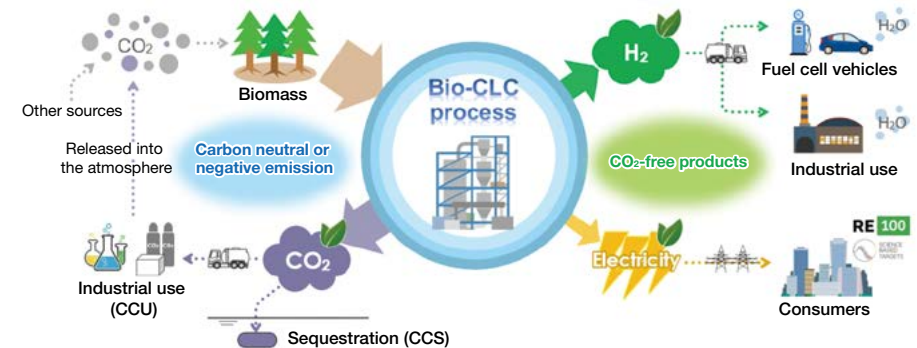
Development of chemical looping combustion technology for simultaneous production of hydrogen, electricity and CO₂

Osaka Gas is working on the development of chemical looping combustion (CLC) technology, which produces hydrogen, electricity, and CO₂ by leveraging the redox action of iron oxide. CLC technology circulates iron oxide to have it react with fuel, water, and air, through which hydrogen, electricity, and CO₂ are produced simultaneously. The fuel may be coal or biomass. When carbon-neutral biomass fuel is used, this technology is expected to produce or supply green hydrogen, electricity, and biomass-derived CO₂.

Meanwhile, there has been no implementation example of CLC technology aimed at producing hydrogen using biomass as fuel. For commercialization, it is necessary to solve technical issues such as elemental technology development toward the establishment of system design technology and process verification.

Osaka Gas aims to utilize this technology to produce and supply green hydrogen using biomass as fuel, helping customers achieve carbon neutrality.

Our Vision for the Practical Application of CLC Technology



**Radiative cooling material SPACECOOL[®], a new product, by SPACECOOL Inc.
—Also contributing to realizing a decarbonized society with world-class
cooling performance—**

SPACECOOL[®], developed by Osaka Gas and manufactured and sold by SPACECOOL Inc., is a radiative cooling material with zero-energy cooling capability. By releasing heat into space under direct sunlight, it lowers the temperature*¹ below the outside temperature without using energy. It has the potential of contributing to low-carbon or carbon-neutral solutions for society as a whole.

A demonstration test conducted by Osaka Gas found that the surface temperature of the material was up to about 6°C*² lower than the outside air temperature under direct sunlight, realizing world-class*³ cooling performance.

Using the material, two types of products (film and canvas) have been developed. The material is expected to be deployed as products for implementing measures against global warming, achieving energy conservation and ensuring cooling comfort. Potential specific applications vary widely, including canvas-covered structures and container warehouses.

The material was selected for the environmental technology exhibition at the Japan Pavilion of the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27), which was held in Egypt from November 7 to November 18, 2022. SPACECOOL demonstrated the material at physical and virtual exhibitions. At the exhibitions, people from various countries facing heat issues showed a lot of interest in the material.

In the future, we would like to promote the spread of this material both domestically and internationally and contribute to the realization of a low-carbon or carbon-neutral society.

*1 This has been achieved by using Osaka Gas's proprietary optical control technology to develop a material design that reduces the solar heat input and increases heat dissipation through thermal radiation.

*2 The temperature was measured at Osaka Gas Energy Technology Laboratories in Konohana-ku, Osaka (ambient temperature at the time of measurement: approximately 35°C). The temperature on the reverse side of a steel sheet covered with the radiative cooling material was measured.

*3 The survey was conducted by Osaka Gas, based on published papers.



Radiative cooling material (thin film material)

Social

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Innovation Management

Summary

<p>Why the topic is material</p>	<p>The Daigas Group views technology as the foundation for its corporate competitiveness and views research and development as one of its most important strategies for differentiating itself from the competition. We also recognize that proactively leveraging digital technology for our business, creating innovative services, evolving data management, and reforming business processes will lead to improved business competitiveness.</p> <p>While providing a stable supply of city gas in the Kansai region, the Group has expanded its business into peripheral areas and developed together with the region by working on research, development, and practical application of various new technologies that lead to comfortable lives and development of business for our customers.</p> <p>To attain sustainable development and growth that address the needs of the environment and society, the Group will create new value and provide a wider range of services and new technologies to customers in collaboration with various stakeholders.</p>	
<p>Promoting business transformation with DX</p>	<p>Items to be addressed</p> <ul style="list-style-type: none"> • Data management evolution • Practicing innovative service creation • Operational process innovation 	<p>Specific initiatives</p> <p>Policy and promotion system</p> <p>We aim to become a “corporate group capable of keeping on changing” to continue providing value amid rapid change in society and the work environment as well as changes in customer values. We will proactively leverage digital technology, which is progressing rapidly, for our business and accelerate innovative service creation, data management evolution, and operational process innovation.</p> <p>In April 2022, we established the DX Strategy Department at the Corporate Planning Headquarters, and the DX Committee, a corporate committee, performs cross-organizational coordination and promotion of DX for the entire Daigas Group.</p> <hr/> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Transforming value for customers • Building systems and structures that take advantage of Group’s collective strength • Transforming employee value through “Daigas X (Daigas Transformation)” • Human resources development
<p>Research and development/ intellectual property</p>	<ul style="list-style-type: none"> • Research and development of technologies that contribute to achieving carbon neutrality • Technology development to ensure stable energy supply and safety • Research and development for the creation of new businesses • Securing and utilizing intellectual property rights 	<p>Policy and promotion system</p> <p>In line with the Medium-Term Management Plan 2023, the Carbon Neutral Vision, and Energy Transition 2030 (ET2030), we aim to realize a low-carbon, decarbonized society and promote research and development of technologies to ensure a stable energy supply and safety as well as to create new businesses. Based on the rules and regulations related to technological development, we make decisions on the implementation of technological development, allocate appropriate budgets according to the importance of the theme, and follow up on progress at the time of implementation.</p> <hr/> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Promoted research and development, including that of methanation, to achieve carbon neutrality • Continued to promote technological development to ensure and improve safety, and research and development to create new businesses • Secured and utilized intellectual property rights in conjunction with business and technology development strategies • Promoted open innovation activities that actively integrate and utilize technologies owned by Osaka Gas and those owned by external parties

Promoting Business Transformation with DX

Principle and Outline

We aim to become a “corporate group capable of keeping on changing” to continue providing value amid rapid change in society and the working environment as well as changes in customer values. We will proactively leverage digital technology, which is progressing rapidly, for our business and accelerate innovative service creation, data management evolution, and operational process innovation.

We 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 Medium-Term Management Plan 2023 and Long-Term Management Vision 2030.

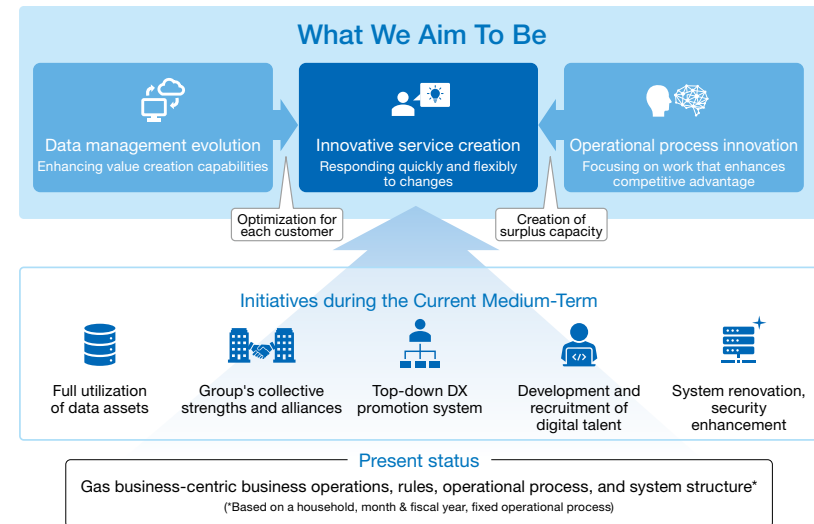
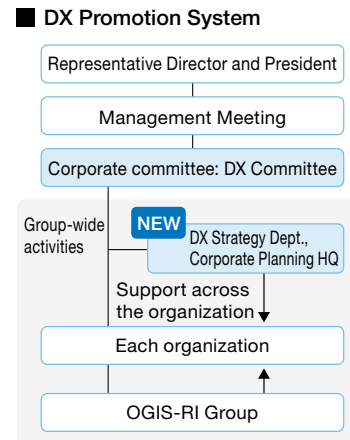
In the new age in which both our customers and services rapidly change, we will aim for transformation of the business itself and for innovation as a corporate group that can keep on changing by revising constantly and flexibly our business model, operations, rules, and systems, which used to be taken for granted.

To make a major transformation to realize our vision, we will work on building a promotion system driven by top management, strengthening human resources development, demonstrating the comprehensive strength of the Daigas Group, including OGIS-RI Co., Ltd. and building alliances with our partner companies.

DX Promotion System

In April 2022, to realize “what we aim to be” and accelerate business transformation (creation of new businesses/sophistication of existing businesses/operational process innovation) and system transformation, we established the DX Strategy Department under the Corporate Planning Headquarters as an organization consolidating the Information/Communication Systems Department and the DX Promotion Office.

We also established the DX Committee as a company-wide committee to perform cross-organizational coordination and promotion of DX (business transformation utilizing digital technology) for the entire Daigas Group from the perspective of alignment with the business, IT and financial strategies, etc., and we aim to realize the group-wide vision and transform the business.



DX Strategy

Practicing innovative service creation

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

Operational process innovation

We will thoroughly review our internal operations from “the perspective of customers.” 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, we will reduce the workload for remaining operations with digital technologies such as AI and RPA.

Through these transformations, employees in the Group will be able to generate extra power to work on more non-routine and discretionary operations, as well as operations that require higher expertise and judgment, in a comfortable working environment. This will allow employees to devote more energy to providing better value to customers.

Data management evolution

The Group has been leading efforts to utilize data, placing an internal “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.

Key Initiatives

Transforming value for customers

We are giving a concrete form to what we aim to be in 2030. To achieve this goal, we have started to transform our business activities to keep providing value to customers. Under the key phrase of “All for everyone’s smile,” Osaka Gas Marketing Co., Ltd., which conducts business for residential customers, aims to create a future where not only customers but also business partners and Group employees are smiling. The Group will continue to provide optimized experiences tailored to each customer by taking advantage of digital technologies and transforming services and communication in accordance with customer and societal needs. Helping customers achieve a safe and secure, comfortable and convenient, and energy-saving and eco-friendly lifestyle, we aim to be a “housing and lifestyle partner.”

Transforming employee value through Daigas X (Daigas Transformation)

In FY2023.3, we launched an initiative to evolve how we work and operate, so that we can keep producing a virtuous cycle of employee and company value creation in unprecedented, rapidly changing times.

In FY2024.3, the initiative was named “Daigas X (Daigas Transformation),” and shared with all employees via the intranet along with specific measures and what we aim to be. Daigas X rolls out activities that aim to enable diverse human resources to take on challenges, keep learning, and grow, as well as to let us speedily explore and deepen our understanding of unprecedented changes. Simultaneously, we are creating environments and systems that support the initiative. Each organization considers what they aim to be and what action they take to that end, based on the reality in the organization and on the frontline. In parallel, the company is developing internal mechanisms, such as the introduction of chat tools to stimulate communication, and the expansion of learning opportunities for employees to encourage autonomous career development.*

*Please see □□ P.66 for information on measures for voluntary career development.

■ Offering Information on the Intranet



Building systems and structures that take advantage of Group’s collective strength

Under the DX promotion system built in FY2023.3, we are building group-wide systems and structures from FY2024.3 to accelerate DX promotion, with stronger collaboration with OGIS-RI Co., Ltd. in charge of the Information Solutions Business. Specific initiatives include the launch of “DX Practical Training,” a consulting service that works together with each organization to help resolve their issues. This aims to support Group employees to improve business operations and take on the challenge of transformation. In collaboration with OGIS-RI Co., Ltd., we are also taking advantage of the Group’s collective strength in working on Daigas X and the transformation of customer value in the residential energy business.

Human resources development

To focus on the development of human resources who can integrate business with digital and draw and promote what we aim to be, we are promoting systematic training by job level.

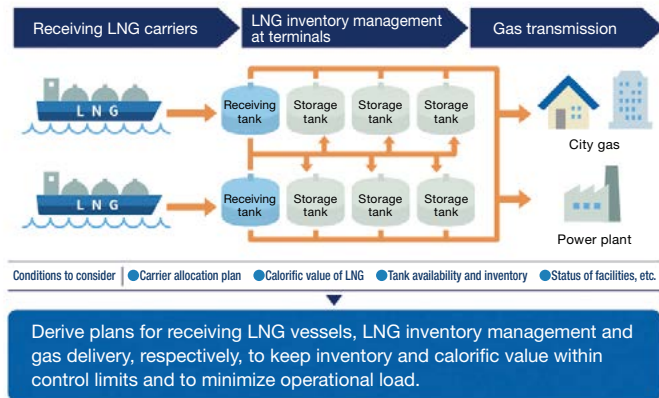
In FY2023.3, we invited external experts for monthly lectures and dialogues for the management, which featured case studies of corporate reforms, trends in the shift of customers’ values, and other topics. The contents were shared with employees as well. We also develop core human resources who take advantage of digital technologies for operational reform and new business planning. After defining the skills necessary for core human resources, we implemented a development program that includes lectures, OJT, and feedback interviews. As of April 2023, a total of approximately 120 employees have undergone the development program. For all employees, we offered e-learning, as well as courses for obtaining qualifications, and enhanced reskilling support. From FY2024.3, our initiatives will target managers as well. We thus aim to build a system where top-down and bottom-up approaches create synergy

■ Development Program by Job Level

Target	Development program
Management	<ul style="list-style-type: none"> Lectures by and dialogues with external experts held about once a month (approx. 20 participants)
Managers	<ul style="list-style-type: none"> Launch initiatives in FY2024.3
Core human resources	<ul style="list-style-type: none"> Development program including lectures, OJT, and interviews (targeting approx. 120 employees)
All employees	<ul style="list-style-type: none"> E-learning, courses for obtaining qualifications Share lectures for the management Enhance reskilling support

DX in Gas Production Business—Optimization of LNG Tank Operation Planning

Once LNG is delivered to a manufacturing plant, it is stored in tanks and then delivered according to demand, which requires appropriate heating value management and inventory control. The formulation of the tank operation plan requires expertise of skilled personnel since complex equipment configurations, operational constraints, city gas demand and various other factors need to be considered. We are working to optimize tank operation planning, using this expertise and mathematical programming.



AI-Based Self-Wheeling Scheme for Renewable Electricity —Starting supply and demand management service for self-wheeling, using a solar power generation system—

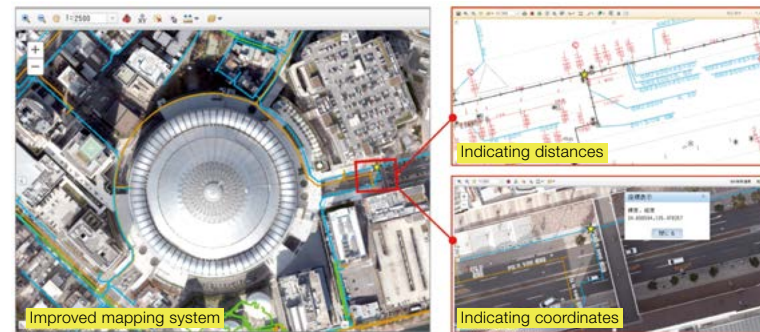
As one of our low-carbon and decarbonization solutions for corporate customers, we have started proposing a new electricity scheme using renewable energy, which is greatly affected by weather conditions, by using the weather forecasting technology and AI developed independently by Osaka Gas for output and demand prediction to improve accuracy.



Digital Utilization in Gas Supply Equipment Management

Since the gas supply business involves a great deal of on-site work, including gas pipe installation, maintenance and management, and safety monitoring, and involves an extremely large number of employees and partner companies, we are promoting the use of digital technology for the purpose of future efficient business operation, improvement of safety quality, and securing of technology and expertise.

We are operating a mapping system that displays and manages information on gas supply equipment on a map, including the location of approximately 60,000 km of gas pipes and the history of past gas works and works accepted from other companies, and using this information as the basis for various operations related to gas supply. By managing absolute coordinates based on latitude and longitude coordinates, we increased the accuracy of information on the location of gas pipes, which was previously handled based on relative distances to buildings and other structures.



Research and Development/Intellectual Property

Principle and Outline

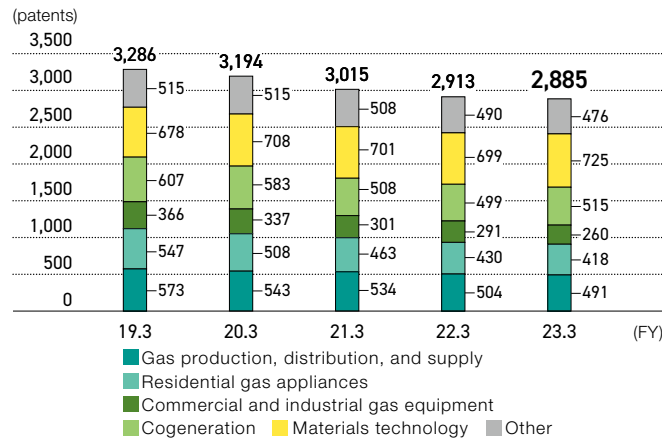
The Daigas Group consider research and development to be one of the most important growth strategies for the Group. In addition to ensuring and improving safety, we are conducting research and development aimed at improving operational efficiency and reducing equipment-related costs through the use of digital technology, improving customer convenience, and enhancing the sophistication of existing services. We are also engaged in research and development for the creation of new businesses and research and development that contributes to the realization of carbon neutrality.

Furthermore, we regard intellectual property rights as an important management resource and are actively working to secure and utilize the rights in conjunction with our business and technology development strategies. We are also actively promoting open innovation activities to accelerate and streamline development and create new technologies and products by actively integrating the Group's proprietary technologies with those of external parties and utilizing them.

Patent Portfolio by Business Type (Group)

Fiscal year ended March 31, 2023

2,885 patents



Reward System for Inventors

Osaka Gas has an invention achievement reward system in which inventors who have made significant contributions to its business are rewarded in order to motivate employees to invent and encourage intellectual property activities.

We disclose the results of the review of achievement rewards on the internal portal site, and respond to inquiries and opinions from employees regarding the results of the review, in an effort to operate the system in a fair and transparent manner.

Open Innovation Activities



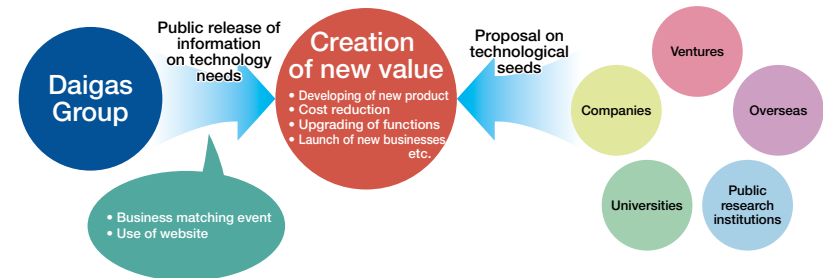
Open innovation refers to an efficient approach used to seek solutions outside the company to technology development problems that Osaka Gas is unable to solve independently and to speed up technological development for higher efficiency. Osaka Gas has pioneered this approach since 2009. Our efforts have led to the building and expansion of a network of partnerships (Open Innovation Platform) with universities, public research institutes, small enterprises, large corporations, ventures and overseas companies.

To find outside partners to work with, we have revealed details of our technology to-do list, something we have rarely done in the past, in order to solicit promising technical ideas from outside parties. After we launched full-fledged open innovation activities in FY2010.3, we have achieved many matchmaking opportunities. Some cases have actually led to commercialization and practical applications.

For example, gas pipe patrols using technology that automatically recognizes the part requiring construction with an on-board AI camera, and the use of drone technology in facility inspections are examples of value-added products created by combining our technology with external technologies.

The task ahead is to introduce some of the efficient technologies that we obtained externally, and together with our alliance partners, actively promote the creation of new R&D themes and creation of new businesses through the Open Innovation Platform.

How Open Innovation Works



Human Resources

Summary

Why the topic is material	<p>In the Daigas Group Corporate Principles, the Group declares its aim to create value primarily for customers, as well as for society, shareholders, and employees. Based on the belief that human capital is a source of value creation, the Group aims to be a company where employees can achieve personal growth through their work.</p> <p>Based on the notion that creating a comfortable work environment that takes into consideration the health and safety of our employees is the foundation of all our operations, we are working to prevent occupational accidents and promote health and wellness of our employees.</p> <p>We respect the individuality and self-reliance of all employees and actively promote diversity, equal opportunity, and inclusion so that they can take on challenging and rewarding work. We position employee engagement, development of employee skills, and diversity & inclusion as material issues.</p>
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	Items to be addressed	Specific initiatives										
Human resources management	<ul style="list-style-type: none"> Retention of necessary personnel to respond to the evolution of our business portfolio Maximization of the entire Group's performance by assigning the right people to the right jobs Revitalization of individuals by increasing job satisfaction <p>Materiality Employee engagement</p>	<p>Policy and promotion system</p> <p>We are engaged in various initiatives to improve employee satisfaction and the Group's entire performance in a rapidly changing business environment with increasingly diversified employees' work perspectives.</p> <p>The personnel system of the Osaka Gas helps all employees understand their roles and expectations through meetings with their supervisors, who serve as personnel development advisors, and allows employees to choose their own career course to pursue.</p> <p>Moreover, we have established the Daigas Group Safety and Health Council to discuss measures for and share information on occupational accident prevention and health maintenance and enhancement.</p> <p>Each year, we measure employee engagement through the Attitude Survey of Daigas Group employees, reflecting the results in each policy.</p>										
		<table border="1"> <tr> <th>KPIs based on the materiality</th> <th>FY2023.3 results</th> </tr> <tr> <td>Employee engagement</td> <td>Conducted the Employee Attitude Survey. Maintained four overall indicators at appropriate levels</td> </tr> </table>	KPIs based on the materiality	FY2023.3 results	Employee engagement	Conducted the Employee Attitude Survey. Maintained four overall indicators at appropriate levels						
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		Employee engagement	Conducted the Employee Attitude Survey. Maintained four overall indicators at appropriate levels									
<p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> Strengthened recruitment of highly specialized human resources and established a multi-track career path system by offering new career paths Introduced a talent management system Continued to implement improvements to the workplace environment to make it more comfortable to work in 												
Human resources development	<ul style="list-style-type: none"> Revision of the specifics of the training contents in light of the employees' desired level of growth and the personnel profile Implementation of DX human resources education <p>Materiality Development of employee skills</p>	<p>Policy and promotion system</p> <p>The Daigas Group's Long-Term Management Vision 2030 lists the promotion of work style reform and development of human resources as important goals. We consider it vital to develop personnel who are capable of working actively in a rapidly changing business environment, and to that end, we offer a range of training and educational programs aimed at developing individual capabilities.</p> <p>Osaka Gas offers a wide range of training programs for all positions and job descriptions, in addition to the training system for each career course. These include training programs by level along with self-directed training.</p>										
		<table border="1"> <tr> <td>Human Resources Department</td> <td>Leading the development of common elements across the company</td> </tr> <tr> <td>Respective organizations</td> <td>Leading the development of organization-specific elements (operational expertise, acquisition of qualifications, etc.)</td> </tr> <tr> <td> Supervisor</td> <td>Person responsible for development</td> </tr> <tr> <td> Instructor for new employees</td> <td>Person promoting the development of new employees' skills during their first three years of employment</td> </tr> <tr> <td> General affairs of the each organization</td> <td>Confirmation of the development status and support</td> </tr> </table>	Human Resources Department	Leading the development of common elements across the company	Respective organizations	Leading the development of organization-specific elements (operational expertise, acquisition of qualifications, etc.)	Supervisor	Person responsible for development	Instructor for new employees	Person promoting the development of new employees' skills during their first three years of employment	General affairs of the each organization	Confirmation of the development status and support
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<p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> Periodically conducted follow-ups and assessments through meetings between employees and their supervisors based on Management by Objectives (MBO) approach Developed each individual's spontaneous desire and motivation for growth and formulated a future career plan 												

	Items to be addressed	Specific initiatives		
Diversity and Inclusion	For empowerment of female employees: <ul style="list-style-type: none"> • Implementation of career education (including balancing of work and childcare) • Creation of an environment where life events do not disrupt a career • Enhancement of recruitment activities for female students Materiality Diversity and Inclusion	Policy and promotion system We take action across the organization in line with the UN Global Compact, related laws, and the Daigas Group Diversity Promotion Policy to make improvements in recruitment, human resources development and the workplace environment, led by the dedicated division for diversity promotion.		
		<table border="1"> <tr> <th>KPIs based on the materiality</th> <th>FY2023.3 results</th> </tr> <tr> <td> Percentage of women among: <ul style="list-style-type: none"> • Executives/Directors • Newly promoted to middle management positions • New recruits for career-track positions </td> <td> <ul style="list-style-type: none"> • Percentage of women among Executives/Directors: 13.3%/10.0% (Results after the Annual Meeting of Shareholders held in June 2023: 26.7%/20.0%) • Percentage of women among all career-track employees promoted to middle management positions: 14.3% • Percentage of women among new recruits for career-track positions: 28.1% </td> </tr> </table> Initiatives undertaken in FY2023.3 <ul style="list-style-type: none"> • Implemented self-motivated career development through the mentoring program • Strengthened cooperation between those engaged in employee development (supervisor, HR departments in the organization and head office), using meeting sheets from pregnancy to return to work • Held information sessions that introduce a range of actual career paths to clarify how employees can play active roles after joining the company 	KPIs based on the materiality	FY2023.3 results
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Work-life management	<ul style="list-style-type: none"> • Implementation of measures for supporting employees balancing work and life • Efforts to improve productivity and reduce working hours • Support for community activities involvement 	Policy and promotion system We aim to create a corporate culture in which employees can maximize their abilities by striking a balance between rewarding work and fulfilling personal lives and involvement with society. Furthermore, labor and management are working together to realize a work-life balance by systemizing support measures needed by employees at each life stage and creating a workplace environment that facilitates the use of such measures. We are working on work-style reform while considering measures to promote highly productive and creative work styles through corporate committees called the Efficient Work Styles Committee and the DX Committee.		
Labor safety and health	<ul style="list-style-type: none"> • Continued implementation of measures to prevent occupational accidents • Practical implementation of Kenko Keiei* • Continued support for labor health and safety management at group companies *The term "Kenko Keiei®" is a registered trademark of Non-profit Organization Kenkokeiei.	Policy and promotion system In March 2021, we established the Daigas Group Declaration of Health and Productivity Management by summarizing our attitude toward Kenko Keiei (health and productivity management), which was indicated in the Daigas Group Corporate Principles, the Daigas Group Charter of Business Conduct, and the Daigas Group Code of Business Conduct. We also established the Daigas Group Action Guidelines "7 Rules for Being Healthy" to encourage employees to live healthy lifestyles. 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 occupational accidents and promote fitness.		
		Initiatives undertaken in FY2023.3 <ul style="list-style-type: none"> • Continued implementation of measures to prevent occupational accidents: Continued implementation of safe driving education and heat stroke countermeasures • Practical implementation of Kenko Keiei: Health promotion activities based on the Daigas Group Action Guidelines "7 Rules for Being Healthy" • Implementation of health-related training: 9% of employees participated • Continued support for labor health and safety management at group companies: Once a year each group company prepares a safety and health action plan. Conducted a survey on the status of labor health and safety management in conjunction with the submission of the action plan. 13,715 employees from 34 companies (total of Osaka Gas and affiliated companies) received regular health checkups at the Osaka Gas Health Development Center. 		
Communication between employees and company	<ul style="list-style-type: none"> • Continuing to set up opportunities for direct dialog between Osaka Gas President and group employees • Maintaining and strengthening sound and good labor-management relations to resolve issues • Continued implementation of the in-house award system 	Policy and promotion system The Daigas Group believes that it is important for employees and the company to work together to realize the healthy growth of each group company with a sense of mutual trust and tension. To this end, we promote communication between employees and the company by opinion exchanges at informal meetings between the labor union and management and various study committee meetings, as well as workplace visits by the President of Osaka Gas to group companies and organizations.		
		Initiatives undertaken in FY2023.3 <ul style="list-style-type: none"> • Continuing to set up opportunities for direct dialog between Osaka Gas President and group employees: 11 times provided • Maintaining and strengthening sound and good labor-management relations to resolve issues: 9 work councils held • Continued implementation of the in-house award system: President's Award granted once 		

Human Resources Management

Principle and Outline

To achieve its sustainable growth, the Daigas Group is working to maximize the value of each and every employee by hiring and fostering human resources who will continue to create value, creating an organizational culture that accepts diverse values and encourages challenges, and ensuring safety and maintaining and improving the health of its employees. We will continue to contribute to solving social issues, promote diverse and creative work styles, and work even more actively to create a rewarding and comfortable work environment.

