



Paintings shown on the cover were drawn by children attending a design and painting class sponsored by "Children Design Education," a nonprofit organization. Children Design Education has been established to support children who have to live separately from their parents for various reasons. The NPO provides them opportunities to produce paintings and design works repeatedly at a design and painting class, envisaging them to develop power to stand on their own in their infancy. Character designs created by the children through the class are sold to business corporations. Proceeds from the sales will be incorporated into a special fund set up to support the children's education in the future.

NPO Children Design Education ▶ <https://c0d0e.com/english/index.html>

# 2020 CSR REPORT



**Osaka Gas Co., Ltd.**

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## Other reporting media

### Website



Outline of corporate group



Investor relations



**Annual Report**  
A report containing  
business descriptions  
and financial reports.





### Daigas Group Management Principle

The Daigas Group Management Principle consists of What the Daigas Group Aims To Be, the Daigas Group Declaration and our Corporate Motto.

The Daigas Group carries out its business activities based on the Daigas Group Management Principle.

#### What the Daigas Group Aims To Be

**Daigas Group powers continuous advancement in consumer and business life**

#### Daigas Group Declaration

**Daigas Group is creating four values**

The Daigas Group is committed to creating value primarily for customers, as well as for society, shareholders, and employees.

#### Corporate Motto

**Service First**

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## Editorial Policy and Selection of Information to Be Reported

The Daigas Group reports material aspects of its CSR and its management scheme as well as associated activities for improvement.

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).

The Daigas Group identified important aspects for the Group's CSR, which we call "materiality," or "material aspect," by referring to the GRI Sustainability Reporting Standards (GRI Standards), a global standard for sustainability report compiled by the Global Reporting Initiative (GRI),

while taking into account the current social issues and continuing dialog with stakeholders and experts in relevant fields.

In this report, the Group explains the management situation regarding each material aspect and the degree of implementation of relevant measures. The Group posts, as much as possible, activities other than those related to the material aspects so that a full picture of the Group's CSR is made known to parties outside and inside the Group.

### Coverage and Materiality

In selecting topics to be covered in the report and prioritizing them, we took into consideration the impact of the Daigas Group's business and their importance to society, chosen by outside experts. What is not covered under this report is posted on the website.

Please refer to the pages on materiality for more information on how those aspects are managed.

### Readability and Ease of Understanding

To ensure that a wide range of readers can understand the information provided in this report, careful consideration is given to visual design, including the text size, use of colors, pictures and diagrams, and explanatory notes are provided for technical terms.

**?** For words with this mark, refer to the terminology list.

Taking readability for people with color vision deficiency into consideration, the colors and designs of this report were examined and certified by the Color Universal Design Organization.

### Reliability

We asked for third-party verification to ensure the reliability of the content and data presented in this CSR report.

The overall report underwent third-party review on assessment and recommendations, including simple audits, a task assigned to the Institute for Environmental Management Accounting (IEMA). The environmental performance data in this report will be reported on our website after third-party verification by Bureau Veritas Japan Co., Ltd.

### Scope of This Report

This report covers the Daigas Group, consisting of Osaka Gas Co., Ltd. and its affiliated companies. Some information, as noted in this report by phrases such as "Osaka Gas" or "the Company," refers exclusively to Osaka Gas Co., Ltd.

Fifty-seven companies\*—out of 156 affiliated companies and consolidated subsidiaries of Osaka Gas—are subject to compilation of environmental performance data. Excluded are companies housed in office buildings as tenants and whose environmental performance data are difficult to grasp and whose environmental effects are minimal. Also excluded are overseas companies.

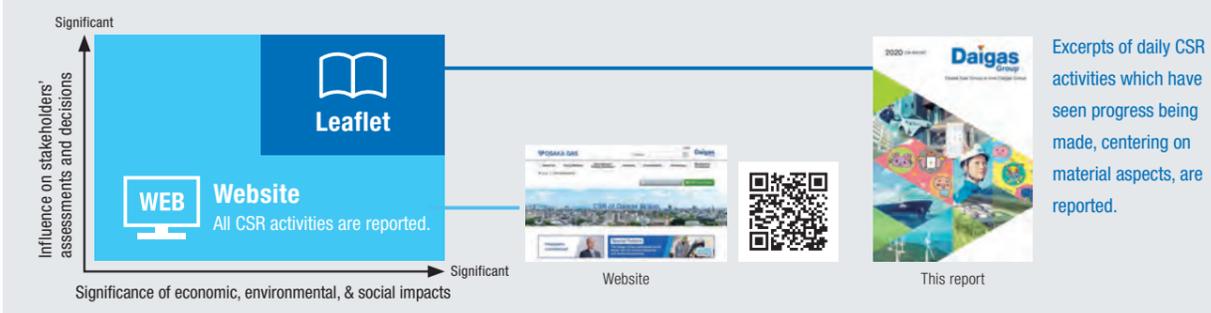
While the most recent data covered in this report represents those for fiscal 2020 (from April 1, 2019 to March 31, 2020), some refer to activities for fiscal 2021.

\* Energy consumption and greenhouse gas emissions were collected from 58 companies including one overseas subsidiary.

### Guidelines referred to

- ISO 26000
  - Sustainability reporting standards of the Global Reporting Initiative (GRI Standards)  
This report contains information corresponding to disclosure requirements of the GRI Sustainability Reporting Standards.
  - Environmental Reporting Guidelines 2018 of the Ministry of the Environment
  - Task Force on Climate-related Financial Disclosures (TCFD)
  - The United Nations Global Compact COP\* Policy
- \* COP... An abbreviation for Communication on Progress, referring to yearly reports that provide information on the status of initiatives targeting the Ten Principles of the United Nations Global Compact. The COP is an important requirement of participation in the United Nations Global Compact.

### Outline of CSR Report



## President's Commitment

Takehiro Honjo  
President of Osaka Gas Co., Ltd.

本庄武宏



## A Year of New Endeavors as We Create a “New Normal” Based on the “Absolute Pursuit of Value Propositions”

### Creating a New Normal with the “Absolute Pursuit of Value Propositions”

Rapid changes are occurring in the environment surrounding the Daigas Group, including instability in international affairs and increasing social demand for decarbonization as part of efforts to combat climate change. Furthermore, the COVID-19 pandemic has even transformed the way we live our daily lives.

In terms of measures to tackle COVID-19 at the Daigas Group, in

accordance with our “Business Continuity Plan (BCP 2.1)” to be implemented in the event of a large-scale disaster or accident, we began countermeasures in late January 2020, before setting up a task force on March 2 and rolling out a cautionary system. Subsequently, following the declaration of a state of emergency by the national government, on April 8, we moved to an emergency system under my

leadership. Under our cautionary and emergency systems, we took measures including promoting working from home, staggered shifts, etc. and reducing and canceling business trips and events, in addition to ensuring thorough compliance with basic measures to prevent infection and halt the spread of the disease, including handwashing and the wearing of masks by employees. As a result, we have not been prevented from continuing our business activities. Furthermore, approximately 80% of our employees were able to work from home during the period when the state of emergency was announced, excluding employees for whom coming to work was necessary to maintain energy supply systems for gas, electricity, etc.

In addition, we also delayed payment deadlines for customers struggling to pay their gas and electricity fees for reasons such as their work being suspended or losing employment as a result of the spread of COVID-19.

We operate an infrastructure business that provides essential services for daily life, and our mission is to provide a stable and appropriate supply of gas and electricity to our customers. Looking ahead, we will take all possible measures to prevent infections as we continue our business operations.

Society cannot ever return to how it was prior to the outbreak of COVID-19. With that in mind, a new movement has begun, called “Build Back Better.” Our approach must not be to restore everything to its original state; instead, we must think in terms of building a new world.

In FY2021.3, our pursuit of value provided to our customers will remain unchanged. At the same time, we will take advantage of this opportunity to reconsider the type of value we offer, how we offer it, and other factors, as we refine specific initiatives from the perspective of creating a “new normal.” We will thoroughly identify what it means to have an active involvement with our customers and society, and promote new endeavors targeting sustainable growth for the future, which will overturn convention and create a “new normal.” Based on these ideas, we settled on the “absolute pursuit of value we provide” as a slogan for our message to our employees.

### Organizational Restructuring for Providing New Value

In order to continue to be the first choice of customers by striving to provide value from a customer perspective more than ever and conducting speedy business operations, our new affiliates, core energy business companies of the Group, commenced their business in April. By consolidating the businesses of Osaka Gas Co., Ltd. and existing affiliates, we will unite the unique strengths possessed by each company and provide one-stop, optimal service to our customers. Additionally, appropriately delegating authority and conducting decision-making closer to our customers will lead to speedy business operations.

In addition, we have established a new message to our

customers, “Better servicing customers in closer communication for a brighter tomorrow,” to coincide with the start of the new structure. The message expresses our resolution to “realize future with our customers by pursuing value we provide right beside the customers.” (Detailed information on the establishment of core companies and organizational restructuring are provided on P5.)

### ESG Management to Solve Social Issues through Our Businesses

In April 2020, in line with our organizational restructuring, we established the ESG Office in our Corporate Strategy Department to take on the mission of the CSR & Environment Department, in order to ensure the steady promotion of ESG management. With this organizational restructuring, we aim to promote “management that will continue to earn the trust of stakeholders” as set forth in the Long-term Management Vision 2030 and achieve ESG management that is more integrated with our business strategy, by assigning functions related to the promotion of ESG to the department responsible for business strategy. In 2007, the Company became the first Japanese utility to express its intention to join the United Nations Global Compact in a show of its support of principles to be respected by companies worldwide. In terms of our contribution to the sustainable development goals (SDGs) also, we are moving forward toward our vision for the future of the Daigas Group through our unceasing business activities.

In FY2021.3, we will take trends related to the strengthening of ESG (environment, social, and corporate governance) and resilience 2.1 as business opportunities, as we expand our range of offerings aimed at finding solutions to social issues, including gas air conditioning systems, cogeneration systems 2.1, and fuel conversions at power generation facilities in factories, and we will also promote further innovation in terms of both digitalization and technological development. We will promote the increased usage of devices and equipment that use the IoT for useful functions for daily life, including the “Tsunagaru de function” to enable users to control their gas devices from outside the home and the residential fuel cell “ENE-FARM type S,” equipped with a “Tsunagaru Switch” that connects the remote control with a dedicated smartphone app.

Additionally, as we look to identify new styles of communication with customers for the “age of Post Covid-19,” we will also utilize the IoT and ICT in our contact with customers.

## Aiming to Provide the Value Needed in a New Age

Going forward, the Daigas Group will continue taking steps to develop our businesses in a sustainable way, incorporating an ESG management perspective in various activities.

In terms of environmental considerations, as we look to achieve our target of reducing CO<sub>2</sub> emissions by a cumulative total of approximately 70 million tons by FY2031.3, we will focus on areas such as developing and introducing devices of higher efficiency, acquiring renewable energy power sources, and developing low-carbonization technology. We have achieved 648 MW in renewable energy sources in Japan and overseas across 26 sites including the projects for which decisions have been made as of March 31, 2020, but we intend to achieve 1 million kW before long by focusing on offshore wind power generation and other energy sources. With regard to technical development, we will promote initiatives related to the utilization of renewable energy, low-carbonization, decarbonization, and the use of hydrogen, namely our experimental study on carbon-neutral methane, as we respond to issues our customers and society as a whole face in regard to climate change and their needs for low-carbonization solutions.

The Daigas Group will promote activities related to social considerations across the entire value chain, including identifying

risks and initiatives related to human rights, appropriate labor practices, etc. At the same time, we will continue making fundamental improvements to our operations through digitalization and promoting workstyle reforms by further utilizing teleworking, etc.

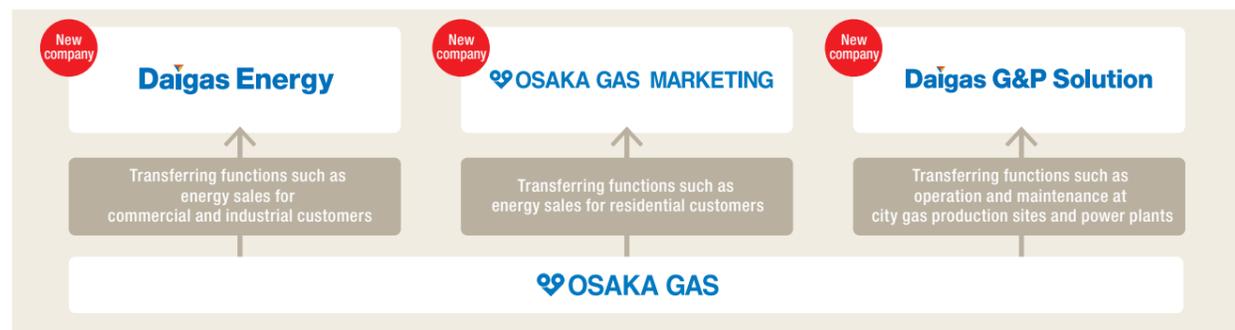
In terms of strengthening corporate governance, we will maintain a sufficient level of information disclosure, while also further ensuring fair business practices, promoting diversity, and strengthening information security are completely implemented across the Group as a whole. Furthermore, in line with our organizational restructuring in April 2020, we changed the composition of the Board of Directors such that Outside Directors comprise no less than one-third of its members, in order to separate execution and supervisory duties, and strengthen both business execution functions and supervisory functions.

(Detailed information on corporate governance is provided on P44.)

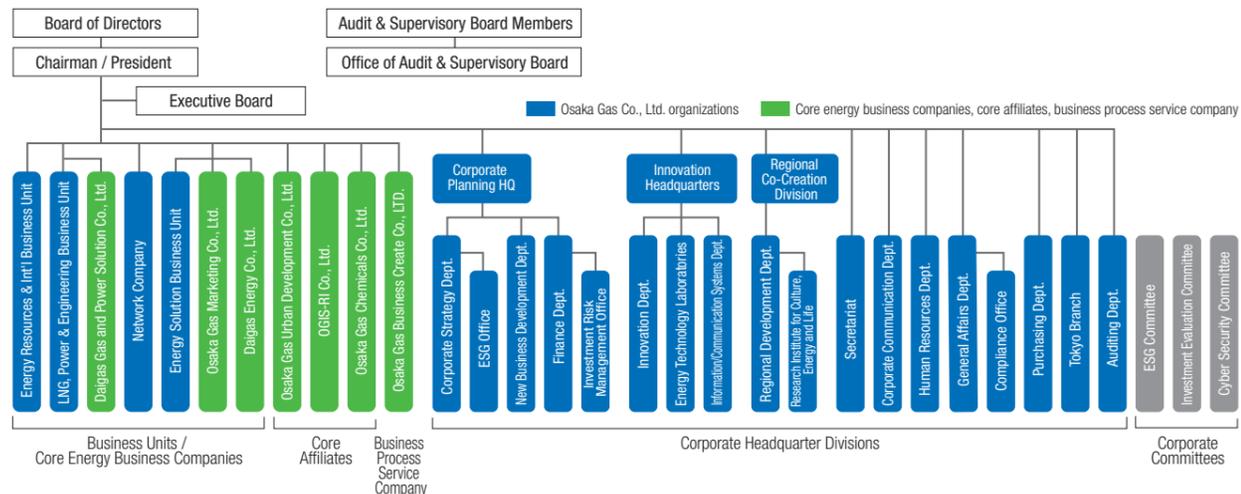
The Daigas Group intends to take full advantage of our total capabilities as a group and the merits of our new structure to further enhance our “value to provide,” without being constrained by fixed ideas, by maintaining a keen awareness of the expectations of our customers and society and taking the time to consider our approach even as we move forward.

### ■ New Structure from April 2020 and Daigas Group's Organization Chart

#### New Structure (Establishment of Core Energy Business Companies)



#### Daigas Group's Organization Chart



# Challenges for Daigas Group's Future

## —Contribution to the Sustainable Development Goals (SDGs)—

Since its founding, the Daigas Group has endeavored to provide useful products and services with the spirit of active involvement with our customers and society. We believe that the technical development capabilities we have cultivated while pursuing this “active involvement” form the basis of the competitive strength of the Daigas Group, and that research and development is one of the most important strategies for differentiating ourselves from other companies.

At the Daigas Group, we believe that we can also contribute to the Sustainable Development Goals (SDGs) through various types of technical development we have promoted in areas such as the advanced use of

natural gas and the utilization of renewable energy, in addition to research and development into new technologies that will enhance convenience for customers and contribute to energy-saving behavior, and the commercialization of these technologies. In this process, the Group conducts efficient and effective research and development leveraging partnership with other companies.

In this special feature, we introduce some of the technologies that are generating new value for the future based on innovation utilizing the technical capabilities the Group has cultivated over many years.

### The Daigas Group is focusing on climate change issues while also contributing to industrial and urban development through sustainable energy creation.



Cumulative amount of reduction of CO<sub>2</sub> emitted between fiscal 2018 and fiscal 2031:  
About 70 million tons



- The Group will pursue an optimal energy mix with priority given to natural gas.
- The Group will raise the proportion of renewable energy sources.



- The Group will strive to establish a resilient energy infrastructure in which high-quality energy can be provided in a stable manner.



- The Group will promote the sustainable utilization of resources.
- The Group will propose a lifestyle focusing on the use of sustainable energy sources and disseminate relevant information to people.



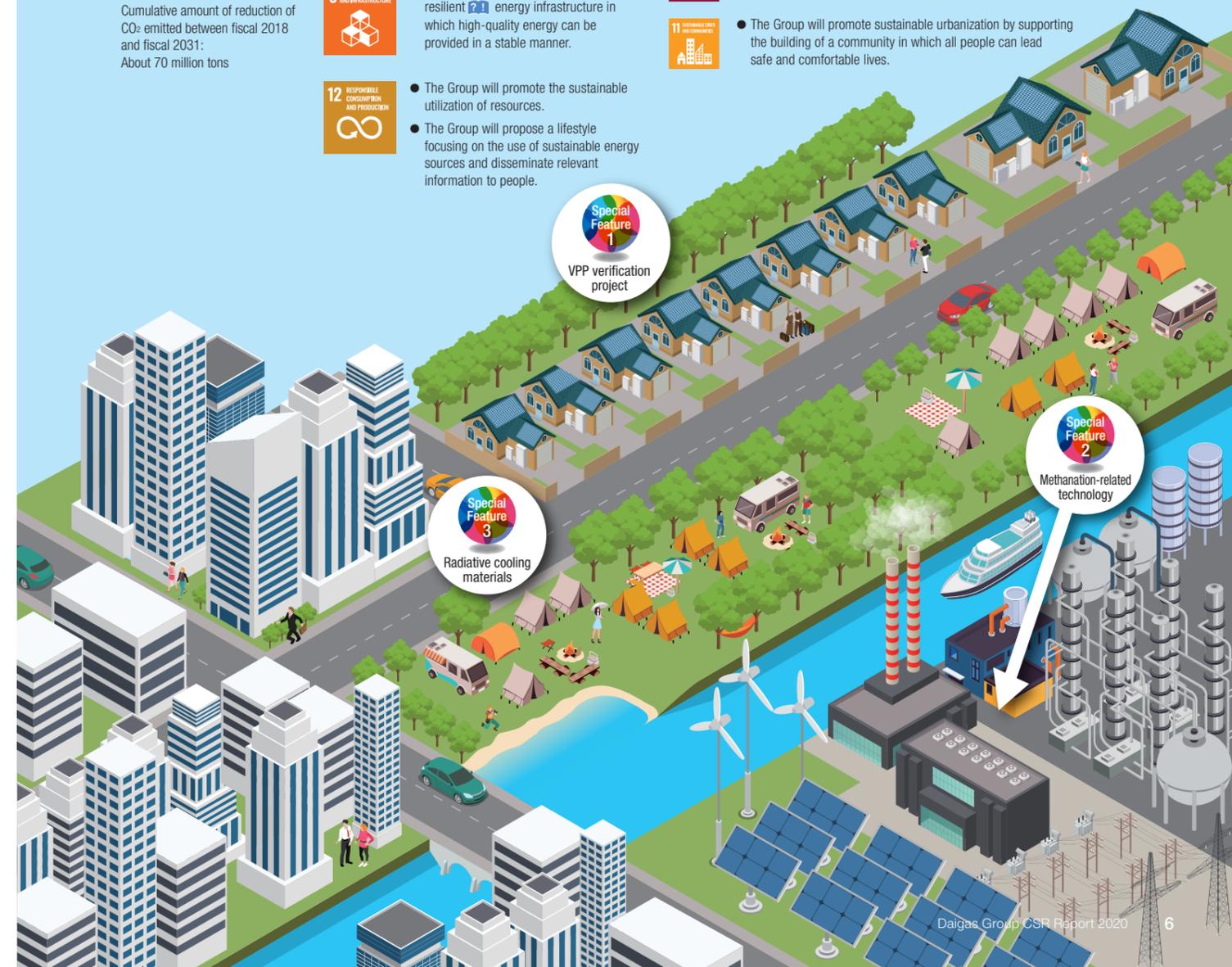
- The Group will strive to establish a work environment in which female employees can display their abilities and play important roles.
- The Group will strive to create rewarding jobs for employees.



