Creating Value for 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.

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.

The overall satisfaction rate was 92% in FY2019, the same rate as that of the preceding year.

We will continue to offer customer-oriented services in response to the opinions revealed in the survey.

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall satisfaction rate</td>
<td>91% or more</td>
</tr>
<tr>
<td>Satisfaction rate for each of seven customer service duties</td>
<td>86% or more</td>
</tr>
</tbody>
</table>

Further efforts to enhance levels of customer service

Efforts to raise our customer services to the highest level in a six-grade customer satisfaction (CS) poll began in FY2016 as part of our efforts to advance our overall service level. Specifically, we observed the behavior of Osaka Gas staff who received high CS grades in four of the seven customer-service fields—opening of gas lines, repair of gas appliances, sales of appliances, and response to telephone inquiries. We call this analysis method as “behavioral observation”.

We analyzed and developed the observation results into a customer service manual for each field for use by all staff. The detailed survey results are fed back to staff for further improvement of their customer service levels.

* A methodology for seeking solutions based on the academic analysis of facts and findings obtained through the broad-based observation of people’s behavior that becomes prominent in various situations.
Actions on Materiality

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 5.579 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: GRI Standards 416-1 Percentage of city gas for which health and safety impacts are assessed for improvement against the total amount of city gas provided by Osaka Gas

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 FY2019, 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.

<table>
<thead>
<tr>
<th>FY2019 target</th>
<th>FY2019 result</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Specific actions taken regarding CSR indicators and materiality

Safety and Security Initiatives

Measures to ensure secure and stable supply of city gas

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.
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.

Securing safety at customers sites
In preparation for an accident or disaster, we have implemented systems to response 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 piping, we have undertaken systematic renewal as planned to introduce piping that are excellent in resistance to earthquakes and corrosion.

Disaster preparedness
Following our experience with the Great Hanshin-Awaji Earthquake in 1995, we have implemented a variety of earthquake countermeasures. For example, the numerous safety measures we have adopted for our manufacturing facilities include 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.

Moreover, as an emergency response measure, we are constructing a system capable of shutting off the gas supply in order to prevent secondary disasters. For example, we have installed an automatic seismic/remote shutoff device that automatically shuts off the low-pressure gas supply in the supply area when a large earthquake is detected.

In addition, we are promoting measures against tsunami in the aftermath of the Great East Japan Earthquake. 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

<table>
<thead>
<tr>
<th>Major Earthquake Countermeasures</th>
<th>Major earthquake countermeasures</th>
<th>Results (as of March 31, 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Enhancement of information-gathering</td>
<td>Seismograph installation</td>
<td>Installed in all areas (263 locations)</td>
</tr>
<tr>
<td>(2) Construction of a supply shutoff system</td>
<td>Subdivision of supply blocks</td>
<td>Subdivided into middle blocks (65) and little blocks (164)</td>
</tr>
<tr>
<td>(3) Other measures</td>
<td>Introduction of supply shutoff equipment</td>
<td>Remote shutoff devices: 3,577 locations / Automatic seismic shutdown systems: 3,011 locations</td>
</tr>
<tr>
<td></td>
<td>Promoting the installation of polyethylene (PE) pipes</td>
<td>100% of all new low-pressure pipes were the PE type, with PE piping being extended to 18,400 km.</td>
</tr>
<tr>
<td></td>
<td>Promoting the use of intelligent meters</td>
<td>Completed installation for home use, with an overall penetration rate of 99.9% including businesses.</td>
</tr>
<tr>
<td></td>
<td>Online backup of important data</td>
<td>Installation of a backup center</td>
</tr>
</tbody>
</table>

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

It assumes a situation in which the company and society at large are affected by an earthquake or tsunami resulting in a paralysis of various functions, or a functional failure due to problems with raw materials suppliers and our equipment. According to the terms of the “Act on Special Measures for Pandemic Influenza and New Infectious Diseases” (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 Preparedness Action Plan” in order to ensure the stable supply of gas in such a situation.

In principle, we review our BCP annually and promote employee awareness by implementing BCP training, earthquake drills, and education and training incorporating e-learning. In FY2019, in response to our experience of the 2018 Northern Osaka Prefecture Earthquake, we revised our BCP operation rules to accommodate a disaster with a more limited area; this was prepared in addition to our previous plan, which assumed a wide-area disaster.

In the event of an earthquake, we must respond by upholding business continuity in parallel with implementation of disaster-response operations, so clearly advanced disaster response capabilities are required as well. By simultaneously implementing earthquake drills and BCP training in FY2019, we were able to identify the challenges of maintaining business continuity concurrently with disaster response operations, thus strengthening our overall disaster-response capabilities.
Ensuring stable procurement by diversifying sources of LNG imports for Osaka Gas

In recent years, calls for energy security have raised expectations as well as demand for natural gas. In 1972, Osaka Gas began importing LNG and, since then, has contracted an increasing number of diverse suppliers. Currently, we source our LNG from eight countries. We also have plans to launch an LNG business in Texas in the U.S.A. and will continue working to expand our stable supply of LNG.

