

TOKYO GAS GROUP SUSTAINABILITY REPORT 2020





CONTENTS

2 Top Commitment

Sustainability

- 4 The Tokyo Gas Group's Sustainability
- 6 Materialities
- 9 FY2019 Targets and Results
- 12 How We Implement CSR

Contribution to Achieving the SDGs

- 13 The Tokyo Gas Group's contribution to achieving the SDGs

Feature

Striving toward Net-Zero CO₂

- 15 Initiatives at Compass 2030
- 16 Steady Reductions in CO₂ Emissions from the Effective Use of Natural Gas
- 16 Expansion of Renewable Energies
- 17 Decarbonization of Gaseous Energy
- 17 Reducing CO₂ Emissions on a Global Scale

E Environment

Environment

- 18 Basic Policy
- 19 Environmental Management
- 21 Environmental Risk Management
- 23 Climate Change Actions
- 45 Promotion of a Circular Economy
- 48 Promotion of Biodiversity Conservation

S Social

Ensuring Safety and the Stable Supply of Energy

- 51 Stable Procurement of LNG
- 52 Production of City Gas
- 53 Supply of City Gas
- 56 Earthquake Disaster Countermeasures
- 58 Ensuring Customer Safety
- 60 Enhancing the Safety of Gas Appliances
- 61 Development of the Electric Power Business
- 63 Overseas Business

Value Co-creation

- 65 Lifestyle Services
- 68 Urban Development

Building Relations with Stakeholders

- 70 Stakeholder Engagement
- 71 Efforts to Enhance Customer Satisfaction
- 73 Community-based Service Structure
- 74 Dialogue with Shareholders and Investors
- 75 Communications with Our Suppliers
- 75 Contribution to Local Communities
- 78 Initiatives for the Tokyo 2020 Games
- 80 Communications with Employees

Consideration for Our Employees

- 82 Human Resources Development
- 84 Diversity
- 88 Work Style Reform
- 89 Industrial Safety and Health Initiatives

Respect for Human Rights

- 92 Respect for Human Rights

G Governance

Governance

- 95 Compliance
- 101 Cybersecurity Management
- 102 Protection of Personal Information
- 103 Appropriate Information Disclosure
- 104 Supply Chain Management
- 108 Corporate Governance

ESG Data

- 114 Environmental Data
- 121 Social Data
- 125 Governance Data
- 126 Third-Party Independent Assurance Report

Key ESG Ratings

- 127 Inclusion in Environment, Social and Governance (ESG) Indices
- 128 External Sustainability Ratings
- 129 Other Awards and Recognition

Questionnaire Results and Main Feedback

- 131 Tokyo Gas Group Sustainability Report 2019 Questionnaire Results
- 131 Main Feedback and Requests

Standards Mapping Table

- 132 GRI Sustainability Reporting Standards Index
- 138 Global Compact Content Index
- 138 ISO 26000 Content Index

About This Report



Top Commitment



Leading energy companies around the world in the effort to achieve Net-Zero CO₂

Representative Director,
President and CEO

UCHIDA Takashi

* This interview took place on May 18, 2020. The state of the spread of COVID-19, our Group's actions, and other details are as of the interview date.

“Never ever stop the energy supply.” We are committed to fulfilling this mission to support our customers' normal lives.

First, I would like to express my sincerest condolences to the families and friends of those who have lost their lives due to the Coronavirus Disease 2019 (COVID-19), and my profound sympathies to those that are suffering from it. I would also like to express my heartfelt gratitude to the medical professionals and others dedicated to stopping the spread of infection.

“Never ever stop the energy supply.” This is the phrase that immediately came to mind as the CEO as the COVID-19 outbreak began, and the slogan that I shared with all Group employees. I think that we as a utility company have three duties to meet in unusual or emergency situations, beyond just this ongoing pandemic, to ensure that all customers can lead normal lives.

The first is the duty we have as an energy provider that supplies electric power in addition to gas. Our Group supplies gas and electricity not only to general households but to medical institutions, public facilities, factories and other facilities that cannot close down. We have a responsibility to stably supply energy, even during emergencies like the one we are now experiencing. To fulfill this responsibility, we must procure raw materials without disruption, safely produce gas and electric power and thoroughly maintain and manage our supply and safety systems under any

circumstances. These are the greatest, fundamental duties that we must meet as an energy supplier. Lifeval, the outlets of Tokyo Gas, have to serve customers using gas and electric power at home. Gaslight 24 bases must deal with a gas leak on site. I feel grateful for the staff of our Group, for their contribution to the stable supply of energy despite the mounting strain on themselves and their families.

The second duty is a social responsibility that we have as a corporate citizen to build a community where people can live safely, without worries. The current pandemic has caused many people to experience financial difficulties. Our Group has swiftly introduced a special measure extending bill payment due dates by up to three months for our customers who are having temporary difficulties making bill payments. To aid households experiencing financial difficulties, we donated food to food banks. We also provided 15,000 N95 face masks that we had stockpiled for a novel influenza to medical workers. We are thus carrying out support activities positively.

And the third duty is our responsibility to increase corporate value as a public stock company. We will not stop the implementation of our management vision, Compass 2030, or the FY 2020 - 2022 Medium-Term Management Plan. And the third duty is our responsibility to increase corporate value as a public stock company. We will not stop the implementation of our management vision Compass 2030, or the FY2020 -2022 Medium-Term Management Plan as well as presenting our Group policies to stakeholders and gaining their understanding. While there are obstacles to business operations amid the outbreak, our employees are making diligent efforts to disclose information, including the publication of our Sustainability Report.