- The Group will strive to create new value backed by a variety of services and innovative ideas, with the aim of improving productivity and supporting economic growth.



- The Group will promote sustainable urbanization by supporting the building of a community in which all people can lead safe and comfortable lives.





# Starting a Verification Project to Establish a Virtual Power Plant (VPP) Using a Residential Fuel Cell, "ENE-FARM" —VPP Verification Project Connecting 1,500 Units—

Targets to which the Daigas Group can contribute



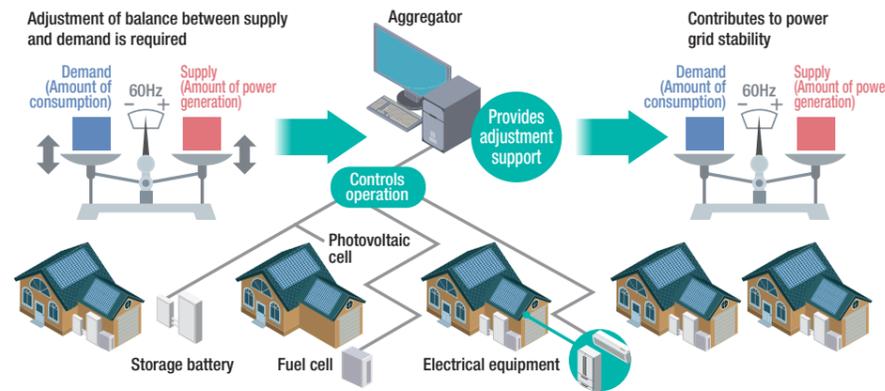
## Technology that Contributes to the SDGs

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

As a result, general electricity transmission and distribution utilities currently maintain frequencies within a certain range, mainly by limiting the output of power stations to match demand.

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

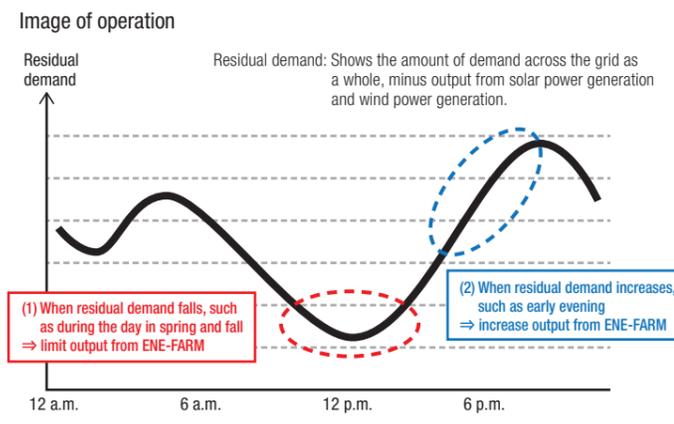
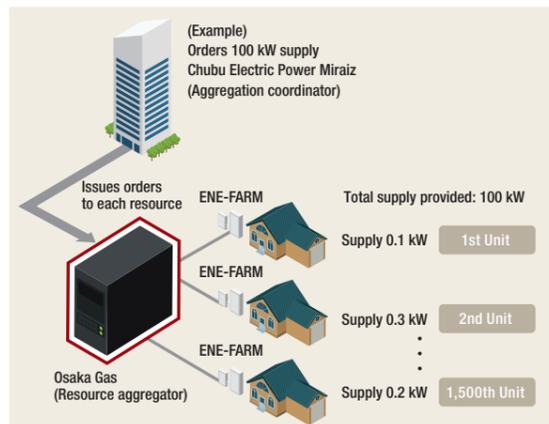
On the other hand, fuel cells characteristically enable free control of the output power, and are attracting attention as a resource that can contribute to adjustment of grid electricity supply and demand in a society in which a large amount of renewable energy is introduced.



## Innovation by the Daigas Group

Osaka Gas is conducting a verification project to build a virtual power plant (VPP)<sup>\*1</sup> by controlling approximately 1,500 units of residential fuel cells, "ENE-FARM type S (equipment sold after April 2018)," installed at customers' homes (the total rated output reaches around 1 MW<sup>\*2</sup>) as energy resources as if they are a single power plant, so as to utilize it for effective adjustment of grid electricity supply and demand. While the aggregation coordinator<sup>\*3</sup> in this verification project is Chubu Electric Power Miraiz Co., Inc., Osaka Gas participates in the project as a resource aggregator<sup>\*4</sup>.

We have installed the IoT function on our products starting at the "ENE-FARM type S"<sup>\*5</sup>, which was released in 2016, and approximately 50,000 units<sup>\*6</sup> are currently connected to the server of Osaka Gas. We will verify that the output power of "ENE-FARM" can be controlled in accordance with the grid supply and demand situation, including the output fluctuation of renewable energy, by utilizing the know-how of remote control technology cultivated through the efforts to realize IoT applications.



\*1 Virtual power plant. It is realized by business operators called "aggregators" using, in a bundle, the adjustment power supplied by distributed power sources  
 \*2 If the rated power output of "ENE-FARM" is estimated to be 700 W, the total rated power output of 1,500 units of "ENE-FARM" will be 1,050 kilowatts = 1 MW.  
 \*3 A business operator who aggregates the electric power controlled by a resource aggregator, and trades electricity directly with general electricity transmission and distribution utilities and electricity retailers  
 \*4 A business operator who controls resources by directly concluding VPP service contracts with customers  
 \*5 A device that directly generates electricity through the chemical reaction between hydrogen and oxygen. It generates electricity continuously for 24 hours according to the amount of electricity used at each house. Meanwhile, the heat generated during power generation can be used for hot water supply and storage in a tank.  
 \*6 As of May 31, 2020



# Contributing to the Development of Methanation Technologies for Low-Carbonization and Decarbonization of City Gas Materials

Targets to which the Daigas Group can contribute



## Technology that Contributes to the SDGs

In the city gas industry, we are focusing on technical innovation related to methanation, as part of our endeavors targeting the low-carbonization and decarbonization of city gas materials.

Methanation technology is a carbon recycling technology that uses hydrogen and CO<sub>2</sub> as the raw materials to generate methane, a primary component of city gas. By using the methane generated with this technology as a primary component of city gas, we can utilize the existing city gas infrastructure and equipment on the consumer side, enabling us to decarbonize city gas itself while reducing the social cost. Therefore, this technology is expected to contribute to the reduction of greenhouse gas (GHG) emissions.

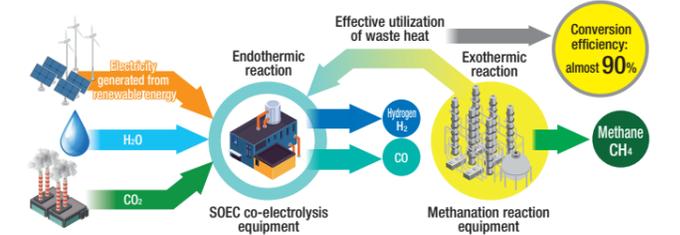
## Innovation by the Daigas Group

Osaka Gas will work with the Japan Gas Association to contribute to the development of methanation. As one aspect of these efforts, the "SOEC co-electrolysis and methanation reaction technology" was selected as a project for "pioneering research into technologies for the effective utilization of CO<sub>2</sub> (direct resolution of CO<sub>2</sub>)" by the New Energy and Industrial Technology Development Organization (NEDO), a national research and development agency (FY2020-2021). Thus, we are engaging in basic research together with the National Institute of Advanced Industrial Science and Technology, a national

research and development agency. Here, we are using a technology called SOEC<sup>\*1</sup> to generate hydrogen and CO through electrolysis (co-electrolysis<sup>\*2</sup>) of CO<sub>2</sub> and steam with power from renewable energy, etc. We then synthesize methane with a methanation reaction.<sup>\*3</sup> This technology is characterized by its extremely high energy conversion efficiency because the power required for the co-electrolysis is reduced by effectively utilizing the heat, etc. generated from the methanation reaction.

At present, we are still at the basic research stage, but we are continuing our efforts in this area with the aim of decarbonizing city gas materials in the future, utilizing the core technical expertise developed by the Company in relation to fuel cells and catalysts.

\*1 Solid Oxide Electrolysis Cell: A device with the opposite function to an SOFC (Solid Oxide Fuel Cell).  
 \*2 Co-electrolysis reaction formula: CO<sub>2</sub> + 3H<sub>2</sub>O (+ electric power) → CO + 3H<sub>2</sub> (+ 2O<sub>2</sub>) (endothermic reaction)  
 \*3 Methanation reaction formula: CO + 3H<sub>2</sub> → CH<sub>4</sub> + H<sub>2</sub>O (exothermic reaction)



# Developing Radiative Cooling Materials that Enable Zero-Energy Cooling During the Day

Targets to which the Daigas Group can contribute



## Technology that Contributes to the SDGs

Radiative cooling materials are expected to contribute to saving energy and preventing global warming because they reduce the internal air-conditioning load when used on the exterior walls of buildings, car bodies, etc.

## Innovation by the Daigas Group

"Radiative cooling" refers to the cooling effect when heat on earth is released into space as a kind of light called thermal radiation.\* This effect is well known as the reason temperature falls at night, but in fact, it also occurs during the day. During the day, however, the temperature of metal and concrete rises above the ambient temperature because the heat energy input from sunlight is greater than the energy radiated through thermal radiation. Traditional methods of combating heat generally relied on the use of materials to block light, paints that reflect solar radiation, etc., but



although these methods limited the increase in temperature by blocking light and reflecting sunlight, the materials themselves absorbed heat and became warmer than the ambient temperature. At Osaka Gas, we focused on the fact that the temperature of a material will be cooler than surrounding temperatures if the energy radiated is greater than the heat energy input. As a result, we succeeded in developing radiative cooling materials that utilize our expertise in optical and thermal radiation controls. It has been confirmed that the temperature of these materials falls to 2-6°C lower than the ambient temperature, even under direct sunlight. Going forward, we intend to test the durability and other aspects of these materials.

\* Thermal radiation: A phenomenon whereby heat from a heated substance is released as electromagnetic waves (light).



# Processes Aimed at Achieving a Sustainable Society

In March 2017, the Daigas Group formulated a new Long-term Management Vision for FY2031 and the Medium-term Management Plan “Going Forward Beyond Borders” that covers the period up to FY2021 and is aimed toward realizing its vision. By going beyond customer expectations, business boundaries, and corporate boundaries, we strive to contribute to the advancement of society, communities, and customers, and to be an innovative energy and service company that continues to be the first choice of customers. Based on the Daigas Group Management Principle, which consists of our aim to be “a corporate group that supports continuous advancement of consumer life and business;” the declaration to create four values, namely, value for customers, value for society, value for shareholders, and value for employees; and the corporate motto “service first,” we will carry out activities aimed at realizing our long-term management vision.

Realizing a sustainable society

Societal issues tackled by the Daigas Group



## Long-term Management Vision 2030

## Medium-term Management Plan 2020

→ P.11

Go beyond borders

Go beyond customer expectations

Always aim to provide services that go beyond customer expectations

Go beyond business boundaries

Expand business domains to contribute to the advancement of society, communities, and customers

Go beyond corporate boundaries

Actively promote alliances and M&A and broadly deploy businesses in Japan and overseas

## Business Areas of the Daigas Group

Domestic energy

International energy

Value chain ? 1 → P.15

Domestic energy



International energy



Life & business solutions



● New business fields and others

Four types of value

(Value for customers, value for society, value for shareholders, and value for employees)

Company that creates sustainable value

## CSR Domain

### Materiality (Priority Initiatives)

In order to continue our business operations while managing the impact of our activities on the environment and society, the Daigas Group identified materiality by referring to procedures shown in the GRI Standards, a global guideline for sustainability reports.

- I Customer Health and Safety
- II Energy / Emissions
- III Local Communities
- IV Customer Privacy

- V Training and Education
- V Diversity ? 1 and Equal Opportunity

Common theme Economic Performance

Common theme Supplier Assessment (Impact on the environment and society, human rights and labor practices)

### Perspective of SDGs



### CSR Charter

A set of guiding principles to live up to the expectations of our stakeholders, fulfill its corporate social responsibilities and achieve sustainable development

- I Creating Value for Customers
- II Harmonizing with the Environment and Contributing to Realizing a Sustainable Society

III Being a Good Corporate Citizen Contributing to Society

IV Complying with Laws and Regulations and Respect for Human Rights

V Management Policy for Human Growth

Achieving the Long-term Management Vision 2030

To be an innovative energy & service company that continues to be the first choice of customers

Daigas Group Management Principle



— What the Daigas Group Aims To Be —  
Daigas Group powers continuous advancement in consumer and business life

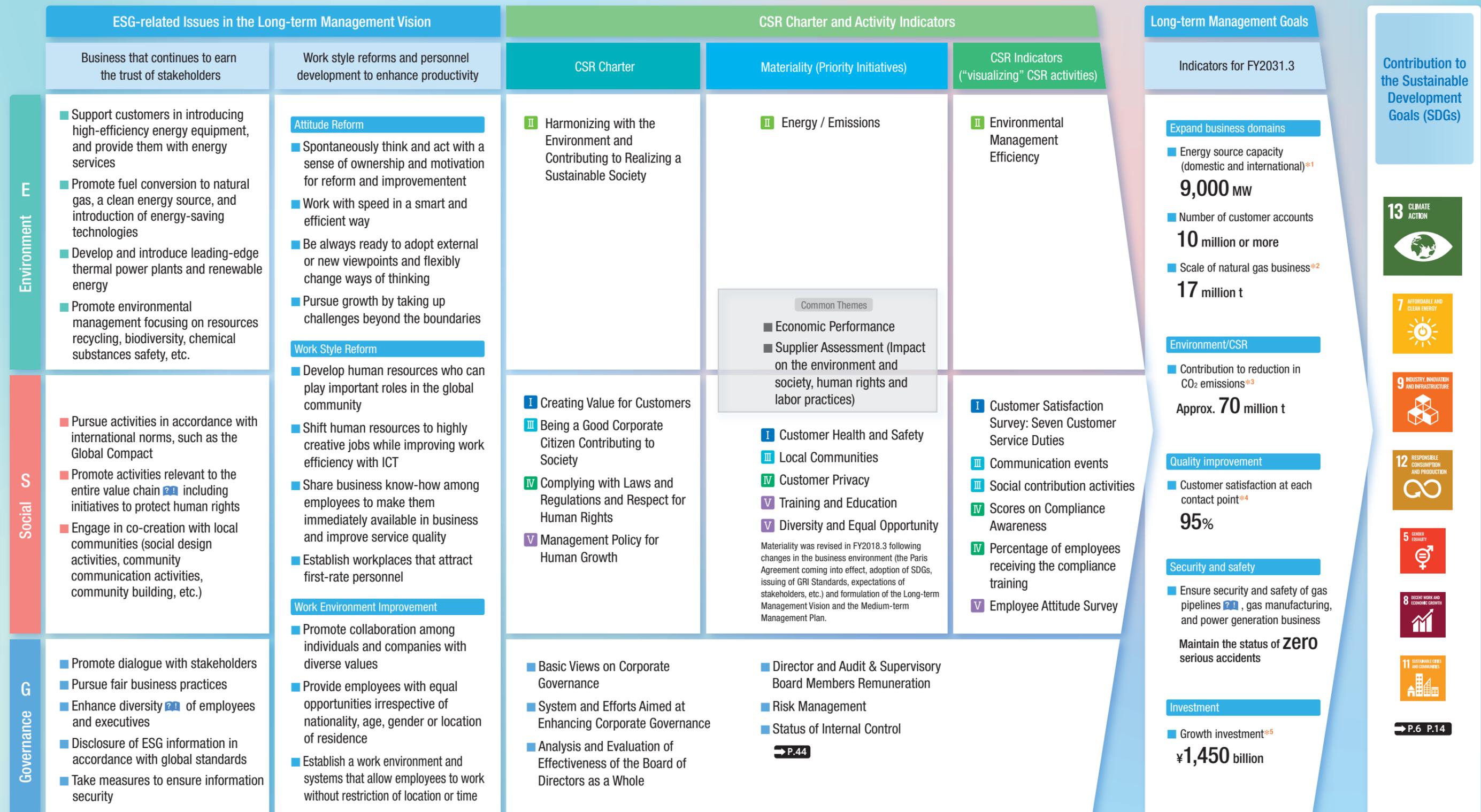
— Daigas Group Declaration —  
Daigas Group is creating four values

— Corporate Motto —  
Service First

# ESG-conscious Management toward Achievement of the Long-term Management Vision 2030

The Daigas Group declared that it pursues its Long-term Management Vision 2030 and Medium-term Management Plan 2020 cherishing the three guiding principles that embody its Management Principle. The Group applies global environmental, social and governance (ESG) criteria in business to “continue to earn the trust of investors, corporate partners, employees and society,” one of the guiding principles.

The Daigas Group has been conducting its CSR initiatives, setting specific goals in line with its CSR Charter. As we position ESG as a key factor in the management of the Group, we will strive for sustainable development of society and the Group by further deepening our CSR initiatives going forward.



Contribution to the Sustainable Development Goals (SDGs)



→ P.6 P.14

\*1 The ratio of procurement from markets and other companies will be reviewed, depending on circumstances in systems and regulations imposed by the national government. \*2 Includes sales of LNG ?1 to domestic and international energy operators and handling of overseas LNG terminal operations. \*3 Total reduction in amount from FY2018.3 through FY2031.3. Includes contribution to reduction at customer sites and overseas. \*4 Customer satisfaction for opening gas valves, equipment repairs, and sales and installation work. \*5 Total investment amount from FY2018.3 through FY2031.3.

# Indicator-based Evaluation of CSR Activities and Contribution to SDGs

In 2009, the Daigas Group introduced CSR Indicators under each chapter of the CSR Charter to promote and “visualize” CSR initiatives. Meanwhile, important aspects of CSR (materiality) were identified with the assistance of experts for promoting specific activities. Each indicator is determined by the approval of the ESG Council, the highest level of decision-making bodies regarding the Group’s CSR activities. Under the

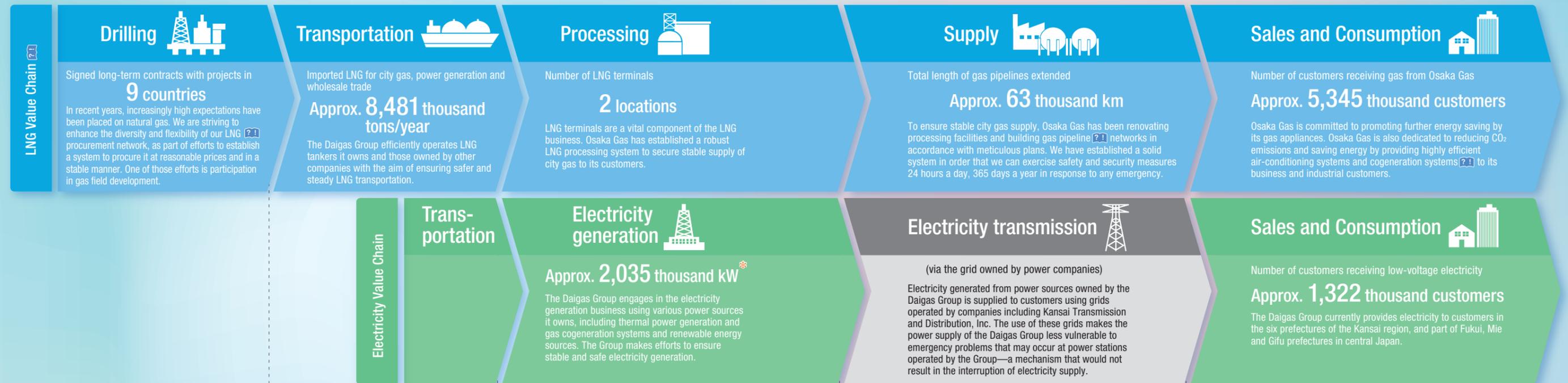
promotion system that serves as the basis for our CSR activities, we are striving to accurately evaluate the steps we are taking and what we have achieved, as measured by the results of each materiality indicator, while making our PDCA (plan-do-check-act) management more effective. This effort should help us to achieve our targets for several of the Sustainable Development Goals (SDGs).