In the U.S.A., the LNG price is determined in conjunction with the Henry Hub price, which is an indicator of the futures price of natural gas in the United States. By adding this transaction to transactions with other countries where the LNG price is determined in conjunction with the crude oil price, the impact of fluctuations in crude oil prices can be mitigated.

Countries with Natural Gas Reserves and LNG Supply Sources for Osaka Gas

Ensuring a stable energy supply with diversified power sources

The Daigas Group participates in the electricity generation business using the various power sources it owns, including thermal power generation, gas cogeneration systems, and renewable energy sources. The Group has a combined power-generation capacity of about 2.01 million kW in Japan, including a main power source at the Senboku Natural Gas Power Plant, a highly energy-efficient thermal power plant. The Group will continue to develop new power sources to ensure a stable electricity supply.

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 FY2019, we enhanced our services by reflecting customer comments, such as the location monitoring service “GPS BoT,” which informs families about the whereabouts of their children and movement history through mobile phones using GPS and AI.
Environmental conservation on a local and 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 FY2019 was given as 12.5 yen / 1,000 m³, showing steady progress being made toward attaining the FY2021 goal.

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Management Efficiency</td>
<td>14.2 yen / 1,000 m³ or less</td>
</tr>
</tbody>
</table>

* Target set for FY2021

#### Actions Taken

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

All employees have been working to reduce GHG emissions in business activities through the operation of an environmental management system (EMS). As part of such efforts, we have been switching to LED lighting in all of our office buildings to save energy as part of our “green gas building” activities.

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.

In addition, we have reduced environmental impact by recycling drilling soil discharged during gas pipe construction. Consequently, the environmental management efficiency for FY2019 came to 12.5 yen / 1,000 m³.
Actions on Materiality

<table>
<thead>
<tr>
<th>Materiality</th>
<th>Energy / Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>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 CO₂ 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.</td>
</tr>
</tbody>
</table>

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, CSR Committee, and CSR Promotion Council (Executive Board). The PDCA (plan-do-check-act) cycle is used to manage such actions.

Indicator: GRI Standards 305-5
Amount of reduction in CO₂ emissions

Commitment
Several new initiatives have been taken from FY2018 to FY2019. 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 CO₂ emissions of approximately 1.67 million tons.

Performance
FY2019 target: 7 million ton reduction
FY2019 result: 1.67 million ton total reduction

*1 Target set for FY2021
*2 Third-party review conducted by Bureau Veritas Japan Co., Ltd.

Contribute to Reducing CO₂ Emissions in Society

The Daigas Group aims to contribute to reducing CO₂ emissions in society by replacing energy systems with our low-carbon energies/systems.

Amount of CO₂ reduction anticipated during FY2018–2031 under Long-Term Management Vision 2030

- CO₂ emissions at customers (Scope 3) expected to rise with gas sales increasing due to expanded introduction of cogeneration systems.
- CO₂ emissions at the Daigas Group (Scope 1 and Scope 2) expected to rise due to expanding gas production and power generation.
Demonstration Project Started to Promote ACF Air Purification Units in Indonesia

Osaka Gas Engineering Co., Ltd., a subsidiary of the Daigas Group, began a demonstration project in Indonesia in September 2018 to reduce a roadside air pollutant, nitrogen oxide (NOx), by using an air purification system with activated carbon fiber (ACF). The project has been adopted by the Japan International Cooperation Agency (JICA) as one of its “collaboration programs with the private sector for disseminating Japanese technologies for the social and economic development of developing countries.” Jakarta, the capital city of Indonesia, has recently been facing severe air pollution on roadways due to intensified traffic congestion that has accompanied rapid economic growth and associated changes in the living environment.

The system features air purification using natural breezes, which does not require electric power, and NOx removal by rinsing with water or by rain, and thus easy maintenance and long-term benefits—all of which are considered to be effective for mitigating air pollution in developing countries. With support from JICA for one year, OGE will verify the system’s effectiveness in Indonesia’s tropical environment.
Mid- and downstream business development in Southeast Asia

The group began surveying markets in the region around 2010 to determine the potential for mid- and downstream business development. The focus of the survey was Southeast Asia, because of the promise it holds as a market for economic growth with a high percentage of manufacturing industries, besides having many Japanese companies doing business there.

In the industrial market in Thailand, Osaka Gas is utilizing its expertise in energy solutions based on natural gas-related engineering to develop business that focuses on energy services. It engages in the installation of equipment such as boilers and industrial furnaces, and is broadly involved in utilities, which includes CNG supply, along with water and biotechnology.

In October 2013, Osaka Gas founded Osaka Gas (Thailand) Co., Ltd. in Thailand. In November 2015, Osaka Gas and a subsidiary of PTT Public Co., Ltd. in Thailand jointly established OGP Energy Solutions Co., Ltd. to supply energy services to industrial clients in Thailand. The joint company has already received 29 orders from local companies for energy services and facility installation.