Furthermore, based on the idea that it is important to create disruptive innovation in order to enhance our corporate value over the medium to long term and the driving force for such innovation is a combination of diverse individuals, we promote diversity, equal opportunity and inclusion and actively incorporate diversity in terms of experience, sensitivity and values into our organization. We have traditionally been helping female, elderly, disabled and non-Japanese workers play an active role and making considerations to ensure that they are not disadvantaged because of their minority status. We will develop an environment for them to further demonstrate their abilities.

Efforts to Assign the Right People to the Right Jobs

The Daigas Group aims to implement business portfolio management based on the three pillars of “Domestic Energy Business,” “International Energy Business,” and “Life & Business Solutions Business.” To maximize performance by ensuring the quality and quantity of personnel to that end and by empowerment of diverse human resources based on the principle of assigning the right people to the right jobs, we work to hire and foster human resources who can flexibly respond to changes in the business environment and highly specialized human resources. In particular, we secure human resources while expanding mid-career recruitment to meet the growing need for highly specialized human resources to realize our management strategies, which include initiatives to achieve carbon neutrality, accelerate international energy business expansion, and transform through DX. Recognizing the importance of sustainable organizational management in achieving our management strategies for the future, we will work to secure personnel in a planned manner and appoint personnel with an awareness of human resource development.

Introduction of Talent Management System

Osaka Gas considered the introduction of a talent management system and has begun using the system on a trial basis since FY2022.3.

The job fields are classified into a total of 18 areas, including international business, electricity business, and financial operations. We reorganized the duties experienced by the target employees by linking them to their respective job fields, and we consolidated the experience of each member within the company.

By organizing these job requirements and consolidating human resource information to form foundations, and by matching the organized job requirements with human resource information, such as personal characteristics and transfer experience, we aim to maximize performance through the appointment of the right persons in the right positions and the empowerment of diverse human resources.

Furthermore, we will formulate a succession plan mainly for management posts, aiming to achieve sustainable performance as an organization.

Efforts to Maintain and Improve Employee Engagement

In FY2022.3, we reviewed the content of the attitude survey, which was conventionally conducted at Osaka Gas, and designed and conducted the new Employee Attitude Survey so as to grasp employee engagement across the group. In a survey conducted in FY2023.3, 5,769 employees at Osaka Gas responded, and the response rate was 92.5%. At affiliated companies, 7,305 employees responded, and the response rate was 89.9%. Four indicators were used as evaluation indicators: “overall satisfaction,” which indicates the current level of satisfaction with the company, “loyalty,” which indicates the level of dedication to the company, “intention to continue working,” which indicates the intention to continue working for the company, and “recommendation intention,” which indicates the degree to which employees recommend the company to their friends and acquaintances. It was confirmed that the levels at Osaka Gas and its affiliated companies were higher than those in general. We analyze the results of the Employee Attitude Survey by age bracket, organization, etc., and implement measures to address identified issues.

Data on Osaka Gas Workforce

The number of employees at Osaka Gas as of the end of March 2023 was 1,163 (male: 895/ female: 268). For recruitment, a joint recruitment seminar is held by Daigas Group companies. In FY2023.3, ten companies participated in the seminar, where approximately 320 students were provided explanations on the businesses of each group company and the type of personnel that they are looking for. Furthermore, in FY2023.3, we provided approximately 500 students with internship opportunities to gain work experience. The number of employees who joined the company through mid-career recruitment was 29. (The ratio of those hired through mid-career recruitment to full-time workers was 16.7%.) We are also actively hiring locally at our overseas affiliates.

Human Resources Development

Principle and Outline

The Daigas Group aims to become a group of companies at which all employees can find personal growth through their work. We have introduced a career-course-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. Overseas business training is also provided to develop personnel who can play an active role globally. Furthermore, we have introduced an employee evaluation system that is highly objective based on the Management by Objectives (MBO) method, as well as a system that allows employees to take on the challenge of voluntary career development.

Personnel System

Personnel system to develop human resources according to their roles

For the steady growth and development of the company, Osaka Gas has introduced a career-course-specific personnel system in which roles and expectations are clearly defined for all employees and employees are appropriately employed, fostered, evaluated and assigned according to each role. Under this personnel system, employees themselves conduct course registration.

Outline of the Personnel System



Training System

Career-course-specific training

To enable employees to play an active role in their respective courses, we systematize training and conduct training sessions in a planned manner to have participants acquire abilities required for each career course.

Meister Course

This course is designed to foster business professionals who achieve high performance through their extensive business experience and outstanding skills and who contribute to business performance by passing on their skills and know-how. Employees systematically acquire required skills and know-how according to the nature of their work at the human resource development center established at each business unit.

Management Course

This course is designed to develop future managers and supervisors who will manage operations based on their wealth of work experience and leadership skills and to promote organizational vitality and the development of subordinates. Selective training sessions and other programs are provided to enhance management and leadership skills.

General Course

This course is designed to develop human resources who will lead an organization based on a wide range of work experience, including management, while taking on staff duties, such as strategic planning for the business unit and the Daigas Group as a whole. We have an in-house business school for learning the knowledge and skills that form the basis of strategic planning, such as logical thinking, marketing, accounting and finance.

Specialist Course

This course is designed to foster specialists who will draft strategies for the business unit and the Daigas Group with a high level of expertise to help with decision-making and realization of such strategies. In addition to the in-house business school for the General Course, we provide in-house study sessions, etc. to learn advanced expertise in each business field.

Training for all job levels

Training for young employees

Osaka Gas positions the first three years after employees join the company as a period for nurturing young employees and encourages them to form their foundations as members of society.

After acquiring basic conduct and attitudes as a member of society through introductory training at the time of employment, each employee receives follow-up training every year to enhance the abilities required at each stage of growth. For the same period, an instructor assigned to each newly hired employee provides guidance on work to promote further growth.



Training for young employees

Training system for the Daigas Group

To enhance the Daigas Group's human resource development support measures, we offer systematized training programs that are highly requested by group companies. In addition to programs for all job levels, the system is designed to encourage self-directed career development and personal growth by providing self-development support programs.

Outline of the Training System for Daigas Group

Executives	Newly appointed director training	Online study courses	Challenge seminars (self-directed training)	Accounting and financial affairs seminars
	Management seminars Purpose: To improve managerial skills and build sympathetic qualities			
Managers	Enlightenment program for manager candidates Purpose: To raise self-awareness regarding the skills and qualities needed for organizational management and to foster the desire to develop one's own abilities			
	Mid-level leadership program Purpose: To develop the core leaders of the organization			
	Training for managers			
Mid-level employees	Self-discovery training Purpose: To raise self-awareness regarding the skills and qualities needed for workplace management and to foster the desire to develop one's own abilities			
	Managerial skills booster program Purpose: To develop in managerial candidates an understanding of managerial skills and aid in their acquisition			
Junior/new employees	Mid-career training			
	Newly appointed instructor training			
	Newly hired employee training			

Training to develop human resources leading overseas operation

Overseas business training systems

In order to develop a large number of human resources who can play an active role in overseas business, we send personnel appointed by each organization to carry out overseas business to a short-term intensive overseas business training curriculum conducted overseas or in an environment in Japan close to an overseas environment.

[Specific curriculum examples]

Overseas Trainee System (a system under which employees are assigned to affiliated companies under the Energy Resources & International Business Unit or overseas research institutes as trainees for a certain period of time), short-term overseas language training, etc.

Studying-abroad program

We send employees to study at overseas universities in order to have them foster a sense of globalization and acquire management literacy.

Language learning support system

We have a support system for employees to learn English in order to nurture human resources who can play an active role both in Japan and abroad.



Our employee who experiences working overseas under the Trainee System (second from right)

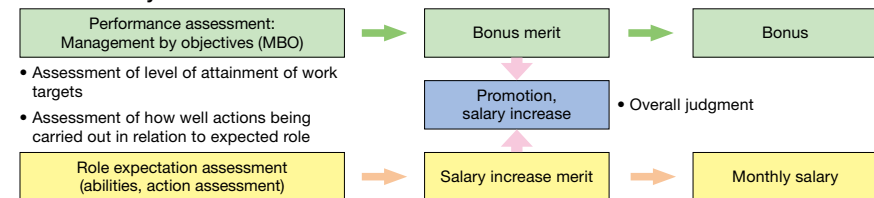
Employee Performance Evaluation and Interviews

Aiming for evaluations that lead to growth

Osaka Gas is using two evaluation indicators, performance evaluation, which measures the degree of performance based on the Management by Objectives (MBO) method, and role expectation evaluation, which evaluates the level of performance of daily activities. While enhancing opportunities for meetings between supervisors and subordinates, we clarify each employee's strengths and areas for improvement, and supervisors give appropriate advice, leading to each employee's skill development.

In performance evaluation, in which employees set their own goals, we encourage them to take on even more aggressive challenges by appropriately evaluating not only results but also processes in the course of work.

Evaluation System



Compliance set as a personnel evaluation item

Since FY2009.3, we have set compliance initiatives as one of the evaluation items in the role expectation evaluation. This promotes compliance with laws and regulations and ethical standards.

Furthering Employees' Careers at Osaka Gas

Creating a system that encourages employees to take on challenges on their own initiative

Osaka Gas provides an opportunity for all employees to have a self-observation interview once a year, in which each employee reflects on the satisfaction and performance of his or her current job, proactively draws up desired mid- to long-term career plans, and expresses his or her desired career path, etc. By taking into consideration the opinions and wishes of each employee obtained through these interviews, we are able to make decisions on assignments and other matters, thereby raising awareness of the need for employees to shape their careers on their own.

We have a Challenge System in place that allows employees to choose the work that they are interested in or want to do from among internally advertised jobs, encouraging employees to seek career development on their own accord. A total of more than 280 employees have been reassigned through this system since FY1989.3, when it was launched.

Support for self-development

[Encouraging self-development](#)

We offer Challenge Seminar Training Courses (approximately 100 courses per year) for all Daigas Group employees, allowing them to acquire advanced business skills at their discretion. In addition, to improve the skills of employees, we encourage them to take various correspondence training and education courses by subsidizing a portion of the fees for these courses.

Skill development support

[Aiming to improve field operations skills](#)

In order to provide safe and reliable products and services to our customers, the Daigas Group provides technical training for employees in the management of LNG terminal facilities, gas supply pipe installation and safety inspections, and equipment installation and repair.

Diversity & Inclusion

Principle and Outline Daigas Group Diversity Promotion Policy

As a way of enhancing its corporate value, the Daigas Group believes that it is essential for the Group to promote diversity in its corporate membership and corporate structure whereby employees can maximize their potential, irrespective of gender, age, nationality or physical disability. Recognizing that it is necessary for the Group to foster a corporate culture, the Group has adopted the Daigas Group Diversity Promotion Policy aiming for people with diverse personality and talent are respected, accepted, they can feel rewarded and fulfilled through their work.

Supporting a More Active Role for Female Employees

As the working population is expected to decline in Japan, Osaka Gas believes it important to accept diverse values and has been striving to create a work environment where female employees can exercise their abilities and play active roles. With their aptitude and wishes taken into account, female employees have been displaying their abilities in various fields. Under the Daigas Group Diversity Promotion Policy, we have set numerical targets of increasing the percentage of women on the board and in executive positions to 20% or higher, respectively, and the percentage of women among career-track employees promoted to middle management positions*¹ to 30% or higher by FY2031.3 and of maintaining the percentage of women among career-track hires at 30% or higher, and we will promote various initiatives and enhance various systems. We have made various efforts to achieve a healthy work-life balance and taken measures for career development. These endeavors have led to a steady increase in the percentage of women in middle management positions. Osaka Gas has won the “Eruboshi” (highest level) certification from the Minister of Health, Labor and Welfare as an excellent company in terms of the status of women’s participation and advancement in accordance with the Act on the Promotion of Women’s Participation and Advancement in the Workplace. In FY2022.3, Osaka Gas was also selected for the Nadeshiko Brand by the Tokyo Stock Exchange (TSE) and the Ministry of Economy, Trade and Industry as one of the TSE-listed companies which actively promote the utilization of female human resources, including the development of an environment where women can continue to work.

Osaka Gas has also been selected as a constituent of the MSCI Japan Empowering Women Index (WIN), an ESG investment index for Japanese stocks adopted by the Government Pension Investment Fund (GPIF). In FY2019.3, Osaka Gas became the first gas provider to receive gold in the PRIDE Index, Japan’s first index introduced by a volunteering group called “work with Pride” to evaluate corporate efforts to support inclusiveness of LGBT employees and other sexual minorities.

*1 Percentage of women among all career-track employees promoted to middle management positions:

The percentage of women promoted to middle management positions among career-track employees promoted to managerial positions in that fiscal year (including loan employees)

Change in the percentage of women in managerial positions (Osaka Gas)*²

The target of 5% or more for the percentage of women in managerial positions was attained by FY2021.3

*2 Percentage of women in manager positions or higher (non-consolidated)

	FY2005.3	FY2016.3	FY2017.3	FY2018.3	FY2019.3	FY2020.3	FY2021.3
Percentage of female employees in management positions	0.3	2.3	2.7	3.8	3.4	3.5	5.0

• In FY2022.3, a new indicator was set to attain “30% or more for the percentage of women among employees promoted to managerial positions by FY2031.3 (managerial positions changed to “managerial positions or equivalent,” including Osaka Gas’s loaned employees).”

	FY2022.3	FY2023.3
Percentage of women among all employees promoted to managerial positions* ³	6.3	14.3
Percentage of female employees in managerial positions* ⁴	4.2	4.5s

*3 The percentage of women promoted to managerial positions among career-track employees promoted to managerial positions in that fiscal year (including loan employees)

*4 For the percentage of female employees in managerial positions, the target was changed from female employees on a non-consolidated basis to all employees, including loan employees.



Gold in the PRIDE Index



Nadeshiko Brand

2023 CONSTITUENT MSCI JAPAN
EMPOWERING WOMEN INDEX (WIN)

MSCI Japan Empowering
Women Index (WIN)



Osaka Gas acquires
Eruboshi certification
(third stage,
which is the highest)

■ Main Actions Taken in FY2023.3

	Specific initiatives in FY2023.3	
Recruitment	Holding of diversity seminars to introduce female employees' career paths and workplace environments where they are playing an active role; Holding seminars for science-major female students	
	Website	Posting of articles about career plans pursued by female workers
Development of human resources	Transfer and appointment	Transfer and appointment based on individual development plans suited to each employee
	Career education	Mentor system (mentoring program)*
		Career-design seminars Roundtable talks between female workers on careers (strengthen connections with internal role models)
		Interviews with young workers during their training period (young workers when they are employed/after assignment/after three years)
		Dispatch of employees to an external organization that supports the empowerment of women, the "Japan Institute for Women's Empowerment & Diversity Management"
Training for supervisor	Training for newly appointed and existing managers/supervisors	
	Holding of a Diversity Promotion Forum (lecture by knowledgeable person and workshop)	
	Attendance of supervisors in various training programs for women	
Work environment	Childcare (Men are also eligible.)	Holding child-rearing luncheon meetings (job networking event)
		Holding forums for employees raising children and their supervisors
		Offering intranet networking opportunities for workers on leave and returners
		Holding roundtable talks for people taking childcare leave
		Holding seminars on balancing work and childcare for men (Diversity West Japan Study Group)
	Corporate culture	Provision of information through continued distribution of e-mail news and in-house web magazines
Continued implementation of measures to promote efficient working		

* Mentor system (mentoring program): A program that provides female employees before and after life events and before management with the opportunity to receive direct guidance from experienced mentors to foster networking and career awareness.

Holding of Diversity Training for Newly Appointed Managers/Supervisors

Osaka Gas conducts diversity training as part of training for newly appointed managers/supervisors.

■ Number of Participants in Training for Newly Appointed Managers/Supervisors

	FY2019.3	FY2020.3	FY2021.3	FY2022.3	FY2023.3
Group	171	156	176	163	149
Osaka Gas	98	77	46	36	10

■ Number of Participants in Mentoring Program

	FY2019.3	FY2020.3	FY2021.3	FY2022.3	FY2023.3
Osaka Gas	22	12	17	19	16

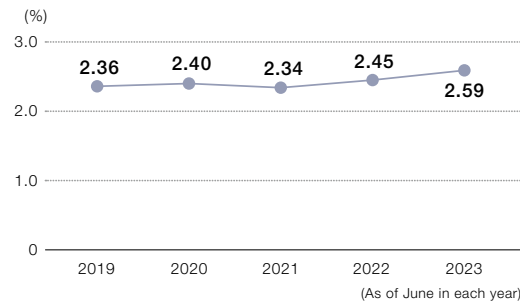
*Osaka Gas and consolidated companies

Creating a Work Environment for the Disabled

Hiring the disabled

Osaka Gas does all it can to hire disabled persons and creates a work environment conducive to the talents of each individual. As a result of these efforts, disabled persons accounted for 2.59% of our workforce as of June 2023, well above the legal minimum of 2.3%. Of the 37 Group companies subjected to the law, 20 companies including Osaka Gas have achieved the legal minimum.

■ Percentage Rate of Disabled Employees (Osaka Gas)



Creating a Work Environment for Seniors

Creating a work environment for seniors

Osaka Gas has implemented a reemployment scheme to rehire employees who have reached mandatory retirement age, under which applicants are placed in jobs that match their skills and preferences. All Daigas Group companies have similar reemployment programs.

Post-retirement support

In order to meet the diversifying needs of second life, at Osaka Gas, the Career Development Project Team conducts career guidance (training) and career development interviews for employees at the ages of 45 and 53.

This training offers the employees briefings on circumstances inside and outside the company as well as various support systems, and through closer examinations of their work histories and group discussions, the employees are encouraged to seek out career paths that are consistent with their values and motivation and to develop their own career plans. After the training, each employee will fill out a career track questionnaire and then attend a one-on-one interview with an in-house career counselor to discuss their career aspirations and growth plans. About 270 employees received career development interviews in FY2023.3.

When employees reach the age of 54, they are invited to attend a “Nice Life Seminar” with their spouse. They are briefed about various systems that may affect their post-retirement life plans.

Work-Life Balance

Principle and Outline

Osaka Gas aims to create a corporate culture in which employees can maximize their abilities by striking a balance between rewarding work and fulfilling personal lives and involvement with society. Furthermore, labor and management are working together to realize a work-life balance by systemizing support measures needed by employees at each life stage and creating a workplace environment that facilitates the use of such measures.

By researching strategies to encourage an innovative and productive work style inside the cross-company Efficient Work Styles Committee and the DX Committee, the Company is aiming to change the way people work.

Support for Male Employees to Participate in Childcare

Osaka Gas encourages male employees to take one month of childcare leave. In addition to solving social issues such as the declining birthrate and creating a society in which both men and women can play an active role, taking childcare leave is expected to improve the work-life balance of employees raising children, thereby increasing their job satisfaction and productivity, and creating innovation from a new perspective through the experience of childcare, which is different from their work duties. Based on this concept, in addition to childcare leave, we have introduced a system that allows employees to flexibly take leave and according to their work and family needs, including “Hagakumi Leave”*, and the utilization rate of such leave system was 87.8% in FY2023.3. In addition, we are striving to create an environment that facilitates the use of the system by sending out messages from management, preparing guidebooks, and sharing examples of cases where employees have used the system.

*Hagakumi leave: A unique paid leave for childcare purposes that can be taken for five days within six months of the birth of a child.

Support for Balancing Work and Nursing Care by Improving the Systems and the Workplace Environment

Osaka Gas offers various systems to support a balance between work and nursing care. For employees who need to take leave to care for family members, we have established systems that allow employees to take more leave than legally required, including a nursing care leave system that allows employees to take a total of 366 days of leave per family member who needs care and a system of shorter working hours for nursing care that allows employees to work up to 3 hours less per day for a total of 1,096 days in addition to the leave period.

Helping Employees Balance Work and Medical Treatment

In April 2021, Osaka Gas introduced a system of shorter working hours to support employees in balancing work and medical treatment, mainly for employees requiring cancer and dialysis treatment. Normally, employees use paid leave, half-day paid leave, flextime, etc. when going to the hospital for treatment of illnesses, etc. However, in some cases where long-term continuous treatment is required, paid leave, etc. may not be sufficient. In response to such a situation, we introduced a system of shorter working hours for the purpose of outpatient treatment that allows employees to apply to shorten their working day.

Efforts to Improve Productivity and Reduce Working Hours

Osaka Gas promotes efficient work styles to improve productivity with the objectives of increasing employee value by realizing work-life balance, creating a culture to promote diversity, and preventing health problems caused by overwork. Aiming to reduce total annual working hours, we have been implementing the following initiatives one by one since FY2010.3.

- Promote paperless office by digitizing internal documents (e.g., use of a projector in principle for internal meetings and discussions).
- Improve efficiency of meeting management (e.g., distribution of meeting materials in advance and sharing of meeting minutes via electronic bulletin board, etc.)
- Create a work environment that encourages creativity through office layout changes (e.g., free-address office space with no fixed seating for employees).
- Visualize data, such as actual overtime work hours, and streamline operations using IT (e.g., information sharing via internal portal site, work support via smartphone, and automation of operations using RPA).

As part of our efforts to promote telecommuting, which leads to flexible work styles, we have established satellite offices where employees can work in an office other than their own regular office to improve productivity by reducing commuting and travel time and concentrating work in a remote office. Furthermore, we offer our employees diverse and flexible work options that are not limited to working in our offices by all employees eligible for telecommuting and introducing a web conferencing system that allows employees to participate using smartphones and other devices.

In addition, we have formulated the Code of Conduct for Efficient Work Styles, a set of specific action standards that supervisors, subordinates, and related personnel should be aware of and implement from the perspective of increasing work efficiency and saving labor and of promoting further productivity improvement by practicing actions in line with the standards.

In April 2023, we introduced a system that allows employees to take paid leave by the hour, creating a more flexible work environment.



Satellite office set up in Grand Front Osaka, located near Osaka Station

Supporting Employees' Participation in Society through a Juror Leave System, etc.

Prior to the implementation of the juror system in Japan in May 2009, Osaka Gas established a juror leave system that allows employees to take paid leave for the required number of days when they are selected as a juror or prosecution councilor in FY2009.3 to support employees' participation in society.

Volunteer Leave System/Community Leave System

Osaka Gas has introduced various systems for employees to participate in company-approved volunteer and social contribution activities. Under the volunteer leave system, each employee is treated as being on leave during the period of an activity and is provided with special treatment regarding their work period and salary. The community leave system is a system to support employees' involvement in the community, under which they can take special leave.

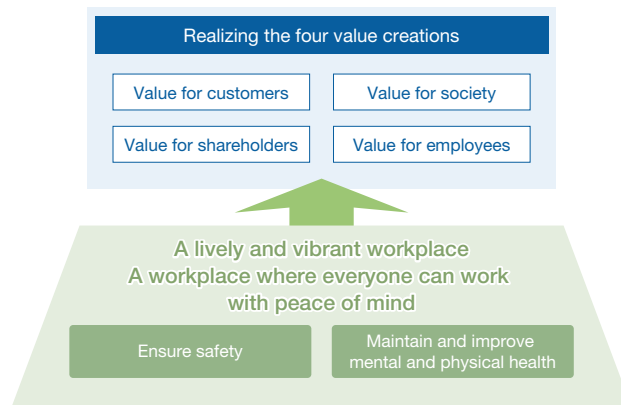
Occupational Health and Safety

Principle and Outline

Convinced that ensuring employees' safety and maintaining/improving their physical and mental well-being are keys to all its operations, the Daigas Group has been undertaking efforts to prevent employees from developing health problems and support their medical treatment. Positioning health promotion as a priority management policy, we established the Osaka Gas Health Development Center in 1975. Since then, we have been implementing various measures to promote the health of employees, including providing regular health checkups and individual health guidance by medical professionals to all employees, including those of Group companies.