CSR Charter	Materiality Indicators and CSR Indicators	Target (FY2018.3-FY2021.3)	Achievement of FY2020.3	Points of Contribution to SDGs by Achieving the Indicator	SDGs to which Contributions are Made	Detail Pages	
Common themes CSR Charter I-V	<b>Materiality</b> Economic Performance GRI Standards: 201-2	Financial implications and other risks and opportunities due to climate change	Recognition of risks and opportunities	Recognition of risks and opportunities	Management of the amount of CO <sub>2</sub> emissions Management of the amount of renewable energy Management of the environmental burden in the value chain 2.1 Including activities toward low-carbon society in business plans		19-20
	<b>Materiality</b> Supplier Assessment (Impact on the environment and society, human rights and labor practices) GRI Standards: 308-1 414-1	Percentage of new suppliers that have been screened using criteria regarding environment, social impact, human rights and labor practice	100%	100%	Understanding the status of suppliers through CSR questionnaires, etc. Understanding fair training opportunities Understanding safe and secure labor environments Understanding BCP 2.1 measures		21
I Creating Value for Customers	Customer Satisfaction Survey: Seven Customer Service Duties	Overall satisfaction rate	91% or more	92%	Increasing opportunities to provide clean energy through improvement of customer satisfaction Implementing management and assessment of quality of city gas / understanding the impact in case of disasters		22-23
	<b>Materiality</b> Customer Health and Safety GRI Standards: 416-1	Satisfaction rate for each of the seven customer service duties	86% or more	90% or more for all seven duties			
II Harmonizing with the Environment and Contributing to Realizing a Sustainable Society	Environmental Management Indicator	Environmental Management Efficiency	14.2 yen / 1,000 m <sup>3</sup> or less *Target set for FY2021.3	13.5 yen / 1,000 m <sup>3</sup>	Management of the amount of CO <sub>2</sub> emissions Management of the amount of renewable energy Management of the environmental burden in the value chain Including activities toward low-carbon society in business plans		27-28
	<b>Materiality</b> Energy / Emissions GRI Standards: 305-5	Contribution to reduction in CO <sub>2</sub> emissions	Cumulative reduction of 7 million tons *Target set for FY2021.3	Total reduction of 3.34 million tons			
III Being a Good Corporate Citizen Contributing to Society	Communication events	Number of such events held (environmental education and food education, and visit to the Gas Science Museum)	1,950 events or more	2,979 events *Target revised to 2,915 or more	Increasing opportunities to provide clean energy by improvement of customer satisfaction Control of the impact on stakeholders in case of disasters		33-34
	Social contribution activities	Number of such events held	600 events or more	1,099 events *Target revised to 1,090 or more			
	<b>Materiality</b> Local Communities GRI Standards: 413-1	Percentage of operations with implemented local community engagement, impact assessments and development programs	100%	100%			
IV Complying with Laws and Regulations and Respect for Human Rights	Scores on Compliance Awareness	Individual: Recognition level of “Code of Conduct” Organization: Degree of compliance penetration in the organization	Higher than the previous year Higher than the previous year	Down 1.7 percentage points year-on-year (82.7%) Up 1.3 percentage points year-on-year (93.1%)	Improving awareness of compliance to secure equal opportunities for leadership Improving awareness to promote safe and secure labor environments		36-37
	Percentage of employees receiving the compliance training	Percentage of employees receiving the compliance training	100%	100% (No. of employees covered by the survey: 23,063)			
	<b>Materiality</b> Customer Privacy GRI Standards: 418-1	Total number of substantiated complaints regarding breaches of customer privacy	Assessment of management situation	There were no substantiated complaints regarding breaches of customer privacy			
V Management Policy for Human Growth	Employee Attitude Survey *Surveyed every two to three years	Job satisfaction and attachment to the company	Maintain sufficient levels	Maintained sufficient levels •3.86 against scale of 5 for job satisfaction •4.25 of scale of 5 for attachment to the company (Result of FY2019.3)	Securing equal opportunities for leadership, understanding the status of promotion of safe and secure labor environments through employee attitude surveys Understanding fair training opportunities		40-42
	<b>Materiality</b> Training and Education GRI Standards: 404-1	Average hours of training per year per employee	Development of human resources, improvement of work environment	Average hours of training per employee: 25.3 e-Learning (safety, information security, environment) program* •No. of participants: 5,324 / course •No. of hours: 3.17 hours / person * Includes some temporary employees and part-time workers			
	<b>Materiality</b> Diversity 2.1 and Equal Opportunity GRI Standards: 405-1	Percentage breakdown of employees and executives by gender and age	Promotion of diversity	Percentage of women among personnel hired for career-track positions in April 2020: 26.8% Percentage of women in management positions*: 5.2% (as of April 1, 2020) * Managerial or higher position			

# Recognizing Impacts in the Value Chain and CSR Efforts

The Daigas Group procures natural gas, which is an environmentally-friendly and stable energy source, from overseas suppliers, and provides gas to about 5,345 thousand customers and electricity to about 1,322 thousand customers, both mainly in the Kansai Region. The Group ensures the safety of customers and gives them peace of mind by procuring natural gas in a stable manner and building a solid security and accident-prevention system.

(As of March 31, 2020)



\* Power generation capacity owned by the Daigas Group is included but plants not yet in operation are excluded.

**Major Issues to Be Tackled**

- Global environment**
  - Emissions of greenhouse gases (GHG) associated with energy consumption involved in drilling of gas resources
  - Environmental nuisance and troubles caused during drilling of gas resources
  - Impact on biodiversity in neighborhoods
  - Recognizing the risks and opportunities of climate change
- Business partners**
  - Safety, sanitary conditions and human rights of workers employed by gas suppliers
- Global environment**
  - Emissions of GHG associated with energy consumption involved in operations of LNG tankers
  - Environmental problems caused during operations of LNG tankers
  - Impact of ballast water used by LNG tankers on biodiversity
  - Recognizing the risks and opportunities of climate change
- Business partners**
  - Safety, sanitary conditions and human rights of crewmen working at LNG tankers
- Global environment**
  - Emissions of GHG associated with energy consumption and power generation at LNG terminals and electric power plants
  - Recognizing the risks and opportunities of climate change
- Local communities**
  - Safety in the vicinity of LNG terminals and power plants
  - Production- and power generation-related problems caused by natural disasters
- Customers**
  - Safety, sanitary conditions and human rights of employees working at the sites
- Employees**
  - Worker training/education and improving the work environment
  - Diversity promotion
- Global environment**
  - Excavated soil discharged during the laying of gas pipes
  - Recognizing the risks and opportunities of climate change
- Local communities**
  - Supply problems caused by natural disasters
- Customers**
  - Worker training/education and improving the work environment
  - Diversity promotion
- Employees**
  - Safety, sanitary conditions and human rights of employees laying gas pipes
- Business partners**
  - Worker training/education and improving the work environment
  - Diversity promotion
- Customers**
  - GHG emissions accompanying gas consumption at customers
  - Recognizing the risks and opportunities of climate change
- Global environment**
  - Accidents at customer's sites due to usage of gas equipment without safety mechanisms
  - Provision of appropriate information regarding products, services and rates
  - Protection of personal information of customers
- Local communities**
  - Contribution to local communities via educational support
- Employees**
  - Safety, sanitary conditions and human rights of employees laying gas pipes
- Business partners**
  - Worker training/education and improving the work environment
  - Diversity promotion
- Employees**
  - Worker training/education and improving the work environment
  - Diversity promotion



Major Issues to Be Tackled and Its KPIs to Be Pursued Through Value-Chain

Materiality and CSR Indicators (See P.13-14)

The Daigas Group has identified material aspects of its business and KPIs to be pursued as part of its efforts to grasp and manage the possible effects of its business activities on the environment and society, with a view toward creating a sustainable society. To visualize its CSR activities in line with each CSR Charter, the Group sets CSR Indicators and implements relevant measures.

Explanations of the seven sustainable development goals (SDGs) that most closely match the Group's aims are spelled out in each chapter of the CSR Charter.

CSR Indicators under each Daigas Group CSR Charter

- Charter I** Customer Satisfaction Survey: Seven Customer Service Duties
- Charter II** Environmental Management Efficiency
- Charter III** Communication events / Social contribution activities
- Charter IV** Scores on Compliance Awareness / Percentage of employees receiving the compliance training
- Charter V** Employee Attitude Survey

GRI Standards Items Identified as Materiality

- 416 Customer Health and Safety
- 305, 302 Energy / Emissions
- 404 Training and Education
- 405 Diversity and Equal Opportunity
- 413 Local Communities
- 418 Customer Privacy
- 308, 414 Supplier Assessment
- 201 Economic Performance

# Promoting CSR Activities

## Promoting CSR Activities

In order to promote management that is conscious of ESG on a global standard, as set forth in our Long-term Management Vision, the Daigas Group has moved to a new system from FY2021.3, restructuring the “CSR Committee” as the “ESG Committee,” and the “CSR Promotion Council” as the “ESG Council.” The Daigas Group has established the ESG Council, where executives deliberate CSR plans and reports on results of activities under the supervision of the President. The Daigas Group has also established the ESG Committee, where the heads of related business units coordinate and advance Group-wide CSR activities with the Head of ESG Promotion (Representative Director and Executive Vice President), the officer overseeing Daigas Group CSR activities, as chairperson of the committee. We are thus endeavoring to conduct our activities in this area in an appropriate and proactive manner.

To cover all of the five fields stipulated under the CSR Charter, committees were established to promote CSR activities in a cross-departmental manner.

Under this system for promoting CSR activities, the Daigas

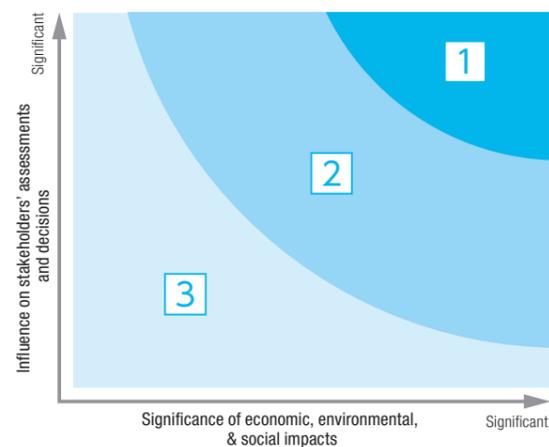
Group will enhance the level of CSR by appropriately understanding expectations and requests from society through communication with internal and external stakeholders.

### CSR Promotion System (As of April 1, 2020)



## New Materiality Analysis Map

The Daigas Group newly identified important aspects of CSR (materiality) in FY2018, and began PDCA management in FY2019. In identifying the new materiality, the Group evaluated the progress of activities related to previous materiality identified in FY2014 (FY2015–2017) with reference to the opinions of external experts. In addition, based on changes in the business environment and social trends related to sustainability, we referred to the procedures shown in the GRI Standard, which is the latest version of the GRI Guidelines.



\* The GRI Standards consists of the 100 Series, a common standard, and three item-by-item standards – the 200 Series (economic items), 300 Series (environmental items) and 400 Series (social items). The items recognized by our company as materiality, listed above under ① were chosen from among the 33 items covered by the item-by-item standards.

① Priority Initiatives		
201	Economic Performance	
302	Energy	
305	Emissions	
308	414	Supplier Assessment (Environmental / Social)
404	Training and Education	
405	Diversity ② and Equal Opportunity	
413	Local Communities	
416	Customer Health and Safety	
418	Customer Privacy	

②	
202	Market Presence
204	Procurement Practices
205	Anti-corruption
206	Anti-competitive Behavior
301	Materials
304	Biodiversity
306	Effluents and Waste
307	Environmental Compliance
403	Occupational Health and Safety
407	Freedom of Association and Collective Bargaining
409	Forced or Compulsory Labor
417	Marketing and Labeling
419	Socioeconomic Compliance

③	
203	Indirect Economic Impacts
303	Water
401	Employment
402	Labor / Management Relations
406	Non-discrimination
408	Child Labor
410	Security Practices
411	Rights of Indigenous Peoples
412	Human Rights Assessment
415	Public Policy

# Stakeholder Engagement

## Dialogue and Cooperation with Stakeholders

The Daigas Group is focusing on active engagement with stakeholders through dialogue to recognize various possible issues involved in its CSR and to come up with mutually acceptable solutions to such issues, based on the “Daigas Group CSR Charter” and “Daigas Group Code of Conduct.” For example, the Daigas 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 is sharing information and cooperating as a member of the Global Compact Network Japan, and actively taking

part in the formulation of various policy measures by the government and municipalities. The Group is also active as a member of the International Gas Union (IGU) aiming at promotion of the global gas industry.

One of the results of such engagement is that five business associations formed by partner companies undertaking gas-related services established the Code of Ethics respectively in response to the Group’s policy. The Group is also actively engaging with various stakeholders, such as businesses, universities and NPOs.

### Relationship with Stakeholders

Stakeholders	Main contact opportunities and contact tools	Value for stakeholders
Customers	Safety check and sale “Customer Centers” Service shops Showrooms Corporate PR events Advertisements via TV and other media Website Catalogs for products and services	<b>“Creation of value for customers”</b> Continuously meet customer expectations by creating services in diversified fields that contribute to higher levels of customer comfort, convenience, and security
Business partners, suppliers	Business opportunities Various regular meetings Joint training and joint drills	
Consumers groups	Meetings Tours Seminars, study meetings	
Regional communities	Social contribution activities Tours “Energy and environmental education”	
Students and educational institutions	Joint study “Energy and environmental education,” “food education,” “fire education,” “education on disaster prevention” Acceptance of interns Recruitment meetings Website	
Knowledgeable people	Joint study Meetings	<b>“Creation of value for society”</b> Endeavor to ensure fairness and transparency in business activities and contribute to sustainable development of society and improvement of the global environment
Administrative authorities	Submission of various documents Meetings Cooperation for regional development	
NPO / NGO	Joint research Joint work and cooperation for solving regional issues Meetings	
Shareholders / investors	Issuance of various reports (financial statement, annual reports) Briefings Website	<b>“Creation of value for shareholders”</b> Based on a sound financial position, sustain long-term and stable growth and maximize corporate value
Employees	Labor-management meetings Education and training sessions “Compliance Desks” “Human rights desk” “Harassment desk” Intranet, in-house publications	<b>“Creation of value for employees”</b> Respect employees’ individuality and support them so that they can carry out work with a sense of purpose and grow as individuals

### FY2020 Results

#### Direct exchange of opinions between representatives of consumer groups and management

At the Kansai Consumers’ Association Liaison Commission for FY2020, the Company presented information on our “initiatives for SDGs.” We spoke about a wide range of initiatives from the perspective of energy and the environment, including the ideal energy mix, plans for reducing CO<sub>2</sub> emissions, and the introduction of renewable energy. In the exchange of opinions that followed, the Company received positive comments to the effect that we should strengthen our PR efforts related to “ENE-FARM,” which will also contribute to reducing CO<sub>2</sub> emissions.

In addition, we also actively held study sessions for consumer

groups and consumer centers. In October 2019, we held a skills contest for Network Company personnel, intended to enhance emergency inspection skills needed to carry out emergency repairs or construction when a gas line has broken. The event was instrumental in deepening consumers’ understanding of our sincere efforts to improve safety, a pillar of the Daigas Group’s businesses.



Kansai Consumers’ Association Liaison Commission



Common Themes of Materiality

# Economic Performance

SDGs to which Contributions are Made



## Materiality

## Priority Initiatives Economic Performance

### Why the Topic is Material

The Daigas Group recognizes that climate change has the potential to impact business revenue and expenditures. We understand the business risks and opportunities presented by climate change, and

believe that implementing measures, and making our responsibility to do so clear to our stakeholders, will lead to the sustainable development of both our business and local communities.

### Management Systems and Performance

#### Indicator

Financial implications and other risks and opportunities due to climate change

GRI Standards **201-2**

#### Commitment

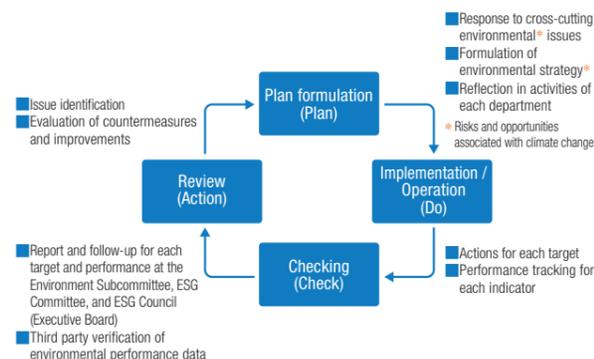
We are committed to efforts that reduce greenhouse gas (GHG) emissions based on the "Daigas Group Environmental Activities Policy," and will take measures to disclose information concerning risks and opportunities related to climate change.

#### Responsibilities

The Environment Subcommittee, ESG Committee and ESG Council (Executive Board) take responsibility for reporting, following up on, and managing risks and opportunities associated with climate change in our business plan using indicators and targets pertaining to GHG emissions.

#### Performance

We publish on our website the page "Risks and Opportunities Related to Climate Change" which reports details associated with climate change in the areas of governance, strategy, risk management, and indicators and targets—the core elements recommended by the Task Force on Climate-related Financial Disclosures (TCFD).



## Specific Actions Taken regarding Materiality

### Risks and Opportunities Associated with Climate Change

Phenomena deriving from climate change	Extreme weather, natural disaster	Temperature rise	Change of competitiveness of products and facilities developed by Osaka Gas	Stricter regulation of GHG emissions	Change of energy preference by customers	Booming of ESG investment	Rise of LNG prices
<b>Risks</b>	<ul style="list-style-type: none"> <li>Damage to manufacturing and supply facilities</li> <li>Interference on LNG procurement</li> </ul>	<ul style="list-style-type: none"> <li>Fall in gas sales (demand for hot-water supply, heating)</li> </ul>	<ul style="list-style-type: none"> <li><b>Decline of competitiveness</b></li> <li>Fall in demand for products and facilities which Osaka Gas adopts or provides, and subsequent decline in their utilization</li> <li>Difficulty of recollecting capital-investment cost</li> </ul>	<ul style="list-style-type: none"> <li><b>Concern over fossil-based fuels</b></li> <li>Fall in gas and electricity sales</li> <li>Difficulty of recollecting capital-investment cost</li> </ul>		<ul style="list-style-type: none"> <li>Fall in capital procurement power</li> <li>Decline in stock prices</li> </ul>	<ul style="list-style-type: none"> <li>Rise in procurement cost</li> <li>Fall in gas and electricity sales</li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>Increase in demand for products and facilities with disaster-response functionality</li> <li>Price rise in the LNG spot trading market</li> </ul>	<ul style="list-style-type: none"> <li>Increase in gas and electricity sales (demand for air-conditioning)</li> </ul>	<ul style="list-style-type: none"> <li><b>Comparative advantage</b></li> <li>Increase in demand for products and facilities which Osaka Gas adopts or provides, and subsequent rise in their utilization</li> </ul>	<ul style="list-style-type: none"> <li><b>Preference on energy systems emitting less GHGs</b></li> <li>Increase in gas and electricity sales</li> <li>Expansion of renewable energy sources and energy-saving services</li> </ul>		<ul style="list-style-type: none"> <li>Expansion of capital procurement power</li> <li>Increase in stock prices</li> </ul>	
<b>Our response</b>	<ul style="list-style-type: none"> <li>Make important facilities water-tight, raise the level of important facilities, divide gas supply areas into blocks</li> <li>Development of products and facilities resilient to disasters</li> <li>Diversify LNG procurement sources</li> </ul>	<ul style="list-style-type: none"> <li>Expand the scope of business fields where demand growth is expected</li> </ul>	<ul style="list-style-type: none"> <li>Develop and introduce highly energy efficient products and facilities, and facilities using renewable energy sources (Osaka Gas and customers)</li> <li>Switch fuels to natural gas</li> <li>Secure stable LNG supply through launching upstream business including gas field development and LNG projects</li> </ul>	<ul style="list-style-type: none"> <li>Propose and promote energy-saving services</li> <li>Promote research and studies of innovative technologies, such as hydrogen, clean gas and CCUS*</li> </ul>	<ul style="list-style-type: none"> <li>Diversify procurement sources</li> <li>Launch upstream business</li> <li>Make conditions for procurement contracts flexible</li> </ul>	<ul style="list-style-type: none"> <li>Step up publicity regarding GHG emission reduction effects, promote proposal-oriented marketing</li> <li>Make policy proposals regarding GHG emission reduction</li> <li>Participate in and implement the Nippon Keidanren's Commitment to a Low Carbon Society</li> </ul>	<ul style="list-style-type: none"> <li>Promote dialogue with investors concerning the Daigas Group's contribution to GHG emission reduction and business vision</li> </ul>

\* Carbon capture, utilization and storage

### Scenario analysis

Since FY2020.3, we have been working on a 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 business of the Daigas Group on a medium- and long-term basis. Using this analysis method based on scenarios established by external authorities, we assessed our energy business which is expected to experience the greatest impact from climate change among the Group's businesses, for the purpose of acquiring suggestions related to relevant factors and measures for mitigating / tapping into the impact.