In July 2014, Osaka Gas and Nippon Steel & Sumikin Engineering Co., Ltd. (today Nippon Steel Engineering Co., Ltd.) agreed to form a business partnership for an on-site business using cogeneration systems built in Thailand. Under the agreement, the two companies established NS-OG Energy Solutions (Thailand) Ltd. In 2018, the joint venture completed the construction of an on-site energy supply project for Thai Honda Manufacturing Co., Ltd., a manufacturer of Honda’s motorcycles in Thailand, and energy supply operations commenced. This marks the company’s fourth such energy supply project in Thailand (as of April 2019).

NSENGI/Osaka Gas Affiliate Wins Cogeneration Award 2018 Chairman’s Award (Industrial Use Category)

NS-OG Energy Solutions (Thailand) Ltd. ("NSET"), worked with Nippon Steel & Sumikin Engineering Co., Ltd. ("NSENGI"/today Nippon Steel Engineering Co., Ltd.) and the TORAY Group’s local subsidiary in Thailand, Luckytex (Thailand) Public Company Limited, known as Toray Textiles (Thailand) locally, on an on-site energy supply project for which the award was granted—”Introduction of a Cogeneration Facility by Means of On-site Energy Supply in Thailand and Highly Efficient, Stable Operations of the Facility—a Case Study of Its Introduction in Mill No. 2 of Luckytex (Thailand) Public Company Limited.”

The Advanced Cogeneration and Energy Utilization Center JAPAN presented the Cogeneration Award 2018 Chairman’s Award in the Industrial Use category for the following reasons.

- The cogeneration facility has been introduced in Thailand in the form of an on-site energy supply system, which is a one-stop service that covers facility planning, possession, construction, operations and maintenance, as well as fuel gas procurement.
- In FY2018, primary energy was reduced by 25%.
- The rate of operation exceeded 99%, with operations supported through a remote monitoring system by expert staff from NSET’s head office in Bangkok and NSENGi in Japan.
- Such stable operation is remarkable in Southeast Asia, where it has been difficult to maintain stable operation of cogeneration facilities.
- A BCP (business continuity plan) has been put in place to address frequent power failures and instantaneous voltage drops. In the event of an abnormality in grid power, self-sustaining operation of the cogeneration facility takes care of the full load of the plant, avoiding any impact on production in the plant. This shift occurs about 30 times a year.

The award-winning cogeneration facility boasts an overall efficiency of over 90%. This high-efficiency cogeneration system mostly consists of a 7 MW-class gas turbine and a high-efficiency waste heat recovery boiler unique to NSENGi. NSET will continue to support its customers’ efforts toward the realization of a low-carbon society and to contribute to the sustainable development of Thailand by making use of this highly-regarded operations management technology and offering highly environmentally friendly and economical energy solutions.
Environmental Impact throughout the Daigas Group Value Chain in FY2019

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

Combined GHG emissions by the Daigas Group and value chain companies, measured by CO₂, totaled about 34.81 million tons in FY2019. The sum breaks down into about 5.35 million tons, or about 15%, for GHG emitted through business activities by the Daigas Group (Scope 1 and Scope 2), and about 29.46 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 18.17 million tons in the reporting year in terms of CO₂, accounting for about 52% of the total. To reduce CO₂ emissions in society as a whole, it is important for Osaka Gas to promote energy conservation using natural gas, an energy source with low CO₂ emissions, and further popularize high-efficiency equipment and systems such as its Ene-Farm and cogeneration systems.

GHG emissions through electricity generation by the Daigas Group, as measured in terms of CO₂, came to 4.88 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 CO₂ emissions from that business has been increasing every year. 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 6.15 million tons, as measured in terms of CO₂ in the year, accounting for about 18% of the total emissions. The procurement of energy sources, especially LNG, accounted for 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 and polyethylene pipes associated with gas pipe construction. However, the recycling rates are high for such waste, a situation we will try to maintain in the future.

About 97% of water used for our industrial activities is taken from the sea. Such water is mostly used to vaporize LNG at LNG terminals. Seawater is also used as coolant inside the steam turbine condenser at some power plants. Once used, the water is discharged into the sea under strict control.

### GHG Emissions Throughout the Value Chain in FY2019

Companies subject to the calculation of GHG emissions

Osaka Gas and 55 companies among 150 consolidated subsidiaries are subject to calculation of GHG emissions. Those housed in office buildings as tenants and whose environmental data are difficult to grasp and whose environmental effects are minimal are not subject to such calculation. Also excluded from the calculation are overseas companies.

One overseas company was added to this group of companies subject to the calculation of energy-use and GHG emissions.