Today, in the era of the 100-year life, being healthy throughout a lifetime is of great importance not only to employees but also to society. Based on this idea, in March 2021 we established the "Daigas Group Declaration of Health and Productivity Management" by summarizing our attitude toward Kenko Keiei* (health and productivity management), which was indicated in the Daigas Group Corporate Principles, Daigas Group Charter of Business Conduct, and Daigas Group Code of Business Conduct. We also established the Daigas Group Action Guidelines "7 Rules for Being Healthy" to encourage employees to live healthy life styles.

*The term "Kenko Keiei®" is a registered trademark of Non-profit Organization Kenkokeiei.



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, thereby remaining 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.

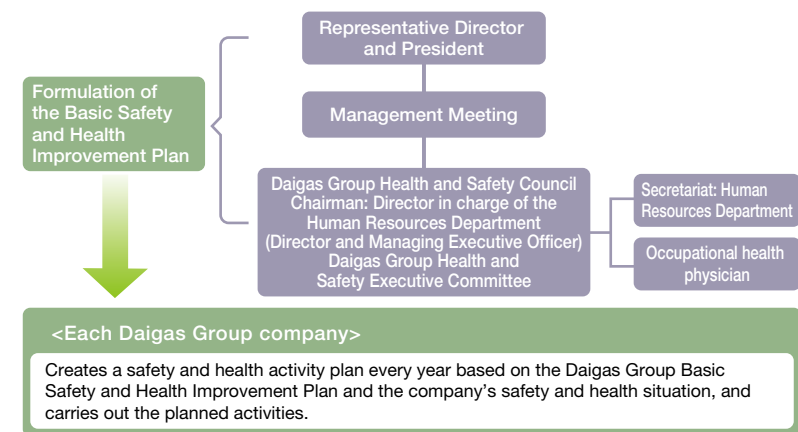
Safety and Health Management Promotion System

In accordance with the Daigas Group Code of Business Conduct, Osaka Gas not only complies with relevant laws and ordinances but also has established its original rules, including the Daigas Group Safety & Health Promotion Regulations and the Osaka Gas Safety & Health Management Regulations. In this way, Osaka Gas works with its Group companies and partner companies to improve the levels of workers' safety and health.

The Daigas Group Safety and Health Council, chaired by an officer in charge of the Human Resources Department at Osaka Gas (Director and Managing Executive Officer), deliberates the Daigas Group's safety and health basic policy and submits deliberation proposals to the Management Meeting. After deliberation by the Management Meeting, the decision is made by the Representative Director and President of Osaka Gas.

The Daigas Group Safety and Health Council also discusses measures for and shares information about occupational accident prevention and health maintenance and enhancement of employees.

Daigas Group Safety and Health Promotion System



Preventing Injury in the Workplace

Promoting safety and health management activities based on OSHMS

Osaka Gas has been systematically and meticulously undertaking activities aimed at preventing workplace accidents with establishing the “Osaka Gas Health and Safety Action Plan” based on the Occupational Safety and Health Management System (OSHMS), which was established by the Minister of Health, Labour and Welfare. Based on the Plan, each organization of Osaka Gas is working on reducing the number of incidents leading to absence from work due to workplace accidents to zero. The Plan, consisting of three priority themes—prevention of transportation-related accidents, prevention of general work accidents, and prevention of accidents through collaboration with business partners—is designed to enhance the level of workplace safety by implementing improvement measures under the PDCA (plan-do-check-action) cycle.

Each Daigas Group company is working on establishing the PDCA cycle to improve safety and health-enhancement activities in accordance with each company's safety and health situation while maintaining the current safety and sanitary management system and in line with the Daigas Group's Basic Safety and Health Improvement Plan (FY2022.3-FY2024.3).

Goals for FY2023.3

Items		Goals for FY2023.3
Accident causing absence (Osaka Gas, other party)		0
Accident causing no absence	Osaka Gas	Negligence 0
	Other party	0

Efforts of the health and safety committee to improve health and safety

The Health and Safety Committee holds a meeting once a month at the head office and each district office (workplace), attended by representatives of the company and labor union, industrial physicians. The Health and Safety Committee investigates and deliberates on measures that should serve as the basis for preventing employee hazards and health problems (measures to eliminate the causes of occupational accidents and prevent their reoccurrence, etc.), thereby striving to ensure that the opinions of employees are well reflected when implementing measures and policies related to employee health and safety.

“Accident Indices” for Evaluating Safety Activities

If an industrial accident occurs at Osaka Gas, the Company division concerned investigates and identifies the cause and takes measures to prevent a reoccurrence. The case is shared company-wide through a portal or other means, to ensure that similar accidents will not occur.

To assess safety activities at each workplace, we also use the “Accident Indices,” which uses a unique formula to calculate the degree of the accident in terms of seriousness and impact. The “Accident Indices” was created to establish a common, company-wide standard for labor accidents in all business segments, from gas processing and supply to sales.

Also, we honor organizations that meet their prescribed accident index targets to recognize their efforts as well as to raise awareness.

Daigas Group’s Safety Education Efforts “Safe Driving Education”

The Daigas Group and its partners use a large fleet of vehicles in their work. We implement unique measures to ensure that all our vehicle operators master reliable driving skills and improve their driving manners so that everyone in the community can trust the Daigas Group’s commitment to safe driving.

The Safe Driving Training Center run by Osaka Gas offers safe driving education with a focus on practical training, and we are seeking to extend safe driving practices throughout the Daigas Group to improve safety across the Group as a whole. In FY2023.3, a total of 3,710 employees from 46 companies, including Osaka Gas, took part in this safe driving program. The intranet and email are used to share and disseminate information across the Group as a whole to reduce accidents.



Class at an on-site driver training center

Education for foremen and health and safety managers

In accordance with Article 60 of the Industrial Safety and Health Act, we conduct safety and health education for those who are newly charged as foremen (first line supervisors) or others to directly guide or supervise workers in operations, by inviting a lecturer from the Japan Industrial Safety & Health Association. The Daigas Group holds training sessions five times a year for newly appointed managers who need foreman education. Approximately 160 people take the training.



Class at an on-site safety and health education

Competency improvement education for foremen and health and safety managers

According to the Guidelines for Promotion of Safety and Health Education issued by the Ministry of Health, Labour and Welfare, employers are required to provide education according to the competency improvement education for foremen and other workers approximately every five years, or when there is a major change in machinery and equipment.

Based on this, since FY2023.3, the Daigas Group has been providing the competency improvement education four times a year for those who have completed the education for foremen or the education for health and safety managers and are still leading their subordinates as foremen, with approximately 50 employees having taken the education.

Joint Safety Activities With Partners

Osaka Gas works closely with affiliates and partners at the sites of gas business activities. In particular, we strive to boost the level of safety by working closely with our partners through the Health and Safety Promotion Council to exchange safety-related information and hold a range of training and safety activities.

The Council, with 74 member companies, primarily in the manufacturing sector, promotes voluntary safety and health activities, with the goal of zero lost-time injury. As a key activity, the Council has designated a disaster prevention month in both the first half and second half of the year, during which we conduct safety patrols jointly with them. It also issues a Safety & Health Monthly Report that provides useful information on company efforts in preventing workplace accidents and promoting employee health.

At piping works, we work with partner companies in organizing exercise sessions to enhance physical performance and prevent accidents involving older workers falling from, or tipping over, stepladders.



Safety patrol with partner (Implemented a small number of people while taking measure against COVID-19 in the second half in FY2023.3)



Safety & Health Monthly Report

Prevention of General Work Accidents

Heat stroke prevention measures

Osaka Gas has introduced work clothes with built-in fans as part of measures to improve the working environment and prevent heat stroke in the summer with extreme heat (except for workers handling raw gas because fans are not explosion proof). In FY2019.3 we started considering the introduction of fan-equipped work clothes and conducted research using monitors to assess the required quantity and needs. The fan-equipped work clothes are made using a fabric suitable for fitting fans while following the design of the current ones. Also, the fan-equipped work clothes allow the use of a full harness safety belt, which has been mandatory from January 2022 due to a revision of the Industrial Safety and Health Act.



Fan-equipped work clothes

Prevention of fall accidents

Fall accidents occur frequently nationwide, accounting for one-quarter of industrial accidents.

Osaka Gas strives to prevent fall accidents by introducing health-enhancement physical training to workplaces and giving laptop tote bags to employees.

Older workers have come to constitute a larger portion of the entire working population at the Daigas Group, resulting in an increase in the number of accidents involving workers on duty, including stumbling. In FY2018.3, we introduced health-enhancement physical training company-wide. We have changed the conventional exercise program centered on stretching to health-enhancement physical training that strengthens muscles and the body trunk, including squats and standing on one leg.

In 2019, an employee slipped down the stairs with a laptop in his hands. A similar accident occurred in FY2018.3, too. To address this matter, we have been promoting company-wide measures to prevent similar accidents.

To avoid a similar accident, you should not walk around the office (especially up and down the stairs) while holding an open laptop in your hands. So, we encourage employees to carry laptops and documents in bags to keep both hands open while walking.

Moreover, to promote the habit above, we have provided laptop-carrying bags to organizations upon request.

We have also created a poster encouraging employees to keep both hands open while walking and sent it to each and every organization.



Scene of squat exercises, part of a health-enhancement physical training program being conducted before the start of the day



Introduction of laptop tote bags



Enlightenment poster

Maintaining and Improving Health

Regular health checkups and health guidance

Osaka Gas holds regular health checkups as required by law, and all employees expected to take them had planned checkups at the Daigas Group Health Development Center within the Human Resources Department.

The Center also offers health checkups and health counseling services to employees of affiliates. In FY2023.3, 13,715 employees of 34 companies (the total number from Osaka Gas and its affiliates) received health checkups at the Center.



Health checkup at the Daigas Group Health Development Center

	Daigas Group Health Development Center	In general
Health checkups	Half a day	About half a day
Explanation of health checkup results	On the day	Later date
Judgement of work classification	On the day	Later date
Health promotion class	On the day Advice on health promotion Special health guidance (in the first session)	Later date
Interviews with people experiencing a high level of stress	On the day To be conducted after evaluating the stress level through a prior medical questionnaire (Stress checks specified by law are conducted separately.)	No
Reservation for thorough examination	On the day Medical staff make reservations on the spot (legally mandated item).	To be made by oneself

Prevention and control related to global health issues

The Daigas Group has set forth “Providing safe and secure workplace” and “Ensuring safety of products and services” in the Daigas Group Code of Business Conduct, and it has established a system to provide health care against infectious diseases beyond the legal requirements.

In accordance with legal requirements, we provide employees with an opportunity for regular health checkups (once a year), including chest x-ray examinations for early detection of pneumonia, pulmonary tuberculosis, lung cancer, and other diseases.

Furthermore, based on advice and warnings on COVID-19 and other risks issued by the Ministry of Foreign Affairs and the World Health Organization (WHO), the Group takes measures such as alerting employees and setting up a task force.

Efforts related to the Action Guidelines “7 Rules for Being Healthy”

Promotion of measures to prevent lifestyle-related diseases

We will increase the number of employees working to improve their lifestyle habits by carrying out specific activities in line with the Action Guidelines “7 Rules for Being Healthy.”

In FY2023.3, the Healthy 7 Olympics (no smoking category) was held as in FY2022.3, and seminars on each of the Healthy 7 categories were also held to encourage employees to actively engage in Healthy 7 activities.

Furthermore, to enhance awareness among young employees of their risks of future high blood pressure and excess blood glucose, we analyze the results of their latest health checkups and create a health condition sheet and distribute it to each employee to provide advice to young employees on how to maintain and promote their health. The sheet shows each employee his/her probability of developing lifestyle-related diseases within seven years and a comparison with the average probability for all employees who underwent the checkup.

We are working on enhancing employees’ consciousness toward health from an early life stage, with the aim of reducing their risks of contracting lifestyle-related diseases in the future.

Healthy 7 Lifestyle Habit Monitoring Indicator: Total of Osaka Gas, Network Companies, and Three Core Energy Business Companies

Unit: %	Obesity rate (men)	Breakfast skipping	Exercise at least twice a week	Drinking 360 ml or more	Smoking rate (men)	Smoking rate (women)	Rest from sleep
FY2023.3	33.5	22.5	26.6	23.6	23.9	2.2	69.2
FY2022.3	34.2	21.5	25.7	19.8	24.7	2.1	70.7
National data*	33.0	3.1 (Reference)	28.7	27.9	27.1	7.6	78.3

- The figures shown for indicators other than obesity rate and smoking rate are the total of men and women.
- Breakfast skipping: Percentage of respondents who answered they skip breakfast three or more times a week (Nationwide: Percentage of respondents who answered they do not eat breakfast [reference])
- Exercise at least twice a week: Percentage of respondents who answered they exercise at least 30 minutes a day at least two days a week
- Drinking 360 ml or more: Percentage of respondents who answered that the amount of alcohol consumed on a drinking day is 360 ml or more
- Rest from sleep: Percentage of respondents who answered they get enough or moderate rest from sleep

* From the National Health and Nutrition Survey (Ministry of Health, Labour and Welfare, 2019 [data on sleep from the 2018 Survey])

Other results

▶ Information on other health results, such as the Healthy 7 Olympics participation rate.

Promotion of Measures to Enhance Mental Health

The Daigas Group implements various measures to enhance mental health in order to promote early detection and prevention of mental disorders.

- We conduct a group analysis of stress checks and provide feedback to the general affairs department of the organization to promote improvement of the working environment in the organization. Depending on the issues, the medical staff will conduct detailed group analysis of stress checks and provide feedback to the head of the organization and exchange views on how to create a better workplace. In this way, the general affairs department of each organization and the Health Development Center are working together to improve the working environment.
- For mental health measures for younger employees, we conduct a health questionnaire for new employees. For employees in their second year of work, we conduct a stress questionnaire and individual interviews at the time of a health checkup. Based on the results, we take appropriate measures in cooperation with their supervisors.
- For managers/supervisors, we provide mental health training centered on case studies.



Interview with employees in their second year of work regarding stress



Mental health training for managers and supervisors

Helping employees manage and maintain their health

Medical staff hired by the Daigas Group visit its business offices to provide health education to employees. This measure is designed to create a working environment that ensures workers' health and comfort, and encourages them to work on enhancing their health on their own.

We are providing employees with health management information via the Health Development Center website.

To help employees relieve shoulder stiffness and backache and avoid a lack of exercise, we have created a video titled "Easy Workout and Exercise," which introduces a workout and exercise that can be easily done even during remote work. Employees exercise while watching the video before meetings or when they are waiting their turn during health checkups.

■ Trainings by Occupational Safety and Health Staff (FY2023.3)

No. of such events held	No. of participants	Description
14	766	Measures for mental health, back pain, women's health, etc.



Easy and quick exercise

Measures against Infectious Diseases

In late January 2020, when the spread of COVID-19 infection was confirmed overseas, Osaka Gas started the implementation of various infection preventive measures against COVID-19, based on its Business Continuity Plan in Response to COVID-19 Pandemic.

With the change of COVID-19 to a Category V Infectious Disease on May 8, 2023, we lifted the alert; however, we will continue to respond according to the situation to ensure the safety of our employees and the stable and appropriate supply of gas and electricity to our customers.

Osaka Gas Selected as a 2023 Health & Productivity Stock Selection Brand for the First Time

In March 2023, Osaka Gas was selected as one of the brands in the 2023 Health & Productivity Stock Selection Brand program, jointly administered by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange.

The Health & Productivity Stock Selection is a program to promote enterprises' initiatives for Kenko Keiei,* or health and productivity management, by selecting outstanding listed enterprises engaging in a health and productivity management program, in which enterprises focus on and strategically carry out efforts with regard to their employees' and other workers' health from a management perspective, and introducing them as attractive enterprises to investors who are focused on improving corporate value from a long-term perspective.

As well as the Daigas Group Declaration of Health and Productivity Management, we established the Daigas Group Action Guidelines "7 Rules for Being Healthy" to encourage employees to have healthy lifestyles, aiming to improve their lifestyles through health promotion activities based on the rules. In recognition of these initiatives, we have been selected.

*The term "Kenko Keiei" is a registered trademark of Non-profit Organization KenkoKeiei.



Communication Between Employees and Company

Principle and Outline

The Daigas Group believes that it is important for employees and the company to work together to realize the healthy growth of each group company with a sense of mutual trust and tension. To this end, we promote communication between employees and the company by opinion exchanges at informal meetings between the labor union and management and various study committee meetings, as well as workplace visits by the President of Osaka Gas to group companies and its organizations.

Labor-Management Relations

Cooperation between labor and management to resolve issues

Osaka Gas has adopted a union shop system, in which all employees, except those in management positions, are members of a labor union, pursuing sound and good labor-management relations. The Osaka Gas Workers Union consists of approximately 4,100 members, including those temporarily transferred to affiliated companies, etc. The workers union and management exchange opinions at informal meetings and various study committees on overall corporate activities, including actions regarding various management issues, as well as changes in working conditions. We strive to build, maintain and strengthen sound and good labor-management relations based on mutual understanding and trust.

Company Award System

President's Award to boost employee morale

Osaka Gas presents the President's Award every year to honor employees who have made significant contributions to the company's activities to boost employee morale. Awards are presented to regular and contract employees at Osaka Gas and employees of affiliated companies for their outstanding achievements in business operations and contributions to the environment, the community, and other aspects of society, passing on skills, the safety field, etc.

Human Rights

Summary

Why the topic is material	The Daigas Group respects human rights as basic rights inherent to all. The Group supports the international standards on human rights and promotes activities and programs to protect the human rights of its stakeholders. We comply with the applicable laws and regulations of the countries and regions where we operate. In the case where there is a conflict between internationally recognized human rights-related norms and the laws and regulations of a country or region, we will pursue ways to ensure maximum respect for international norms.
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	Items to be addressed	Specific initiatives
Respect for human rights throughout the value chain/ Human rights due diligence/ Human rights awareness promotion	<ul style="list-style-type: none"> • Management regarding respect for human rights • Human rights due diligence • Encouragement of suppliers • Promoting human rights awareness activities for Daigas Group officers and employees 	<p>Policy and promotion system</p> <p>Based on the Daigas Group Human Rights Policy, we support international human rights-related norms and comply with laws and regulations of the countries and regions where we operate, promoting activities and programs to protect the human rights of its stakeholders.</p> <hr/> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Implemented human rights due diligence • Informed our suppliers of our procurement policy and conducted a sustainability questionnaire • Provided human rights awareness training to Daigas Group officers and employees

Respect for Human Rights throughout the Value Chain

Principle and Outline

The Daigas Group supports and respects international standards for human rights, including the International Bill of Human Rights (Universal Declaration of Human Rights and the International Covenants on Human Rights) and the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work. We also promote human rights initiatives in accordance with the UN Guiding Principles on Business and Human Rights, the UN Children’s Rights and Business Principles, and other relevant principles.

We identify and assess the negative impact of our business activities on human rights and take steps to prevent or mitigate such risks under the Daigas Group Human Rights Policy. We will also demand that our suppliers and other parties concerned respect human rights and not infringe on them.

Daigas Group Human Rights Policy [Daigas Group Human Rights Policy](#)

The Daigas Group established the Daigas Group Human Rights Policy in April 2021. This Policy is based on the Daigas Group Corporate Principles and the Daigas Group Charter of Business Conduct and has been approved by the Board of Directors of Osaka Gas.

Human Rights Due Diligence

Principle and Outline

In accordance with the United Nations Guiding Principles on Business and Human Rights, the Daigas Group is committed to establishing systems in order to respect the human rights of all people affected by the group's business activities, and proactively disclose its initiatives in this area. The Group conducts human rights due diligence as part of its efforts to respect human rights and realize business sustainability.

System for Promotion of Human Rights Due Diligence

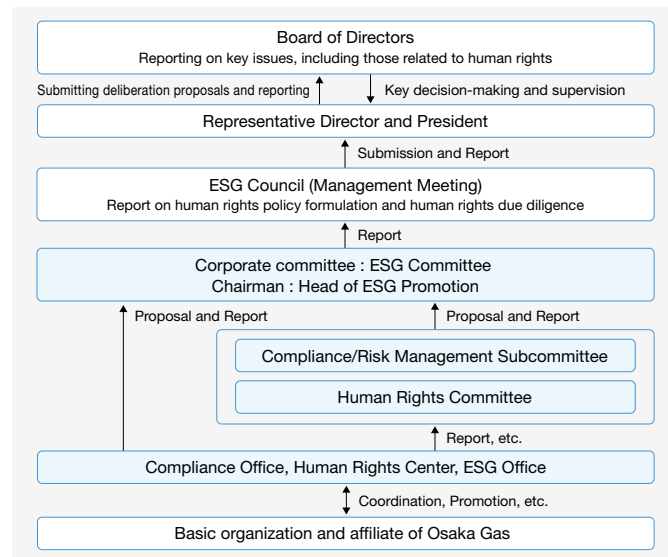
Human rights due diligence is jointly promoted by the Human Rights Center in the Human Resources Department; Compliance Office and the Internal Control Planning Team in the General Affairs Department; and the ESG Office in the Corporate Strategy Department.

The Board of Directors, which makes decisions and supervises other important business activities across the Daigas Group, is responsible for supervising activities aimed at tackling human rights issues and other related issues.

At the ESG Council (Management Meeting), which meets three times a year, officers deliberate on action plans and reports concerning ESG issues, including human rights issues, and report to the Representative Director and President.

The Group also has the ESG Committee, chaired by the Head of ESG Promotion (Representative Director and Executive Vice President), who supervises the Group's sustainability activities, and consisting of the heads of related organizations and other members. In principle, the ESG Committee meets four times a year for cross-organizational deliberation, coordination, and supervision of the formulation, promotion, etc. of plans for human rights due diligence activities.

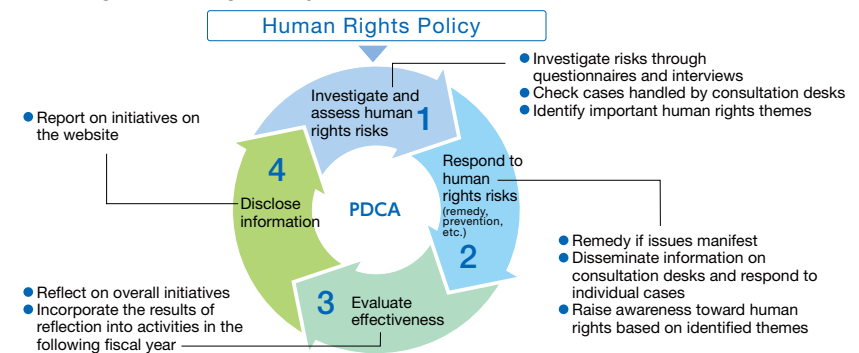
System for Carrying Out Human Rights Due Diligence



Human Rights Due Diligence Cycle

We have built a cycle in which human rights risks that may arise from our business activities are investigated and identified, the identified human rights risks are addressed through corrective and remedial measures, education and awareness-raising activities, etc., and the effectiveness of these measures are evaluated and linked to improved initiatives.

Human Rights Due Diligence Cycle



Results of Initiatives in FY2023.3

Investigate and assess human rights risks

We conducted inspections using G-RIMS, a self-assessment system, and a compliance questionnaire survey to check the status of employees' understanding and penetration of compliance. We also conducted a questionnaire survey of Daigas Group's major suppliers and found no significant risks related to human rights.

Respond to human rights risks (remedy, prevention, etc.)

We offered human rights training and conducted educational activities aimed at improving awareness and instilling knowledge of human rights issues. Please see [P.85-86](#) for more information on each action.

Establishment of grievance mechanisms

We have established the Human Rights Center and the Compliance Desks as contact points for consultation, and we appropriately respond to cases received by them.

Identification of key human rights risks (process)

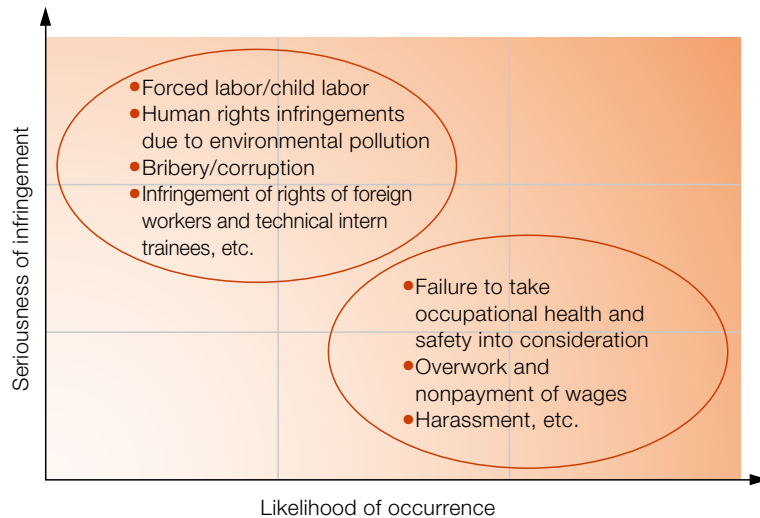
By reference to the dual axes of the seriousness of each potential human rights infringement and the likelihood of it occurring, we identify key human rights risks that the Daigas Group needs to consider in the course of its business activities and establish a priority order for addressing them.

Identification Process

1. Confirm the likelihood of occurrence and seriousness of human rights infringements based on the results of the human rights risk investigation and human rights consultations.

2. Conduct a discussion among internal stakeholders and evaluate each item of human rights risks using the matrix shown in the figure below.

3. Consult with experts to identify the Group's significant human rights risks.



Identify important human rights themes (assessment)

Based on the results of the survey and the cases received by consultation desks in FY2023.3 and in consultation with experts, the Daigas Group identified important human rights issues that it should take into consideration when conducting its business activities and organized the human rights risks by rights holder in the table below.