Specifically, based on the scenario published by the International Energy Agency, we assume the environment surrounding its energy

business by using a double-track scenario that takes into account the progress of energy conservation and changes in the composition of power sources, etc., and identifies possible risks and opportunities and examines measures.

As the global response to climate change continues to progress, the scenario's preconditions may also change in the future. We will continue to heighten scenario analysis and steadily implement initiatives to increase the resilience of the Daigas Group's businesses, while applying the suggestions gained from scenario analysis to our evaluation of medium- and long-term business strategies.

Common Themes of Materiality

## Supplier Assessment



SDGs to which Contributions are Made



### Materiality

### Priority Initiatives Supplier Assessment

#### Why the Topic is Material

Our broad-based city gas value chain [2-1](#) is built on the cooperation of various business partners. Fulfilling our social responsibilities 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.

#### Management Systems and Performance

##### Indicator

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

GRI Standards **308-1** **414-1**

##### Commitment

Osaka Gas is committed to fulfilling its social responsibility in close cooperation with business partners in line with the "Daigas Group Code of Conduct," revised in accordance with the United Nations Global Compact.

##### Responsibilities

Each organization in charge of procuring particular materials is to fulfill its responsibility in accordance with the procurement-related policies and guidelines set by Osaka Gas.

##### Performance

A total of 37 suppliers began new business transactions with Osaka Gas in FY2020. In the year, 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.

FY2020 target **100%** → FY2020 result **100%**

#### Specific Actions Taken regarding Materiality

##### Creation of "Daigas Group Procurement Policy"

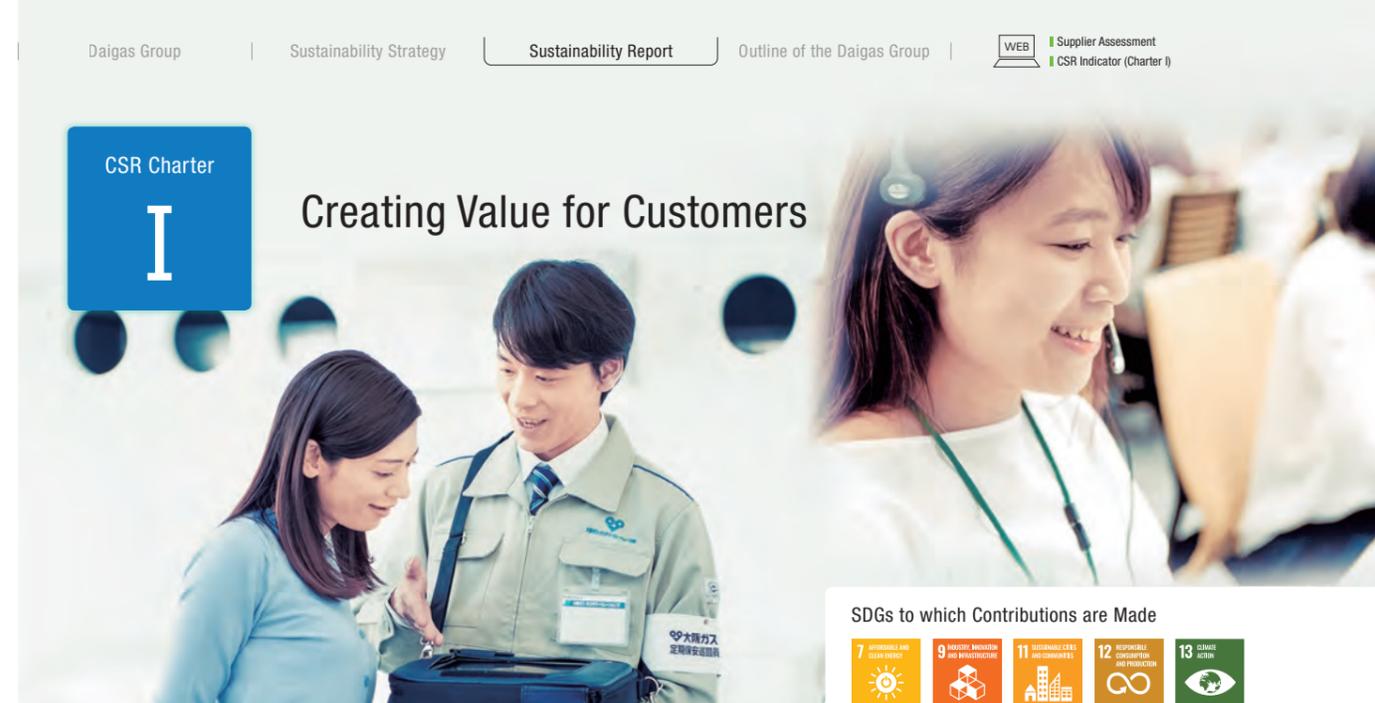
In June 1992, Osaka Gas formulated a "Purchasing Policy," which set forth our basic policies on purchasing activities, and "CSR-based Purchasing Guidelines," which summarizes requirements for suppliers in regard to CSR. In April 2020, we reformed these policies into the "Daigas Group Procurement Policy" and "Daigas Group Procurement Policy for Suppliers," as part of the Daigas Group's efforts to work with

suppliers to tackle global social issues. In addition, we also compiled our "Procurement-related Guidelines" to give suppliers a reference for points from the "Daigas Group Procurement Policy for Suppliers" that they should particularly bear in mind in regard to initiatives related to the sustainability of society.

CSR Charter

I

## Creating Value for Customers



SDGs to which Contributions are Made



### Fundamental Concept

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

The Daigas Group is committed to making a positive contribution to realizing a higher level of comfort and development in the business activities of its customers through stable procurement and safe supply of natural gas and other energy sources, and by ensuring safe use of gas and equipment with an improved level of services for its customers. We believe that an important foundation in realizing this will be ensuring

security so that customers can use energy without worry. We will endeavor to provide products and services that give utmost reassurance to safety and will take on the challenge of creating value in line with customers' wishes in order to be a corporate group that continually evolves and develops alongside its customers.

### CSR Indicators

### Customer Satisfaction Survey: Seven Customer Service Duties

The "Customer Satisfaction Survey" covers seven duties that deal directly with customers: opening of gas lines, repair of gas appliances, regular security patrol (gas facilities inspection), response to telephone inquiries, sales of appliances, security emergency response, and replacement of gas meters upon expiration of the validity period. We

send out questionnaires after completing each operation and analyze the customer responses received. Customer satisfaction is graded on a scale of one to six, and the "overall satisfaction rate" is the ratio of responses in the top two grades to the total number of responses.

#### Targets and Results

The overall satisfaction rate was 92% in FY2020, the same rate as that of the preceding year.

We will continue to offer customer-oriented services.

	Targets	Results
Overall satisfaction rate	91% or more	92%
Satisfaction rate for each of seven customer service duties	86% or more	90% or more for all duties

#### Actions Taken

##### Further efforts to enhance levels of customer service

As we aim to provide a higher level of service, we are creating and sharing manuals for each field of our operations. At the same time, we also provide opportunities for personal development through training sessions for managers and staff. Furthermore, we are making improvements to our operations based on comments received in customer satisfaction surveys.

Materiality

Priority Initiatives Customer Health and Safety

Why the Topic is Material

The Daigas Group puts the highest priority on securing the safety of its gas supply and facilities as an energy business operator supplying city gas to its 5.345 million customers. Therefore, we consider it important

that we make efforts to enhance the safety level and formulate a structure to respond to possible accidents and disasters.

Management Systems and Performance

Indicator

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

GRI Standards **416-1**

Commitment

Osaka Gas is committed to ensuring the safety of city gas, our primary product, its secure supply, and the safety of our gas facilities—all by adhering to our “Gas Supply Clause” and “Security Rules” according to the terms of the Gas Business Law.

Responsibilities

The Daigas Group has established a system to ensure the safety of the city gas supply and gas appliances encompassing all facets of the Group’s city gas value chain —processing, supply, sales, and consumption. The Head of Safety and the individuals heading the safety operations of each business unit supervise safety and security matters concerning their respective business units and other business units.

In addition, the Executive Safety Council, comprising the Head of Safety; the individuals heading the safety operations of each business unit; and the chiefs of the relevant departments, convene safety and security meetings five times annually to plan safety initiatives and assess the achievements made in the relevant term. In line with the annual plan, each business unit systematically promotes initiatives to ensure security and improve safety.

Performance

In FY2020, all procedures were conducted based on guidelines in accordance with laws and regulations as well as in-house rules for processes such as quality control of gas in LNG terminals, safety inspection of gas pipelines and supply facilities, and safety inspection of gas appliances with customer consent.

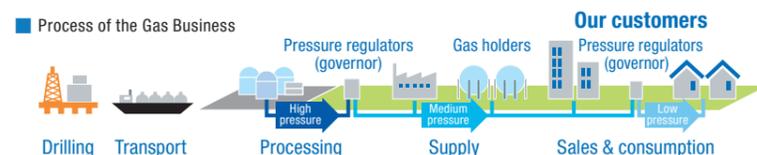


Specific Actions Taken Regarding CSR Indicators and Materiality

Safety and Security Initiatives

Measures to Ensure Secure and Stable Supply of City Gas

To ensure our customers receive our energy services without worry, we are focused on maintaining the high quality of the city gas we supply while ensuring the stability of our gas supply and the safety of gas-processing and supply facilities.



Ensuring the quality and safety of city gas

Every day, the city gas plant monitors the quality of the city gas to ensure conformity with the standards set by Osaka Gas according to legal and regulatory requirements. The capacity of the gas holders and gas supply pressure are monitored and well managed in real time.

Securing safety at customers sites

In preparation for an accident or disaster, we have implemented systems to respond to reports and prepare resources for dispatching in case of accidents and disasters 24 hours a day, 365 days a year. Moreover, we comply with legal and regulatory requirements by inspecting gas appliances for gas leaks and gas water heaters and other equipment for proper functioning of air supply and exhaust once every four years, or annually for some customers. With regard to aging gas pipes, we have undertaken systematic renewal as planned to introduce piping that are excellent in resistance to earthquakes and corrosion.

Inspection of gas pipelines

Gas supply facilities including gas pipes and pressure regulators are inspected to ensure their safety. The frequency and content of such inspections are set under in-house Security Rules.

Disaster preparedness

Following our experience with the Great Hanshin-Awaji Earthquake in 1995, we have implemented a variety of earthquake countermeasures. The examples are the safety measures implemented in our manufacturing facilities, the laying of polyethylene (PE) pipes offering excellent durability and seismic resistance and promoting the use of intelligent meters that shut off the gas supply should an earthquake be detected.

In addition, since the Great East Japan Earthquake, we have been working on tsunami countermeasures. These include measures in LNG terminals such as strengthening of private power generation facilities and water-tightening of buildings\* and raising the facilities, as well as measures for supply facilities such as the formation of coastal disaster prevention shutoff system for medium-pressure and low-pressure pipes.

\* Improvement of sealing to prevent tsunami flooding

Major Earthquake Countermeasures

Major earthquake countermeasures		Results (as of March 31, 2020)
(1) Enhancement of information-gathering	Seismograph installation	Installed in all areas (264 locations)
	Introduction of an earthquake damage prediction system	Introduced to the Central Control Room (Head Office / Sub-center) and all five districts
(2) Construction of a supply shutoff system	Subdivision of supply blocks	Subdivided into middle blocks (85) and little blocks (171)
	Introduction of supply shutoff equipment	Remote shutoff devices: approx. 3,600 locations / Automatic seismic shutdown systems: approx. 3,000 locations
(3) Other measures	Promoting the installation of polyethylene (PE) pipes	100% of all new low-pressure pipes were the PE type, with PE piping being extended to approx. 16,700 km.
	Promoting the use of intelligent meters	Completed installation for home use, with an overall penetration rate of 99.9% including business customers.
	Backup of critical online systems	Installation of a backup center

TOPIC

Freeport LNG Project Has Started Commercial Operation

The Freeport LNG Project in Texas, the United States, has started commercial operation for its first liquefaction train on December 8, 2019. Osaka Gas Co., Ltd. and JERA Co., Inc. participate in the project through FLNG Liquefaction, LLC (“FLIQ1”).

The project will produce LNG for export from natural gas procured in the United States. The project operator is Freeport LNG Development, L.P. Osaka Gas and JERA will respectively lift approximately 2.32 MTPA of LNG based on the liquefaction tolling agreements with FLIQ1.

The Company intends to leverage the experience gained through operation of the project to expand its LNG businesses. In addition, through the procurement of LNG from the project, the Company will secure LNG without destination restrictions, diversify its supply sources and price indices, and enhance the stability and flexibility of its LNG procurement.



Freeport LNG Terminal in the United States  
 Courtesy of Freeport LNG Development, L.P.

### 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 **21**) 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" (enacted in April 2013), 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 "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.

### Dissemination of Products/Services and Relevant Information to Ensure Safe Use by Customers

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.

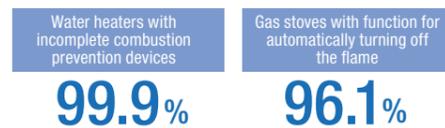
Osaka Gas strives to bring customers products and services that ensure the safe use of gas.

Osaka Gas would like to remove from the market 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.

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"

#### Usage Rate of Water Heaters with Incomplete Combustion Prevention Devices and Gas Stoves with Function for Automatically Turning Off the Flame (FY2020)



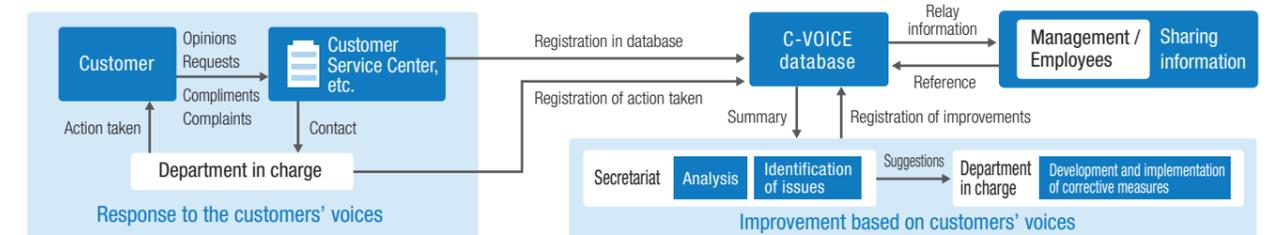
### Incorporating Customer Opinions

#### Sharing Customer Suggestions Throughout the Company

Osaka Gas has made use of many of the "customer feedback" received through various opportunities for the improvement of service quality and business operations. We share customer comments through our C-VOICE database system. In addition to serving current needs, we proactively respond to the potential needs of our customers and challenge ourselves to anticipate the needs of the future.

Based on our customers' suggestions and opinions, we are working for product development and service quality improvement. In FY2020, we enhanced our services by reflecting customer comments, such as adding smartphone payment functions for paying bills and creating online versions of various forms and applications.

#### Overview of C-VOICE



### Proposing New Value

The Daigas Group has supplied city gas to the Kansai region in a stable manner while branching out into peripheral business fields. By doing so, the Group has grown together with the region. To make customers' lives and business more fruitful and 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.

#### TOPIC

#### Release of "RAMUNE," the First Business Born from the Program for New Business Creation "TORCH"

"TORCH," a program driven by young employees to create new businesses was launched in 2017. For the creation of ideas, our young employees use the "Foresight Creation\*" methodology of Osaka Gas Research Institute of Behavior Observation. Program management is entrusted to Loftwork Inc. The ideas are presented to all employees in a contest format, and a team including related parties inside and outside the Company work on the commercialization of highly evaluated business ideas.

In February 2020, an app developed with GOCCO Co., Ltd. called "RAMUNE," that collects fun topics to refresh the user's mind, was released. The app is for posting and browsing fun topics that give the users tips about how to refresh their minds and to add an amusing touch to their same old daily routine.

With "TORCH" and other initiatives, Osaka Gas aims to develop human resources, primarily young employees, and create new businesses that are not confined to existing business frameworks.

\* A methodology to organize and create theories and methods developed by Osaka Gas Research Institute of Behavior Observation to create new value.



"RAMUNE," an app that collects fun topics to refresh the user's mind

#### TOPIC

#### High Praise Received for Safety and Security Measures of "AVANCE" Built-in Gas Stove

Osaka Gas Co., Ltd. has developed the new gas stove product "AVANCE"\*1 in cooperation with Paloma Co., Ltd. to reduce anxiety about clothing catching fire\*2 when cooking, thereby providing greater security and safety. The product went on sale in June, 2019.

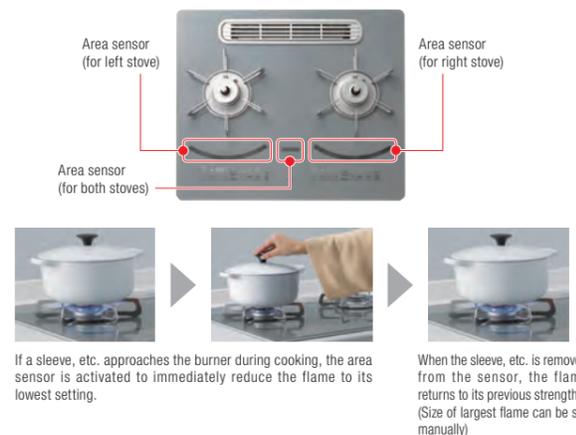
The new gas stove is equipped with "Area Sensors"\*3, an industry-first technology. When a sleeve or other object comes close to the flame, the sensors detect it, lower the flame automatically, and sound a voice alert.

"AVANCE" won the Award of Excellence (Minister of Economy, Trade and Industry's Prize) at the 13th Kids Design Award. The Kids Design Award is a system for commending products, spaces, services, and research that give consideration to children and childrearing. In addition, the product was also certified as a recommended product by the Fire Equipment and Safety Center of Japan, based on its status as a product that can be effectively utilized for preventing fires, making it the first cooking appliance to obtain such a certification.

For many years, Osaka Gas has developed technologies to improve the safety of gas stoves, incorporating the devices into our

products in stages. Osaka Gas hopes to further increase customers' safety by adding the "Area Sensors".

\*1 "AVANCE" is a registered trademark of Paloma Co., Ltd.  
 \*2 A sleeve, for example.  
 \*3 "Area Sensors" is a registered trademark of Osaka Gas.



If a sleeve, etc. approaches the burner during cooking, the area sensor is activated to immediately reduce the flame to its lowest setting. When the sleeve, etc. is removed from the sensor, the flame returns to its previous strength. (Size of largest flame can be set manually)

CSR Charter  
**II**

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



SDGs to which Contributions are Made



## Fundamental Concept

Through the provision of environmentally friendly products and services, including natural gas, the Daigas Group is committed to reducing the environmental impact of business activities. By harmonizing its business activities with the environment, the Group will strive to create a sustainable society.