### Main Materials and Fuels

<table>
<thead>
<tr>
<th>Amount of LNG handled</th>
<th>9,419 thousand tons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The figure above includes the amounts of the items listed below:</td>
</tr>
<tr>
<td></td>
<td>● Materials of city gas</td>
</tr>
<tr>
<td></td>
<td>● Fuels at LNG terminals</td>
</tr>
<tr>
<td></td>
<td>● Fuels used by Group companies for power generation</td>
</tr>
<tr>
<td></td>
<td>● LNG shipments to outside companies</td>
</tr>
</tbody>
</table>

| LPG 36 | used for calorific adjustment of city gas | 176 thousand tons |

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

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

### GHG (Scope 3**4**)

<table>
<thead>
<tr>
<th></th>
<th>CO₂ emission (1,000 t-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG, natural gas</td>
<td>5,096</td>
</tr>
<tr>
<td>LPG, coal, biomass</td>
<td>185</td>
</tr>
<tr>
<td>Purchased goods</td>
<td>873</td>
</tr>
<tr>
<td>Total</td>
<td>6,155</td>
</tr>
</tbody>
</table>

Sources of emission factors used for calculating CO₂ emissions

- **LNG production and shipment:** Calculation of life cycle greenhouse gas emissions of LNG and city gas 13A (Research papers and a collection of academic speeches released at the 35th meeting of the Japan Society of Energy and Resources, held in June 2016)
- **Production and shipment of LPG and coal:** Future forecast for life cycle greenhouse gas emissions of LNG and City Gas 13A (Energy and Resources, Vol. 28, No. 2, March 2007)
- **Other main emission factors:** Emission factors for calculating supply-chain greenhouse gas emissions (Database Ver.2.6) published in March 2019 by the Ministry of Environment
Osaka Gas underwent a third party verification by Bureau Veritas Japan Co., Ltd.

**Business activities by Osaka Gas**

- City gas production/supply
- Power generation
- LBS business (Life & Business Solution)
- Business office
- Heat supply
- Others: Engineering, Energy services, Renovation, maintenance, R & D etc.

**Amount of Energy Used**

<table>
<thead>
<tr>
<th>Source</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>City gas</td>
<td>1,642 million m³ (including gas whose calorific value has yet to be adjusted)</td>
</tr>
<tr>
<td>Purchased electricity</td>
<td>453 million kWh</td>
</tr>
<tr>
<td>Other energy sources</td>
<td>14,424 TJ</td>
</tr>
</tbody>
</table>

**Amount of Vehicle Fuel Used**

<table>
<thead>
<tr>
<th>Source</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>1,843 kL</td>
</tr>
<tr>
<td>City gas</td>
<td>82,000 m³</td>
</tr>
<tr>
<td>Diesel</td>
<td>779 kL</td>
</tr>
<tr>
<td>LPG</td>
<td>13,000 m³</td>
</tr>
</tbody>
</table>

**Amount of Water Intake**

<table>
<thead>
<tr>
<th>Source</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>General water, industrial water</td>
<td>14.311 million m³</td>
</tr>
<tr>
<td>Underground water</td>
<td>3.788 million m³</td>
</tr>
<tr>
<td>Seawater</td>
<td>577.357 million m³</td>
</tr>
</tbody>
</table>

**GHG (Scope 1 and 2)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>CO₂ emission (1,000 t-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City gas production/supply</td>
<td>89</td>
</tr>
<tr>
<td>Business office</td>
<td>38</td>
</tr>
<tr>
<td>Power generation</td>
<td>4,878</td>
</tr>
<tr>
<td>Heat supply</td>
<td>106</td>
</tr>
<tr>
<td>LBS and others</td>
<td>238</td>
</tr>
<tr>
<td>Total</td>
<td>5,350</td>
</tr>
</tbody>
</table>

**Waste**

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Generated</th>
<th>Recycled</th>
</tr>
</thead>
<tbody>
<tr>
<td>General waste</td>
<td>1,017 tons</td>
<td>95%</td>
</tr>
<tr>
<td>Industrial waste</td>
<td>120,043 tons</td>
<td>97%</td>
</tr>
<tr>
<td>Excavated soil</td>
<td>697,000 tons</td>
<td>100%</td>
</tr>
<tr>
<td>PE pipe</td>
<td>120 tons</td>
<td>100%</td>
</tr>
<tr>
<td>Used gas appliances recovered</td>
<td>1,738 tons</td>
<td>87%</td>
</tr>
</tbody>
</table>

**Sales Volume of Main Products**

<table>
<thead>
<tr>
<th>Source</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>7,935 million m³</td>
</tr>
<tr>
<td>Electricity</td>
<td>11,653 million kWh</td>
</tr>
</tbody>
</table>

**GHG (Scope 3**

<table>
<thead>
<tr>
<th>Source</th>
<th>CO₂ emission (1,000 t-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales, waste disposal</td>
<td>193</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Source</th>
<th>CO₂ emission (1,000 t-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>23,111</td>
</tr>
</tbody>
</table>

**Chemical Substances**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Amount of discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>859 tons</td>
</tr>
<tr>
<td>SOx</td>
<td>188 tons</td>
</tr>
<tr>
<td>Toluene</td>
<td>30.15 tons</td>
</tr>
<tr>
<td>Xylene</td>
<td>8.01 tons</td>
</tr>
<tr>
<td>CO₂</td>
<td>2.0 tons</td>
</tr>
<tr>
<td>Ammonia</td>
<td>1.641 million m³</td>
</tr>
<tr>
<td>Ammonia</td>
<td>3.786 million m³</td>
</tr>
<tr>
<td>Ammonia</td>
<td>580.331 million m³</td>
</tr>
</tbody>
</table>