Among the human rights risks that may occur in the Group's business activities, we identified 14 items as prominent human rights risks, including failure to take occupational health and safety into consideration, human rights infringements due to overwork and nonpayment of wages, and harassment, as well as forced labor, child labor, and bribery and corruption as risks in international business and infringement of rights of foreign workers and technical intern trainees as a risk in domestic business.

For these risks, we have taken various measures to prevent or reduce them under the relevant policies and other relevant guidelines.

In discussions with experts, it was pointed out that the chemical and developer industries require special attention to human rights risks due to the nature of their industries. In the chemical industry, we are aware of human rights risks, such as forced labor and child labor at raw material suppliers in the supply chain, and in the developer industry, where labor shortages are an issue, we recognize the need to pay attention to human rights risks in hiring foreign nationals and accepting technical interns.

We also evaluate human rights risks for new businesses. For example, when carrying out M&A, as part of our due diligence, we investigate whether the new company joining our group complies with labor standards, health and safety laws and regulations to ensure that no serious human rights issues arise in it.

Identified Human Rights Themes and Classification of Entities of Rights

	Entity of rights				Relevant policy	
	Group employees	Customers	Local residents and others	Suppliers		
Daigas Group's important human rights risks	Forced labor	●*1			●	Daigas Group Human Rights Policy
	Child labor	●*1			●	Daigas Group Human Rights Policy
	Lack of consideration for occupational health and safety	●			●	Occupational health and safety
	Infringement of human rights caused by excessive working hours or unpaid wages	●			●	Occupational health and safety
	Discrimination on the basis of disability, race, nationality, gender, etc.	●		●		Daigas Group Diversity Promotion Policy
	Discrimination based on one's origin	●		●		Daigas Group Human Rights Policy
	Harassment	●		●		Daigas Group Code of Business Conduct
	Infringement of the rights of foreign workers or technical interns	●*2			●	Daigas Group Human Rights Policy
	Infringement of rights to privacy	●	●	●		Initiatives to protect personal information
	Infringement of the rights of indigenous peoples or local residents			●		Daigas Group Code of Business Conduct
	Human rights problems caused by environmental pollution			●		Daigas Group Environmental Policy
	Defective quality of products or services, and inappropriate provision of information		●			Daigas Group Code of Business Conduct
	Bribery/corruption	●*1		●	●	Daigas Group Code of Business Conduct
	Procurement of conflict minerals			●	●	Daigas Group Procurement Policy

*1 Overseas subsidiaries, *2 Domestic subsidiaries

Response to Human Rights Risks

Establishment of policies and regulations

The Daigas Group has stated that human rights are to be respected in the Daigas Group Charter of Business Conduct, which expresses the Daigas Group’s corporate stance, and the Daigas Group Code of Business Conduct, which serves as a code of conduct for officers and employees, and it established the Daigas Group Human Rights Policy in April 2021.

In addition to the Daigas Group Procurement Policy, which is aimed at respecting human rights throughout the supply chain, we have also established various regulations related to occupational health and safety, etc.

Consideration for occupational safety and health

The Daigas Group not only complies with all applicable laws and regulations related to safety and health but also has established its original rules, including the Daigas Group Safety & Health Promotion Regulations. The Group has also established the Daigas Group Safety and Health Council to discuss and share information on measures to prevent occupational accidents and promote health maintenance, thereby working to improve the levels of workers’ safety and health throughout the Group.

In March 2021, we issued the Daigas Group Declaration of Health and Productivity Management to summarize our stance toward health and productivity management, based on the idea that ensuring safety and maintaining and improving physical and mental well-being are key to all operations.

Based on the Declaration of Health and Productivity Management, we also established the Daigas Group Action Guidelines “7 Rules for Being Healthy” to encourage employees to live healthy lifestyles, and we provide guidance to organizations and individuals at the Health Development Center, as well as lifestyle advice to employees at health checkups.

Action on human rights

To promote human rights awareness throughout the Daigas Group, we have established the Daigas Group Human Rights Committee, with the Human Rights Center as its secretariat and chaired by the officer responsible for the Human Resources Department.

The Human Rights Committee strives to understand group-wide issues through the sharing of information and the exchange of opinions related to human rights.

Activities for group employees include programs by level and lectures on human rights.


In addition, Osaka Gas overseas affiliated companies have made the English version of the Daigas Group Code of Business Conduct known to all of their employees to raise employee awareness with respect to human rights, work standards, and anti-corruption measures.

Consultation Desks for Human Rights

The Daigas Group accepts requests for consultation regarding human rights from not only employees but also customers, the local community, suppliers, and all other stakeholders.

Information on consultation desks is provided to employees through channels such as the intranet and posters and to external stakeholders via our website.

■ Consultation Desks

Employees	<ul style="list-style-type: none"> • Human rights promoters are assigned to each organization, including key affiliated companies, as an initial point of contact. • The Human Rights Center provides consultation services (for officers, employees, and temporary employees of all Group companies). • The Compliance Desks accept requests for consultation and reports concerning compliance with laws, regulations, and internal rules (for officers, employees, and temporary employees of all Group companies).
Customers, local communities, etc.	<ul style="list-style-type: none"> • Customer Centers accept inquiries.
Suppliers	<ul style="list-style-type: none"> • Consultation requests and reports are accepted at the consultation/reporting desk on the website.  ▶ Consultation/reporting desk

Encouraging suppliers to comply with laws and regulations regarding human rights

To ensure respect for human rights throughout the supply chain, the Daigas Group strives to encourage its suppliers to understand the concept of human rights and follow international human rights standards through the Daigas Group Procurement Policy and the Daigas Group Procurement Policy for Suppliers.

In our sustainability questionnaire for suppliers, we set up a section on human rights to ascertain the actual status of forced labor and child labor, confirm that there are no problems, and provide an opportunity to mutually confirm the importance of our efforts to respect human rights.

Major requests

Respect for Human Rights

Respect the human rights of all those involved in corporate activities according to international human rights standards, and prevent direct or indirect infringement of human rights, including discrimination, harassment, and other inhumane treatment, due to corporate activities throughout the supply chain.

Fair Working Conditions

Comply with international labor standards and related laws and ordinances to appropriately pay employees, manage their working hours, and give them days off; to prevent any kind of discrimination at the workplace, forced labor, or child labor; and to respect the rights of workers (including technical intern trainees, other workers from abroad and immigrant workers), such as the freedom of association and the right of collective bargaining.

Contribution to Environmental Conservation

Reduce the environmental burden of business operation and products and services. [Examples: Reduce greenhouse gas emissions by saving energy and using low-carbon and/or decarbonized energy; promote green purchasing; use resources (water resources, raw materials, etc.) in a sustainable way; promote resource recycling; prevent air, water and soil pollution; and conserve biodiversity]

Ethical Corporate Management

Respect free and fair competition and prevent misconduct.

Protect intellectual property rights; disclose information appropriately; maintain confidentiality; safeguard privacy, including that of personal information; procure minerals responsibly; conduct responsible marketing activities; and never have any relationships with antisocial groups.

Action on Human Rights

Principle and Outline

The Daigas Group holds that human rights ought to be accorded the maximum respect in all circumstances. All officers and employees must be keenly aware of this, and acquire and act on correct knowledge pertaining to human rights. In expanding its business globally, the Group pays careful attention to compliance with local and national laws and regulations, respect for human rights and other international norms, local culture and customs, and the interests of stakeholders. Accordingly, it offers human rights training and conducts educational activities aimed at improving awareness and instilling knowledge of human rights issues.

Systems and Plans for Human Rights Awareness

To promote human rights awareness throughout the Daigas Group, Osaka Gas has established a “Daigas Group Human Rights Committee” headed by the director (Director and Managing Executive Officer) responsible for the Human Resources Department. This committee decides the activity policy with regard to human rights.

Based on this policy, the Human Resources Department’s “Human Rights Center” plans, formulates and administers numerous efforts and events such as human rights training for all job levels, human rights lectures, and human rights slogan contests, and offers cooperation and support to individual organizations. In FY2023.3, we have started training programs based on human rights themes identified as those which we should give consideration to in human rights due diligence. The top award-winning slogans are made into posters that are put up in offices to constantly remind employees of the importance of human rights.


As well, business units and major affiliates have their own “Human Rights Committee,” which relays company policies and human rights information to employees, encourages participation in outside lectures and the human rights slogan contest. The “Corporate Human Rights Committee” also exchanges information and opinions with divisions in the Group, all in an effort to understand what must be done across the entire Group. Further, each business unit and major affiliate appoints a “Human Rights Awareness Promotion Leader,” who is in charge of dealing with daily issues related to human rights.

The Daigas Group’s “Compliance Desks” and “Human Rights Center” also accept consultation requests and reports on all matters related to human rights.

Initiatives to Respect Human Rights for Suppliers

The Daigas Group sets up a section on human rights in its annual sustainability questionnaire for major suppliers. In FY2023.3, we conducted a questionnaire survey of 395 companies and received 353 responses, confirming that there were no problems with forced labor or child labor.

In addition, at the human rights lecture for organization heads and managers, which is held every year, in FY2023.3, we invited the participation of construction companies, service chain companies, and other partner companies, and approximately 80 people attended the lecture.

Please see  P.89 for more information on the details of the conducted questionnaire survey.

System for Promoting Human Rights Awareness

Daigas Group Human Rights Committee

Members: General Manager of the department in charge of general affairs in each organization, and Managers of the ESG Office and the Compliance Office

Daigas Group Human Rights Executive Board

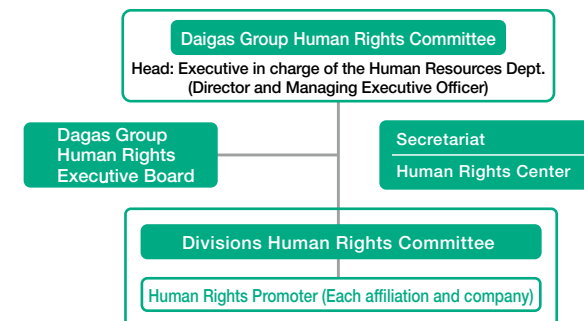
Members: Manager of the team in charge of general affairs at each organization, the ESG Office, and the Compliance Office

Human Rights Committees at each organization

Members: Persons in charge of general affairs, etc., including affiliated core energy business companies and related companies

Human Rights Promoters (at each organization)

Members: Persons in charge at each organization



Implementation of Human Rights Training

Human rights training for all levels

[Human rights lectures for organization heads and managers](#)

The Daigas Group has human rights training for all job levels: directors, managers, and new recruits.

In the human rights training for new managers, participants learn about companies and human rights. We have human rights lectures for division heads and managers led by outside experts.

In FY2023.3, a human rights training session for all employees provided by a Human Rights Promoter appointed at each organization was held for the purpose of promoting awareness of the newly formulated and released “Daigas Group Human Rights Policy” among employees, under the theme of “Becoming Aware of Unconscious Bias.” Approximately 17,100 employees, including those from affiliated companies, participated in this training session.

■ Group-wide Human Rights Training - Participants

Participants	Implementation period	No. of participants
Executives	September	29
Managers and leaders	May, June, November, December	212
New employees	April	146
Training for all employees	From November to March	About 17,100
Human rights lecture (for organization heads and managers)	July	460
Human rights lecture (for all employees)	February	450
New employees at affiliates	April, June, October, February	329
Others (HR Committee members, etc.)	Year around	142
Total		About 18,800

Training for human rights awareness leaders

In training for each division’s human rights awareness leaders, participants take a variety of courses outside the company. In FY2023.3, a total of 110 took these courses.

■ Results of Participation in Courses outside the Company

Course name	No. of participants
Anti-discrimination and Human Rights Issues Awareness Raising (for Managers)	110
Human Rights and Anti-discrimination Awareness Raising	
Buraku Liberation/Human Rights Summer Course	
Buraku Liberation/University Human Rights Course	
Other	

Supply Chain Management

Summary

Why the topic is material	<p>The Daigas Group could not conduct business without the cooperation not only of companies within the Group but also of its various stakeholders. We believe that it is necessary for the Group to control the social and environmental effects that are generated in the business processes in the most responsible manner and in close cooperation with our stakeholders.</p> <p>Based on the Group’s corporate motto, “Service First,” we strive to procure responsibly in cooperation with our suppliers. Supply chain management is positioned as one of our material issues.</p>
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	Items to be addressed	Specific initiatives	
Supply chain management	<ul style="list-style-type: none"> Promoting understanding of the Daigas Group Procurement Policy among suppliers Confirmation of the status of major suppliers’ sustainable activities, etc. Promotion of green purchasing <p>Materiality Supply chain management</p>	<p>Policy and promotion system</p> <p>The Daigas Group is committed to fulfilling its social responsibility in close cooperation with suppliers in line with the Daigas Group Code of Business Conduct, revised in accordance with the United Nations Global Compact.</p> <p>The Daigas Group has formulated the Daigas Group Procurement Policy and has made it known to the Group’s suppliers, together with the Daigas Group Procurement Policy for Suppliers.</p> <p>Each organization in charge of procuring particular materials is to fulfill its responsibility.</p>	
		<p>KPIs based on the materiality</p>	<p>FY2023.3 results</p>
		<p>Appropriate new supplier ratio</p>	<p>100%</p> <p>A total of 27 suppliers began new business transactions with Osaka Gas. No business deals were barred from being started due to violations of standards set in the fields of environmental and social impacts, human rights, and labor practices.</p>
		<p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> Implementing and promoting a system for disseminating the Daigas Group Procurement Policy and the Daigas Group Procurement Policy for Suppliers to our suppliers and confirming the status of their sustainable activities before proceeding with a business transaction Conducting questionnaires for major suppliers to understand, evaluate, and analyze the status of their sustainable activities, etc. Implementing and promoting the Green Partner Initiative, a system for evaluating the environmental initiatives of suppliers who are proactive in such efforts as building an environmental management system (EMS) and obtaining certification 	

Supply Chain Management

Principle and Outline

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

The Daigas Group is committed to fulfilling its social responsibility in close cooperation with suppliers in line with the Daigas Group Code of Business Conduct, revised in accordance with the United Nations Global Compact. The Daigas Group has formulated the Daigas Group Procurement Policy and has made it known to the Group's suppliers, together with the Daigas Group Procurement Policy for Suppliers.

Daigas Group Procurement Policy



The Daigas Group aims to contribute to the development of a sustainable society and believes that environmental and social consideration is important in procurement. Based on this idea, the Group formulates its policy on the procurement of works, services, goods, products, parts, materials, etc. as follows:

1. Compliance

We will ensure that our procurement will be in compliance with laws and ordinances, based on common sense corporate practices following sound ethical views, and in full consideration of occupational health and safety, respect for human rights, including prohibition of discrimination, forced labor, and child labor, and the elimination of misconduct.

2. Open Trading

To procure high-quality, safe and economical materials, equipment and the like at appropriate timing, we will deal with not only domestic companies but also overseas companies.

3. Fair Dealing

We will fairly and justly select suppliers, vendors, contractors and others with whom we conduct business (collectively referred to as "Suppliers"), taking into comprehensive account such factors as their corporate soundness, financial condition, commitment to corporate social responsibility, safety management system, technical capabilities, the quality, prices,

and reliability of their products and services, the compatibility of their products and services with existing equipment, reliability in delivery, after-sales service, and economic rationality.

4. Contribution to Environmental Conservation

Based on the Daigas Group Environmental Policy, we aim to operate our business in harmony with the environment, including consideration of biodiversity. We will promote green purchasing* in consideration of the balance between economic conditions and the reduction of environmental burdens.

5. Trusting Relationship

We will build a solid relationship of trust with Suppliers and strive for mutual development through close communication and fair and just purchasing transactions with them. For more details, refer to the Daigas Group Procurement Policy for Suppliers, which the Group has formulated.

**Green purchasing* is purchasing in full consideration of the necessity of the purchase, taking into account not only quality and price but also the environment.

Daigas Group Procurement Policy for Suppliers (Excerpt)



Respect for Human Rights

Respect the human rights of all those involved in corporate activities according to international human rights standards, and prevent the direct or indirect infringement of human rights, including discrimination, harassment, and other inhumane treatment, due to corporate activities throughout the supply chain.

Fair Working Conditions

Comply with international labor standards and related laws and ordinances to appropriately pay employees, manage their working hours, and give them days off; to prevent any kind of discrimination at the workplace, forced labor, or child labor; and to respect the rights of workers (including technical intern trainees and other workers from abroad, and immigrant workers), such as the freedom of association and the right of collective bargaining.

Contribution to Environmental Conservation

Reduce the environmental burden of business operation, and products and services. [Examples: Reduce greenhouse gas emissions by saving energy and using low- and/or zero-carbon energy; promote green purchasing; use resources (water resources, raw materials, etc.) in a sustainable way; promote resource recycling; prevent air, water and soil pollution; and conserve biodiversity]

Ethical Corporate Management

Respect free and fair competition and prevent misconduct. Protect intellectual property rights; disclose information appropriately; maintain confidentiality; safeguard privacy, including that of personal information; procure minerals responsibly; conduct responsible marketing activities; and never have any relationships with antisocial groups.

Responsible Procurement

Measures in material procurement

We have a system for explaining the Daigas Group Procurement Policy and the Daigas Group Procurement Policy for Suppliers to our suppliers and confirming the status of their sustainable activities before proceeding with a new business transaction in materials purchasing.

In addition, we conducted a questionnaire survey of major suppliers in materials purchasing to check their sustainability efforts. Furthermore, when the suppliers conduct business transactions with the Daigas Group, they are asked to observe the Green Purchasing Guidelines set by the Group, which are attached to the specifications for the transactions.

Sustainability activity survey of gas appliance makers and other suppliers conducted to promote information sharing on social and environmental issues to be tackled by companies

The Daigas Group conducts a questionnaire survey of major suppliers* on sustainable activities to provide a sense of security to customers when they choose the Daigas Group, as well as taking into account social and environment aspects in doing business. The survey is based on the Daigas Group Procurement Policy and the Daigas Group Procurement Policy for Suppliers. The survey was conducted of gas appliance makers and other suppliers to assess the status of their efforts for a total of 59 items on the eight themes of compliance, human rights, labor, occupational health and safety, product safety and quality, environmental conservation, ethics and prevention of corruption, and policy enforcement system. In addition, we conducted a survey of service chain partners and construction work contractors, to which the Group has entrusted gas business-related duties, and of LNG suppliers.

*Selected based on the degree of impact on our business, such as the transaction amount and whether or not Daigas Group brand products are handled

■ Survey on Sustainability Activities Conducted in FY2023.3

Companies covered by the survey	No. of companies surveyed	No. of companies which replied	Other efforts
Main suppliers	146	146	Green Partner Initiative
Gas appliance manufacturers	36	36	
Service companies, engineering firms	205	165	
LNG suppliers	8	6	

Results of the questionnaire surveys of suppliers

Questionnaire surveys of suppliers regarding sustainability activities for FY2023.3 found no violations in the environmental and social fields. For responses that raised concerns, we followed up individually from each responsible line to confirm that there were no problems with the actual state of activities.

We provided suppliers with feedback on good practices among respondent companies and comparisons between overall average values and the results of their own responses to encourage them to continue and improve their efforts.

Efforts to encourage the reduction of environmental burdens and results

We encourage major suppliers, etc. to reduce environmental burdens as part of our efforts to reduce environmental burdens in our supply chain. In addition to complying with environmental laws and regulations, we request them to monitor their CO₂ emissions and water usage, report the status of setting reduction targets, and take measures to reduce environmental burdens.

Promoting green purchasing in collaboration with suppliers and affiliates

Based on its Green Purchasing Guidelines (formulated in 2000, revised in 2022), Osaka Gas works with suppliers to promote Green Purchasing: prioritized procurement of biodiversity-friendly goods and construction work that have less impact on the environment. We actively use eco-friendly products, including Forest Stewardship Council-certified paper, recycled paper, LED lighting, and carbon offset products.

In 2005, we launched the “Green Partner Initiative” to evaluate environmental efforts by our main suppliers, including establishing an environmental management system (EMS) and obtaining an EMS certificate. Suppliers recognized as supporting the initiative have been registered as Green Partners.

The Green Partner Initiative was revised in FY2016.3, resulting in suppliers other than those previously covered now being covered by the initiative. As of March 31, 2023, 85 suppliers were registered. Affiliated companies are working to expand green purchasing under the Daigas Group Environmental Management System (OGEMS), our unique environmental management system.



Participation in an initiative related to supply chains

Since FY2018.3, Osaka Gas has been participating in Sedex, which promotes the establishment of ethical supply chains, to respond to requests from suppliers.

We regularly undergo SMETA audits (an audit scheme provided by Sedex) at our manufacturing sites in an effort to respect the human rights of our employees and improve the working environment.

Training for personnel in charge of purchasing

The Daigas Group conducts training for personnel in charge of purchasing once a year. During training, we disseminate the Daigas Group Procurement Policy, which shows consideration for compliance, human rights, and the environment.

We also have e-learning courses for personnel in charge of purchasing available at all times.

Customer Health and Safety

Summary

Why the topic is material	<p>The Daigas Group is committed to making a positive contribution to realizing a higher level of comfort of its customers and the development of their business activities by ensuring a stable supply of city gas, electricity, LPG, and other energy sources and the safety of city gas supply and equipment with an improved level of services for its customers. To realize this, we believe that it is important to improve energy resilience so that customers can use energy without worry. We will endeavor to provide products and services that offer utmost reassurance about safety in order to be a corporate group that continually evolves and develops alongside our customers.</p> <p>We have positioned customer health and safety as one of our material issues.</p>
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	Items to be addressed	Specific initiatives	
Customer health and safety	<ul style="list-style-type: none"> Ensuring continued stable procurement and safe supply of energy Building resilient facilities Emergency response system and anti-disaster measures Passing on advanced knowledge and skills in safety and disaster prevention Disseminating information about safe use <p>Materiality Customer health and safety</p> <p>Materiality Stable supply of services</p>	<p>Policy and promotion system</p> <p>The Daigas Group is committed to ensuring the quality of city gas, our primary product, its stable supply, and the safety of our gas and power generation facilities—all by adhering to our “Security Rules.” From FY2023.3, based on legal separation, we established the “Safety and Disaster Prevention Committee” as a company-wide committee to centrally manage and promote measures for events related to safety, disaster prevention, and gas supply stability, with the aim of building a system that exercises governance across the company during normal times.</p>	
		<p>KPIs based on the materiality</p>	<p>FY2023.3 results</p>
		<p>Number of serious accidents</p>	<p>We continued achieving zero serious accidents by implementing quality control of city gas in the production business and safety inspections of gas facilities in the supply business in accordance with laws, regulations, and internal rules.</p>
		<p>Building resilient facilities</p>	<p>The percentage of earthquake-resistant facilities is approximately 89%, and the number of earthquake blocks* increased to 713 due to the subdivision of supply network.</p>
		<p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> Ensuring the safety of city gas, gas and power generation facilities, and continuing to maintain quality levels Striving to systematically update facilities and maintain a pipeline network to build resilient facilities Building and implementing a system that allows for quick response to accidents and disasters, developing a Business Continuity Plan (BCP) to Take Effect During a Large-scale Disaster or Accident, and conducting drills Continuing to develop human resources with advanced knowledge and skills related to safety and disaster prevention 	

*Blocks are divided parts of the supply network aimed at early restoration in the event of supply disruptions due to earthquakes, etc.

Customer Health and Safety

Principle and Outline

The Daigas Group announced Long-Term Management Vision 2030 in March 2017 and Medium-Term Management Plan 2023 in March 2021. Ensuring the safety of city gas as well as gas and power generation facilities is of the utmost priorities for the Daigas Group, which sets targets of continued zero serious accidents and more than 10 million customer accounts and aims to enhance the resilience of customers and society. To that end, we consider it important to work towards enhancing safety and improving preparedness for accidents and disasters.

The Daigas Group Code of Business Conduct, which sets forth the standards of conduct that our officers and employees must follow without fail, specifies “ensuring safety of products and services.” In order to ensure safety, we are committed to not only meeting legal standards but also pursuing safety from the perspective of customers in each of our operations.

Safety and Disaster Prevention Promotion Structure

We established the Safety and Disaster Prevention Committee as a corporate committee, which is a system built for ensuring governance across the company during normal times so as to centrally manage and promote measures for incidents related to safety, disaster prevention, and gas supply stability.



Operations and maintenance tasks inspected

In the infrastructure business, one accident can have various effects on stable supply and cause large losses. So, Inspections beyond the regular ones were carried out led by the Safety Subcommittee, on operations and maintenance work.

In FY2023.3 we have reaffirmed and improved our efforts and systems to prevent accidents and ensure stable supply in the energy businesses that are essential to people's lives and industry, such as gas, electricity and heat supply. In addition to continuously checking the operational status in FY2023.3, we will also expand the scope in FY2024.3 to our renewable energy business. We will roll out good practices obtained from inspection results to new businesses.

Safety and Security Efforts in the Energy Business

Ensure stable procurement by diversifying sources of LNG imported by Osaka Gas

Natural gas resources—the source of city gas and fuels for power generation—are spread worldwide. Osaka Gas started importing LNG from Brunei in 1972 and has since diversified its procurement sources.

In December 2019, a natural gas liquefaction project was launched in Texas, U.S. LNG from the United States is procured with a new method, whereby the price is determined in connection with Henry Hub prices, the index upon which the market price for natural gas futures is based in the United States. This procurement method has been added to Osaka Gas's existing procurement method, whereby the price is determined by indexing to crude oil prices.

The use of more diverse price indicators will enable us to procure LNG at stable prices even if crude oil prices fluctuate. Moreover, investment in the natural gas liquefaction project will enable us to procure a kind of price-competitive LNG, whose price is closer to prime cost, among the kinds of LNG whose prices are linked to Henry Hub prices.

We will continue our efforts to procure more affordable LNG in a more stable manner.

LNG Handled by Osaka Gas (Including Fuel Used for Power Generation and Wholesale)

(thousand ton)

Fiscal Year	21.3	22.3	23.3
Brunei	454	641	160
Indonesia	285	127	0
Malaysia	945	942	1,153
Australia	3,436	4,011	4,756
Russia	384	449	321
Qatar	421	179	0
Oman	1,271	1,335	1,460
Papua New Guinea	1,308	1,663	1,939
USA	1,836	2,803	679
Others	235	274	141
Total	10,575	12,443	10,608

Safety measures at LNG terminals

Our system docks LNG tankers safely

At the Osaka Gas LNG terminals at Senboku and Himeji, we strive for complete safety on site and in the surrounding areas. This safety begins as soon as the tankers carrying LNG dock at dedicated piers at the LNG terminals.