Environmental conservation on a local and a global scale is an extremely important mission for the Daigas Group, whose operations center on the energy business. Greenhouse gases (GHG) in particular are a leading cause of climate change, which is a global issue with huge impact on society, ecosystems, and the world as a whole. Because GHG emissions are a large part of the environmental impact caused by the business activities of the Daigas Group, we actively engage in taking appropriate measures. In accordance with our "Daigas Group Environmental Activities

Policy," the Daigas Group makes efforts to lessen the environmental impact of its business activities and customers through the expansion of utilization of natural gas and renewable energies, the provision of environmentally friendly products and services. And through our business activities, we contribute to environmental improvement and the development of sustainable societies locally, nationally, and internationally by pursuing harmony with the environment and making efficient use of energy and resources.

## CSR Indicator

## Environmental Management Indicator: Environmental Management Efficiency

Osaka Gas uses "Environmental Management Efficiency" as an indicator to assess progress in environmental management in a continuous, integrated manner. This indicator is the total monetary value of seven environmental impacts\* per gas produced. The smaller

the figure for environmental management efficiency, the greater the reduction in environmental impact per amount of gas produced.

\* GHG emissions, NOx emissions, emissions of COD (chemical oxygen demand), final disposal of general / industrial waste, final disposal of excavated soil, emissions of chemical substances, use of drinking water and industrial water

### Targets and Results

The Environmental Management Efficiency for FY2020 was given as 13.5 yen / 1,000 m<sup>3</sup>, showing steady progress being made toward attaining the FY2021 goal.

	Targets*	Results
Environmental Management Efficiency	14.2 yen / 1,000 m <sup>3</sup> or less	13.5 yen / 1,000 m <sup>3</sup>

\* Target set for FY2021

### Actions Taken

#### Approach to reducing environmental impact to improve environmental management efficiency

At LNG terminals, an expanded cryogenic power generation facility went into operation in March 2017 at the Himeji LNG Terminal. The stable operation of such systems for recovering and using the kinetic energy from ultra-low-temperature LNG to generate power has contributed to a decrease in electricity procurement. We have made progress in reducing energy usage at office buildings as a result of efforts to promote efficient workstyles and cut overtime hours.

## Materiality

## Priority Initiatives Energy / Emissions

### Why the Topic is Material

As an energy business operator, it is vital for the Daigas Group to promote more efficient use of energy resources and reduction of curtail greenhouse gas emissions through the entire range of our business activities and value chain, from the procurement of natural gas and

other raw materials and fuels to the production and supply of city gas and generation of power, extending to the supply to customers, where consumption takes place.

### Management Systems and Performance

#### Indicator

Amount of reduction in CO<sub>2</sub> emissions

GRI Standards **305-5**

#### Commitment

We work hard to reduce the greenhouse gas emissions of the group as a whole, based on the "Daigas Group Environmental Activities Policy." In order to manage the efforts, we have set long-term CO<sub>2</sub> emissions reduction targets for FY2031, as well as medium-term environmental action targets, of which progress is monitored to assure its achievement. Also, we calculate GHG emissions annually in group activities across the value chain, and use that information to promote efforts to reduce those emissions.

#### Responsibilities

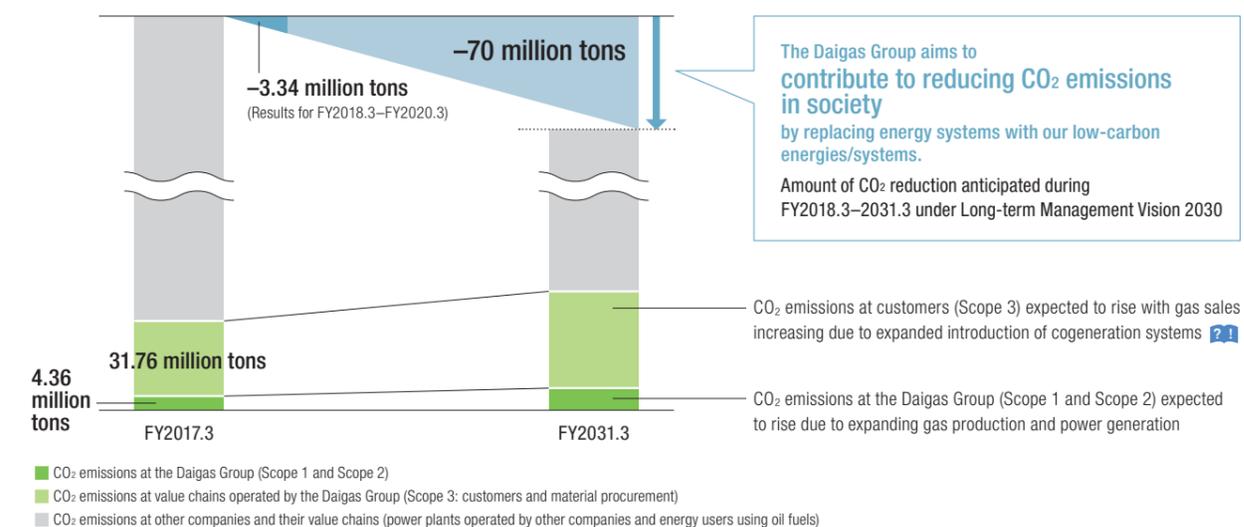
The Daigas Group uses indicators and targets to help reduce GHG emissions in each business domain. The performances as well as actions for such indicators and targets are supervised by the Environment Subcommittee, ESG Committee, and ESG Council (Executive Board). The PDCA (plan-do-check-act) cycle is used to manage such actions.

#### Performance

Several new initiatives have been taken from FY2018 to FY2020. The initiatives in Japan include: the establishment of cryogenic power generation at our city gas production facilities, the introduction of renewable energy sources and high-efficiency thermal power generation, the introduction of fuel cells and gas-powered air conditioning and high-efficiency hot-water heaters at customer sites, and conversion to the use of natural gas as a fuel. The introduction of high-efficiency thermal power generation and fuel conversion to natural gas were also promoted overseas. These efforts have resulted in a total reduction in CO<sub>2</sub> emissions of approximately 3.34 million tons. Looking ahead, we will continue promoting the introduction of highly efficient facilities, low-carbon energy, etc., both in our own company and among our customers, as we look to make an active contribution to the creation of a low-carbon society.



### Contribution to Reducing CO<sub>2</sub> Emissions in Society



## Specific Actions Taken regarding CSR Indicators and Materiality

### Climate Change Initiatives

#### Working to Reduce CO<sub>2</sub> Emissions in Business Activities

The Daigas Group engages in the electricity generation business using various power sources it owns, including thermal power generation, gas cogeneration systems and renewable energy sources. The Daigas Group is striving to reduce CO<sub>2</sub> emissions—not only from its own

business operations but also from energy consumption at customers—by introducing highly energy-efficient thermal power generation systems and actively using renewable energy sources.

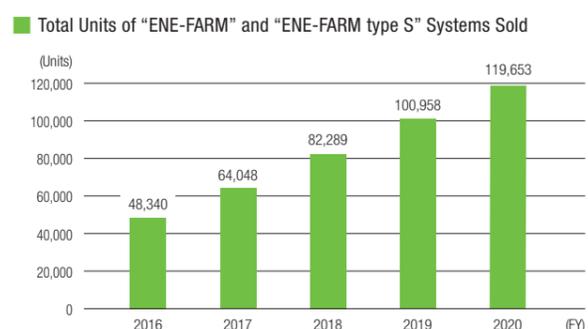
#### Development and Procurement of Renewable Energy Sources

The Daigas Group is contributing to reducing CO<sub>2</sub> emissions by operating power facilities in Japan using renewable energy sources, such as wind power, solar power and biomass, with a combined generation capacity of about 240 MW. In FY2020, Osaka Gas and Acacia Renewables K.K. of Macquarie Group signed an agreement to

cooperate on the development of offshore wind power generation in Japan. Osaka Gas has also concluded a memorandum on joint study of new businesses for creating new added value in the renewable energy field with West Holdings Corporation.

#### Working to Reduce CO<sub>2</sub> Emissions at Customer Sites

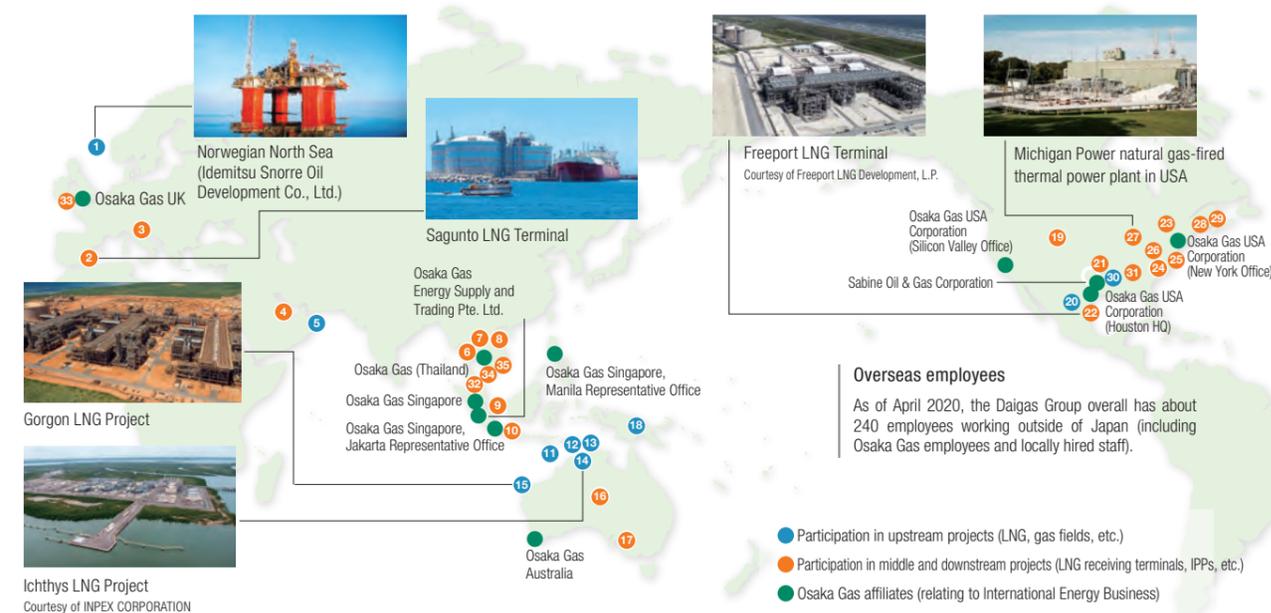
The Daigas Group has proposed and sold various products that can help reduce CO<sub>2</sub> emissions and thereby contribute to the mitigation of climate change. Those products include the “ENE-FARM” fuel cell and the “ECO-JOZU” highly energy efficient water heater, both for residential use. Marketed for commercial and industrial use are gas cogeneration systems, the gas absorption chiller/heater, the gas engine heat pump (GHP) and the natural gas vehicle (NGV). The avoided CO<sub>2</sub> emissions at the end of FY2020 reached a cumulative total of approximately 3.63 million tons thanks to the introduction of these products.



## Status of International Energy Business (As of April 2020)

The Daigas Group participates in LNG projects and other upstream businesses overseas, while also operating middle and downstream businesses utilizing expertise cultivated in the domestic energy business.

We are contributing to reducing CO<sub>2</sub> emissions through such measures as expanding the use of LNG and renewable energy and encouraging the spread of state-of-the-art energy facilities.



**Overseas employees**  
As of April 2020, the Daigas Group overall has about 240 employees working outside of Japan (including Osaka Gas employees and locally hired staff).

- Participation in upstream projects (LNG, gas fields, etc.)
- Participation in middle and downstream projects (LNG receiving terminals, IPPs, etc.)
- Osaka Gas affiliates (relating to International Energy Business)

#### Participation in upstream projects (LNG, gas fields, etc.)

- 1 Norwegian North Sea (Idemitsu Snorre Oil Development Co., Ltd.)**  
Stake since 2005: 1-10%
- 5 Qalhat LNG**  
Stake since 2006: 3% LNG output: 3.3 million tons/year
- 11 Crux Gas and Condensate Field**  
Stake since 2007: 3%
- 12 Sunrise LNG Project**  
Stake since 2000: 10%
- 13 Evans Shoal Gas Field**  
Stake since 2000: 10%
- 14 Ichthys LNG Project**  
Stake since 2012: 1.2% Projected LNG output: 8.4 million tons/year (planned)
- 15 Gorgon LNG Project**  
Stake since 2009: 1.25% Projected LNG output: 15.0 million tons/year (planned)
- 18 Western Papua New Guinea Gas and Condensate Field**  
Stake since 2014: 10 - 20% (ratio depends on field)
- 20 Pearsall Shale Gas and Liquids Development Project**  
Stake since 2012: 35%
- 30 Sabine Shale Gas Project**  
Stake since 2018: 100%

#### Participation in middle and downstream projects (LNG receiving terminals, IPPs, etc.)

- 2 Sagunto LNG Terminal**  
Ownership interest since 2010: 20% Vaporization capacity: 6.4 million tons/year
- 3 Erogasmet**  
Ownership interest since 2015: City gas distribution business
- 4 Shuweiht S2 IWPP**  
Ownership interest since 2011: 10% (25% equity interest in the operation and maintenance company)  
Power generation capacity: 151 MW Freshwater processing capacity: 10 million gallons/day
- 6 Osaka Gas (Thailand)**  
Ownership interest since 2013: Energy services business
- 7 OGP Energy Solutions**  
Ownership interest since 2015: Energy services business
- 8 NS-OG Energy Solutions**  
Ownership interest since 2014: 30% Cogeneration business
- 9 CITY-OG Gas Energy Services**  
Ownership interest since 2013: 49% Gas retail business
- 10 PT OSAKA GAS INDONESIA**  
Ownership interest since 2018: Natural gas joint marketing business
- 16 EII (Energy Infrastructure Investments)**  
Ownership interest since 2008: 30.2% Four pipelines, two gas-refining facilities, two power plants, two interconnected power transmission lines Power generation capacity: 18 MW
- 17 Hallett 4 Wind Farm Project**  
Ownership interest since 2009: 39.9% Power generation capacity: 53 MW
- 19 Osaka Gas Power America**  
Ownership interest since 2005: 6 IPP projects Power generation capacity: 301 MW
- 21 Tenaska Gateway IPP**  
Ownership interest since 2004: 40% Power generation capacity: 338 MW
- 22 Freeport LNG Terminal (vaporization business)**  
Ownership interest since 2008: 10.81% Vaporization capacity: 13 million tons/year
- 23 Freeport LNG Project**  
Ownership interest since 2012: 25% (first train) LNG output: 4.64 million tons/year (planned)
- 23 Aurora Solar Power Generation Project**  
Ownership interest since 2012: 50% Power generation capacity: 51 MW
- 24 St. Charles Energy Center Natural Gas-Fired Power Plant**  
Ownership interest since 2015: 25% Power generation capacity: 181 MW
- 26 Shore Natural Gas-Fired Thermal Power Plant**  
Ownership interest since 2017: 20% Power generation capacity: 145 MW
- 26 Fairview Natural Gas-Fired Thermal Power Plant**  
Ownership interest since 2017: 50% Power generation capacity: 525 MW
- 27 Michigan Power Natural Gas-Fired Thermal Power Plant**  
Ownership interest since 2018: 100% Power generation capacity: 125 MW
- 28 Kleen Energy Natural Gas-Fired Thermal Power Plant**  
Ownership interest since 2018: 24.3% Power generation capacity: 151 MW
- 29 Towantic Natural Gas-Fired Thermal Power Plant**  
Ownership interest since 2018: 49.5% Power generation capacity: 399 MW
- 31 SoAmerica Energy, LLC**  
Ownership interest since 2020: Development and construction of distributed solar power generation
- 32 AGP International Holdings Pte. Ltd.**  
Ownership interest since 2019: LNG business
- 33 Igloo Energy Supply Ltd.**  
Ownership interest since 2019: Electricity and gas retail business
- 34 OE Solar Co., Ltd.**  
Ownership interest since 2019: 49% Solar power generation business
- 35 Sojitz Osaka Gas Energy Company Ltd.**  
Ownership interest since 2019: 49% Gas supply business

### TOPIC Initiatives in Vietnam

Osaka Gas Singapore Pte. Ltd., a wholly-owned subsidiary of Osaka Gas Co., Ltd., established together with Sojitz Corporation and Sojitz Vietnam a joint venture company, Sojitz Osaka Gas Energy Company Ltd. (“SOGEC”), in October 2019 with the aim of supplying natural gas in Vietnam.

SOGEC is working on natural gas supplies to Phu My 3 Specialized Industrial Park, in the southern Vietnamese province of Ba Ria-Vung Tau, as well as compressed natural gas supply business via trucking for industrial customers within Vietnam.

This project marks the fourth country for the Daigas Group as we expand our business in Southeast Asia, after Singapore, Thailand, and Indonesia. This also marks the third country, following on Singapore, and Thailand, for our engagement in natural gas supply work overseas.

The demand for energy continues to increase as a result of economic growth in Vietnam. There are multiple industrial zones in the southern region of Vietnam, where this project is slated to occur, in a

concentrated area of heavy and chemical industries, with the further expectation that the region will also soon be home to new expansion for several manufacturing companies as well.

SOGEC, through this project, will not only promote the efficient use of cleaner natural gas as well as actively propose natural gas as an alternative option of fuel to coal, heavy oil, and LPG, but will also contribute to energy savings in Vietnam as well as decreasing the environmental impact there. Taking advantage of the unique knowledge and experience from both the Sojitz Group, with their impressive track record for IPP and industrial park operations in Vietnam, as well as the Daigas Group, an experienced natural gas supplier, the promotion of this project is projected to record sales worth 15 billion yen by FY2031. There are also future plans under discussion to expand energy services as well as support for new infrastructure, using various financial schemes.

# Environmental Impact throughout the Daigas Group Value Chain in FY2020

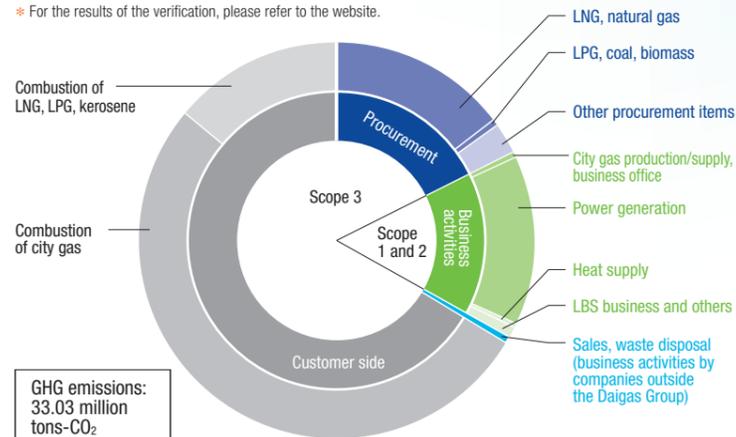
The Daigas Group calculated the amount of greenhouse gas (GHG [2.1](#)) emissions from companies that constitute the Daigas Group's value chain [2.1](#) network, based on the GHG Protocol, an international emission accounting standards. The methodology of the calculation and its results have been certified by an independent organization to verify their reliability and accuracy.\*

Combined GHG emissions by the Daigas Group and value chain companies, measured by CO<sub>2</sub>, totaled about 33.03 million tons in FY2020. The sum breaks down into about 4.96 million tons, or about 15%, for GHG emitted through business activities by the Daigas Group (Scope 1 and Scope 2), and about 28.07 million tons, or about 85%, emitted by organizations involved in our value chain (Scope 3). GHG emissions from city gas combustion on the customer side amounted to 16.85 million tons in the reporting year in terms of CO<sub>2</sub>, accounting for about 51% of the total. To reduce CO<sub>2</sub> emissions in society as a whole, it is important for Osaka Gas to promote energy conservation using natural gas, an energy source with low CO<sub>2</sub> emissions, and further popularize high-efficiency equipment and systems such as its "ENE-FARM" and cogeneration systems [2.1](#).

GHG emissions through electricity generation by the Daigas Group, as measured in terms of CO<sub>2</sub>, came to 4.49 million tons, representing about 14% of the total emissions from the Group's own business activities. With the power generation business expanding, the ratio of CO<sub>2</sub> emissions from that business has been increasing. As a way of reducing GHG emissions from power generation, the Group will continue to actively introduce highly advanced energy-efficient power generation facilities and use renewable energy sources.