**CO₂ emission factors used**

- Electricity: 0.65 kg-CO₂/kWh (2016 anti-global warming plan; FY2014 average emission factor for fossil-based electricity sources)
- City gas: 2.29 kg-CO₂/m³ (based on Osaka Gas data)
- Others: Factors listed under the Law Concerning the Promotion of Measures to Cope with Global Warming

**Breakdown of Scope 3 categories**

- Category 1–4 (purchased products, capital goods, fuel procurement, upstream transportation)
- Category 5–9, 12–14 (waste, business trips, commuting, leased assets, downstream distribution, end-of-life treatment of sold products, franchises)
- Category 11 (use of sold products)
The Daigas Group conducts business rooted in communities, and its business cannot succeed without good relations with these communities. Actively disclosing information to promote better understanding of our business is a matter of course. Based on the Small Light Campaign, an initiative led by employees, we are working on creating value with society (joint efforts with local communities) mainly under five themes—working with regional communities; history, culture and towns; sports and health; safety and security; and diet. We are undertaking these activities by making active use of the Daigas Group’s business resources. By doing so, we aim to promote the development of sustainable local communities.

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.

In FY2019, the Daigas Group held 1,497 educational events for energy, environment, food and fire. Over the year, 1,138 communication-enhancement events were held at the Gas Science Museum. A total of 584 events aimed at promoting the Group’s social contribution were held, including activities under the “Small Light Campaign” and activities by athletic clubs. In addition, the number of social contribution activities held by the Research Institute for Culture, Energy and Life (CEL) of Osaka Gas and the Osaka Gas Group Welfare Foundation totaled 501 over the year.

Furthermore, the Group actively works in the community, including having the athletic clubs of Osaka Gas host activities that support the healthy growth of young people.
Actions on Materiality

<table>
<thead>
<tr>
<th>Materiality</th>
<th>Local Communities</th>
</tr>
</thead>
</table>

Why materiality is important
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: GRI Standards 413-1 Percentage of operations with implemented local community engagement, impact assessments and development programs

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 CSR 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 FY2019.
In the Regional Co-Creation Division, we have set up companywide activity planning, with each individual business operation taking advantage of the local network it built in the communities to move forward with activities in its area.

Specific actions taken regarding CSR indicators and materiality

Social Contribution Activities

Corporate volunteering activities under the “Small Light Campaign”
The Small Light Campaign was launched in 1981, the UN International Year of Disabled Persons, as a company volunteer effort by the Daigas Group. Our Group’s business activities are closely tied to the daily lives of everyone in the community. Acknowledging that this fact alone demands greater self-awareness and action from them as members of their local communities, employees are involved in the Small Light Campaign as good corporate citizens.

Joining hands with local communities to create new social value
For better society  People  History and culture
For healthy people and society  Diet  Creating value with society
For protecting ourselves  Safety and security

For nurturing attachment to the society
For healthy society through sports

The Small Light Campaign  ● Volunteering activities by the Group employees
NOBY T&F CLUB activities

In addition to the Small Light Campaign activities, the Daigas Group is using its resources and assets in ways that meet a wide range of local community needs, making efforts that help increase the vitality of local areas. One particular effort is the NOBY T&F CLUB, a track and field club led by Nobuharu Asahara, a noted sprinter and employee of Osaka Gas. The club offers various athletic programs aimed at providing youth the chance to grow up healthy through sports and to develop into the next generation of top athletes. The wealth of knowledge gained from NOBY T&F CLUB activities is now being applied to projects with other local governments.

Also, in September 2018, we signed a business agreement with the comprehensive community sports facility, Cerezo Osaka Sports Club, to open the Cerezo Osaka × NOBY T&F Club, a track and field club. The aim is to foster the next generation of top athletes to compete on the world stage and promote the health of everyone from children to seniors through activities held at the community sports club.

Communication with Society

Exchange of opinions between representatives of consumer groups and management

In order to use the views of as many people as possible to improve business and operations, Osaka Gas creates opportunities to gather the opinions of people, such as members of consumer groups.

Once a year, there is an exchange of opinions between Osaka Gas’s management and the representatives of the Kansai Consumers’ Association Liaison Commission, an organization of local consumer groups throughout the Kansai region. This exchange has been taking place for over 30 years, beginning in 1986. In FY2019, the region was hit by the Northern Osaka Prefecture Earthquake and problems caused by abnormal weather, so we explained the measures that Osaka Gas takes to ensure safety and security in the supply of gas, emphasizing the high priority given to safety as the cornerstone of our operations. We also received positive feedback on our renewable energy business plans.

We regularly hold briefings and study sessions to promote better understanding among consumer groups and consumer centers regarding the systems and mechanisms that have been established in line with energy market liberalization, along with our efforts to promote gas safety. In November 2018, for example, the Pipeline Business Unit held a skills contest for Osaka Gas service 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 efforts being made by the Daigas Group to improve safety.

We will also continue to undertake public relations activities as part of our efforts to promote consumer-oriented business operations.
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 manager and employee is the key to compliance, we are continually conducting training sessions and employee surveys to raise awareness.

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 FY2019 are as follows.