The tankers bringing LNG from around the world are docked with the utmost concern for safety. Osaka Gas developed its own system specifically for safely docking tankers through a series of processes.

This system uses a GPS to monitor in real time the position of the tankers to an accuracy of 10 cm as they enter and leave the port, and dock and undock.

LNG tank safety measures

The LNG transported by tanker is fed into LNG tanks from the dock. To ensure a stable supply of city gas, our two LNG terminals have a total of 25 LNG tanks, including one of the world's largest land-based tanks.

Tanks are equipped with advanced earthquake-proof technology. Should there be a gas leak, the tanks have dikes to stop the LNG from flowing to the outside. And there are high-expansion foam discharge systems and water curtain facilities to contain any spilt LNG.



High-expansion foam discharge and water curtain facilities along the dike around an LNG tank

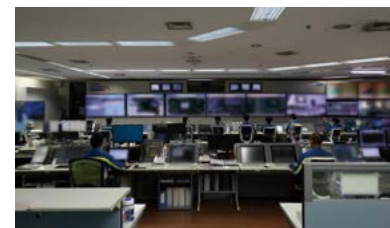
Odorization aids gas leak detection

At Osaka Gas's two LNG terminals, the LNG brought in by tankers at a temperature of -160°C is vaporized using the heat of sea water, then the heating value of the gas is adjusted before it is delivered to customers. Because natural gas is odorless, it is given a specific odor so that it can be detected in case of a gas leak.

Monitored 24 hours a day, 365 days a year

Central control rooms at LNG terminals carry out around-the-clock monitoring and operation of all processes from receipt of LNG, vaporizing of the gas, to delivery of the product.

These central control rooms also carry out monitoring and operation of all of the incident detectors and surveillance cameras so that problems are detected promptly and prevented from spreading. If an incident detector picks up a problem, an alarm is sounded in the central control room and staffs are on the scene immediately.



Central control room at an LNG terminal

Developing a Business Continuity Plan to Take Effect During a Large-scale Disaster or Accident

In July 2013, the Daigas Group formulated a Business Continuity Plan (BCP) to be implemented in the event of a large-scale disaster or accident. This BCP, which we have disseminated throughout our Group, outlines responses to identified risks.

It assumes a situation in which the company and society at large are affected by an earthquake or tsunami resulting in a paralysis of various functions, or a functional failure due to problems with raw materials suppliers and our equipment. According to the terms of the "Act on Special Measures for Pandemic Influenza and New Infectious Diseases," the company shall respond promptly and accurately to the outbreak of a new strain of influenza or the like to prevent infection of employees and to protect public health. We have established company regulations under the name of the "Pandemic Influenza and New Infectious Diseases Preparedness Action Plan" in order to ensure the stable supply of gas in such a situation.

In principle, we review our BCP annually and promote employee awareness by implementing BCP training, earthquake drills, and education and training incorporating e-learning.

In the event of an earthquake, we must respond by upholding business continuity in parallel with implementation of disaster response operations, so clearly advanced disaster response capabilities are required as well. By simultaneously implementing earthquake drills and BCP training in FY2023.3, we were able to identify the challenges of maintaining business continuity concurrently with disaster response operations, thus strengthening our overall disaster-response capabilities.

Osaka Gas Network Co., Ltd. initiatives: Safety measures during supply

Monitoring and replacing gas pipes

City gas is delivered to customers via the gas pipeline network. Therefore, Osaka Gas Network Co., Ltd. recognizes that keeping the gas pipes safe and properly maintained is one of the most important matters and is constantly replacing old metal pipes with pipes made of polyethylene, which is highly durable and earthquake resistant.



Pipes made of polyethylene exhibit superior strength

Building resilient facilities

To ensure stable city gas supply, we believe that it is important to renovate the processing facilities, build a gas pipeline network, and take disaster prevention measures in accordance with meticulously devised plans to strengthen our foundation to secure a higher level of stability in the gas supply.

Osaka Gas Network Co., Ltd. is working to improve the earthquake resistance of gas facilities as a preventive measure (promotion of the spread of earthquake-resistant facilities), including the introduction of highly earthquake-resistant gas pipes. We are refurbishing aged gas pipes and introducing pipes with superior resistance to earthquakes and corrosion according to the plan. We are actively proposing the repair of old buried gas pipes at customers' sites that pose a risk of corrosion. We completed measures for cast iron pipes (pipes requiring measures) ahead of schedule from FY2021.3 to FY2016.3. We continue to implement measures for cast iron pipes (to be maintained and managed) and pipes for preventing corrosion and deterioration.

As part of emergency measures to prevent secondary disasters, we have established a gas shutoff system to prevent secondary disasters caused by gas leakage in the event of an earthquake or other disaster.

In accordance with the Ministry of Economy, Trade and Industry's "Gas Safety Upgrading Plan," we are working to increase the percentage of earthquake-resistant pipes, which indicates the ratio of earthquake-resistant pipes to the total, and to subdivide supply blocks to keep gas shut off due to emergency measures to the minimum extent possible.

We believe that energy resilience can be improved by taking both measures: increasing earthquake resistance as a preventive measure against earthquakes and minimizing damage and achieving early restoration in the event of an earthquake.

Security measures to prevent accidents

Osaka Gas Network Co., Ltd. ensures that the following security measures are taken to prevent the occurrence of accidents including gas leaks.

1. Regular inspection of gas pipes along the pipelines to ensure there are no gas leaks
2. Inspection and repair of facilities including regulators, valves, and gas pipes on bridges
3. Meetings with contractors who are doing excavation work for water and sewage pipes, and electrical and phone lines near Osaka Gas pipelines, as well as inspection of the work sites, before, during, and after the work



Regular inspection of gas pipes on bridges

Integrated system for monitoring and controlling the gas supply

The Central Control Room of Osaka Gas Network Co., Ltd. ensures a stable and safe supply of gas 24 hours a day, 365 days a year.

We have a gas supply monitoring and control system that keeps a constant watch on gas, from the LNG terminals to every corner of the pipeline network. The system constantly gathers data on gas pressure, flow volume, and irregularities from points around the gas pipeline network, providing integrated control through remote operation that controls production and supply and detects any problems.



Central Control Room

Osaka Gas Network Co., Ltd. initiatives: Emergency response system and anti-disaster measures

Taking calls and responding all day, every day

It is particularly important to establish an initial response system in the event of accidents and natural disasters and act appropriately in response to such events.

Osaka Gas Network Co., Ltd. has established a unified security system covering the entire supply area. Under the system, if gas leakage occurs, the Central Control Room will take charge of all relevant duties, including receiving an accident report and dispatching security staff to the accident site. Specifically, the Central Control Room will order the dispatch of the emergency vehicle that can reach the accident site the fastest by taking various factors into consideration, such as availability of vehicles and their locations.

The Central Control Room accepts emergency reports, such as a gas leakage, around the clock via dedicated telephone lines set up in the Room. After an accident is reported, emergency staff will be sent to the site immediately and work in close collaboration with local police and fire departments.



Central Control Room (emergency call reception)

Initiatives for coordination with local governments in the event of a disaster

Osaka Gas Network Co., Ltd. has concluded agreements with local governments on coordination in the event of a major disaster or in other similar situations. The purpose of the agreements is to quickly stabilize people's lives by working together with local governments to restore gas supplies safely in the event of any major disaster. As of March 2023, the company has concluded agreements with approximately 70 local governments within the supply area, including Osaka City.

With this agreement, the company will deepen its cooperation with the government in normal times even more than before, and build a system for cooperation and collaboration in the event of a disaster.

Emergency response system and anti-disaster measures

Measures against possible large-scale earthquakes

Daigas Group has taken a range of measures for dealing with large earthquakes, including installing earthquake-resistant polyethylene pipes and intelligent meters that detect vibrations from the earthquake and shut off the gas supply and securing an emergency communications network. In addition, the Great Hanshin-Awaji Earthquake of 1995 has prompted us to step up these measures.

We have installed seismometers in the Group's service area, which allow us to quickly determine the seismic intensity and other information. The service area is divided into blocks. In the event of the detection of ground shaking that may cause damage to gas pipelines, to prevent secondary damage, gas supplies are shut off block by block. This is possible thanks to a system of automatic gas shutoff devices equipped with a seismoscope as well as remote gas shutoff devices that are activated by command from the Central Control Room. If the Central Control Room is physically damaged, the Central Control Subcenter set up with a similar function will take over its task.

We also make constant efforts to improve employees' ability to respond to emergencies, including conducting company-wide disaster drills and providing disaster prevention education through e-learning, in addition to taking physical countermeasures against earthquakes as described above.

In FY2023.3, as a company-wide disaster drill, we conducted a company-wide earthquake drill and business continuity plan (BCP) training simultaneously, continuing from last year, to identify issues arising from conducting disaster response and business continuity operations at the same time. In the drill, which was based on the scenario of an earthquake of magnitude 8.7 with an epicenter in the Nankai Trough, a task force, headed by the President of Osaka Gas, was formed at the Head Office. We worked to strengthen our initial disaster-response capabilities and share the disaster response flow until the completion of restoration.

In addition to approximately 2,000 employees of the Group, including partners, 50 people from 13 retailers other than Osaka Gas also participated in the drill to confirm cooperation in disaster response.

Progress of Earthquake Countermeasures after the Great Hanshin-Awaji Earthquake

Focus	Main earthquake countermeasures	At the time of Great Hanshin-Awaji Earthquake (January 1995)	Present (April 2023)
Strengthen information gathering function	Install additional seismometers	Installed at 34 locations	<ul style="list-style-type: none"> Installed at approx. 3,300 locations
	Introduce earthquake damage prediction system	—	<ul style="list-style-type: none"> Introduced at the Central Control Office (head office, back-up center) and 5 areas
Establish supply suspension system	Subdivide supply blocks into smaller segments	55 middle blocks	<ul style="list-style-type: none"> 87 middle blocks 713 little blocks
	Introduce supply suspension equipment	Remote suspension equipment only for super blocks (dividing the supply area into 8)	<ul style="list-style-type: none"> Remote suspension equipment at approx. 3,600 locations Earthquake-sensitive automatic suspension equipment at approx. 3,000 locations
Strengthen emergency communications	Strengthen wireless systems	—	<ul style="list-style-type: none"> Head office and back-up center serve as two hubs 6 portable satellite communications facilities
Other	Ratio of strengthening of earthquake resistance	Percentage of earthquake resistant pipes: 68%	<ul style="list-style-type: none"> Percentage of earthquake resistant pipes: Approx. 89%
	Promote widespread use of polyethylene (PE) pipes	PE pipeline length: Approx. 1,200 km	<ul style="list-style-type: none"> PE pipes used for basically all low-pressure pipelines PE pipeline length: Approx. 17,900 km
	Promote widespread use of microcomputer meters	Overall adoption rate: Approx. 75%	<ul style="list-style-type: none"> Installation completed for residential sector Overall adoption rate including non-residential sector: Approx. 99%
	Back up important online information	—	<ul style="list-style-type: none"> Back-up center opened

Status of technology development and operation for disaster preparedness and recovery support

Various in-house organizations must work in close cooperation to restore gas supply suspended because of a disaster or accident. This requires that information on conditions at trouble spots be shared immediately.

Osaka Gas developed the "BRIDGE" disaster recovery support system to centrally manage real-time information from the onset of a disaster/accident through recovery, and put this system into operation in April 2012. The system links up map information with customer information, making it possible to "visualize" recovery actions by centrally managing on-site progress and reducing the time needed to complete recovery work.

In addition, the "OG-DRESS" mobile-based reporting system aimed at supporting disaster recovery has been established, enabling reporting on completion of recovery work via mobile phone. Based on such a system, we will make our response actions in the event of a disaster expeditious.

We developed the "Typhoon and Torrential Rainfall Information System," which provides centralized information on accumulated rainfall and landslide disasters during typhoons and torrential rainfall, and have been operating the system since 2015. We also built a system to grasp the risk of river flooding at an early stage and have operated it since 2021. If we identify a risk of inundation of gas supply facilities due to river flooding, we will establish an emergency system and take preventive measures for the facilities to ensure the safe supply of gas for our customers. We have developed a "recovery visualization system" that provides easy-to-understand information on the restoration of gas service to customers living in areas where gas supply is cut off due to a major earthquake. In the event of a major earthquake, the top page of our website switches to an emergency-use page that provides status updates on gas supply stoppage and restoration using this system.

The recovery visualization system has two types of browsing functions: a map on which the gas recovery status is shown color-coded by stage and a list that shows the gas recovery progress by area.

We will continue to work to improve our disaster prevention and mitigation measures against earthquakes and other natural disasters and to deliver city gas to our customers with greater safety and stability.

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

Passing on advanced knowledge and skills in safety and disaster prevention

Based on the belief that our greatest mission is to deliver gas safely and securely, the Daigas Group strives to nurture human resources with a high level of knowledge and skills in the areas of safety and disaster prevention.

At LNG terminals, a system with a 3D animation function was installed to simulate things that are not easy to experience, such as a more realistic reproduction of a fire or other serious accident, to improve the quality of training and transfer skills. The Technical Skill Development Center of Osaka Gas Network Co., Ltd. strives to develop human resources with advanced knowledge and skills through high-quality lectures, abundant video content, etc., with the aim of preventing gas accidents and accidents resulting in injury or death. To convey the lessons learned from various past failures, we have also set up experiential-type training facilities that reproduce the circumstances at the time of these failures. Also in the Energy Solutions Business Unit, the Human Resource Development Centre provides various training programs to improve the quality of work related to security, such as starting service of gas supply, regular safety checks of gas appliances, and installation and repair of equipment.

In order to further solidify "safety," we have established the Four Safety Principles as a universal code of conduct common to those involved in safety as part of their work. We aim to eliminate accidents and problems by adhering to these four principles, which are: adherence to rules, reliable communication, reconfirmation, and interruption at unexpected times. We will follow these provisions to help make ourselves continuously aware of our responsibility to customer safety.

Products and services ensure safe use by customers

Informing customers about safe use of gas appliance

To ensure that customers can use their gas appliances with peace of mind, we take every opportunity to talk to them about the safety of their appliances: during regular safety inspections, when providing a new gas service, and when conducting repairs.

The Osaka Gas website has a section with important announcements on gas appliances, where we talk about the proper use of gas appliances, and post prompt notices about product modifications or defects.

Developing and promoting the use of safer gas appliances

The Daigas Group strives to bring customers products and services that ensure the safe use of gas. In 1992 we developed an automatic shut-off device for gas stoves and in 1999 a small gas water boiler with interlock mechanism*1. To eradicate fires originating from gas stoves, since April 2008 all products have been equipped with an auto shut-off function to automatically turn off the gas when the user forgets to. We have been working to spread the use of this product, called the “Si” Sensor-Equipped Cooking Stove.

In 2019, we developed and launched a new safer and securer gas stove in cooperation with Paloma Co., Ltd. to reduce the risk of clothing catching fire*2 during cooking. The new gas stove is equipped with area sensors*3, an industry-first technology. When a sleeve or other object comes close to the flame, the sensors detect it, lower the flame automatically, and sound a voice alert. The product obtained recommendation certification as a product with effective fire and disaster prevention functions from the Fire Equipment and Safety Center of Japan, the first time for a cooking device. Meanwhile, we would like to eradicate all old gas appliances that lack safety mechanisms. In particular, we visit customers who are still using old appliances that are not equipped with incomplete combustion prevention devices, such as small tankless gas water heaters and wire-mesh gas stoves, and recommend that customers upgrade to safer gas appliances.

The Group also provides gas alarm systems that warn residents of a gas leak or carbon monoxide and offers a range of safety-related services, including the dispatch of staff to a home when trouble is detected.

*1 Interlock mechanism: A device that stops the ignition process after the incomplete combustion prevention mechanism is triggered three times.

*2 Clothing catching fire: A sleeve, for example.

*3 Area sensors: It is a registered trademark of our company.

Changes in the Rate of Use of Water Heaters with an Incomplete Combustion Prevention Device and Gas Stoves with a Function of Automatically Turning off the Flame

	FY2019.3	FY2020.3	FY2021.3	FY2022.3	FY2023.3
Water heater with an incomplete combustion prevention device	99.9%	99.9%	99.9%	99.9%	99.9%
Gas stove with a function of automatically turning off the flame	96.0%	96.1%	96.2%	96.3%	96.3%

Announcement of joint development of a smart meter system

Osaka Gas Network Co., Ltd., Tokyo Gas Network Co., Ltd., and Toho Gas Network Co., Ltd., which are city gas pipeline companies, have been working to jointly develop a smart meter system for the city gas business with the aim of increasing the efficiency of gas meter reading and gas line closing operations in normal times and improving disaster resilience.

The introduction of communication-enabled smart meters will increase the efficiency of on-site work through remote gas meter reading and gas line closing. The smart meters will also enable remote gas shutoff operations (gas line closing) in the event of gas leakage as well as remote safety measures (gas line closing) and gas restoration operations (gas line opening) in the event of a disaster. This will further help enhance safety and improve resilience in supplying city gas.

We believe that joint development of the system responsible for signal exchange between smart meters and various business systems will not only reduce development costs, but also contribute to improving social benefits.

Product Safety Voluntary Action Plan for residential gas appliances

The Daigas Group, as a distributor of residential gas appliances and a repair and installation business, strives to ensure the safety of residential gas appliances, acting according to the Product Safety Voluntary Action Plan, being based on a strong determination to continue to ensure that our customers enjoy safe, secure, and comfortable lives.



When problems occur

When there is a product accident or other problem with a gas appliance that it sold, installed, or repaired, the Daigas Group immediately informs the media and places notices in newspapers and on its website. At the same time, the Group proceeds with the inspection of the product in question and if necessary repairs it or replaces parts.

No such incident occurred in FY2023.3

Customer Satisfaction

Summary

Why the topic is material	<p>With “Service First” as its corporate motto, the Daigas Group believes it is important to strive to improve our security and service quality as well as appropriately provide customers with information regarding the safety aspects of our products and services so that they can use them in a safer and more convenient manner. To provide services in excess of customer expectations, we are listening to their voices through various contacts with them, with the aim of improving our products and services.</p> <p>We have positioned the improvement of customer satisfaction and quality of services as one of our material issues.</p>
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	Items to be addressed	Specific initiatives	
Customer satisfaction	<ul style="list-style-type: none"> • Maintenance and improvement of service levels by collecting and analyzing customer feedback and reflecting it in operations • Creation and sharing of manuals for each duty, aiming for higher level of service • Promotion of awareness-raising activities through training for managers and persons in charge <p>Materiality Improvement of customer satisfaction and quality of services</p>	<p>Policy and promotion system</p> <p>The General Manager of the Energy Solution Business Unit plans the basic policy for customer satisfaction improvement activities in accordance with the “Customer Service Rules,” and the head of each organization in charge formulates and implements specific measures.</p>	
		KPIs based on the materiality	FY2023.3 results
		Customer satisfaction rate	90%
		<p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Conducting a questionnaire after completing a duty, analyzing and sharing it within the company, and reflecting it in the improvements in duties • Continuing efforts to improve the skills of managers and persons in charge through the creation of manuals and training for each duty 	

Customer Satisfaction

Principle and Outline

Since FY1989.3, Osaka Gas has conducted the Customer Satisfaction Survey with the aim of improving customer satisfaction. The survey covers five duties that directly deal with customers: opening of gas lines, repair of gas appliances, sales and installation of appliances, regular security patrols (gas facilities inspection), and response to telephone inquiries (at the customer centers). After completing each duty, we ask customers to provide their feedback in a questionnaire, and in FY2023.3, we received 33,400 responses to the questionnaire.

The results of this survey are reflected in our efforts to improve daily operations and enhance CS awareness among the Group employees and Osaka Gas service chain employees.

The results of this survey are also reflected in KPIs based on material issues. We manage our progress toward achievement of our goals and redouble our efforts to achieve higher levels of customer satisfaction.

Improving Customer Satisfaction

Prompt, precise phone service connects customers to the relevant company division

In 1985, Osaka Gas opened its “Customer Centers” as a one-stop service portal for customers with inquiries and applications for service. The center takes telephone inquiries on all matters relating to gas and electricity, such as starting and stopping a gas and electricity service, inquiries about gas and power bills, requests to change payment methods, and repair of gas appliances. On the Osaka Gas “Internet Reception” page, customers can easily apply for services related to moving to a new home, inquiries on gas bills, and changes in the day of equipment surveys. And for the hard of hearing, we have a facsimile service for handling inquiries. With our company-wide “Hello System,” applications and inquiries are relayed from the “Customer Centers” to the relevant Osaka Gas division to ensure that customers always get a prompt and appropriate response.

For the sake of greater customer convenience, we have been offering toll-free numbers and a phone service even on Sundays and holidays to take gas appliance repair requests 24 hours a day. In April 2020, we launched a new service whereby artificial intelligence (AI) automatically responds by voice to phone calls made by customers to arrange a schedule change for gas equipment inspection, using the Voice Digital Transformation (DX) Consulting Model* provided by NTT Communications Corporation.

Aiming to further improve service in additional ways, we will optimize the assignment of Customer Center operators and introduce an automated attendant system to ensure that phone calls can be answered at all hours. We will also continue our efforts to further enhance our system for accepting requests, applications, etc. online.

*The Voice Digital Transformation (DX) Consulting Model is a solution that automates the entire process, from response at the contact center to clerical processing, by combining an interactive AI engine and application programming interface (API; a system for sharing the functions of software)

■ Hello Network of Osaka Gas



Efforts to Improve Customer Satisfaction in Each Duty that Directly Deals with Customers

Opening of gas lines

For the opening of gas lines, we first receive an application from a customer when starting a new gas service and then visit the customer on the desired date and time. In the presence of the customer, we perform work such as checking for gas leaks and the safety of gas appliances so that gas services can be used without worry. We accept applications by phone at Osaka Gas's customer center or on our website. In response to feedback from customers who have moved into new homes where they do not know how to use the installed gas appliances, we provide explanations on how to use gas water heaters and stoves. We have received positive feedback from many customers through questionnaires.

Repair of gas appliances

For the repair of gas appliances, we accept requests for repairs 24 hours a day, 365 days a year, and visit our customers' homes to repair their appliances. In addition to accepting requests by phone at Osaka Gas's customer center, we also accept them on our website, where customers can inquire about the details of their problems and receive advice on issues that can be resolved without our visit. In our questionnaires, we have received many comments expressing satisfaction with a quick fix of malfunctions. For this reason, Osaka Gas's service chain partners hold a large inventory of parts of hot water appliances, for which there are particularly many requests for repair, so that we can repair them on the day of our visit. As a result, the satisfaction rate for the number of days from acceptance to completion of repairs reached 98%, indicating that our repair speed is highly evaluated by our customers.

Sales and installation of appliances

For the sales and installation of appliances, Osaka Gas's service chain partners, which operate in approximately 200 locations in the Kansai region, provide community-based services that can respond quickly and meticulously to customer requests. In order to help our customers live safe and comfortable lives through a wide range of operations, our experienced staff members provide various services, including proposals for appliances, quotations, contracts, installation, and after-sales service. We created a video explaining the details of installation work, based on the comments from customers who have signed a contract for purchasing a gas stove regarding advance explanations of the installation work, including "I would feel more secure if I knew the details of the work in advance." We use this video at the time of sale or installation so that customers can see in advance what will be performed on the day of the work, and thus the appliance can be delivered with a greater sense of security.

Regular security patrols

In regular security patrols, inspections of gas facilities for gas leaks and ventilation equipment (gas water heater/gas water boiler) are conducted at least once every four years* in accordance with the Gas Business Act to ensure safe and secure use of gas. The work on the day of the inspection is carried out by workers who have received appropriate technical training. In addition to the inspection items stipulated by law, we have set items for voluntary work, such as checking the ignition of some gas appliances and measuring the carbon monoxide concentration in the exhaust gas, in an effort to call attention to the safe use of gas. Additionally, as we require the customer's cooperation during the inspection, we mail a notice of the visit date in advance, and if the date is not convenient for the customer, we accept requests to change the visit date. In addition to applying by phone, we also make it possible to apply online in an effort to reduce the burden on our customers.

*Patrols are conducted at least once a year for specific underground malls and specific underground rooms.

Proposing New Value

“Sumikata Services”: A range of home repair and other services to support comfortable, safe living

Osaka Gas provides a wide range of services under the umbrella of “Sumikata Services” for residential customers, which extend beyond gas and electricity, to support the comfort and safety of people’s home living environments.

Sumikata Services include plumbing repair, air conditioning repair, home repair, house cleaning, and other services as part of “Kaketsuke Service,” which involves the dispatch of personnel to the customer’s home. Other services include disaster-management and crime-prevention services covering gas alarms, fire alarms, home security, and more. For example, personnel from the Osaka Gas service chain, with expertise gained through the repair of gas equipment, quickly accept and respond to service requests to repair water-related problems in the kitchen, bath, sink area, or toilet.

In June 2020, we started providing services, such as housekeeping and garden tree care, in collaboration with Duskin Co., Ltd., and from October the same year, we began the provision of services to respond to trouble with PCs and IoT devices in partnership with Japan PC Service Co., Ltd.

Through Sumikata Services, we respond to a wide range of problems faced by our customers in collaboration with the Osaka Gas service chain and diverse alliance partners. The membership of the services currently exceeds 480,000.

Accuracy in Advertising

Ensuring complete accuracy and honesty in advertising based on the code of conduct

Advertising activities and product labeling are important means for many customers to accurately understand the products and services of Osaka Gas, and they are important factors for customers to make decisions when selecting products and services. Therefore, we strive to provide and display appropriate information about products and services based on “9. Ensuring safety of products and services” in the Daigas Group Code of Business Conduct. Responding to rising popularity and demand among our customers for environmentally friendly products, whenever the degree of energy-saving effects of a product is printed in our catalog, as a rule we ensure the accuracy by double-checking the manufacturer’s claims of the product’s performance data and confirming those numbers internally.

As for the safety of products and services offered by the Daigas Group, we are managing the development and quality control as well as labeling and information disclosure for all Osaka Gas brand products in line with the technological standards stipulated under the Gas Business Act and the Law Concerning the Securing of Safety and the Optimization of Transactions of Liquefied Petroleum Gas and guidelines set by the Japan Industrial Standards (JIS) and the Japan Gas Appliances Inspection Association (JIA), as well as in-house rules.