GHG emissions from material and fuel procurement totaled 5.76 million tons, as measured in terms of CO<sub>2</sub> in the year, accounting for about 17% of the total emissions. The procurement of energy sources, especially LNG [2.1](#), accounted for nearly 90% of that amount. Under these circumstances, we will continue our efforts to improve fuel efficiency regarding the operation of LNG tankers in collaboration with material suppliers. Activities that have potential environmental impacts other than GHG emissions include the disposal of waste (general waste and industrial waste), and the disposal of excavated soil [2.1](#) and polyethylene pipes [2.1](#) associated with gas pipe [2.1](#) construction. However, the recycling rates are high for such waste, a situation we will try to maintain in the future. About 97% of water used for our industrial activities is taken from the sea. Such water is mostly used to vaporize LNG at LNG terminals. Seawater is also used as coolant inside the steam turbine condenser at some power plants. Once used, the water is discharged into the sea under strict control.

\* For the results of the verification, please refer to the website.



**Companies subject to the calculation of GHG emissions**  
Osaka Gas Co., Ltd. and 58 companies, including one overseas company, among 156 consolidated subsidiaries are subject to calculation of GHG emissions. Those housed in office buildings as tenants and whose environmental data are difficult to grasp and whose environmental effects are minimal are not subject to such calculation. Also excluded from the calculation are overseas companies except one company.

## Main Materials and Fuels

Amount of LNG handled	<b>8,481 thousand tons</b> The figure above includes the amounts of the items listed below: ● Materials of city gas ● Fuels at LNG terminals ● Fuels used by Group companies for power generation ● LNG shipments to outside companies
LPG <a href="#">2.1</a> used for calorific adjustment of city gas	<b>183 thousand tons</b>

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

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

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

	CO <sub>2</sub> emission (1,000 t-CO <sub>2</sub> )
LNG, natural gas	4,471
LPG, coal, biomass	155
Purchased goods	1,137
<b>Total</b>	<b>5,763</b>

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

- Production and transmission of city gas: Life cycle evaluation of city gas on the website of the Japan Gas Association
- Production and shipment of LNG, 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 [2.1](#) greenhouse gas emissions, etc. (Database Ver. 3.0) published in March 2020 by the Ministry of Environment

## Amount of Energy Used

City gas	<b>1,444 million m<sup>3</sup></b> (including gas whose calorific value has yet to be adjusted)
Purchased electricity	<b>461 million kWh</b>
Other energy sources	<b>15,150 TJ</b>

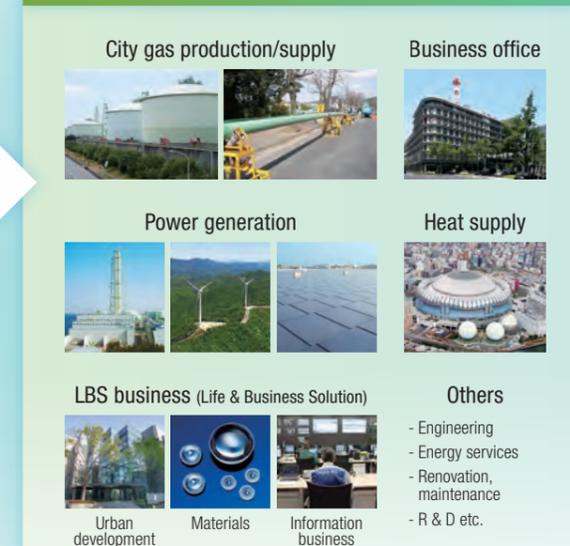
## Amount of Vehicle Fuel Used

Gasoline	<b>1,506 kl</b>
City gas	<b>68,355 m<sup>3</sup></b>
Diesel	<b>778 kl</b>
LPG	<b>9,621 m<sup>3</sup></b>

## Amount of Water Intake

General water, industrial water	<b>12.753 million m<sup>3</sup></b>
Underground water	<b>3.721 million m<sup>3</sup></b>
Seawater	<b>575.359 million m<sup>3</sup></b>

## Business activities by Osaka Gas



## GHG (Scope 1 and 2)

	Emissions (1,000 t-CO <sub>2</sub> )
City gas production/supply	97
Business office	38
Power generation	4,494
Heat supply	100
LBS and others	234
<b>Total</b>	<b>4,962</b>

## Waste

	Generated	Recycled
General waste	1,068 tons	95%
Industrial waste	133,671 tons	97%
Excavated soil	692,011 tons	100%
PE pipe	135 tons	100%
Used gas appliances recovered	1,722 tons	86%

\* At time of city gas production

## Chemical Substances and Discharge of Water

	Amount of discharge	
NOx	786 tons	
SOx	195 tons	
Toluene	36.6 tons	
Xylene	10.2 tons	
COD*	2.4 tons	
Discharge of water	Sewer	1.558 million m <sup>3</sup>
	River	3.417 million m <sup>3</sup>
	Sea	577.862 million m <sup>3</sup>

## Sales Volume of Main Products

Gas	<b>7,362 million m<sup>3</sup></b>
Electricity	<b>13,189 million kWh</b>

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

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

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

	Emissions (1,000 t-CO <sub>2</sub> )
<b>Total</b>	<b>179</b>

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

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

- Electricity: 0.65 kg-CO<sub>2</sub>/kWh (2016 anti-global warming plan; FY2014 average emission factor for fossil-based electricity sources)
- City gas: 2.29 kg-CO<sub>2</sub>/m<sup>3</sup> (based on Osaka Gas data)
- Others: Factors listed under the Law Concerning the Promotion of Measures to Cope with Global Warming

### Breakdown of Scope 3 categories

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

# Being a Good Corporate Citizen Contributing to Society



SDGs to which Contributions are Made



## Fundamental Concept

Through communication with society, we aim to advance the sustainability of local communities and are working to create social value.

Through business activities rooted in communities, the Daigas Group works to build good relationships with various stakeholders, based on an understanding of changes in the environments and issues faced by local communities. While actively disclosing information to promote better understanding of our business, we are working on creating value with society (joint efforts with local communities). We are undertaking these activities by making active use of the Daigas Group's business resources. By doing so, we will contribute to the development of sustainable local communities in which people can enrich their lives in comfort.



## CSR Indicators

## Activities to Deepen Communication with Society and Social Contribution Activities

The CSR indicator "events held to enhance communication" represents educational events sponsored by the Daigas Group to enhance people's understanding of energy and the environment, food and fire use, plus visits by the general public to the Gas Science Museum. The CSR

indicator "social contribution activities" indicates events that Daigas Group has hosted for local communities, including baseball workshops by the Group's athletic club members and educational seminars for young people.

### Targets and Results

In FY2020, the Daigas Group held 2,979 communication-enhancement events for energy, environment, food and fire. A total of 1,099 events aimed at promoting the Group's social contribution were held, including activities under the "Small Light Campaign."

	Targets	Results
Events held to enhance communication	Over <b>2,915</b> events (environmental education and food education, and visits to the Gas Science Museum)	<b>2,979</b> events
Social contribution activities	Over <b>1,090</b> events	<b>1,099</b> events

### Actions Taken

#### Continued communication activities and social contribution activities

By continuing to undertake activities aimed at enhancing communication with society through energy and environment education, food education, disaster-prevention education and fire education, while taking advantage of the assets it has amassed through business operations, the Daigas Group aims to realize the creation of regional value. In FY2020, the Group supported welfare facilities through the "Small Light Campaign" events. The Group teamed up with local municipalities and experts in the educational and medical fields to solve regional problems, using educational programs developed by Osaka Gas to promote food education, disaster-response education and environmental preservation.

## Materiality

## Priority Initiatives Local Communities

### Why the Topic is Material

The Daigas Group conducts businesses rooted in and supported by the local communities. Therefore, we believe various kinds of contribution

to the local communities will lead to a favorable cycle that brings the development in both the Group and the society.

### Management Systems and Performance

#### Indicator

Percentage of operations with implemented local community engagement, impact assessments and development programs

GRI Standards **413-1**

#### Commitment

Based on the "Daigas Group Code of Conduct," we care about the issues faced by society and strive to contribute to the local community recognizing what we are supposed to act as a member of the society.

#### Responsibilities

The ESG Committee has set up a Social Contributions Subcommittee to deliberate and report on multidisciplinary social contribution activities within the Group. The meetings of the Subcommittee were convened three times in FY2020.

#### Performance

In FY2020, all major business offices undertook various activities tailored to their characteristics.

We promoted communication enhancement activities to deepen the public's understanding of business projects run by the Daigas Group. In addition, we filed proposals aimed at building resilient **2.1** cities and communities while developing programs for making regional communities attractive by adding new value.



## Specific Actions Taken regarding CSR Indicators and Materiality

### Social Contribution Activities

#### Cooperation with NPOs: Support for Kansai-based "Social Designers"

Osaka Gas operates "My Pro Showcase Kansai," a program that supports regional projects undertaken by Kansai-based "social designers" and nonprofit organizations, jointly with Greenz, an NPO known as the operator of the online magazine "greenz.jp." The program supports these organizations and individuals working to support child care and education, build community, and help people with disabilities. Many social issues touch our lives, and these issues are becoming more advanced and complex. Osaka Gas sees people participating in the revitalization program, an initiative requiring a strong self-help drive to solve social issues, as potential future partners. Osaka Gas believes such people are capable of invigorating communities in the Kansai region through the program. Our company is thus prepared to disseminate information on their activities to society while making efforts to cooperate with various stakeholders.

Since FY2016, our company's membership-based website, "My Osaka Gas," has maintained the "Social Design+" page, which is aimed at supporting those Kansai-based "social designers," a group of people working on solving local social issues. Osaka Gas provides funding to projects in accordance with "support (points provision)" from "My Osaka Gas" members.

#### Example of "Social Design+" in FY2020

Authorized NPO Pool Volunteer	
Project theme	Let's distribute "swim caps with help marks" to help people with disabilities and illnesses enjoy swimming!
Application period	From August 5, 2019 to October 7, 2019
Total number of applicants	9,224
Donations	500 thousand yen

## Activities for Promoting Communication with Society

### Education on Food, Fire and Disaster Prevention

#### Food Education Activities

The Daigas Group engages in food education activities under the slogan “nurturing healthy youth through food.” We hold food education seminars and workshops for schools and childcare providers, and produce and distribute the Food Education Book, a teaching text for elementary schools (270,000 booklets distributed since 2008; new revised editions published in line with revisions to study guidelines in September 2019).

We have developed a Japanese Soup Stock Workshop for teaching Kansai-area cooking flavor/culture, as well as a wide range of cooking workshops in collaboration with local universities and governments on the themes of local production for local consumption and food and health. We also hold a contest for the Kinki region based on the National Parent-Child Cooking Contest.

#### Fire Education and Disaster Response Education

The Daigas group has developed two fire education programs for children—one workshop-style and one classroom-style. The aims are to teach children how to start and manage a fire safely, and how to cook with flame. By giving children the chance to learn about fire and become familiar with it physically, they will be enriched and develop greater hardiness. In response to the increased need for disaster response education following the Tohoku earthquake and tsunami of 2011, we created an original pamphlet for upper elementary school on the theme of disaster response—Lessons in Disaster Response—that we distribute to local elementary schools. A revised version was issued in January 2020. The text 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 text also contains a checklist of items to prepare

and things to do at home to prepare for emergency. Over a period of seven years, the text has been used widely—at junior high schools, high schools, and universities, as well as by local governments and local residents’ associations. Over 160,000 pamphlets in total have been distributed.



(1) Discover the types of disasters that can happen in Japan!

(2) Think about how disasters will change our lifestyles!

The shaking broke all of the tableware...

(3) Test your knowledge of useful disaster tips with quizzes!

Create paper tableware with newspaper and plastic wrap!

## TOPIC

### “Japanese Soup Stock Workshop” Wins Excellence Prize in the Corporate Section of the Director-General of the Child and Family Policy Bureau’s Award in the Minister of Health, Labour and Welfare’s “8th Smart Life Project Award (Let’s Increase Healthy Life Expectancy!)” in the Area of Maternal and Child Health

The Osaka Gas food education experience program “Japanese soup stock workshop” won the Excellence Prize in the Corporate Section of the Director-General of the Child and Family Policy Bureau’s Award, as part of the “8th Smart Life Project Award (Let’s increase healthy life expectancy!),” held by the Minister of Health, Labour and Welfare, in the area of maternal and child health. This prize is awarded to companies, organizations, and local governments that are implementing superior initiatives to support the happiness and healthy lifestyles of mothers and children, as part of the “Smart Life Project Award (Let’s increase healthy life expectancy!),” which began in 2012 as an initiative to improve the habits of Japanese people in their day-to-day lives and extend healthy life expectancy. This was the first time the prize has been won by a gas company.

The “Japanese soup stock workshop” mainly took the form of mobile courses at elementary schools, and was held 191 times and attended by 5,643 people in FY2018, 343 times and by 11,687 people in FY2019, and 345 times and by 11,717 people in FY2020. These classes have received high praise from various organizations, including public administrators, universities and boards of education, for their status as an experiential and comprehensive food education program that works with local communities, and we have rolled them out across a wide range of formats, including

classes by visiting teachers as part of home economics classes for senior children in elementary schools, cooking classes for parents and children, training sessions for educators and local government events. As a result, the classes won the above prize, after previously being awarded the Ministry of Agriculture, Forestry and Fisheries “MAFF Minister’s Commendation for Food and Nutrition Education Activities” in 2018 and the Ministry of Education, Culture, Sports, Science and Technology MEXT Enterprise Award for “Promoting Experiential Activities for Youth” Jury Honorable Mention.



Commendation ceremony of the “8th Smart Life Project Award (Let’s increase healthy life expectancy!)”



## Fundamental Concept

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

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

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

## CSR Indicators

## Scores on Compliance Awareness / Percentage of employees receiving the compliance training

We have introduced three viewpoints deemed important for compliance promotion as CSR Indicators. These three are: ① the degree of recognition by each employee of the “Daigas Group Code of Conduct,” ② the degree of penetration through each Daigas Group organization of employees’ awareness of the importance of compliance, and ③ the percentage of Daigas Group employees

taking a compliance training course. As for indicators ① and ② above, the Daigas Group aims to obtain higher scores than in the previous year in the compliance awareness surveys that it has been conducting since FY2004 to measure the degree of its penetration. Concerning indicator ③, we work to ensure that all employees receive compliance training.

### Targets and Results

The targets and results for FY2020 are as follows.

		Targets	Results
Scores on compliance awareness	① Individual: Recognition level of Code of Conduct	Higher than the previous year	Down <b>1.7</b> percentage points year-on-year (82.7%)
	② Organization: Degree of compliance penetration in the organization	Higher than the previous year	Up <b>1.3</b> percentage points year-on-year (93.1%)
	③ Percentage of employees receiving the compliance training	<b>100%</b>	<b>100%</b> (No. of employees covered by the survey: 23,063)

### Actions Taken

#### Actions taken to enhance the awareness and understanding of employees of compliance

Efforts are under way to have all employees understand the content of the “Daigas Group Code of Conduct” and heighten awareness of the importance of compliance throughout the Group. Each organization of the Osaka Gas and its affiliated companies hold training sessions for their employees that take into account their particular business and workplace characteristics. Employees who have yet to take a training course are advised to do so to ensure that all employees receive compliance training.

Materiality

Priority Initiatives Customer Privacy

Why the Topic is Material

As an energy business operator which supports a core infrastructure of society, the Daigas Group recognizes the vital importance of

protecting customers' information and managing that information appropriately.

Management Systems and Performance

Indicator

Total number of substantiated complaints regarding breaches of customer privacy

GRI Standards 418-1

Commitment

In accordance with the "Daigas Group Code of Conduct" which incorporated code of conduct and guidelines concerning the handling of private information set by the Ministry of Economy, Trade and Industry and the Japan Gas Association, we strive to ensure safety regarding the privacy of customers abiding by in-house rules, such as our "Rules for Personal Information Protection," "Privacy Policy," and "Manual for Handling Personal Information."

Responsibilities

The Vice President in charge of the General Affairs Department is appointed as the Chief Privacy Officer (CPO). Placed under the Vice

President to ensure the protection of private information involving the Daigas Group are Personal Information Managers, who supervise Business Units, the Human Resources Department, Osaka Gas affiliated companies and contractors working for Osaka Gas. In addition, the Information Security Subcommittee, which was a subcommittee of the CSR Committee,\* became a subcommittee of the Cyber Security Committee following the launch of this committee as one of the Corporate Committees in August 2019, as part of efforts to strengthen systems related to information security measures across the Daigas Group as a whole.

\* The CSR Committee has been changed to the ESG Committee from FY2021.

Performance

Although there were no substantiated complaints regarding breaches of customer privacy, the Daigas Group will continue endeavoring to ensure complete management of all customer data.

Specific Actions Taken regarding CSR Indicators and Materiality

Compliance Promotion Efforts

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

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

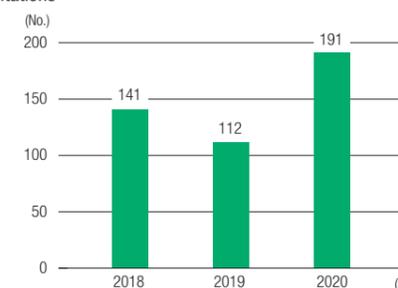
education arranged by job level for managers and new employees. In addition, we have achieved our goal of 100% for the training participation rate among Daigas Group employees used as a CSR indicator by extending the compliance training directed by individual organizations and affiliate companies. In addition, we undertake educational activities such as soliciting "Compliance Slogans" from employees each year (10,323 submissions were received group-wide in FY2020).

Establishment of Compliance Desks hotline

The Daigas Group established "Compliance Desks" at the Head Office, core affiliates, law offices, etc. outside the company to provide a channel for persons who need a place to seek advice on, and report matters concerning compliance with laws and in-house rules. Not only management and employees of the Group, and workers dispatched from manpower agencies to work for the Group, but also management and employees of suppliers providing goods and labor to Group companies on a long-term basis can seek advice or make reports anonymously by phone, e-mail, or in writing.

In FY2020, the Compliance Desks received a total of 191 consultations and reports. Upon receipt of a report, while ensuring the

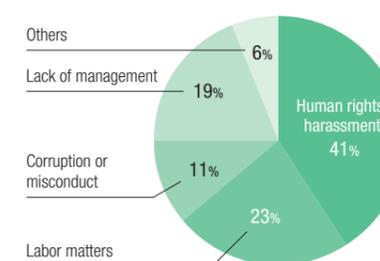
Number of Consultations



confidentiality of the names of the reporter, the person or people about whom the report was made, and other information, and observing the prohibition on unfavorable treatment of the reporter, an initial examination was made, following which a fair investigation of the facts was conducted and any necessary corrective measures were implemented based on the "rules for the systems of consultation and reporting on legal compliance."

Acting on a report concerning compliance, the Group will take remedial measures if the case is found to constitute a violation of law. Even if no violation is detected, the Group will carry out improvement measures as a way of creating a better working environment and maintaining it, as necessary.

Breakdown of Report Content



Cease and Desist Orders and Surcharge Payment Orders from Japan Fair Trade Commission

Osaka Gas Chemicals Co., Ltd., a subsidiary of Osaka Gas, was subject to an on-site inspection by the Japan Fair Trade Commission ("JFTC") on February 21, 2017, based on potential violations of the Anti-Monopoly Act in regard to bids for activated charcoal to be used in water purification facilities, etc. Subsequently, Osaka Gas Chemicals Co., Ltd. fully cooperated with the JFTC's investigation, but nevertheless received Cease and Desist Orders and Surcharge Payment Orders based on the Anti-Monopoly Act on November 22, 2019.

1. Outline of the Cease and Desist Orders

Osaka Gas Chemicals Co., Ltd. received orders including the following, in regard to bids for activated charcoal to be used in local public bodies' water purification facilities, waste incineration facilities, etc.

- To confirm that it has ceased any actions violating Article 3 of the Anti-Monopoly Act (prohibition on unreasonable restraint of trade);
- To not determine a supplier in advance in future, and ensure that each company conducts sales activities in an independent manner;
- To notify any applicable business operators, excluding Osaka Gas Chemicals Co., Ltd. itself, any local public bodies ordering activated charcoal, and any suppliers and clients of the details of measures it is taking to prevent reoccurrence, and at the same time ensure complete awareness of these measures among the employees of Osaka Gas Chemicals Co., Ltd.