<table>
<thead>
<tr>
<th>CSR Indicator</th>
<th>Scores on Compliance Awareness / Percentage of Employees Receiving “Compliance Training”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Targets</strong></td>
<td><strong>Results</strong></td>
</tr>
<tr>
<td>① Individual: Recognition level of Code of Conduct</td>
<td>Down 1.2 percentage points year-on-year (84.4%)</td>
</tr>
<tr>
<td>② Organization: Degree of compliance penetration in the organization</td>
<td>Down 0.1 percentage points year-on-year (91.6%)</td>
</tr>
<tr>
<td>③ Percentage of employees receiving the Compliance Training</td>
<td>100% (No. of employees covered by the survey: 22,231)</td>
</tr>
</tbody>
</table>

### Actions Taken

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

The results of a compliance awareness survey were collated into a report presented to the CSR Committee and Compliance Subcommitte. Feedback was then provided to Group organizations and affiliates, and work was begun to create a plan for action in the next fiscal year based on the results and the aim of improving awareness and understanding of the Group Code of Conduct.

In FY2019, an in-house study session conducted regularly at each organization of the Daigas Group newly took up the Daigas Group Code of Conduct and ethics enhancement. In the same year, an in-house case-study session focusing on interactive discussion was held for employees in management positions at two Business Units and one affiliated company (including all subsidiaries).
Actions on Materiality

<table>
<thead>
<tr>
<th>Materiality</th>
<th>Customer Privacy</th>
</tr>
</thead>
</table>

Why materiality is important
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: GRI Standards 418-1 Total number of substantiated complaints regarding breaches of customer privacy

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.

Performance

FY2019 result Responded to Leak of Personal Information

In FY2019 there was an incident of attacks on server vulnerabilities and unauthorized access at one company in the Daigas Group that led to customer information being leaked. Based on the results of a third-party security audit, measures were taken to prevent a recurrence.

Specific actions taken regarding CSR indicators and materiality

Information Security

Strengthening information security measures
Under the leadership of the Information Security Subcommittee, the Daigas Group has established a system to enhance its overall information security.

In FY2019, we conducted surveys and checkups on information security at Group companies, formulated improvement plans for each company, and had them implement suitable measures. Education on information security was also provided to all Daigas Group employees to improve information security awareness and the skill level of each and every employee. Also, drills simulating targeted email attacks based on actual cases were conducted, reaching a total of about 20,000 employees.

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.

Responding to customer information leaks due to unauthorized access
The vulnerability was attacked and unauthorized access was made on some servers used for the file transfer service operated by OGIS-RI Co., Ltd., a Daigas Group company. As a result, 4,815,399 customer information leaked to the outside.

Based on this incident, OGIS-RI has established the Security Enhancement Countermeasures Section to strengthen countermeasures and monitoring against cyber attacks. In addition, the Group as a whole is further strengthening information management, such as checking for the risk of similar events.
Compliance Promotion Efforts

Observing compliance is vital to winning the trust of customers and society, and constitutes the basis of business continuity. To facilitate compliance, we are building frameworks for quickly recognizing when a legal violation or wrongdoing has taken place and to facilitate an appropriate response. The Daigas Group thus established “Compliance Desks” at the Head Office, core affiliates, and law offices 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 FY2019, the Compliance Desks received a total of 112 consultations and reports. Upon receipt of a report, an initial examination was made, following which a fair investigation of the facts was conducted and any necessary corrective measures were implemented.

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.

### Number of Consultations

<table>
<thead>
<tr>
<th>Year</th>
<th>Consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>109</td>
</tr>
<tr>
<td>2018</td>
<td>141</td>
</tr>
<tr>
<td>2019</td>
<td>112</td>
</tr>
</tbody>
</table>

### Breakdown of Report Content

- Human rights, harassment: 43.6%
- Unfair conduct: 11.1%
- Personal information: 3.4%
- Labor matters: 19.6%
- Others: 22.3%

Promotion of global compliance in step with overseas business development

In view of expanding business operations abroad, an English version of the leaflet summarizing the Corporate Principles of the Daigas Group, 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 FY2019, we grasped how risks have been addressed at 16 major overseas subsidiaries while modifying risk items listed under G-RIMS, a risk management system developed by Osaka Gas, for use by such overseas subsidiaries. We checked whether preventive measures and early-detection steps on about 40 risk items had been implemented at the subsidiaries as intended. Then, we took response actions against the risks. We also conducted on-site surveys at our overseas subsidiaries to determine the status of their environmental compliance and CSR efforts.

About warning from the Japan Fair Trade Commission

Osaka Gas received a warning from the Japan Fair Trade Commission on January 24, 2019 about a pre-order system in use for selling our brand of fan heaters to service shops. We will continue to thoroughly review our systems in working with service shops and take action to ensure compliance with the Anti-Monopoly Law and related laws and regulations.

Response to improper work performed by group companies to whom regular inspection of gas heat pump air conditioners was outsourced

In August 2018, Osaka Gas learned that in the periodic inspections of its gas heat pump air conditioning systems outsourced to Enetec Kyoto Co., Ltd., a Daigas Group company, improper work was done that departed from established procedures, whereby certain worn parts had not been replaced that should have been.