Introducing energy saving information and a safety guide on our website

The Daigas Group uses various media to provide customers with a wide variety of useful information for daily life regarding energy saving so that they can use energy efficiently. “Kurashi no Hinto Zukan” on the Osaka Gas Website contains a collection of hints regarding measures aimed at promoting energy saving at households and their expected benefits. Users of the website can access the content of a guidebook called “Anshin Guide,” detailing how to use gas safely, which they are to receive from Osaka Gas staffers visiting their homes for gas equipment surveys.

We have set up an online site called “Daigas STUDIO” to deepen people’s knowledge of Osaka Gas and increase their favorability of our company. Users of the service can access the most updated information about the Daigas Group and relevant topics through the website, Facebook and X (Twitter).

In addition, we share information about our low-carbon and decarbonization initiatives, which are of great importance to society, on our website “The Daigas Group’s Challenge to Carbon Neutrality”.



Community

Summary

Why the topic is material	<p>The Daigas Group operates a business that is rooted in and supported by local communities. We believe that our various contributions to local communities will lead to a virtuous cycle, leading to the development of both the Group and society.</p> <p>The Group recognizes that it is important to proactively disclose information, enhance management transparency, and promote co-creation through constructive dialogue with a wide range of stakeholders for the public's better understanding of its corporate activities. We have positioned coexistence with the local community as one of our material issues.</p>
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	Items to be addressed	Specific initiatives	
Co-creation activities with local communities	<ul style="list-style-type: none"> Community building Recommendations to society through research activities Partnerships with social service organizations Contribution to next-generation education Contribution to local communities through sports Corporate volunteering activities under the Small Light Campaign <p>Materiality Coexistence with local community</p>	Policy and promotion system	
		<ul style="list-style-type: none"> Leveraging networks with a wide range of stakeholders, including local governments, schools, and NPOs, to provide knowledge and programs aimed at resolving social issues Promoting sound development of the next generation through the Group's energy and environmental education, disaster prevention, food education, sports menus, etc. 	
		KPIs based on the materiality	FY2023.3 results
		Participation in local governments' activities (i.e. community development planning)	38 cases
		Number of joint efforts with local communities	326 times
		Initiatives undertaken in FY2023.3	
		<ul style="list-style-type: none"> Local contribution activities under the Small Light Campaign and collaboration with neighboring companies and local organizations by employees 	
Activities by public interest incorporated foundations	<ul style="list-style-type: none"> Assisting the elderly <ul style="list-style-type: none"> - The Osaka Gas Group Welfare Foundation Doing our part on the international scene <ul style="list-style-type: none"> - The Osaka Gas Foundation of International Cultural Exchange 	Policy and promotion system	
		<ul style="list-style-type: none"> The Foundation engages in activities to improve and enhance the welfare of the elderly by subsidizing local welfare activities for the elderly and surveys/research conducted by universities and medical institutions and by promoting health to help senior citizens maintain and improve their health. The Foundation continues its activities to grant subsidies in the fields of education, academics, and science and technology in natural gas-producing countries in Southeast Asia and Oceania, with the aim of deepening international mutual understanding between Japan and these countries and contributing to international goodwill. <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> Subsidy projects for welfare activities for the elderly and surveys/research: 62 subsidies for welfare of the elderly (5.24 million yen); 14 subsidies for surveys/research (9.88 million yen) Health promotion projects aimed at helping senior citizens maintain and improve their health: 96 times, 3,514 participants Subsidy projects for universities, students, etc. in Indonesia, Malaysia, and East Timor: Scholarships, grants for experimental research, etc. (21.89 million yen) 	

Co-creation Activities with Local Communities

Principle and Outline

As a corporate group operating in a community-based manner, the Daigas Group believes that its good relationships with local communities is an indispensable foundation for its management. To help local residents better understand our business, we are proactively disclosing information and increasing the transparency of our company operations, as well as communicating with the general public. In addition, we will promote activities that are highly compatible with the Group's management strategy and that can contribute to coexistence with local communities. We have been making proposals for and cooperating in local governments' activities and working on joint efforts and activities with communities to create value in communities by taking full advantage of knowledge and resources which the Group has acquired through its business operations.

Examples of activities

Theme	Examples of activities	
Participation in local governments' activities (i.e. community development planning)	<ul style="list-style-type: none"> ● Support for SDGs promotion activities by local governments through proposals for community building 	<ul style="list-style-type: none"> ● Proposals for/participation in councils, committees, etc. organized by various organizations and local governments
Co-creation with local communities	<ul style="list-style-type: none"> ● Research activities with third parties to create attractive cities <ul style="list-style-type: none"> • Holding the Uemachi-Daichi past and present forum event • Production of Storytellers' Theater 	<ul style="list-style-type: none"> ● Support for activities by elderly people in collaboration with local governments, NPOs, etc.
	<ul style="list-style-type: none"> ● Collaborative activities with NPOs and social entrepreneurs <ul style="list-style-type: none"> • Communication related social issues through NPO for social designing • Supporting NPOs through Osaka Gas member's club 	<ul style="list-style-type: none"> ● Holding social design forums and workshops
	<ul style="list-style-type: none"> ● Holding "Fureai Bazaar," etc. under the "Small Light Campaign" 	<ul style="list-style-type: none"> ● Activities to revitalize communities in collaboration with local governments and third parties <ul style="list-style-type: none"> • Talkin'About and Walkin'About activities • Histoire project
Other activities (next-generation education, consumer support, etc.)	<ul style="list-style-type: none"> ● Environmental communication activities 	<ul style="list-style-type: none"> ● NOBY T&F activities
	<ul style="list-style-type: none"> ● Disaster response education and fire education 	<ul style="list-style-type: none"> ● Research on disaster response and network activities
	<ul style="list-style-type: none"> ● Food education 	<ul style="list-style-type: none"> ● Lectures and presentations at universities
	<ul style="list-style-type: none"> ● Response to consumer groups and consumer centers 	<ul style="list-style-type: none"> ● Community clean-up by sports clubs ● Holding coaching sessions for baseball and track and field, etc.

Social contribution activity costs

FY2023.3: 197 million yen

Community Building

As an energy service provider focusing on businesses closely related to people's day-to-day lives as well as addressing environmental preservation with a great sense of mission, the Daigas Group is working on giving the public greater safety and security by cooperating and making proposals in fields related to daily lives, such as cooperation and proposals for community development that takes into account the local environment and disaster prevention, as well as the health of local residents and other areas of life.

Recommendations to Society through Research Activities

The Research Institute for Culture, Energy and Life (CEL), the in-house research institute of the Daigas Group, was established in 1986 as one of the projects commemorating the 80th anniversary of the founding of Osaka Gas.

We work on research, practice, and recommendations to analyze the social structure and solve problems in society with the aim of creating value in communities ((i) responding to an environment-oriented and recyclable society, (ii) responding to security and mutual assistance in a mature society, and (iii) responding to utilization of the vitality of communities and creation of attractive cities). It also makes good use of them in outside activities undertaken in cooperation with government agencies, business committees and NPOs.

In addition, efforts have been made to disseminate information through media, including the CEL magazine, its website, and SNS. Furthermore, the CEL is taking advantage of a laboratory set up at the Knowledge Capital facility at Grand Front Osaka on the north side of JR Osaka Station for the purpose of studying the attraction of cities. Seminars and study sessions are being held on various themes, such as region/community and super-ageing society.

Partnerships with Social Service Organizations

Local communities face many social issues, and these issues are becoming more advanced and complex. The Daigas Group regards the practitioners of "My Project = Starting to Solve Social Issues by Considering Them as if They Were My Own" as future partners in livening up communities in the Kansai region. The Group disseminates their activities to society and aims to collaborate with various stakeholders.



Produced "Osaka Midotsuji Monogatari" and released it on Youtube.

Collaborative activities with NPOs, etc.

Osaka Gas Network Co., Ltd., which is one of the Daigas Group companies, has been operating the online magazine "My Pro Showcase Kansai" jointly with the NPO Greenz since 2013 to introduce regional projects undertaken by Kansai-based "social designers" and nonprofit organizations. Outside Japan, Osaka Gas USA Corporation (OGUSA), which develops and invests in natural gas and power generation projects, etc. in the U.S., works on social contribution activities, including reforestation projects in public parks.



Efforts to realize an inclusive society

The "Hajimaru-kun Personal Computer Donation Program," being organized by Group member OGIS-RI, based on the idea of helping the environment by encouraging the reuse of PCs, is also a social contribution activity that provides employment support for the disabled to whom recycling operations are outsourced, as well as IT support for donation recipients. Since this program started in 2009, it has donated over 4,533 PCs to social welfare organizations. FY2023.3, the 13th Daigas Group Hajimaru-kun Personal Computer Donation Program donated 190 "Hajimaru-kun PCs" to 150 welfare facilities in six prefectures in the Kansai region, Japan.



PC recycling work at a welfare workshop

Community contribution activities in collaboration with customers

Osaka Gas and Osaka Gas Marketing Co., Ltd. have been working with our customers to consider and support social issues in local communities through the implementation of "Social Design+," a project that supports social design leaders who are striving to solve social issues on the membership-based website "My Osaka Gas," and of the "Let's Do Something Good for Our Planet — Connecting Project," which supports groups that carry out environmental activities.



Contribution to Next-generation Education

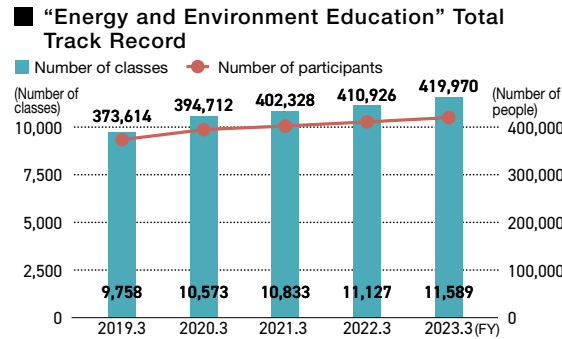
Energy and environment education

Since FY2007.3, the Daigas Group employees and alumni traveled to elementary, junior and senior high schools to teach lessons on energy and the environment in order to help children think about and understand increasingly important environmental issues. The Group's instructors offer two programs, including Eco-Cooking.*

In addition, Osaka Gas runs the Gas Science Museum (located on the premises of the Senboku LNG Terminal) where visitors can learn about energy and the environment. In December 2022, its content was completely renewed to provide the latest information. The museum is also used by the general public for experimental learning programs at nearby elementary and junior high schools or local events.

In FY2023.3, the number of participants in energy and environment education was 9,044, and the number of times it was held was 462.

*Eco-Cooking is a registered trademark of Tokyo Gas Co., Ltd.



Disaster response education

In response to the increased need for disaster response education following the Tohoku earthquake and tsunami of 2011, we created an original textbook for an upper elementary school on the theme of disaster response Lessons in Disaster Response that we distribute to local elementary schools. The textbook teaches children about natural disasters in Japan. While studying it, children take a workshop designed to impart useful knowledge about the changes that take place in people's lives when a disaster strikes. The textbook also contains a checklist of items to prepare and things to do at home to prepare for emergencies. Over a period of nine years, the textbook has been used widely at junior high schools, high schools, and universities, as well as by local governments and local residents' associations. Over 240,000 textbooks in total have been distributed.



Left: Learning material for upper grades of elementary school (A4, 40 pages, full color)
 Right: Teacher handbook (with worksheets and supplementary teaching materials for the class, A4, 40 pages, full color)



"Lessons in Disaster Response," in which children learn in a workshop format how their lives can change during a disaster and useful knowledge for disaster preparedness

Contribution to Local Communities through Sports

NOBY T&F CLUB, a track club led by Nobuharu Asahara, a Daigas Group employee and Beijing Olympics medalist, aims for the sound development of the next generation and creation of a new community through athletics and track and field.

In addition to focusing on fostering top athletes by leveraging the experience and leadership of former Olympians and Japanese national team members for world championships, the club also offers courses aimed at improving the health of seniors.

The training programs that have been held for more than 10 years and the instructional know-how are also used at municipal events or in school classes.

Furthermore, we disseminate information on tips for rich eating habits and body building that lead to good health through seminars, websites, and SNS.



NOBY T&F CLUB training program

Corporate Volunteering Activities under the Small Light Campaign

As a "corporate group that works together with local communities," the Daigas Group has always actively participated in local activities.

The Small Light Campaign was launched in 1981, the UN International Year of Disabled Persons, as a company volunteer effort.

Based on donations made by group employees, we provide support for children in need of social care, employment support for people with disabilities, support for disaster-stricken areas, and support for employees' volunteering activities.

The Midosuji Fureai bazaar, an initiative to support the employment of people with disabilities that was suspended due to the COVID-19 pandemic, was held for the first time in two years in April 2022 under infection control measures. In October of the same year, the "Midosuji Disaster Stricken Area Recovery Assistance Bazaar" was also resumed.



The Midosuji Fureai bazaar held for the first time in two years

Fund management

The Small Light Campaign gathers funds through various activities, including charity calendar donations and proceeds from the Midosuji Fureai bazaar, a used book bazaar, as well as donations from workplace groups, individuals, and the Suzurankai (Osaka Gas alumni) — all managed as the Small Light Fund. The money is used to support the activities of the Small Light Campaign, to support recovery in disaster-hit areas, and to donate items for social welfare or educational purposes, such as wheelchairs and picture books, to all municipalities served by Osaka Gas.



A charity calendar for raising donations from Daigas Group employees, alumni, other relevant parties and customers

The Fund's operating balance for FY2023.3 was 7,600 thousand yen in income and 9,144 thousand yen in expenses, including a special expense for the 40th anniversary of the Fund.

Social contribution activities by employees with the mindset of the Small Light Campaign

Business activities of the Daigas Group are closely tied to the daily lives of everyone in the community. Our employees contribute to local communities as members of the community, or “good corporate citizens.”

In addition to donating blood, collecting unused postcards and used stamps, and donating proceeds from sales of used books, we continue to participate in volunteer activities to support a citizen marathon race aimed at supporting regional revitalization.

The Osaka Gas Tomoshihi Club, which donates welfare points granted to employees by the company to social service organizations, donated a total of 2.344 million yen to seven organizations in FY2023.3, along with the best wishes of the employees.

In FY2023.3, we launched the “Social Contribution Portal Website” to encourage participation in community contribution activities.



The “Social Contribution Portal Website,” an in-house bulletin board that provides employees with information on volunteer activities, etc.



To support the Osaka Marathon 2023, 83 employees participated in the event as volunteers.

Activities by Public Interest Incorporated Foundations

Principle and Outline

In order to further the welfare work that the Daigas Group has conducted as a company volunteer through the “Small Light Campaign,” which was started in 1981 (the UN International Year of Disabled Persons) in a more planned and ongoing manner, 362 companies including Osaka Gas and affiliate companies, the associations comprised of contracted companies providing sales of gas appliances and other services, pipe working joined together in October 1985 to establish and fund the Osaka Gas Group Welfare Foundation in honor of Osaka Gas’ 80th anniversary. The Foundation is involved in subsidizing local welfare activities for the elderly and surveys/research conducted by universities and medical institutions, and in promoting fitness efforts aimed at helping senior citizens maintain and improve their health.

In September 1992, the Osaka Gas International Exchange Foundation was founded and fully funded by Osaka Gas, and in October 2010 the Foundation was granted authorization by the Cabinet Office to transition into a public interest incorporated foundation. The Foundation now works to deepen mutual understanding with natural gas producing countries and to make international contributions through the foundation’s activities.

Assisting the Elderly - The Osaka Gas Group Welfare Foundation

Set up in 1985 through the contribution of Daigas Group companies, the Osaka Gas Group Welfare Foundation operates in six prefectures of the Kansai region, mainly engaging in (1) funding welfare projects, (2) researching and surveying the elderly population and (3) supporting health-promotion projects to help maintain and improve the health of the elderly.

In FY2023.3, the Foundation provided 5.24 million yen in subsidies to 62 welfare projects for the elderly, and 9.88 million yen in subsidies to 14 investigation and research projects, and carried out 96 health-promotion projects involving 3,514 participants.



Health-promotion project: Gathering for health promotion



Subsidy for the welfare of the elderly: Subsidy for farm tools for agricultural workshop courses

Results of each activity (cumulative total from FY1986.3-FY2023.3)

(1) Funding to Enhance the Welfare of the Elderly	3,045 cases	691 million yen
(2) Funding for Research and Surveys	658 cases	440 million yen
(3) Health-promotion project	6,102 times	443,790 participants

Distribution of “Health Seminar for the Elderly” on YouTube

In conjunction with the renewal of our website in FY2022.3, we have created the video content “Health Seminar for the Elderly” and have started distributing it on YouTube.

We will continue to annually distribute content that can be used for health promotion in the elderly.



Video content “Health Seminar for the Elderly”

Stakeholder Comment

Striving to Build a Sense of Community

Ms. Naoko Kitao,

Section Chief, Area Social Welfare and Volunteer Promotion Section,
Kyoto Prefectural Social Welfare Council



I would like to express my great appreciation for the efforts your foundation has made since 1985 to help build a community for an aging society by providing assistance for welfare programs for the elderly, activities for encouraging them to participate in society, and other activities.

As the environment surrounding the community is changing rapidly these days, it is important to catch up with the issues that have emerged and are being faced by local residents, and the cooperation of not only professionals but also local residents and community activists is essential for this.

With COVID-19 being reclassified to Class 5 from May 2023, efforts to create a place to stay and build connections in the community will be resumed, and a community culture that respects diversity more than ever will be fostered. Also, the Social Welfare Council will work to promote community welfare activities with an eye toward a society coexisting with COVID-19.

Organizations in Kyoto Prefecture that have received subsidies from your foundation have been promoting such efforts as exchanges at salons for the elderly, etc., creation of a place to stay for foreign nationals, and cross-cultural exchanges, aiming at creating a community where everyone can live with peace of mind.

Our Council will continue working to achieve its basic principles of the fifth medium-term plan: To create a society where everyone can live with dignity while connecting with others. We sincerely ask for your continued support of these community welfare efforts.

Doing Our Part on the International Scene - The Osaka Gas Foundation of International Cultural Exchange

Deepening friendship and mutual understanding with natural gas-producing countries

The Osaka Gas Foundation of International Cultural Exchange provides aid services to promote mutual understanding with natural gas-producing countries in Southeast Asia and Oceania and contribute to international goodwill.

In FY2023.3, the Foundation provided a total of approximately 14.62 million yen in aid to Indonesia, including grants for educational equipment to elementary and junior high schools, scholarships for 300 students, research grants in the energy and environment fields for three universities, and a short-term training program in Japan for four graduate students. For Malaysia, the Foundation provided a total of approximately 5.22 million yen in subsidies, such as English education assistance, experimental research grants, and scholarships to 12 university students. For East Timor, it provided a total of approximately 2.05 million yen in scholarships to 30 university students.

Marking its 30th anniversary, the Foundation reviewed its aid activities to date, in which it has provided subsidies totaling approximately 590.11 million yen, scholarships to 10,494 people, and grants for 438 research themes. In addition, it held an interview with the Chairman and an online meeting with local students to further explore future directions of its activities.



Graduate students of University of Indonesia visiting the Gas Science Museum during their Japanese language training program



Meeting at the Ministry of Education Malaysia

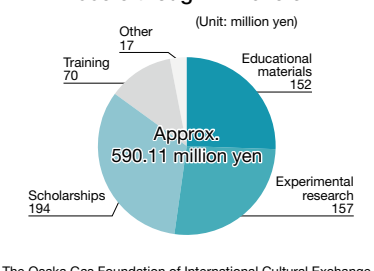


Presentation ceremony at National University of East Timor

Scope of Funding



Total Assistance Provided from FY1993.3 through FY2023.3



Grant Disbursement (single-year base)

(unit: thousand yen)

	FY2018.3	FY2019.3	FY2020.3	FY2021.3	FY2022.3	FY2023.3
Educational materials	2,512	1,878	1,873	1,760	1,973	2,115
Experimental research	5,888	5,401	5,172	5,049	5,332	6,935
Scholarships	8,483	6,558	8,092	7,737	8,512	9,564
Training	4,592	3,212	3,175	371	313	3,281
Total	21,475	17,049	18,311	14,917	16,129	21,895

Governance

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Corporate Governance

Summary

<p>Why the topic is material</p>	<p>For its business activities, the motto of the Daigas Group is to place the highest priority on creating value for customers, and the Group aims to expand it to creating value for society, for shareholders, and for employees. We believe that our social responsibility is fulfilled by creating the four types of value for all these stakeholders through fair and transparent business activities. To appropriately respond to the exercise of shareholder rights and improve our own value, we believe that it is important to have a system for appropriately operating and developing the business based on relationships of trust between its stakeholders and the Group through dialogue and collaboration.</p> <p>The Daigas Group Code of Business Conduct was established as a specific code of conduct to be followed by our officers and employees. We follow the code, viewing it as widely governing common sense corporate behavior based on sound ethics as well as laws and regulations. The Group's officers and employees act appropriately in accordance with the code when performing their duties.</p>					
<p>Corporate governance</p>	<p>Items to be addressed</p> <ul style="list-style-type: none"> • Separation of business execution from supervision • Ensuring diversity (The percentage of women among executives/directors has been adopted as KPIs based on materiality. For detailed information, please see P.21-23.) • Remuneration linked with sustainable growth • Internal control 	<p>Specific initiatives</p> <p>Policy and promotion system</p> <p>Based on corporate principles, we will respond appropriately to the exercise of shareholder rights and strive to maintain and improve trust of stakeholders through dialogue and collaboration with them. We are continually working to enhance and strengthen our corporate governance to respond quickly and accurately to changes in the business environment, make transparent, fair, and decisive decisions, and execute business operations efficiently and appropriately.</p> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Percentage of women among executives/directors: 13.3%/10.0% (Results after the Annual Meeting of Shareholders held in June 2023: Percentage of women among executives/directors: 26.7%/20.0%) 				
<p>Compliance</p>	<ul style="list-style-type: none"> • Predictive data monitoring • Improving compliance awareness • Proper operation of the whistleblowing system • Promoting anti-corruption initiatives <p>Materiality Compliance</p>	<p>Policy and promotion system</p> <p>With a good understanding of the Code of Business Conduct, we act in accordance with the internal rules and regulations. We have established the Compliance/Risk Management Subcommittees under the ESG Committee to improve compliance through efforts such as development of measures and information sharing in a cross-organizational manner.</p> <table border="1" data-bbox="927 959 2056 1054"> <tr> <td data-bbox="927 959 1272 995">KPIs based on materiality</td> <td data-bbox="1272 959 2056 995">FY2023.3 results</td> </tr> <tr> <td data-bbox="927 995 1272 1054">Number of serious violations of laws and regulations</td> <td data-bbox="1272 995 2056 1054">There were no serious violations of laws and regulations in our group.</td> </tr> </table> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Implementation of monitoring • Provision of compliance training • Proper operation of the whistleblowing system • Promoting anti-corruption initiatives 	KPIs based on materiality	FY2023.3 results	Number of serious violations of laws and regulations	There were no serious violations of laws and regulations in our group.
KPIs based on materiality	FY2023.3 results					
Number of serious violations of laws and regulations	There were no serious violations of laws and regulations in our group.					
<p>Information security/ Protection of personal information</p>	<ul style="list-style-type: none"> • Establishment and revision of the Information Security Guidelines • Investigations of and measures for information security at group companies • Strengthening risk management related to information security and protection of personal information 	<p>Policy and promotion system</p> <p>As a business operator responsible for social infrastructure, we recognize the importance of managing customer information and other data. In line with a relevant set of guidelines, we implement information security measures.</p> <p>As an information security promotion system, we have established an Information Security Subcommittee under the Cyber Security Committee, a corporate committee, to implement group-wide measures.</p> <p>We are striving to properly manage and prevent leakage of personal information by establishing a personal information protection system, which comprises managers appointed at each organization and affiliate under the direction of the Chief Privacy Officer.</p> <p>Initiatives undertaken in FY2023.3</p> <ul style="list-style-type: none"> • Maintained and operated the Information Security Guidelines, etc. • Investigations of and measures for information security at group companies • Provision of training on information security and protection of personal information 				

Corporate Governance

Basic Views on Corporate Governance

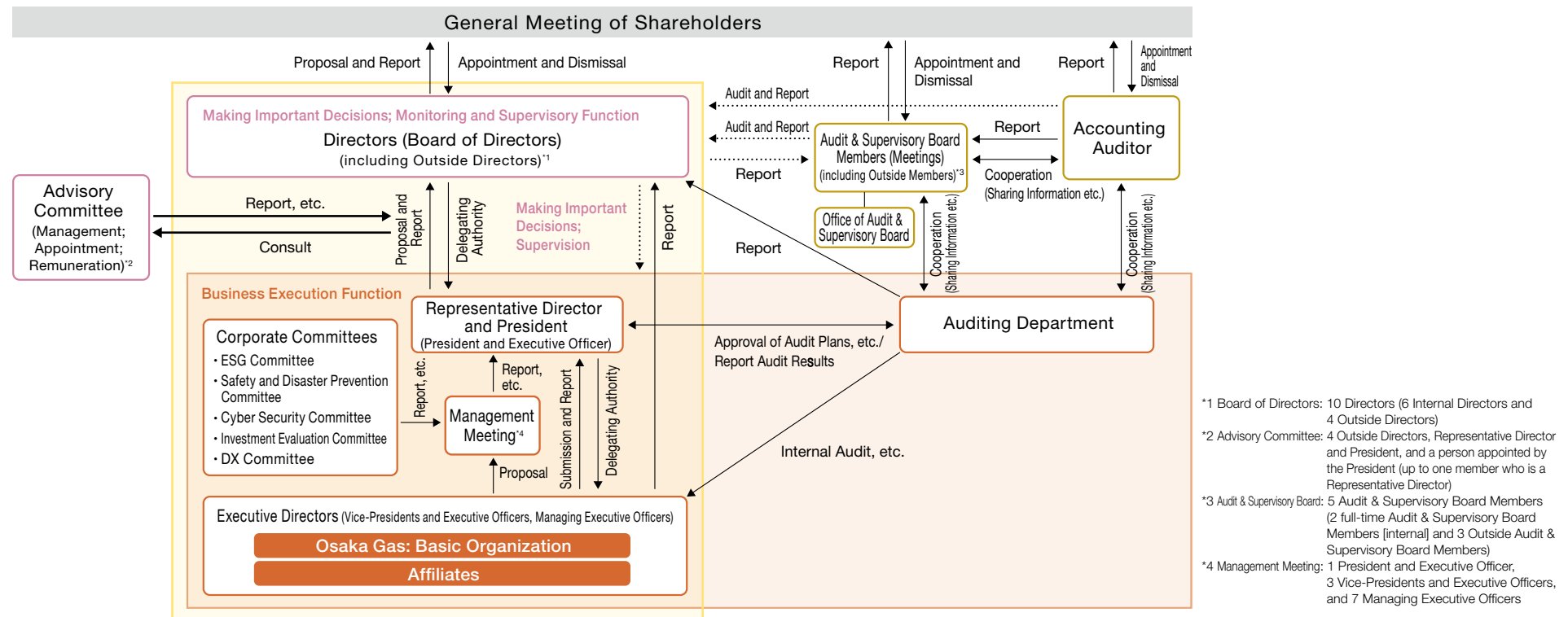
As a corporate group that powers “continuous advancement” in consumer life and business, our Corporate Principles aim to create four types of value: “Value for Customers,” “Value for Society,” “Value for Shareholders” and “Value for Employees” by providing various products and services relating to not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

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

Corporate Governance System

Osaka Gas 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 on management, appointment of Directors and Audit & Supervisory Board Members and Director remuneration. The Company considers its current governance system best suited for the decision-making and business execution described above.