2. Outline of the Surcharge Payment Orders

Amount of surcharge to be paid: 46.1 million yen

3. Measures Taken in Response

Following the on-site inspection in February 2017, Osaka Gas Chemicals Co., Ltd. immediately ceased all actions violating the Anti-Monopoly Act. Osaka Gas Chemicals Co., Ltd. also implemented measures to prevent reoccurrence and took steps to ensure complete compliance with laws and regulations, including the creation of internal rules to prevent cartels, etc., and internal audits and education on the Anti-Monopoly Act on an ongoing basis.

In addition, upon receiving the orders from the JFTC, Osaka Gas Chemicals Co., Ltd. paid the surcharge, and the Board of Directors also passed a resolution based on the Cease and Desist Orders. Local public bodies, suppliers, and clients were notified of the details of those measures, and Osaka Gas Chemicals Co., Ltd. also worked to ensure complete awareness of these measures among its own employees.

Furthermore, in a sign of the seriousness with which Osaka Gas Chemicals Co., Ltd. accepted this penalty, two former Presidents and one Director and Senior Executive Officer voluntarily returned 10% of their monthly remuneration for one month.

## Promotion of Global Compliance

In view of expanding business operations abroad, an English version of the leaflet summarizing the “Daigas Group Management Principle,” the “Daigas Group CSR Charter,” the “Daigas Group Code of Conduct” and Compliance Desks used for the internal reporting system was posted on the intranet for dissemination to employees.

In FY2020, we confirmed the status of Group companies in the Energy Resources & International Businesses Unit and any issues they faced, as part of measures to combat risks overseas.

We also conducted on-site surveys at our overseas subsidiaries to determine the status of their environmental compliance.

## Action on Human Rights

### Daigas Group Human Rights Awareness Promotion System

To promote human rights awareness activities throughout the Daigas Group, Osaka Gas has established a “Daigas Group Human Rights Committee” headed by the director responsible for the Human Resources Department which decides activity policies.

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. Slogans that won high-ranking awards are made into posters, and are put up in offices to constantly remind employees of the importance of human rights.

## Efforts for Protection of Personal Information

### Structure for Strengthening Protection of Personal Information including Affiliates and Contractors

The Daigas Group is in possession of the personal information of a large number of individuals, and has rules and measures in place to protect this information. The Vice President in charge of the General Affairs Department is appointed as the Chief Privacy Officer (CPO). Placed under the Vice President are Personal Information Managers,

who supervise Business Units, the Human Resources Department, and Osaka Gas affiliated companies. We have established a personal information protection system that extends even to subcontractors, and is endeavoring to suitably manage personal information and prevent leaks.

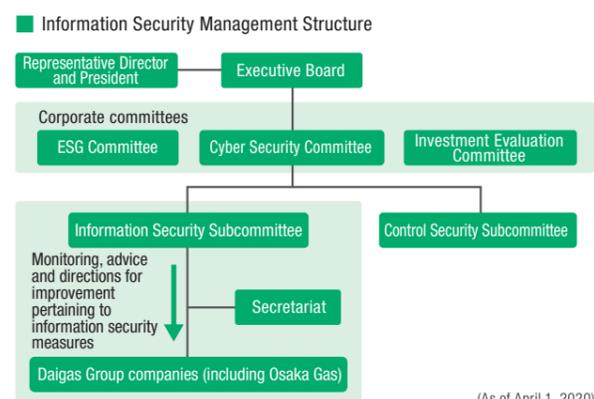
## Information Security

### Strengthening Information Security Measures

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

As a business operator responsible for social infrastructure, the Daigas Group recognizes the importance of managing customer information and other data, and has established Cyber Security Committee as a corporate committee on August 1, 2019. Under the leadership of the Information Security Subcommittee, which is placed under the Cyber Security Committee, we have sought to enhance the infrastructure for its various operational systems and to implement security measures.

The entire gas industry has been working on security-enhancement measures in line with an action plan meant to strengthen information security regarding important infrastructure, compiled by the National Center of Incident Readiness and Strategy for Cybersecurity (NICS). In step with this move, our company has endeavored to enhance information security.



## Management Policy for Human Growth



## Fundamental Concept

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

The Daigas Group would like to be a company at which employees can find not just employment but also personal growth through their work. To that end, we have introduced 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. We have also formulated the “Daigas Group

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

## CSR Indicators

### Employee Attitude Survey: Job Satisfaction and Attachment to the Company

Osaka Gas periodically conducts its “Employee Attitude Survey” to understand how satisfied employees are with their job, workplace environment, superiors, company systems, and so on. Employees are

asked to rate their satisfaction level on a five-point scale for categories including job satisfaction, attachment to the company, etc., and to leave an open comment.

#### Targets and Results

The goal of the “Employee Attitude Survey,” conducted every two or three years, is to confirm changes over time in employee attitudes and the progress made in adopting/implementing the human resources systems. The results of the latest survey, conducted in FY2019, are shown below.

	Targets	Results
Job satisfaction and attachment to the company	Maintain sufficient levels	Maintained sufficient levels (3.86 against scale of 5 for job satisfaction and 4.25 of scale of 5 for attachment to the company)

#### Actions Taken

### Employee Attitude Survey

The Employee Attitude Survey is carried out to understand how satisfied Osaka Gas employees are with their jobs, workplace environment, superiors, and human resources system, as well as to gauge their understanding of the corporate principles and long-term management vision in today’s rapidly changing business environment. Employees are asked to rate their satisfaction level on a five-point scale for categories including job satisfaction, attachment to the company, etc., and to leave an open comment. We consider these survey results as a source of business growth, and will use them to implement better measures to promote a workplace culture where employees can take on challenging work.

Materiality

Priority Initiatives Training and Education

Why the Topic is Material

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 2030. We consider it vital

to develop personnel who are capable of working in an active manner in a rapidly changing business environment, and to that end we offer a range of training and educational programs aimed at developing individual capabilities.

Management Systems and Performance

Indicator

Average hours of training per year per employee

GRI Standards 404-1

Commitment

In the "Daigas Group Code of Conduct," the Group has declared its intention of creating workplaces in which employees can work with peace of mind. We will respect employee individuality and support career design and skills development to enable diverse personnel to reach their full potential.

Responsibilities

Osaka Gas has introduced a personnel system that helps all employees to clarify their roles and expectations through meetings with superiors who serve as training advisors. Employees themselves select a career track course to pursue. We offer a wide range of training for all positions and job descriptions, enhancing various training programs arranged by job level, such as junior, new, mid-level employees, managers and executives, or self-selected trainings in addition to a system of training by career track course. Overseas business training is also conducted to develop personnel who can play an active role globally.

Materiality

Priority Initiatives Diversity and Equal Opportunity

Why the Topic is Material

The Daigas Group recognizes the need for the Group to foster a corporate culture that will encourage 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."

Management Systems and Performance

Indicator

Percentage breakdown of employees and executives by gender and age

GRI Standards 405-1

Commitment

Osaka Gas has formulated the "Daigas Group Diversity Promotion Policy" with the aim of creating a strong organization that can create new value. The Policy guides us to be a corporate group that can accept diverse values by respecting and approving diverse human resources without discrimination.

Responsibilities

In the area of diversity and equal opportunity, we are taking 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, the development of human resources, and the workplace environment.

Performance

Based on the Act for Measures to Support the Development of the Next Generation and the Act on the Promotion of Women's Participation and Advancement in the Workplace, we have been promoting initiatives with the aim of maintaining a 30% or higher female personnel ratio in career-track positions and achieving a female manager ratio\* of 5% by 2020.

\* Percentage of women in managerial or higher positions

FY2020 result

Percentage of women among personnel hired in April 2020 for career-track positions:

26.8%

Percentage of women in management positions:

5.2%

(as of April 1, 2020)

Specific Actions Taken regarding CSR Indicators and Materiality

Development of Human Resources

Training Options for the Companies of the Group

To enhance measures that support human resource development at the Daigas Group, a range of trainings are offered that are in high demand by group companies. In addition to programs arranged by job level, a self-directed career development support program is also available. The system offers many suitable options for training to encourage self-directed career development and personal growth.

Outline of Training Options for the Daigas Group

Executives	Newly appointed director training			
	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 or 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			
	Newly appointed manager training			
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	Online study courses	Challenge seminars (self-directed training)	Accounting and financial affairs seminars
	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			

## Acceptance of Diversity

### Supporting a More Active Role for Female Employees

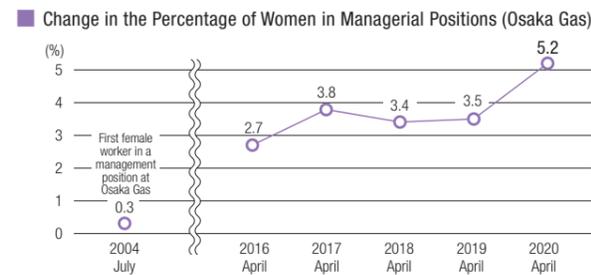
In view of the declining working population in Japan, Osaka Gas believes it is important to accept diverse values and is endeavoring to create a workplace environment in which women can exercise their abilities and play active roles. Working in line with their aptitude and wishes, women have been displaying their abilities in the fields of gas production, gas supply and marketing. Following such efforts, Osaka Gas has received high evaluation from outside the Company, as shown by its selection as a “Nadeshiko Brand” that has been given to the Company for five consecutive years since FY2014.

The Company continues to implement various measures, including institutional reforms, to achieve the numerical targets set forth in the “Daigas Group Diversity Promotion Policy” aimed at maintaining a 30% or higher female personnel ratio in career-track positions and achieving a female manager ratio\* of 5% by 2020. In part as an outcome of our efforts to encourage a work-life balance between employees’ professional and personal lives and to promote career development, in addition to the impact of the Group reorganization in April

2020, the percentage of women in management positions reached 5.2%.

Additionally, as a measure to support active participation in the workplace by a diverse range of people, in FY2019 Osaka Gas received a PRIDE Index gold award from “work with Pride,” Japan’s first private organization to rate companies based on their efforts to support inclusiveness of LGBT employees and other sexual minorities. Osaka Gas became the first gas provider to receive the gold award.

\* Managerial or higher position



## Improving Occupational Health and Safety

### 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 traffic 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 (FY2018–FY2021).

#### Goals for Safety and Health

		Goals for FY2021
Accident causing absence (Osaka Gas, other party)		0
Accident causing no absence	Osaka Gas	Negligence 0
	Other party	0

### Osaka Gas Certified as Health and Productivity Management “White 500” Company for 2020 (Large Enterprise Category) for Three Consecutive Years

In March 2020, Osaka Gas was certified as a Health and Productivity Management “White 500” Company for 2020 (large enterprise category) under the commendation system introduced by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi\*1 to recognize companies for actively engaging in Kenkou Keiei\*2 (employee health management). This is the third straight year Osaka Gas has been awarded this certification.

The “White 500” award is intended to encourage business corporations to establish a work environment in which companies active in managing their employees’ health—from business and strategic viewpoints—can be commended socially. Osaka Gas was recognized

under the commendation system for the proactive actions based on the “Daigas Group Code of Conduct.”

\*1 Nippon Kenko Kaigi  
The Nippon Kenko Kaigi is an organization that takes practical actions, based on collaboration among private organizations with full administrative support, to extend the healthy lifespans and provide appropriate medical care for all individuals in Japan, a country facing a rapidly aging society with fewer children. The organization aims to encourage workplaces and communities to achieve specific measures to overcome health-related challenges based on collaboration among private organizations, including economic associations, medical-care associations and insurers, as well as municipalities.  
\*2 Kenkou Keiei  
“Kenkou Keiei” is a registered trademark of Nonprofit Organization Kenkokeiei.



# Corporate Governance

## Basic Views on Corporate Governance

To implement measures envisaged under the Long-term Management Vision 2030 and the Medium-term Management Plan 2020, both formulated in March 2017 and together called “Going Forward Beyond Borders,” Osaka Gas will ensure transparency, fairness and boldness in decision making, and execute its assigned business duties efficiently and adequately, based on the Daigas Group CSR Charter, a set of guiding principles for employees, and specific standards for actions—the Daigas Group Code of Conduct and the Daigas Group Environmental

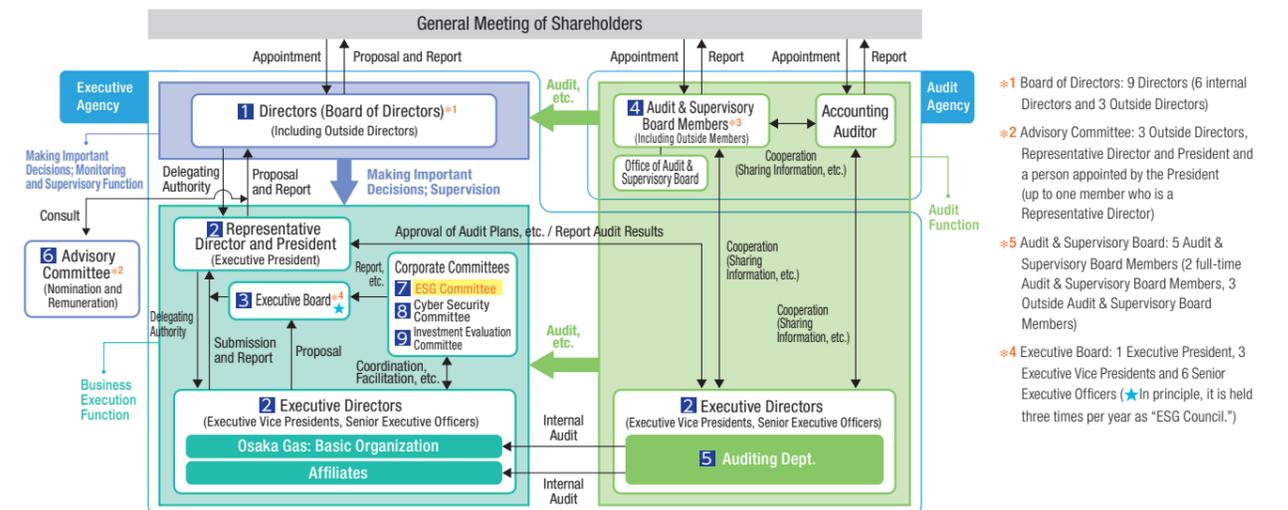
Activities Policy. By doing so, the Company aims to attain sustainable growth and enhance its corporate value on a medium- and long-term basis. We will further raise the CSR level of the Group by responding appropriately to the exercise of shareholder rights and working to maintain and improve trust through dialogue and collaboration with stakeholders. We will continue to enhance and strengthen corporate governance with the aim of global standard management that takes ESG (environment, society, and governance) into consideration.

## System and Efforts Aimed at Enhancing Corporate Governance

The Company has selected to be a company with Audit & Supervisory Board and conducted the introduction of an executive officer system, appointment of multiple Outside Directors, and establishment of voluntary advisory committees corresponding to appointment of Directors and Audit & Supervisory Board Members and Director remuneration. The Company considers its current governance system best suited in order for responding swiftly to changes in the business

environment, ensuring transparency, fairness and boldness in decision-making, and implement efficient and appropriate actions. In addition, by reducing the number of Directors to nine in June 2020 and thereby increasing the composing ratio of Outside Directors to one-third, the Company will seek to further improve the mobility and efficiency of decision-making and execution of business in management, and further strengthen the supervisory role of the Board of Directors.

Corporate Governance Organization Chart (as of June 26, 2020)



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

The Board of Directors consists of nine Directors (including three Outside Directors). Its mission is to make swift and appropriate decisions about important matters that affect the whole Group including subsidiaries and to enhance supervisory capabilities. To attain sustainable growth and improve medium and long-term corporate value for the Group, candidates for Directors are in principle selected from a diverse group of people without regard to sex or nationality, etc., taking their knowledge, experiences, abilities, and personalities etc. into account.

Based on this, when selecting, the Company takes into consideration expertise in managing the Group’s energy business and other businesses for internal Director candidates and the individual’s independent-mindedness for making objective judgments, and whether they have wide-ranging knowledge, wealth of experience, and expertise in their specialized fields for Outside Director candidates. The Board of Directors met a total of 13 times in the fiscal year ended March 31, 2020, and had an attendance rate of 98.2%. There was adequate time for deliberations, and active discussions were conducted.

### 2 Executive Officers

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

### 3 Executive Board

The Company examines basic management policies and important management issues at the Executive Board and fully deliberates the foregoing before decision-making. In accordance with internal regulations, the Executive Board consists of the President, Executive Vice President, Senior Executive Officer, Head of Corporate Headquarters, and Head of Business Division. In principle, the Executive Board is held three times per year as “ESG Council,” which deliberate and supervise CSR activity plans and its execution.

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

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

Office of Audit & Supervisory Board with a dedicated full-time staff which is not under the direct control of the Executive Directors has been established to support the Audit & Supervisory Board Members' auditing work and thus improve the auditing system.

#### 5 Auditing Department

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

#### 6 Advisory Committee

To maintain objectivity and achieve transparency in the decision-making process, matters relating to appointment of Director and Audit & Supervisory Board Member candidates, appointment and dismissal of Representative Director and other Executive Directors, and matters relating to Directors' remuneration are deliberated at an advisory committee of which a majority is Outside Directors before decision is made by President Takehiro Honjo pursuant to delegation by a resolution of the Board of Directors. The committee

is comprised of inside and outside members, with outside committee members being all of the Outside Directors (all three members satisfy the standards for determining independence specified by the Company). The inside committee members are the President and if necessary, persons appointed by the President (the President may appoint up to one member who is a Representative Director). The committee chairperson is appointed by the committee members.

#### 7 ESG Committee

The Company has established the ESG Committee to coordinate and advance group-wide CSR activities, which is chaired by the Head of ESG Promotion, who is the Representative Director / Executive Vice President in charge of overseeing the Group's CSR activities, and is composed of the General Managers of relevant divisions. The ESG Committee promotes information security, risk management and other aspects of the Group's CSR activities.

#### 8 Cyber Security Committee

In August 2019, to reinforce the cyber security measures of the Group, we set up the Cyber Security Committee which is chaired by the officer in charge of the Information / Communication Systems Department, and is composed of the General Managers of relevant divisions.

#### 9 Investment Evaluation Committee

The Company has established the Investment Evaluation Committee, which is chaired by the Head of the Corporate Planning Headquarters and composed of the General Managers of relevant divisions. The committee examines risk and return and makes an evaluation on investments exceeding a certain amount, and it reports findings to the Executive Board and assists appropriate investment decisions.

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

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

Specifically, the Board of Directors Secretariat conducted questionnaires and interviews with all Directors and Audit & Supervisory Board Members individually on questions such as whether the operation and information provision of the Board of Directors were appropriate and sufficient, and whether the opinions received from outside officers during evaluation last year (e.g., enhancement of discussion relating to important management themes including business plans and continued provision of information for deeper understanding of Board of Directors resolutions) have been addressed, and in light of the results thereof, held discussions with all outside officers, and made its evaluations,

which confirmed that such matters have been appropriately addressed.

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

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

### Director and Audit & Supervisory Board Members Remuneration

To maintain objectivity and achieve transparency in the determination process, the remuneration for each Director shall be deliberated at an advisory committee of which a majority is outside officers before decision is made by Representative Director and President Takehiro Honjo pursuant to delegation by a resolution of the Board of Directors, with such amounts being within the maximum amount approved at the General Meeting of Shareholders of June 28, 1990 (¥63 million per month (not including the portion of wages for employees who are also Directors); 27 persons). In deciding amounts of remuneration, the Company follows rules specified by a resolution of the Board of Directors, and refers to each Director's roles and responsibilities and levels of remuneration at other companies. To encourage officers' efforts to realize sustainable growth and increase medium- to long-term corporate value, about 40% of overall remuneration is linked to the business results

of the Company. In order to contribute to short- and medium- to long-term corporate value enhancement, the performance-based amount is linked to profit attributable to owners of parent (consolidated profit) for the past three years. The plan and results for consolidated profit are shown in the table below. The meeting of the voluntary advisory committee corresponding to remuneration for the fiscal year ended March 31, 2020 was held in May 2019 in accordance with rules specified by the resolution of the Board of Directors with attendance of eight committee members (including six outside officers) and deliberations were held on matters such as the appropriateness of calculation methods for the portion linked to business results, payment coefficient, and remuneration levels, which were then decided by the Representative Director and President as mentioned above. The amount of remuneration for Outside Directors consists only of a fixed portion

because they are in positions independent of the execution of the Company's businesses. Directors, except Outside Directors, purchase the Company's shares through officers' shareholding association, to which they contribute a certain amount of money from their monthly remuneration.