After this incident, we started carrying out follow-up surveys on periodic inspection work to prevent a recurrence. In May 2019, Osaka Gas surveyed customers of another group company, Enetec Osaka Co., Ltd., who had had a periodic inspection performed prior to measures being devised to prevent a recurrence and found that fuel hoses that should have been replaced had not been replaced. These parts were subsequently replaced and all maintenance firms were instructed to conduct follow-up surveys and to confirm that work had been performed properly as part of efforts to prevent a recurrence.

For details of this matter, please refer to our press release dated May 17, 2019 (Japanese only).
Management Policy for Human Growth

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 Indicator

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, on the CSR Indices of job satisfaction / attachment to company and degree of satisfaction with human resources systems, are shown below.

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction and attachment to the company</td>
<td>Maintained sufficient levels (3.86 against scale of 5 for job satisfaction and 4.25 of scale of 5 for attachment to the company)</td>
</tr>
</tbody>
</table>

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.
Actions on Materiality

<table>
<thead>
<tr>
<th>Materiality</th>
<th>Training and Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why materiality is important</td>
<td>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.</td>
</tr>
</tbody>
</table>

Management systems and performance

Indicator: GRI Standards 404-1 Average hours of training per year per employee

Commitment

The Daigas Group Code of Conduct was formulated and 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 training programs for all positions and job descriptions, in addition to a system training by career track course. Overseas business training is also conducted to develop personnel who can play an active role globally.

Specific actions taken regarding CSR indicators and materiality

Human Resource Development and Rewards

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.

<table>
<thead>
<tr>
<th>Employees</th>
<th>Newly appointed director training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executives</td>
<td>Management seminars Purpose: To improve managerial skills and build sympathetic qualities</td>
</tr>
<tr>
<td></td>
<td>Enlightenment program for manager candidates Purpose: To raise self-awareness regarding the skills and qualities needed for organizational management and to foster the desire to develop one’s own abilities</td>
</tr>
<tr>
<td></td>
<td>Mid-level leadership program Purpose: To develop the core leaders of the organization</td>
</tr>
<tr>
<td></td>
<td>Newly appointed manager training</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>Mid-career training</td>
</tr>
<tr>
<td></td>
<td>Newly appointed instructor training</td>
</tr>
<tr>
<td></td>
<td>Newly hired employee training</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Managers</th>
<th>Newly appointed director training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Management seminars Purpose: To improve managerial skills and build sympathetic qualities</td>
</tr>
<tr>
<td></td>
<td>Enlightenment program for manager candidates Purpose: To raise self-awareness regarding the skills and qualities needed for organizational management and to foster the desire to develop one’s own abilities</td>
</tr>
<tr>
<td></td>
<td>Mid-level leadership program Purpose: To develop the core leaders of the organization</td>
</tr>
<tr>
<td></td>
<td>Newly appointed manager training</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>Managing skills booster program Purpose: To develop in managerial candidates an understanding of managerial skills and aid in their acquisition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mid-level employees</th>
<th>Newly appointed director training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Management seminars Purpose: To improve managerial skills and build sympathetic qualities</td>
</tr>
<tr>
<td></td>
<td>Enlightenment program for manager candidates Purpose: To raise self-awareness regarding the skills and qualities needed for organizational management and to foster the desire to develop one’s own abilities</td>
</tr>
<tr>
<td></td>
<td>Mid-level leadership program Purpose: To develop the core leaders of the organization</td>
</tr>
<tr>
<td></td>
<td>Newly appointed manager training</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>Mid-career training</td>
</tr>
<tr>
<td></td>
<td>Newly appointed instructor training</td>
</tr>
<tr>
<td></td>
<td>Newly hired employee training</td>
</tr>
</tbody>
</table>

Performance

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

FY2019 result

- Average annual hours of training per employee
  25.1 hours / person
- e-learning (safety, information security, environment) program
  Includes temporary employees and part-time workers
  Number of participants: 5,029 / course
  No. of hours: 3.67 hours / person
Materiality | Diversity and Equal Opportunity
---|---
Why materiality is important | 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: GRI Standards [405-1] Percentage breakdown of employees and executives by gender and age

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

FY2019 result
- Percentage of women among personnel hired in April 2019 for career-track positions: 28.3%
- Percentage of women in management positions: 3.5% (as of April 1, 2019)

Specific actions taken regarding CSR indicators and materiality

Acceptance of Diversity

Supporting a more active role for female employees
Osaka Gas makes various efforts to encourage a work-life balance between employees’ professional and personal lives, while also promoting career development. As a result, the percentage of women in management positions reached 3.5% in April 2019.

In FY2109, 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.

Change in the Percentage of Women in Managerial Positions (Osaka Gas)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 July</td>
<td>0.3</td>
</tr>
<tr>
<td>2015 April</td>
<td>2.3</td>
</tr>
<tr>
<td>2016 April</td>
<td>3.8</td>
</tr>
<tr>
<td>2017 April</td>
<td>3.4</td>
</tr>
<tr>
<td>2018 April</td>
<td>3.5</td>
</tr>
<tr>
<td>2019 April</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Gold in the PRIDE Index

work with Pride
Gold 2018
Creating a work environment for seniors
Osaka Gas has implemented a reemployment scheme to rehire employees who have reached mandatory retirement age, under which applicants are placed in jobs that match their skills and preferences. All Daigas Group companies have similar reemployment programs.