■ Corporate Governance System (as of June 23, 2023)



Overview of Corporate Governance System

Board of Directors, Directors of the Company

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

In FY2023.3, the Board of Directors held 13 meetings, with 100% attendance by all Directors. 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 from executive Directors, etc.

Executive Officers

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

Management Meeting

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

Audit & Supervisory Board, Audit & Supervisory Board Members

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

Auditing Department

The Company has established the Auditing Department as an internal audit division. Based on a yearly auditing plan, it audits, from independent and neutral viewpoints, the status of execution of business activities. Audit results are reported regularly at the Management Meeting and other meetings. In the event that an internal audit identifies a matter that may have a significant impact on management, it is reported to the Board of Directors (dual reporting). The Auditing Department evaluates internal control over financial reporting based on the Financial Instruments and Exchange Act. The Head of the Auditing Department regularly exchanges opinions with Audit & Supervisory Board Members, the accounting auditor, and outside officers (Outside Audit & Supervisory Board Members and Outside Directors).

Advisory Committee

The Advisory Committee consists of all the Outside Directors (four), the President, and, if necessary, a person appointed by the President (the President may appoint up to one person from among the other Representative Directors). From the perspective of corporate value enhancement, ensuring objectivity and transparency in the decision-making process, the Advisory Committee deliberates on matters related to key issues such as medium- to long-term corporate strategy and sustainability, 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. All committees are chaired by Outside Directors (Advisory Committee on Management, Advisory Committee on Appointment, and Advisory Committee on Remuneration).

ESG Committee

The Company has established the ESG Committee to promote activities relating to the Group’s sustainability, including the environment, compliance, social contribution, respect for human rights, and risk management. (Chairman: Head of ESG Promotion/Representative Director and Vice-President)

Safety and Disaster Prevention Committee

In order to take all possible measures to ensure safety, disaster prevention, and gas supply stability after the legal spin-off of the gas pipeline service business, the Company established the Safety and Disaster Prevention Committee to unify the management of events related to safety, disaster prevention, and gas supply stability, and to promote measures against them within the Group. (Chairman: Head of Safety/Managing Executive Officer)

Cyber Security Committee

The Company has established the Cyber Security Committee to reinforce the cyber security measures of the Group. (Chairman: Head of Technology/Representative Director and Vice-President)

Investment Evaluation Committee

The Company has established the Investment Evaluation Committee to examine risk and return and assess investments in excess of a certain amount, and report findings to the Management Meeting to help make appropriate investment decisions. (Chairman: President of the Corporate Planning HQ/ Representative Director and Vice-President)

DX Committee

The Company has established the DX Committee to promote DX for the entire group while coordinating the alignment with business, IT, and financial strategies across the organization. (Chairman: President of the Corporate Planning HQ/ Representative Director and Vice-President)

Views on the Composition of the Board of Directors

From the perspective of contributing to its sustainable growth and improvement of the medium- to long-term corporate value of the Daigas Group, Osaka Gas has adopted a basic policy of appointing diverse talent as Directors and Audit & Supervisory Board Members in full consideration of their knowledge, experiences, ability, personality, etc. regardless of gender, nationality, career, or age, etc. The Group positions the advancement of women as a first step for diversity promotion and has set a target of 20% or more in both the ratio of female officers and female directors by FY2031.3. As of June 2023, the ratio of female officers and directors was 26.7% and 20.0%, respectively.

Moreover, based on medium- and long-term management plans, we have defined the basic qualifications for Internal Directors as having experience and expertise, etc. in corporate management, marketing, technology/R&D, DX, global management, ESG, finance/accounting, legal/risk management, human resources development of the Group including the energy business, and those for Outside Directors as having not only independence that enables objective judgment but also extensive knowledge, wealth of experience, great expertise in their specified field, etc. As such, the Board of Directors as a whole has a well-balanced composition.

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

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

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

Skills Matrix (as of June 23, 2023)

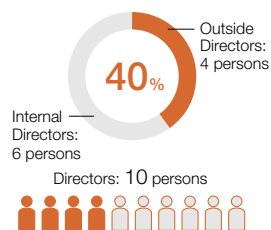
Name	Position	Age	Years in office	Internal/Outside	Independence	Attendance at Board of Directors Meetings	Fields of Significant Expertise and Experience								
							Corporate Management	Marketing	Technology /R&D	DX	Global Management	ESG	Finance/Accounting	Legal/Risk Management	Human Resources Development
Takehiro Honjo	Chairman and Director	69	14	Internal	—	100%	●	●				●	●	●	●
Masataka Fujiwara	Representative Director and President	65	7	Internal	—	100%	●	●	●	●	●	●			
Tadashi Miyagawa	Representative Director	64	7	Internal	—	100%	●		●	●	●	●		●	
Takeshi Matsui	Representative Director	62	6	Internal	—	100%	●			●	●	●	●		●
Takayuki Tasaka	Representative Director	60	5	Internal	—	100%	●	●					●	●	
Fumitoshi Takeguchi	Director	61	2	Internal	—	100%						●	●	●	●
Kazutoshi Muraio	Director	70	4	Outside	○	100%	●			●		●		●	●
Tatsuo Kijima	Director	68	3	Outside	○	100%	●					●		●	●
Yumiko Sato	Director	71	2	Outside	○	100%						●		●	●
Mikiyo Niizeki	Director	55	—	Outside	○	—	●	●					●		●
Hisaichi Yoneyama	Audit & Supervisory Board Member	62	3	Internal	—	100%	●		●		●			●	●
Ichiro Hazama	Audit & Supervisory Board Member	57	—	Internal	—	—		●						●	●
Shigemi Sasaki	Audit & Supervisory Board Member	75	7	Outside	○	100%	●							●	●
Eriko Nashioka	Audit & Supervisory Board Member	56	1	Outside	○	100%	●					●	●		●
Chieko Minami	Audit & Supervisory Board Member	62	—	Outside	○	—	●	●		●					●

■ Independence of Directors

Percentage of Non-executive Directors



Percentage of Independent Outside Directors

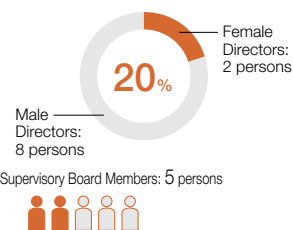


■ Diversity of Directors and Audit & Supervisory Board Members

Percentage of Female Executives



Percentage of Female Directors



■ Corporate Governance Initiatives

		2019	2020	2021	2022	2023
Separation of business execution and supervision	Chairperson of the Board	From 2015: Representative Director and Chairman of the Board		From 2021: Director and Chairman of the Board		
	Execution system	From 2009: adoption of an executive officer system				
	Outside Directors	From 2016: 3 persons		From 2021: 4 persons		
	Outside Audit & Supervisory Board Members	From 2014: 3 persons				
	Voluntary advisory committee	In 2013: established (appointment and remuneration)			In 2022: expanded (management, appointment, and remuneration)	
Diversity	Female officers	From 2014: one person (one Audit & Supervisory Board Member)		From 2021: 2 persons (one Director and one Audit & Supervisory Board Member)		From 2023: 4 persons (2 Directors and 2 Audit & Supervisory Board Members)
	Skills matrix				Since 2021: disclosed	
Linkage between sustainable growth and remuneration	Remuneration system	In 2013: established performance-linked remuneration system			Since 2022: linked remuneration to ESG indicators achievement	
Internal Control	Corporate committee*1	From 2003: Investment Evaluation Committee				
		From 2006: CSR Committee*3	From 2020: ESG Committee			
		From 2019: Cyber Security Committee				
		From 2021: DX Committee				
	From 1996: Executive Safety Council			From 2022: Safety and Disaster Prevention Committee		
	Strengthening risk management (operation of G-RIMS*2)	From 2017: targeting Osaka Gas, domestic and overseas affiliates				
Cross-shareholdings	In 2013: established policies regarding cross-shareholdings*4					

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

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

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




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

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

Advisory Committee

The Advisory Committee consists of all the Outside Directors (four), the President and, if necessary, a person appointed by the President (the President may appoint up to one person from among the other Representative Directors). From the perspective of corporate value enhancement, ensuring objectivity and transparency in the decision-making process, the Advisory Committee deliberates on matters related to key issues such as medium- to long-term corporate strategy and sustainability, 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. All committees are chaired by Outside Directors.

FY2023.3 Results

Name	Composition of each advisory committee and percentage of Outside Directors	Agenda	Issues discussed	Name	Position	Attendance	Attendance rate	Number of the meetings held in FY2023.3	
Advisory Committee on Management	(Management) 67% 	Key issues such as medium- to long-term corporate strategy and sustainability	Prospects and challenges for achieving carbon neutrality, trends in human capital and the Company's personnel measures, etc.	Tatsuo Kijima	Chairperson	Outside Director	2 out of 2 meetings	100%	2 meetings
				Hideo Miyahara*1		Outside Director	2 out of 2 meetings	100%	
				Kazutoshi Muraio		Outside Director	2 out of 2 meetings	100%	
				Yumiko Sato		Outside Director	2 out of 2 meetings	100%	
				Masataka Fujiwara		Representative Director, President and Executive Officer	2 out of 2 meetings	100%	
				Takeshi Matsui		Representative Director, Vice-President and Executive Officer	2 out of 2 meetings	100%	
Advisory Committee on Appointment	(Appointment) 80% 	Matters related to the election of candidates for Directors and Audit & Supervisory Board Members, the selection and dismissal of Representative Directors and other Executive Directors, skills matrix, and succession plan, etc.	Matters to be considered in the selection of candidates for Directors, the election of candidates for Directors, selection and dismissal of Representative Directors and other Executive Directors, skills matrix, etc.	Kazutoshi Muraio	Chairperson	Outside Director	3 out of 3 meetings	100%	3 meetings
				Hideo Miyahara*1		Outside Director	3 out of 3 meetings	100%	
				Tatsuo Kijima		Outside Director	3 out of 3 meetings	100%	
				Yumiko Sato		Outside Director	3 out of 3 meetings	100%	
				Masataka Fujiwara		Representative Director, President and Executive Officer	3 out of 3 meetings	100%	
Advisory Committee on Remuneration	(Remuneration) 67% 	Policy on determining remuneration of Directors, calculation method for the portion linked to business performance of the remuneration, payment coefficient, appropriateness of the remuneration levels, etc.	Policy on determining remuneration of Directors, appropriateness of the remuneration levels, calculation method for the portion linked to business performance, payment coefficient for the portion linked to business performance, etc.	Yumiko Sato	Chairperson	Outside Director	3 out of 3 meetings	100%	3 meetings
				Kazutoshi Muraio		Outside Director	3 out of 3 meetings	100%	
				Hideo Miyahara*1		Outside Director	3 out of 3 meetings	100%	
				Tatsuo Kijima		Outside Director	3 out of 3 meetings	100%	
				Masataka Fujiwara		Representative Director, President and Executive Officer	3 out of 3 meetings	100%	
				Takayuki Tasaka		Representative Director, Vice-President and Executive Officer	1 out of 1 meeting*2	100%	

*1 Retired as of the close of the Company's Annual Meeting of Shareholders held in June 2023.

*2 Deliberations on Directors' remuneration levels, etc. are not subject to attendance.

 Outside Directors  Internal Directors

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

When appointed, the Company provides internal officers an opportunity to acquire knowledge regarding their roles, legal duties to be complied with, and responsibilities expected of 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 the knowledge necessary for the comprehension of legal revisions and other latest world trends. Further, as part of the succession plan for top management, human resources to oversee the Company's management are fostered through such means as the systematic rotation of the areas of responsibility of internal Directors and Executive Officers.

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

Directors and Audit & Supervisory Board Members Remuneration

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*¹ approved at the Annual Meeting of Shareholders, after deliberation at a voluntarily appointed Advisory Committee on remuneration made up of a majority of the Outside Directors, from the perspective of ensuring objectivity and seeking transparency in the decision-making process.*²

The Company has established a policy on determining the remuneration of Directors as prescribed by the resolution of the Board of Directors after deliberation at a voluntarily appointed Advisory Committee made up of a majority of Outside Directors. This policy is summarized as follows.

The system of paying retirement benefits to Directors was abolished in June 2004.

*1 At the 203rd Annual Meeting of Shareholders held on June 25, 2021, it was resolved that the monetary remuneration quota would be up to 57 million yen per month, the stock remuneration quota would be within 72 million yen per year, and the maximum number of shares would be within 48,000 shares per year. The number of Directors at the end of said Annual Meeting of Shareholders was ten.

*2 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.

Outline of Remuneration

Remuneration items	Fixed/variable	Standard composition* ³		Type of remuneration	Outline
		Internal Directors	Outside Directors		
Basic remuneration	Fixed	50%	100%	Monetary remuneration	<ul style="list-style-type: none"> 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.
Performance-linked remuneration	Variable (short-term incentive)	40%	—	Monetary remuneration	<ul style="list-style-type: none"> Monetary remuneration paid on a monthly basis The amount shall be determined using the profit attributable to owners of parent for the past three years and the coefficient of ESG indicators achievement in the previous year as the main indicators <div style="border: 1px solid black; padding: 5px; margin-top: 10px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">Base amount by position</div> × <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">Payment coefficient of performance-linked remuneration (indicator: profit attributable to owners of parent)</div> × <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">ESG indicators achievement (indicator: internal ESG indicators achievement)</div> = <div style="border: 1px solid black; padding: 2px 5px;">Performance-linked remuneration</div> </div>
Stock-based remuneration	Variable (mid- to long-term incentive)	10%	—	Stocks	<ul style="list-style-type: none"> 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. A Director shall not transfer, establish a security interest on, or otherwise dispose of the allotted shares during the period from the date of the allotment of shares to the date of his/her retirement from office. Transfer restrictions shall be lifted on the condition that the resignation of a Director is due to reasons deemed justifiable by the Company or due to the death of the Director. In the event that a Director commits an act of misconduct or falls under other certain events stipulated in the restricted stock allotment agreement, the Company will naturally acquire all or part of the allotted shares without remuneration (malus and clawback provisions).

*3 When performance-linked remuneration targets are fully achieved.

Officer Remuneration System Taking into Account ESG Indicators Achievement

At the Board of Directors meeting held on December 23, 2021, Osaka Gas resolved to reflect the coefficient of ESG indicators achievement in the previous year in officer remuneration to contribute to short-term and mid- to long-term increases in corporate value.

The coefficient of ESG indicators achievement includes the achievement of the following items.

This has been applied from July 2023 onward, when remuneration is paid based on FY2023.3 results.

■ Main ESG Indicators Please see P.20-21 for FY2023.3 results.

Charter of Business Conduct	Materiality	Value for a sustainable future	Indicators	
I Creating value for customers	Maintain and expand customer base	Establishing lifestyles and businesses adjusted to the new normal	Number of customer accounts	
	Improvement of customer satisfaction and quality of services		Customer satisfaction rate	
	Customer health and safety	Enhancing resilience of customers and society	Number of serious accidents	
	Stable supply of services		Build resilient energy supply facilities	
II Contributing to the sustainability of the environment and society	Climate change	Achieving a low-carbon/carbon-neutral society	CO ₂ emissions of Daigas Group	
			Percentage of renewables in our power generation portfolio in Japan	
			Contribution to developing renewables capacity on a global basis	
			Avoided emissions (Baseline: FY2017.3)	
III Engaging with and contributing to society	Coexistence with local community	Building foundations that support the realization of value for a sustainable future	Number of our participations in local governments' activities (i.e. community development planning)	
IV Respecting human rights	Supply chain management		Number of joint efforts with local communities	
			Appropriate new supplier ratio	
V Complying with laws and regulations	Compliance		Number of serious violations of laws and regulations	
VI Providing work environment that supports employees' personal growth	Diversity and Inclusion		Employee engagement	Employee attitude survey (Loyalty Score)
			Development of employee skills	Annual average hours of training per employee
			Diversity and Inclusion	Percentage of female officers/percentage of female Directors
				Percentage of women in members newly promoted to middle management positions
			Percentage of women in new recruits for career-track positions	

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

Term		202nd	203rd	204th
Fiscal year ended		March 31, 2020	March 31, 2021	March 31, 2022
Profit attributable to owners of parent	million yen			
	Plan	55,000	73,000	70,500
	Result	41,788	80,857	130,421

■ Total Amount of Remuneration by Officer Classification and by Type of Remuneration, and Number of Eligible Officers (Fiscal year ended March 31, 2023)

Classification	Total amount of remuneration (million yen)	Total amount of remuneration by type of remuneration (million yen)			Number of payees
		Fixed	Performance-linked	Non-monetary remuneration, etc.	
Directors (excluding Outside Directors)	417	183	187	46	6
Audit & Supervisory Board Members (excluding Outside Members)	69	69	—	—	2
Outside Directors	48	48	—	—	4
Outside Audit & Supervisory Board Members	36	36	—	—	4

Note: The number of persons and amounts include one Outside Audit & Supervisory Board Member who retired as of the close of the Company's 204th Annual Meeting of Shareholders held on June 28, 2022.

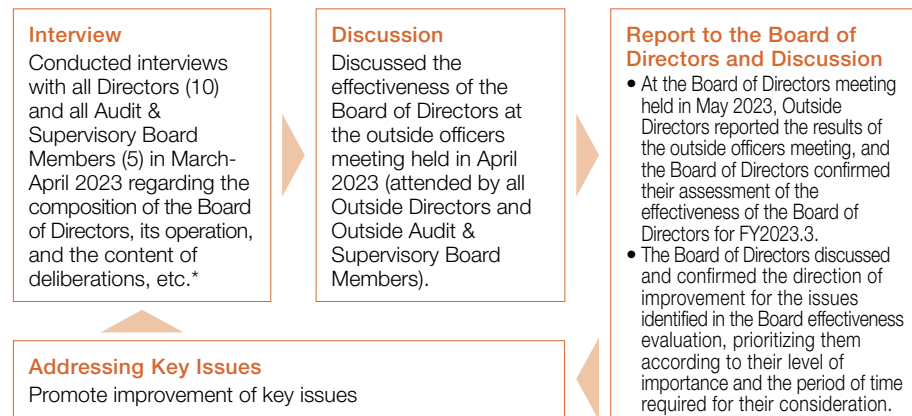
* The total amount of remuneration for each officer is not stated as there is no officer with a total amount of consolidated remuneration of 100 million yen or more.

* There are no employees concurrently serving as officers.

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

The Board of Directors analyzes and evaluates the effectiveness of the Board of Directors and the Advisory Committee each fiscal year based on the results of interviews conducted by the Board of Directors Secretariat with each Director and Audit & Supervisory Board Member. The methods and results of the evaluation of the effectiveness of the Board of Directors for the fiscal year ended March 31, 2023 are summarized below.

1. Method



* Based on the evaluation by an external specialist institution, we have established the interview items for the fiscal year ended March 31, 2023.

2. Interview Items

- ① Initiatives in response to last year's issues
 - Establishment of medium- to long-term themes to examine the direction of the company as a whole
 - Further enhancement of information to judge candidates for Directors
 - Devising ways to deepen discussions at the Board of Directors meetings
- ② Composition of the Board of Directors
 - The ideal structure and composition of the Board of Directors to realize the long-term management vision and medium-term management plan
 - Ensuring diversity (gender, expertise, experience, ability, etc.), etc.
- ③ Operation of the Board of Directors meetings
 - Frequency and time, proceedings, materials
 - Development of appropriate management strategies and plans, the status of response to key issues such as climate change risks and DX, etc.
- ④ Advisory Committee
 - Frequency of meetings, content of deliberations, method of operation, topics to be discussed, etc.
- ⑤ Outside officers' meetings and others
 - Theme, exchanging opinions for the purpose of developing management, etc.
- ⑥ Free opinion

3. Evaluation Results

<Major issues>

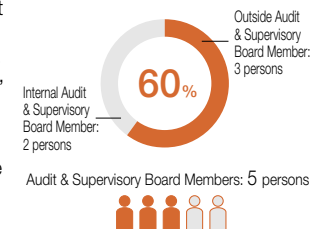
- Board operations that devote more time to discussion
- Expansion of Advisory Committee on Management
- Expansion of opportunities to exchange views with internal officers
- Cultivate internal officer candidates from a medium- to long-term perspective (especially women and highly specialized personnel)

Audit & Supervisory Board, Audit & Supervisory Board Members

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

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

Percentage of Outside Audit & Supervisory Board Members



Main Activities of Audit & Supervisory Board Members

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

The Audit & Supervisory Board reports on the implementation status of the audit, shares information, and conducts necessary deliberations and resolutions. 14 Audit & Supervisory Board meetings were held in FY2023.3. The main resolutions of the Audit & Supervisory Board meetings are as follows.

Main Resolutions at the Audit & Supervisory Board Meetings

<ul style="list-style-type: none"> • Audit plans by Audit & Supervisory Board Members • Report on audits by the Audit & Supervisory Board 	<ul style="list-style-type: none"> • Approval of proposal for election of Audit & Supervisory Board Members • Selection of full-time Audit & Supervisory Board Members 	<ul style="list-style-type: none"> • Assignment of duties of each Audit & Supervisory Board Member • Evaluation and reappointment/non-reappointment of the accounting auditor • Approval of remuneration for the accounting auditor
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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 was abolished in June 2004.

Risk Management

Basic Approach and Policy

As the social and economic environment is changing drastically, with the increasingly unstable international situation, exchange rate fluctuations and inflation, the importance of energy security is rapidly growing, along with the further acceleration of decarbonization. In such an environment, the Daigas Group, which operates a various types of businesses in various regions, recognizes that risks listed on P.118 may have an impact on its business performance and financial position. We are working on each measure under the risk management promotion system, and the ESG Committee, the Safety and Disaster Prevention Committee, and other corporate committees are implementing plans and following up on progress.

Matters concerning the future as stated are based on the Group’s judgment and assumptions as of the end of FY2023.3.

Promotion System

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 self-assessment of risk management practices.

Periodic Reviews and Monitoring

Operating our own self-assessment system G-RIMS

The Group introduced the “G-RIMS,” a system for risk management in routine business operations, in 2006. The manager of each organization and affiliated company checks if preventive measures have been implemented or if 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.