The advisory committee is comprised of inside and outside members, with outside committee members being all of the Outside Directors from February 2020. The inside committee members are the Company President and if necessary, persons appointed by the President (the President may appoint up to one member who is a Representative Director). The committee members elect the committee chairperson from amongst themselves.

The above-mentioned policy on deciding remuneration is determined by President within the scope of resolutions of the Board of Directors and the results of

deliberation by the voluntary advisory committee.

Remuneration for each Audit & Supervisory Board Member shall be determined through discussions among Audit & Supervisory Board Members within the amount of remuneration (up to ¥14 million per month; five persons) approved at the General Meeting of Shareholders of June 29, 1994, taking into consideration the position, etc. of each Audit & Supervisory Board Member. The amount of the remuneration for Audit & Supervisory Board Members (including Outside Audit & Supervisory Board Members) consists only of a fixed portion because they are in positions independent of the execution of the Company's businesses.

The system of paying retirement benefits to Directors and Audit & Supervisory Board Members has been abolished.

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

Fiscal year		199th	200th	201st
Fiscal year		FY2017.3	FY2018.3	FY2019.3
Profit attributable to owners of parent	million yen	Plan	42,500	46,500
		Results	61,271	37,724
				33,601

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

Classification	Total amount of remuneration (million yen)	Total amount of remuneration by type of remuneration		Number of payees
		Fixed (million yen)	Performance-linked (million yen)	
Directors (excluding outside directors)	513	308	205	11
Audit & Supervisory Board Members (excluding outside members)	69	69	—	3
Outside directors	31	31	—	4
Outside Audit & Supervisory Board Members	32	32	—	3

Note: The number of persons and amounts include one internal director, one outside director, and one Internal Audit & Supervisory Board member who retired as of the close of the Company's 201st General Meeting of Shareholders held on June 20, 2019, and one outside director who retired in February 2020.

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

■ There are no employees concurrently serving as officers.

### Risk Management

Organizational heads of the Company and Presidents of the affiliates promote the management of the risk of losses and periodically conduct risk management assessments. Each basic organization or affiliate identifies risk items, checks the status of management concerning the risk items and conducts follow-ups or other measures by using such means as the "G-RIMS (Gas Group Risk Management System)\*," which systematizes the self-assessment of risk management practices. Regarding the management of risks concerning security and disaster prevention which are common to the Group, the organization in charge is clearly specified, and the organization supports each basic organization and affiliate to ensure risk management on a Group-wide basis.

To prepare for emergencies, regulations for disaster countermeasure and business continuity plans are prepared. During the fiscal year under review, we carried out company-wide disaster-

prevention drills, which consist of disaster response and BCP  exercises, and collaboration training and exercises to ensure collaboration between gas pipeline  operators and gas retailers in case of disaster.

In light of the spread of COVID-19 in Japan and abroad, we set up a task force and confirm the status of the Group's responses, while taking appropriate measures to prevent infections.

To reinforce the cyber security measures of the Group, we set up the Cyber Security Committee and strengthened countermeasures against cyberattacks from outside the Group network.

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

### Status of Internal Control

The Company's Board of Directors developed an internal control system which includes systems necessary to ensure that the execution of duties by Directors complies with laws and regulations and the Articles of Incorporation, and other systems prescribed by the applicable Ordinance of the Ministry of Justice as systems necessary to ensure the properness of the Company's operations. The Company confirms the operating status

of the internal control systems on a periodic basis by receiving reports mainly from the heads of organizations regarding a list of items to be confirmed. At the meeting of the Board of Directors held on April 27, 2020, it was reported that the internal control systems were operating in a proper manner.

# Third-party Review

The Daigas Group CSR Report underwent a third-party review by the Institute for Environmental Management Accounting (IEMA), including simple audits and recommendations. In the process of preparing its evaluation, the IEMA interviewed the Head of ESG Promotion and Head of ESG Office regarding CSR-related activities at the Daigas Group.

Here, we report the content of discussions on the day of the interview, and present the written opinion of the IEMA.

In interviews conducted in July 2020, the IEMA asked about the following three points:

1. The Daigas Group's own evaluation of its results in terms of CSR indicators and materiality in FY2020
2. Risks that the Daigas Group considers particularly important in regard to climate change issues, and the Daigas Group's measures to counter these risks
3. The value that the Daigas Group will be able to provide in the future, in response to the change in values caused by the COVID-19 pandemic

In response, for the first point, we explained our results in terms of CSR indicators and materiality indicators in FY2020, and reported the fact that we streamlined our former procurement policies and revised them in April 2020, in order to promote further supply chain management across the Daigas Group.

For the second point, concerning climate change issues, we explained our awareness of the fact that there is a global need to reduce greenhouse gas (GHG) emissions and promote decarbonization in future, and the fact that it is a global societal issue to address increasing risks of natural disasters resulting from climate change. We also spoke about our progress on initiatives to contribute to reducing CO<sub>2</sub> emissions, as set forth in the Long-term Management Vision 2030 and the Medium-term Management Plan 2020.

Regarding risks and opportunities related to climate change, we explained the information published on our CSR website, in addition to our measures to counter natural disasters, and the methanation technology that is a focus for the city gas industry. In response to our initiatives to



Interview



**Katsuhiko Kokubu**  
Director of IEMA;  
Professor, Graduate School of Business  
Administration, Kobe University



**Eriko Nashioka**  
Representative Director of IEMA, CPA



**Takeshi Matsui**  
Representative Director, Executive  
Vice-President, Head of ESG Promotion,  
Osaka Gas Co., Ltd.



**Yuko Kusui**  
Head of ESG Office,  
Corporate Strategy Department,  
Osaka Gas Co., Ltd.

tackle climate change, the IEMA provided comments on global trends in environmental issues, the measures required of energy business operators, and the expectations placed upon them. Following these comments, we held discussions that covered many different perspectives, including geopolitical issues faced by Japan's energy markets.

For the third question, we explained that we established an ESG Office in the Corporate Strategy Department, which is responsible for business strategy, when we conducted our organizational restructuring in April 2020, to ensure that the Daigas Group as a whole further implements ESG-conscious management that creates value and earn the trust of stakeholders. In addition, we spoke of our intention to conduct discussions with each business unit about the value that the Daigas Group can offer when formulating our next medium-term management plan, focusing on changes in the values held by our stakeholders, including customers, society, shareholders, and employees, in light of the impact of the COVID-19 pandemic.

In response to the Company's explanations on each of these matters, the IEMA asked many questions and provided a large amount of advice, and as such, we were able to discuss issues that we should focus on in future. Based on the interview, the IEMA prepared and presented a report that summarized its overall evaluation and advice regarding the Daigas Group's CSR efforts.

## Evaluation and Opinion of CSR Management



### Outline of Objectives and Activities Conducted

As a third-party that has no business relationships with Osaka Gas, we are expressing our opinion to help enhance the reliability of the Daigas Group CSR Report 2020 by evaluating the CSR initiatives mentioned in the report, excluding numerical information on the environment. We interviewed head office employees about the CSR management initiatives of the Daigas Group, including dialogue with Takeshi Matsui, Representative Director, Executive Vice-President, Head of ESG Promotion.

### Evaluation and Opinion

The COVID-19 pandemic resulted in 2020 being a year that will go down in history. All unnecessary and non-urgent outings were suspended, and we have seen significant changes in the way society operates, workstyles, and peoples' values. Osaka Gas has also changed its systems, including working from home and staggered shifts, while fulfilling its mission of providing a stable supply of energy. The Company expressed its renewed intention to pursue value propositions from the perspective of creating a "new normal," at a time when what is "normal" is changing. The organizational change from a CSR & Environment Department to an ESG Office in the Corporate Strategy Department and the Daigas Group's intention to further promote Group-wide initiatives and contribute to the SDGs through its added value indicates significant resolve. In future, we hope the Daigas Group further develops this approach, while also incorporating a perspective based on co-creating value with various stakeholders. In order to do so, we believe that enhancing the possibilities for utilizing corporate resources and the active participation of employees (emergent responsible management) will be important factors. We think the Company's potential will also expand by incorporating an approach that assesses social impact.

As an energy service provider, the Daigas Group must urgently address the shift to a low-carbon society. Coal-fired power generation is currently facing backlash, but natural gas also harbors the risk of becoming a stranded asset, as pressure to switch to

renewable energy grows. Osaka Gas has already taken various measures, and the Company's ENE-FARM residential fuel cells is particularly promising in the plan to adjust power supply and demand, a major issue in the era of renewable energy. Additionally, ENE-FARM is being increasingly adopted to manage power outages as a disaster countermeasure in recent years. If these types of technology are developed further, it may enable local consumption of locally generated energy, triggering significant changes to social systems. It is a possibility that disclosing where the Company's individual activities lie in the big picture of things may prove effective.

Amid the COVID-19 pandemic, there has been an increased awareness of the value of redundancy, which was deemed an obstacle to increasing efficiency, and the move toward working from home has shown the limitation of labor based on hours worked. Looking ahead, we will need to promote systems for working that are based on output instead of hours worked, and move toward new styles of management as companies shift from pyramid-shaped organizations to flat organizations. Companies will be required to create new value through co-creation with stakeholders and implement an integrated approach that connects both economic and ESG considerations. We expect the Daigas Group to take this opportunity to build models for creating new value, and disclose them not only through its CSR report, but also via an integrated report, because integrated reports have a wider scope as a tool to deepen communication with a broader range of stakeholders.

July 20, 2020

**Katsuhiko Kokubu,**  
Director of IEMA; Professor, Graduate School of Business  
Administration, Kobe University

**Eriko Nashioka,**  
Representative Director of IEMA, CPA

## Inclusion in SRI Indices

Osaka Gas was included in the following socially responsible investment (SRI) indices and an investment universe (candidates for inclusion in indices) as of June 30, 2020.



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

# Daigas Group

## Corporate Profile of Osaka Gas (As of March 31, 2020)

Head Office	4-1-2 Hiranomachi, Chuo-ku, Osaka 541-0046, Japan
Establishment	April 10, 1897
Commencement of operations	October 19, 1905
Capital	132,166 million yen
Number of employees	[Non-consolidated] 5,271 (including operating officers, directors and temporary employees, and excluding employees temporarily transferred to affiliated companies) [Consolidated] 20,543

## Main Business Lines of the Daigas Group (As of March 31, 2020)

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

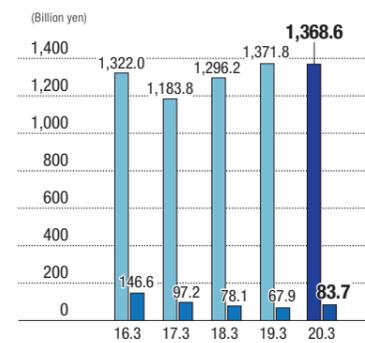
## Financial and Non-Financial Highlights

### Financial Data

#### Net sales/Operating profit

Fiscal year ended March 31, 2020

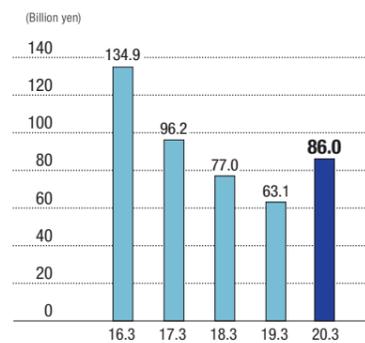
Net sales **1,368.6** billion yen  
Operating profit **83.7** billion yen



#### Ordinary profit

Fiscal year ended March 31, 2020

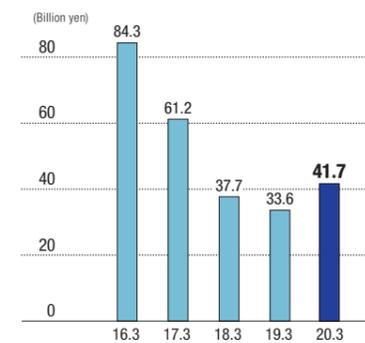
**86.0** billion yen



#### Profit attributable to owners of parent

Fiscal year ended March 31, 2020

**41.7** billion yen

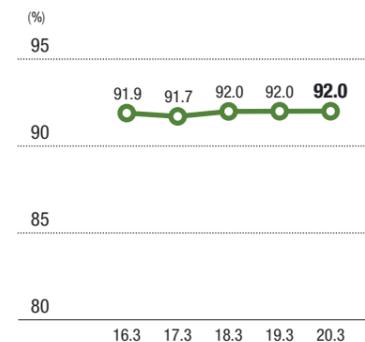


### Non-Financial Data

#### Customer satisfaction (overall satisfaction\*)

Fiscal year ended March 31, 2020

**92.0** %

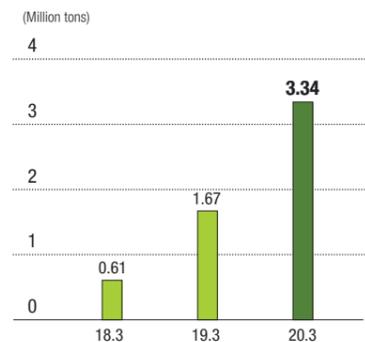


\*1 Overall satisfaction: Percentage of evaluations in the highest two ranks of a six-rank scale regarding customer satisfaction levels in seven areas of operation that have direct interaction with customers

#### Contribution to reduction in CO<sub>2</sub> emissions\*2

Fiscal year ended March 31, 2020

Total reduction of **3.34** million tons

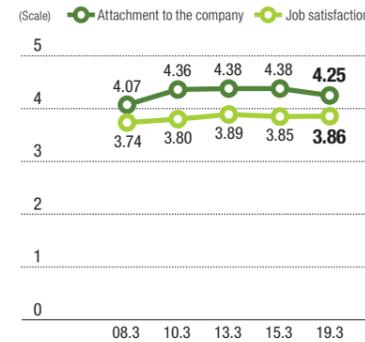


\*2 Cumulative total since FY2018

#### Employee attitude survey\*3 (job satisfaction and attachment to the company)

Fiscal year ended March 31, 2020

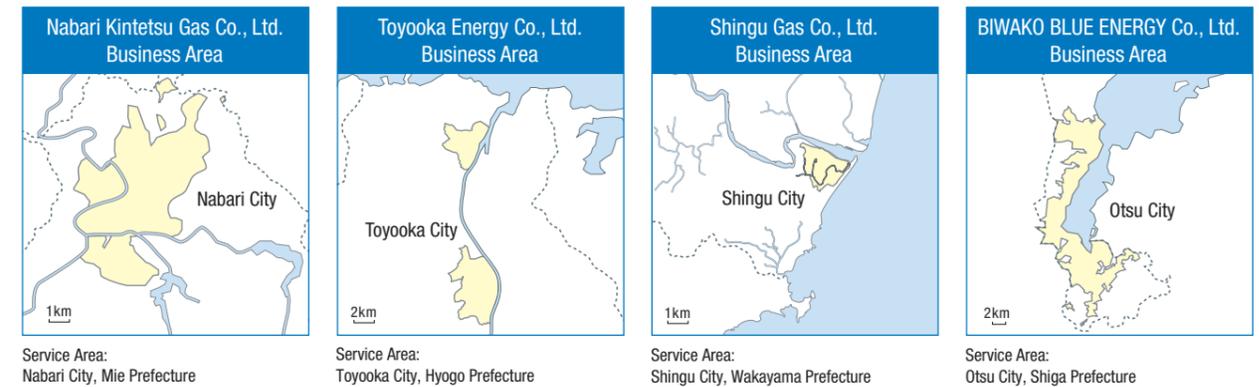
Attachment to the company **4.25**  
Job satisfaction **3.86**



\*3 The survey is conducted every few years.

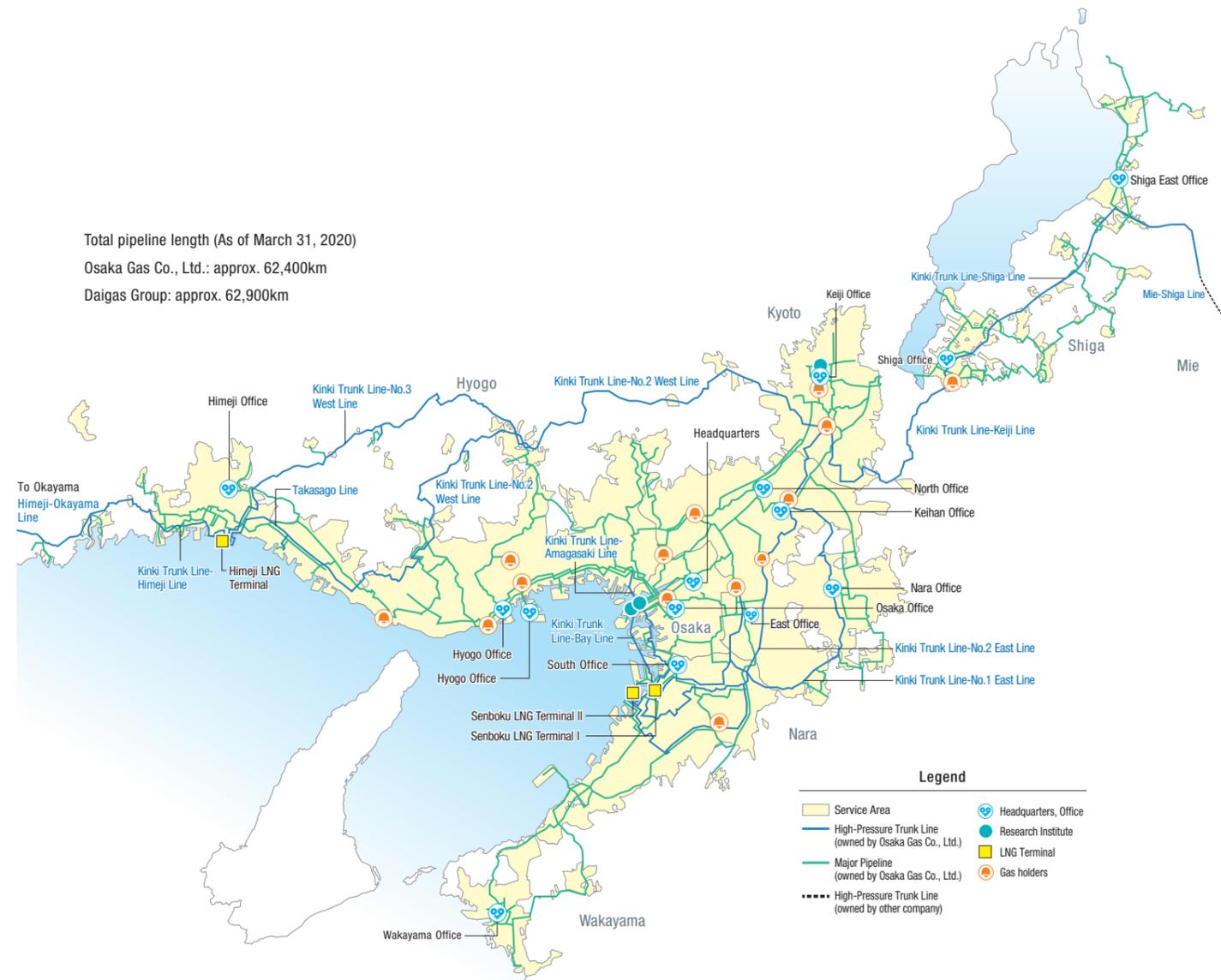
## Daigas Group City Gas Business Area

### Gas Supplier of the Daigas Group (As of March 31, 2020)



### Total pipeline length (As of March 31, 2020)

Osaka Gas Co., Ltd.: approx. 62,400km  
Daigas Group: approx. 62,900km



**Legend**

- Service Area
- High-Pressure Trunk Line (owned by Osaka Gas Co., Ltd.)
- Major Pipeline (owned by Osaka Gas Co., Ltd.)
- High-Pressure Trunk Line (owned by other company)
- Headquarters, Office
- Research Institute
- LNG Terminal
- Gas holders