### Status of Employment of Seniors at the Daigas Group

<table>
<thead>
<tr>
<th>Unit</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniors employed</td>
<td>1,028</td>
<td>1,492</td>
<td>1,588</td>
<td>1,669</td>
<td>1,795</td>
</tr>
</tbody>
</table>

Balancing Work and Family

**Supporting childcare by improving the systems and the workplace environment**

Osaka Gas has a number of systems to support employees both while they are working and taking care of their families. These systems are aimed at enabling employees to display their abilities to the full extent by creating a workplace environment whereby they can strike a balance between work and childcare. For example, we have a system allowing employees to take childcare leave up to the end of the month in which children reach their third birthday, as well as a system for shorter work hours until children finish their third year at elementary school. We also lend employees PCs so they can check the company intranet and email and thus keep in contact while they are on childcare leave. And we offer employees telephone counseling on matters of childcare. These are just some of the ways that Osaka Gas labor and management are cooperating to create a workplace conducive to balancing work and family duties. In addition, we have established a consultation desk in the Health Promotion Center so that employees and their families can seek advice on health during pregnancy and child-rearing.

In recognition of these efforts, Osaka Gas was certified four times* by Japan’s Minister of Health, Labour and Welfare as a company that actively supports childcare for its employees in accordance with the Act for Measures to Support the Development of the Next Generation.

Osaka Gas intends to support employees in achieving a balance between work and childcare in line with its 5th Action Plan (from April 2018 to March 2021).

* In April 2007, May 2011, March 2015 and February 2019

### 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 transportation-related accidents, prevention of general work accidents, and prevention of accidents through collaboration with business partners—is designed to enhance the level of workplace safety by implementing improvement measures under the PCDA (plan-do-check-action) cycle.

Each Daigas Group company is working on establishing the PCDA 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).

**Joint safety activities with partners**

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

The Council, with 82 member companies, primarily in the manufacturing sector, promotes voluntary safety and health activities, with the goal of zero lost-time injury. As a key activity, the Council has designated a disaster prevention month in both the first half and second half of the year, during which we conduct safety patrols jointly with them. It also issues a Safety & Health Monthly Report that provides useful information for company efforts in preventing workplace accidents and promoting employee health.
Actions on Materiality

<table>
<thead>
<tr>
<th>Materiality</th>
<th>Economic Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why materiality is important</td>
<td></td>
</tr>
</tbody>
</table>

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

Responsibilities
The Environment Subcommittee, CSR Committee and CSR Promotion Council (Executive Board) take responsibility for reporting, following up on, and managing climate change risks 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).

Response to Risks and Opportunities Associated with Climate Change

- **Phenomena deriving from climate change**
  - Irregular weather conditions, disaster
  - Temperature rise

- **Risks**
  - Damage to manufacturing and supply facilities
  - Negative impact on LNG procurement
  - Fall in gas sales (hot water supply, heating)
  - Decline of competitiveness
    - Fall in demand for Osaka Gas products and facilities, and subsequent decline in their utilization
    - Difficulty of recollecting capital investment cost
  - Comparative advantage
    - Increase in gas and electricity sales (air conditioning)

- **Opportunities**
  - Increase in gas and electricity sales
  - Expansion of renewable energy sources and energy-saving services
  - Focus on an energy system emitting less GHGs
    - Increase in gas and electricity sales
    - Expansion of renewable energy sources and energy-saving services

- **Our response**
  - Make important facilities water tight, raise the level of important facilities, divide service areas into blocks
  - Diversify LNG procurement sources
  - Expand the scope of business fields where demand growth is expected
  - Develop and introduce highly efficient products and facilities, and facilities using renewable energy sources
  - Switch fuels to natural gas
  - Secure stable LNG supply by launching upstream business
  - Develop and introduce highly efficient products and facilities, and facilities using renewable energy sources
  - Secure stable LNG supply by launching upstream business
  - Propose and promote energy-saving services
  - Promote research and studies of innovative technologies, such as hydrogen, clean gas and CCS
  - Promote dialogue with investors concerning the Daigas Group’s contribution to GHG reduction and business vision
  - Diversify procurement sources
  - Launch upstream business
  - Make conditions for procurement contracts flexible
  - 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.

- **Indicator: GRI Standards 201-2** Financial implications and other risks and opportunities due to climate change
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.

In material-procurement activities, which often involve business transactions with new suppliers, Osaka Gas requires such suppliers to observe procurement-related standards and guidelines set by the company, including our Purchasing Policy and CSR-based Purchasing Guidelines.

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 49 suppliers began new business transactions with Osaka Gas in FY2019. 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.

Materiality: Economic Performance
Materiality: Supplier Assessment
Third-Party Review / Third-Party Verification
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 ➔ http://c0d0e.com/english/index.html