■ G-RIMS (Gas Group Risk Management System) Checklist

<p>1. Management environment</p> <ul style="list-style-type: none"> Dissemination of corporate principles Decision-making and follow-up process Poor maintenance of regulations Failure to report business information that should be reported Effectiveness of self-audits <p>2. Human rights, harassment</p> <ul style="list-style-type: none"> Violation of human rights (workers, local residents, consumers, etc.) Harassment (sexual harassment, maternity harassment, power harassment) <p>3. Personnel affairs, labor affairs</p> <ul style="list-style-type: none"> Inappropriate labor management and incompliance with labor-related laws and regulations Inappropriate employment contracts with non-regular employees Securing human resources Developing human resources <p>4. Accident prevention, workplace safety</p> <ul style="list-style-type: none"> Slack conduct regarding accident prevention and workplace safety Vehicles for business use 	<p>5. Response to relevant laws</p> <ul style="list-style-type: none"> Violation of applicable laws and regulations <p>6. Illegal transactions</p> <ul style="list-style-type: none"> Violation of the antitrust act Violation of the subcontract act Violation of the labeling act <p>7. Inappropriate relationships</p> <ul style="list-style-type: none"> Cozy relationships, bribery, etc. with public servants; cozy relationships with clients and suppliers <p>8. Anti-social forces</p> <ul style="list-style-type: none"> Refusal to have a relationship with anti-social forces <p>9. Insider trading</p> <ul style="list-style-type: none"> Practice of insider trading, provision of insider information <p>10. Public funds (subsidies, etc.)</p> <ul style="list-style-type: none"> Illegal receipt of public funds (subsidies, etc.) <p>11. Management of seals</p> <ul style="list-style-type: none"> Illegal use of seals <p>12. Purchase, expense-related spending</p> <ul style="list-style-type: none"> Inappropriate procedures and illegal practices concerning purchase and expense-related spending (accounting spending) <p>13. Illegal practices concerning money transfer</p>	<ul style="list-style-type: none"> Illegal use of bank accounts Embezzlement of cash Embezzlement of sales proceeds Illegal spending The same person taking a spending-related post for a long time <p>14. Accounting, tax-related procedures</p> <ul style="list-style-type: none"> Errors, illegal practices, and delays concerning accounting and tax-related procedures <p>15. Credit control, loan control</p> <ul style="list-style-type: none"> Irrecoverable loans, delays in loan collection Acceptance and execution of guaranteed debts <p>16. Scandals involving suppliers</p> <ul style="list-style-type: none"> Compliance problems emerged at corporate clients concerning human rights, labor practices, environment, and corruption <p>17. Whistle-blowing system (Compliance Desk)</p> <ul style="list-style-type: none"> Insufficient dissemination of a whistleblowing system Operational defects of a whistleblowing system <p>18. Environment-related</p> <ul style="list-style-type: none"> Violation of environment-related laws 	<p>19. Products, services</p> <ul style="list-style-type: none"> Quality of products and services (complaints, defects, recall, product liability, consumer protection, etc.) <p>20. Business continuity in emergency</p> <ul style="list-style-type: none"> Suspension or delay of business activities/ operations in an emergency, such as a disaster <p>21. Intellectual property</p> <ul style="list-style-type: none"> Insufficient protection of intellectual property rights owned by Osaka Gas Infringement of intellectual property rights owned by third companies <p>22. Lawsuits</p> <ul style="list-style-type: none"> Legal disputes such as lawsuits <p>23. Information disclosure</p> <ul style="list-style-type: none"> Inappropriate information disclosure procedures and the subsequent erosion of public trust in Osaka Gas <p>24. Information control in general</p> <ul style="list-style-type: none"> Leakage, loss, and illegal use of information <p>25. Computer network related</p> <ul style="list-style-type: none"> (computer networks, business apps related to computer networks, information used via such networks and apps) 	<ul style="list-style-type: none"> Illegal use of information, illegal alteration of information, and information leakage, all arising from the lack of security measures <p>26. Personal information concerning customers and corporate clients (including customer information)</p> <ul style="list-style-type: none"> Leakage, loss, and illegal use of personal information concerning customers <p>27. Personal information concerning employees</p> <ul style="list-style-type: none"> Leakage, loss, and illegal use of personal information concerning employees <p>28. “My Number” system (individual identification number and specified personal information)</p> <ul style="list-style-type: none"> Leakage, loss, and illegal use of “My Number” identification numbers <p>29. Funds, derivatives</p> <ul style="list-style-type: none"> Problematic fund management and fund procurement Problematic fund control Speculative derivative transactions <p>30. Electronic banking</p> <ul style="list-style-type: none"> Illegal and erroneous money transfers using the electronic banking system
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Recognition of and Countermeasures Against Business Risks

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

Risks Related to All Businesses within the Group

Countermeasures against Risks

Changes in economic, financial, and social conditions as well as market contraction	The Group is practicing portfolio management that responds to changes in the business environment by growing each of three segments "Domestic Energy Business," "International Energy Business," and "Life & Business Solutions (LBS) Business."
Occurrence of catastrophic disasters, accidents, or infectious diseases	In preparation for the occurrence of natural disasters, terrorism, accidents, and infectious diseases, we are promoting initiatives including centralized management, intensive inspections, and continuous improvements of facilities, taking out various types of insurance such as disaster insurance, and formulation and review of a "Business Continuity Plan (BCP)" in the event of a catastrophic disaster or accident and an operational plan for responses to outbreaks of infectious diseases, etc. In addition, we are striving to build cooperative relationships in projects in which we participate for safe and stable business operations.
Changes in international rules, politics, laws and regulations, and institutional systems	We are executing our respective businesses in accordance with international rules on environmental, social and governance issues, as well as other domestic and international rules, politics, laws and regulations, and institutional systems.
Changes in foreign exchange rates and borrowing rates	We are working to minimize the impact of changes in foreign exchange rates and borrowing rates through hedging and foreign currency procurement.
Uncollected investments	The Board of Directors makes decisions on various types of investments for growth based on comprehensive management decisions by the Investment Evaluation Committee including projects' economic and risk evaluation.
Climate change and decarbonization	In order to respond to changes in regulations due to climate change issues, changes in social trends toward the realization of a carbon-neutral society in the future, and fluctuations in energy demand, etc., we are promoting initiatives for fuel conversion from coal and heavy oil to natural gas, the introduction of renewable energy and highly efficient products and facilities, and development of technologies and building supply chains related to low-carbon/carbon-neutral transition.
Intensifying competition	In order to increase our market competitiveness in all business segments, we are promoting initiatives to increase added value, reduce raw material costs, develop technologies, etc.
Breakdown or malfunction of critical IT systems, information leaks, and development delays	We are promoting and monitoring security measures, ensuring dissemination and education of information management, building information systems, etc.
Quality issues with products or services	In order to ensure that the products and services we offer are used securely and safely, we are working on thorough quality management and other measures.
Non-compliance with laws and regulations	To raise awareness of compliance, we are promoting initiatives to prevent problems from occurring through ongoing internal training, periodic risk identification, and review, follow-up and improvement of response status, etc.

Individual Risks of Each Business Segment

• Domestic Energy Business

Impact of fluctuations in temperature/water temperature on energy demand	In order to respond to the impact of fluctuations in energy demand, we are expanding sales in peripheral energy fields such as gas appliances and energy services.
Changes in raw fuel costs	We are working to minimize the impact of cash flows through diversifying contract price indices and hedging in the procurement of LNG, and to adjust unit gas prices under the fuel cost adjustment system.
Difficulty in procuring raw fuels	As most of the raw fuels for gas and electricity, such as LNG, are imported from overseas, we are promoting diversified procurement from numerous producers as well as utilizing LNG carriers owned by the Group, aiming to ensure stable and flexible raw fuel procurement.
Changes in electricity procurement costs	We are working to ensure a stable electricity supply by responding to power demand through procurement from procurement contracts with other companies, and from the Japan Electric Power Exchange and other markets, in addition to procurement from our own power source.
Difficulties in gas production/power generation and gas/power supply	In order to maintain safe and stable city gas production/supply and electricity generation/supply, we are carrying out various drills to prepare for emergencies, periodic inspections and upgrading of facilities, and measures to prevent accidents and supply disruptions including earthquake and tsunami countermeasures.
Products such as gas equipment and facility issues	We are striving to ensure a stable supply of products, and promoting the use of safe equipment and related inspection and dissemination.
Intensifying competition in the industry and the resulting increase in choices available to consumers	We are working to provide various added values, aiming to be a company that continues to be the first choice of customers.

• International Energy Business

Changes in the operating environment, such as decreased profitability or project delay or cancellation, resulting from the public policies, implementation of or changes in regulations, deterioration of economic or social conditions, market fluctuation in areas including crude oil prices and gas prices, technical issues, or damage by natural disasters in the countries in which the Group operates	We are promoting risk countermeasures such as proactive business operations and strict evaluation of target projects in the decision-making of investment for growth. In addition, for stable procurement, we are striving to build cooperative relationships that contribute to safe and stable operations in the participating projects.
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• Life & Business Solutions Business

Changes in the operating environment, such as soaring material costs, suspension of material supplies, and worsening economic conditions	We are working on internal growth, investment for growth, and other initiatives based on technologies and knowledge we have cultivated in our energy business.
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Status of Internal Control

Osaka Gas established systems (internal control systems) to ensure that Directors of the Company execute the duties in compliance with the laws and regulations and the Articles of Incorporation and other systems necessary to ensure the properness of the Daigas Group's operations at the Board of Directors. The Company confirms the operating status of the internal control systems periodically by identifying items to confirm for various matters and receiving reports from the organizational heads and other persons concerned. At the meeting of the Board of Directors held on April 26, 2023, it was reported that the internal control systems were operating in a proper manner.

Overview of Operating Status of the Internal Control Systems (FY2023.3)


①Matters concerning compliance, etc.

The ESG Committee promotes initiatives in each sector, including sustainability activities, through the Compliance and Risk Management Subcommittee, Environment Subcommittee, and Social Contribution Subcommittee. With the movement toward decarbonization gaining pace globally in response to the issue of climate change, the Company formulated and announced Energy Transition 2030 (ET2030) in March 2023, integrating an overall roadmap for the transition to low carbon and carbon neutral energy, as well as the Group's specific initiatives and the solutions it can provide for customers. Educational materials, including a guide to the Daigas Group Code of Business Conduct, are posted on the intranet at all times to familiarize Directors and employees of the Group with said Code to promote and ensure its understanding.

The consultation and reporting system has been revised in light of the Partial Amendment of the Whistleblower Protection Act (Act No. 51, 2020), which came into effect in June 2022. Effective April 1, 2022, the number of affiliated companies with whistleblower hotlines was expanded, and measures have been taken to ensure the independence of whistleblowing processes involving management. During FY2023.3, the Company implemented measures to improve the operational quality of whistleblower hotlines at affiliated companies.

On May 10, 2023, CD Energy Direct, Inc. (our stake of 50%) received an order from the Consumer Affairs Agency to suspend its door-to-door sales operations (for six months) based on the Act on Specified Commercial Transactions, for some inappropriate business practices in door-to-door sales by a subcontractor. In order to prevent recurrence, the Company is reviewing its compliance system and strengthening the supervision and education of its contractors.

②Matters concerning risk management, etc.

We are committed to risk management under the promotion system described on  P.117. 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.

With the legal separation of our gas pipeline division, we established a Security and Disaster Prevention Committee on April 1, 2022, to coordinate and promote cross-organizational measures related to safety and disaster prevention within the Group, and are taking all possible measures to ensure safety and disaster prevention after the legal separation. We also implemented internal investigations to confirm the status of measures to block the transfer of information between the Network Company and the Company and its

affiliated companies, which are gas retailers, and the status of information management.

To prepare for emergencies, regulations for disaster countermeasures and business continuity plans are prepared. We carry out company-wide disaster-prevention drills, which consist of earthquake drills and BCP exercises. During FY2023.3, in addition to drills assuming disasters occurred amid an epidemic, we also implemented emergency coordination training and drills, including the use of remote communications, to ensure coordination between the Network Company and gas retailers.

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

③Matters concerning the management of businesses in the Group

The affiliates to be managed by the core non-energy business companies, the gas pipeline business company, the overseas regional headquarters, or the management support organizations are designated and their managerial tasks are monitored by receiving periodic reports and reports on important issues from the affiliates. In addition, day-to-day management of those affiliates is performed by using the G-RIMS and/or conducting audits.

The Company's Auditing Department, which conducts internal audits, implements planned internal audits of the Company's organizations and affiliates and provides follow-up audits after a certain period of time.

④Matters concerning the effectiveness of audits by Audit & Supervisory Board Members

Full-time Audit & Supervisory Board Members have periodic exchanges of opinion with the Director and Chairman, the Representative Director and President and the accounting auditor, in which Outside Audit & Supervisory Board Members also participate as necessary. Partly through the opportunity to exchange opinions with the accounting auditor, Audit & Supervisory Board Members evaluate the qualifications, expertise and independence of the accounting auditor.

Full-time Audit & Supervisory Board Members attend important meetings such as the Management Meeting, the ESG Council, the Investment Evaluation Committee, etc., and read approval documents and other important documents. Through the Board of Directors' resolution on the internal control systems, they also clarify important matters to be reported to Audit & Supervisory Board Members and disseminate information thereof.

Five assistants to Audit & Supervisory Board Members are in place to engage solely in assisting Audit & Supervisory Board Members in the performance of their duties.

Compliance

Principle and Outline

The Daigas Group views compliance not only as adherence to laws and regulations but also as the practice of sensible corporate activities based on sound ethics. The Group believes that ensuring compliance is the most important thing that it can do to gain the trust of customers and society, and it is the basis for continuing its business.

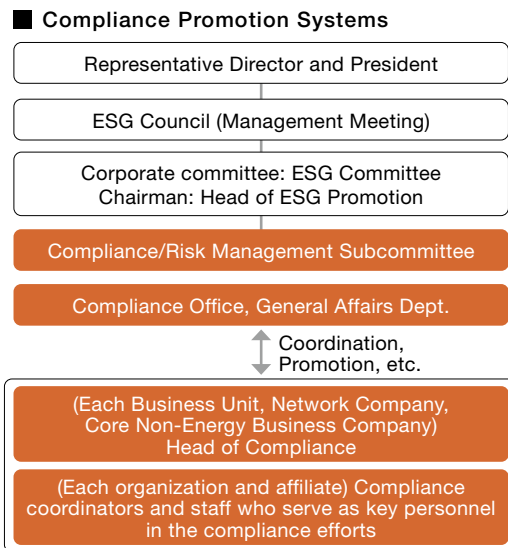
We are providing training and educational activities aimed at raising awareness of the importance of compliance, instilling knowledge, and improving the ability to think ethically to ensure that all officers and employees follow laws/regulations and their consciences, understand the foundations for compliance set forth in the Daigas Group Code of Business Conduct, and act in accordance with in-house regulations and rules.

Furthermore, we have established “Compliance Desks” as a system aimed at quickly identifying cases of violations of laws and regulations, misconduct, etc., and responding quickly and appropriately.

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 a “Harassment Desk” within respective organizations and affiliated companies as contact points for consultations about harassment for employees.

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” at each organization of Osaka Gas and each affiliate, as part of efforts to enhance compliance across the Group as a whole.



Predictive Data Monitoring

The “Predictive Data Monitoring” initiative has been conducted throughout the Daigas Group since FY2012 for the purpose of detecting signs of potential compliance-related problems. This initiative aims to prevent dishonest acts from occurring by detecting unusual changes in the data through regular and continuous monitoring and by taking proactive measures as soon as possible.

In FY2023.3, we monitored 150 items.

Improving Compliance Awareness

Promotion of global compliance in line with overseas business expansion

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

In addition, Osaka Gas overseas affiliated companies have made the English version of the Daigas Group Code of Business Conduct known to all of their employees to raise employee awareness with respect to human rights, work standards, the environment and anticorruption measures.

In FY2023.3, 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 implementation of actions on risks at 20 major overseas subsidiaries. For approximately 40 risk items, we promote implementation of actions on risks by inspecting the status of implementation of initiatives for prevention and early detection of risks.

Internal training and other initiatives

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 we 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 conducted by invited outside instructors, and education arranged by job level for managers and new employees. In addition to the above, each organization/affiliate takes the initiative in conducting compliance training, such as in-workplace discussions on cases related to the Daigas Group Code of Business Conduct.

As a means of checking the degree of compliance penetration among Group employees, we also check the degree of understanding of the Daigas Group Charter of Business Conduct and the Daigas Group Code of Business Conduct (“Code”), as well as the degree to which each employee is aware of the Code when performing his or her daily duties. Furthermore, based on the results of the checking and social trends, we are periodically reviewing the Code.

Furthermore, we provide employees with a variety of compliance-related information through the intranet and other means and undertake educational activities such as soliciting “Compliance Slogans” from employees every year (10,215 submissions were received group-wide in FY2023.3).

Setting compliance as a personnel evaluation item

Osaka Gas has set compliance initiatives as one of the evaluation items in the role expectation evaluation to evaluate the level of conduct demonstrated by employees in their daily activities. This promotes compliance with laws and regulations and ethical standards.

Internal Reporting Systems and Compliance Desks

Established at Osaka Gas’s headquarters, major affiliated companies, outside law firms, etc. as points of contact receiving reports and offering consultation from inside and outside the Group

We have established “Compliance Desks” at Osaka Gas’s headquarters, major affiliated companies and outside law firms representing Osaka Gas as points of contact to receive reports and offer consultation regarding the observance of laws and in-house rules in the Daigas Group. Not only executives, regular employees and temporary employees of the Group but also executives and employees of business partners that continually provide products and services to group companies can seek advice or give reports by phone or email, or through other means. The Compliance Desks can also be used anonymously.

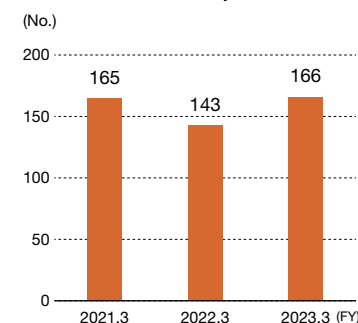
In FY2023.3, a total of 166 requests for consultation and reports were received. For these cases, after considering the necessity of fact-finding investigations, we conducted interviews, verified the evidence, and took corrective and recurrence-prevention measures as necessary. As a result, no serious violations of laws and regulations were found.

If the Compliance Desk receives a report of a violation of laws and regulations, we will take corrective action if the results of the investigation indicate that there has been a violation.

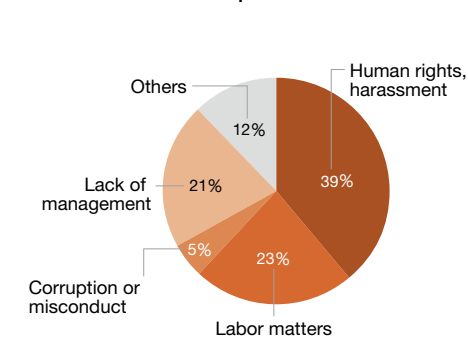
Even in cases where there is no violation of laws and regulations, we will make improvements as necessary to maintain and improve a healthy work environment.

We report on and share the description of the reports received, investigation results, corrective measures, etc. at the Compliance/Risk Management Subcommittee, the ESG Committee and other meetings to prevent recurrence.

■ Number of Requests for Consultation/Reports



■ Breakdown of Reported Cases



Protection of informants

We handle requests for consultation/reports received by the Compliance Desks and conduct investigation, etc. regarding them in accordance with the Rules for the systems of consultation and reporting on legal compliance, which clearly specify the confidentiality of the names of informants and persons being reported and other information and the prohibition of prejudicial treatment of informants.

We report on and share the description of the reports received, investigation results, corrective measures, etc. at the Compliance/Risk Management Subcommittee, the ESG Committee and other meetings to prevent recurrence.

System of Compliance Desks



Initiatives for proper operation of the internal reporting system

Requests for consultation regarding compliance violations, including harassment, may be received not only by the Compliance Desks but also by the department in charge of general affairs in each organization. In order for each organization to be able to properly respond to such requests, training sessions are held for newly appointed compliance coordinators and staff, etc. to learn how to respond when receiving requests for consultation.

Tax Compliance

Fundamental concept

In the Daigas Group's business operations, we follow the Daigas Group Code of Business Conduct, comply with laws and regulations, and act sensibly based on sound ethical standards. We understand that appropriate tax payments are part of our corporate social responsibility, and we comply with the tax laws and regulations of each country we operate in performing tax procedures.

Tax risk management

We have established processes to promote correct recognition of tax risks and appropriate responses to the risks. We also seek advice from tax experts as necessary to maintain and improve tax compliance.

Building relationships of trust with tax authorities

We strive to build and maintain a relationship of trust with tax authorities through timely tax filing and payment, and appropriate information disclosure.

Anti-Corruption Initiatives

Anti-corruption

In the Daigas Group Code of Business Conduct, which sets forth the standards of conduct that all officers and employees of the Daigas Group must follow to ensure compliance management, the prevention of bribery and corruption is described in "Complying with antimonopoly laws and regulations, and conducting fair transactions" and "Building and maintaining sound relationships with business partners," which stipulate compliance with laws and ordinances concerning corruption prevention, including the National Public Service Ethics Act and the Unfair Competition Prevention Act, and prohibition of bribes to foreign public servants.

Furthermore, we have taken priority measures for business segments, bases and business activities that pose a high risk of bribery, and we are working to ensure that these measures are properly implemented.

In our G-RIMS system for managing risks related to daily business activities, we conduct periodic inspections and monitoring of suppliers in our supply chain to ensure that there are no compliance issues in human rights, labor, environment, anti-corruption and other areas.

Please see [P.117](#) for more information on G-RIMS.

Employee training on anti-corruption

The Daigas Group has compiled the Daigas Group Code of Business Conduct ("Code") into a booklet and portable card, which are distributed and posted on the intranet to make the Code known to all employees. We strive to promote understanding of the Code by posting the Explanation of the Code of Business Conduct on the intranet and through training and other programs. We also provide training on the topic of anti-corruption, in which participants have group discussions on specific cases to examine what measures should have been taken by the organization and individuals and how to respond to cases of corruption when they occur, in an effort to prevent corruption.

Furthermore, we have compiled and posted on the intranet the bribery regulations of countries with which we have a close relationship, as well as commentary on A Resource Guide to the U.S. Foreign Corrupt Practices Act when it was revised in 2020, in an effort to respond to the strengthening of laws and regulations against bribery and corrupt practices worldwide.

Information Security

Principle and Outline

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, the Daigas Group recognizes the importance of managing customer information and other data. The Cybersecurity Committee is chaired by the Head of Technology (Representative Director and Executive Vice-President), who oversees the Group's information security and other technology-related activities, and consists of the heads of related organizations and other members. The Cybersecurity Committee meets twice a year to formulate medium- to long-term security strategies, coordinate and promote cross-organizational measures to address security risks across the Group, and gives instructions on improvements as necessary. The Committee submits to the Management Meeting deliberation proposals and reports on important agenda items. Under the leadership of its subcommittee called the Information Security Subcommittee, the Committee strives to step up information security measures.

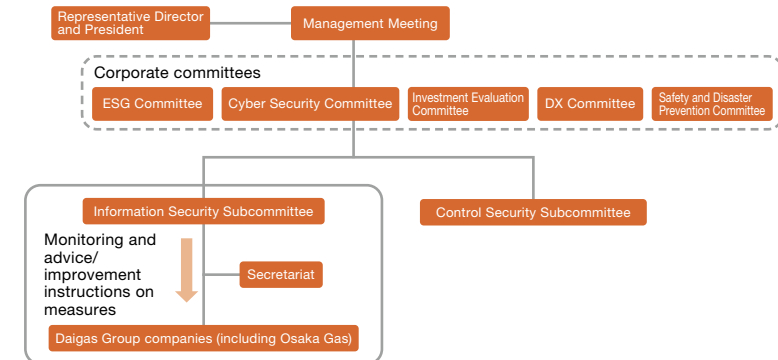
Efforts to Strengthen Information Security

Under the leadership of the Information Security Subcommittee, the Daigas Group has established a system to enhance its overall information security by deploying managers in charge of promoting information security at core companies of the Daigas Group and organizations in charge of supporting the management of Osaka Gas and by deploying staff in charge of promoting information security at other organizations and affiliated companies.

In FY2022.3, we worked to strengthen information security measures through the establishment or revision of the internal rules for the Daigas Group, including the Information Security Guidelines. In addition to the existing content, we added and revised the Information Security Measures Standards based on recent security incidents that occurred inside and outside the company. We have been operating the telework guidelines, guidelines related to smart devices to respond to the expansion of the use of smart devices, and guidelines which compile the requirements that must be observed when using the cloud services, all of which were created in FY2021.3 and have been updated in light of the spread of telework.

Also, we conducted on-site surveys and checkups regarding information security at group companies, formulated improvement plans for each of these companies, and had them implement suitable measures. Education on security was also provided to all Daigas Group employees and employees in charge of IT at each affiliate and organization to improve the information security awareness and skills of each and every employee. To enhance employees' information security awareness and enable them to respond appropriately to security incidents, we conducted simulation training on targeted email attacks, based on actual cases (for about 20,000 employees).

Information Security Promotion System (April 2023)



Moreover, the entire gas industry in Japan is working on security measures in line with the Action Plan on Information Security Measures for Critical Infrastructure, formulated by the National Center of Incident Readiness and Strategy for Cybersecurity (NISC). Osaka Gas, too, is striving to strengthen the measures.

Major information security measures undertaken in FY2023.3

- Maintained and operated the Information Security Guidelines, etc.
- Implemented voluntary information security inspections of affiliated companies
- Implemented training on targeted email attacks (for approx. 20,000 employees)
- Implemented e-learning for employees (for approx. 8,000 employees)

Protection of Personal Information

Principle and Outline

The Daigas Group believes that information is an important asset for a company and should be properly managed to prevent leakage or loss, and it has established a system for the proper use and management of personal information received from customers. Furthermore, we are working to enhance risk management regarding personal information by utilizing our risk self-assessment system, G-RIMS, and to raise employee awareness through e-learning and training programs.

Privacy Policy

In accordance with the Act on the Protection of Personal Information, our Rules for Personal Information Protection, and other related regulations, Osaka Gas has established a privacy policy regarding the handling of information on its customers, shareholders and other parties and posted it on its official website. Based on this policy, we strive to properly protect information on our customers, shareholders, and other parties. In addition, we handle personal information on our employees, etc. in the same manner as customer information. We are making the privacy policy regarding personal information of our employees, etc. known through the internal portal site and striving to properly protect the personal information on our employees, etc.



Protection of Personal Information

Establishing a personal information protection system that includes subcontractors in its scope

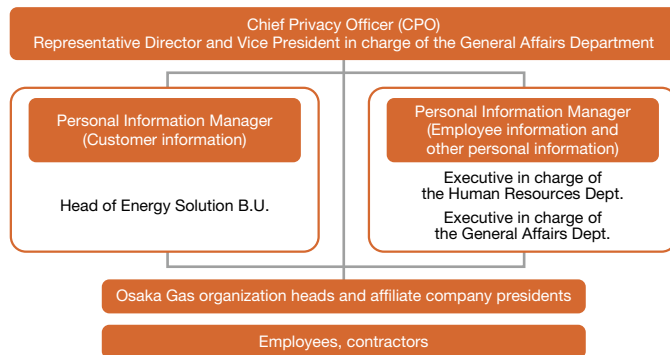
The Daigas Group, which handles a large amount of personal information, has established rules and implemented various security control measures to protect such information. We are striving to properly manage and prevent leakage of personal information by establishing a personal information protection system that includes subcontractors in its scope, in which the Representative director and Vice President responsible for the General Affairs Department serves as the Chief Privacy Officer (CPO) and managers are assigned to the Business Units, the Human Resources Department and affiliated companies.

Strengthening risk management through training and e-learning programs

Every year, the Daigas Group strengthens risk management regarding personal information by utilizing its risk self-assessment system, G-RIMS, and addresses personal information protection as an important theme in compliance training and other educational programs to raise employee awareness. Furthermore, all employees and temporary employees who have access to computers provided by the Group are required to take e-learning courses on information security, which consists of basics and case studies. In FY2023.3, in light of the revision of the Act on the Protection of Personal Information, we increased opportunities for employees to deepen their understanding of personal information protection by providing e-learning programs to learn about personal information protection based on the content of the revised act and case studies.

Information security e-learning session participants in FY2023.3: Approx. 6,100 employees

Personal Information Protection System



ESG Data

See the files below for data on initiatives in the ESG categories covered by the Sustainability Report.



Environmental Performance Data

- Boundary
- Environmental Policies
- ISO 14001 Certification Acquisition Status at the Daigas Group's Manufacturing Sites
- Environmental Action Targets and Indicators
- Environmental Management Efficiency
- Response to Climate Change (Management of Emissions)
- Resource Use/Discharge and Waste



Social Data

- Policies on Social Issues
- Research and Development/Intellectual Property
- Employees (Employment)
- Employees (Human Resource Development)
- Employees (Promotion of Diversity, Work-Life Balance)
- Employees (Health and Safety)
- Customers
- Pipeline length and Power generation facilities
- Contribution to Society



Governance Data

- Governance Policies
- Corporate Governance
- Compliance

Osaka Gas CO., Ltd.

4-1-2, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan
<https://www.daigasgroup.com/en/>

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