We have formulated a long-term management vision by means of backcasting from 20 to 30 years into the future

As I have mentioned, the current business environment is very harsh and uncertain for reason of the COVID-19 outbreak. Our Group's management vision Compass 2030 and the new Medium-Term Management Plan for FY2020 to 2022 formulated in March 2020 referred to our awareness of changes in market environment in the medium to long-term future. This view has not been changed. Rather, it is anticipated that the changes will speed up.

In the past, when our group formulated its long-term management vision, it had a forecast for the coming 10 years. For the latest vision, we started by foreseeing the situation 20 to 30 years into the future, and carried out backcasting from that future time to identify the things we should be doing now. Ten years from now, natural gas fired thermal power generation and natural gas as its fuel will have a greater role to play in line with the expansion of renewable energy, since it can make up for variation in the output of renewable energy power generation methods that depend on weather conditions. However, we thought that if we had only thought of the target for 10 years from now, the resulting plan would have failed to deal with the social change that will occur beyond that time, in the form of decarbonization.

We have selected four words starting with the letter D as key terms that represent changes in the business environment and in the trends of the times that we project. We believe that we cannot picture the future of our company without devising measures to address these four D challenges.

The first is Decarbonization. Today, society seeks decarbonization as well as low carbonization. In Japan as well, there are increasing discussions about whether it is really appropriate for businesses to merely seek low carbon emissions and whether they need to aim for decarbonization in the future. It is the top priority challenge for us. We have made it clear how our Group will respond to this demand.

The second is Digitalization. This change is gaining momentum. In recent years, some companies started to disruptively change society and the economy using the latest digital technologies. In the future, similar moves will emerge in the energy sector as well. Our Group has the policy of strongly pushing ahead with digitalization.

The third is Diversity, particularly in value. Many customers are no longer in favor of the conventional mass production of single items. They now choose items that are matched to their own sense of value. Meanwhile, increasingly people are happy to share goods instead of owning them. It is presumable that the way of using energy at households



Top Commitment

may change given that they can achieve self-sufficiency by effectively using renewable sources of energy, such as solar power generation, and storage batteries. Another important challenge is to address the diversification of our customers and their sense of value to improve the services of our Group.

The fourth is Deregulation. To survive the increasingly intense competition between operators, we will take actions, including the formulation of strategies involving not only our competitors but also other businesses beyond the boundaries of the industry.

In the effort to achieve Net-Zero CO₂, we will lead energy companies around the world

Our Group launched its policy aiming Net-Zero CO₂ with an eye to 2050 and beyond in our management vision Compass 2030. This created a great reaction, not only from the energy industry but also from many different business sectors. The term of Net-Zero CO₂ embodies our aspiration to lead energy companies around the world, our sense of the crisis regarding the survival of companies that do not take action and see results for decarbonization and our sense of mission as an energy company. Personally, I felt obliged to provide an answer through the Management Vision to our young employees who nervously feel the changes in society and feel strongly uneasy about survival of the Tokyo Gas Group in its present state.

We will develop our personnel into a force driving the company

I see our employees as key stakeholders who invest their own lives in our Group. Personnel are the driving force behind corporate development. No matter how brilliant the vision we make is, it is personnel who carry it out. I realize that the biggest management issue is to motivate the personnel.

For our Group, dedication to the maintenance of the stable supply of energy and safety is an important part of our corporate culture that has taken root since our foundation. While it is a good thing, emphasis on protection may have led to excessive prudence regarding the changes required in the coming era of shifting paradigms.

I believe that in order for people to change, the corporate culture must change. It is the young personnel who can change the corporate culture. As these young personnel grow, the company will change significantly. Therefore, I hope that they will try many new things, even if they make mistakes. Without this progressive spirit, no company can develop.

That is why we established Engagement with Current and Future Colleagues at the end of Management Vision Compass 2030. In the process of formulating the Management Vision, we introduced two totally new approaches. One was backcasting. The other was to hold discussions with around 20 young employees. They are the closest to the future generations. They gave vigorous comments. For example, one said, "We would like to be a company achieving decarbonization," and another said, "We aspire to create new value in relationships with customers." The Management Vision declares that we will establish a value co-creation ecosystem that creates value together with customers, the local community, local governments, and business partners that include companies in different industries and venture firms.

This new attempt is based on these comments from our young employees.

We will follow the principle of The Analects and the Abacus by our founder Eiichi Shibusawa

In 1885, Tokyo Gas was established by Eiichi Shibusawa, the Father of Japanese Capitalism. The principles discussed in his book, Rongo to Soroban (The Analects and the Abacus), coexistence with multiple stakeholders and the balancing between social and economic value, has been passed down through the generations to us. In our history, there were tough times following the emergence of new energy and equipment. I think that we were able to maintain our business because he set a process for development. However, we must open the way towards the future ourselves and hand it down to the next generation. Through this value co-creation, we seek to help resolve wide-ranging social issues in energy, the environment, and many other fields, while contributing to the realization of the SDGs.

The Tokyo Gas Group now stands at the beginning of a "new age of innovation" towards 2030. The world has greatly changed from the spread of COVID-19. This is compelling all of us to alter our lifestyles, and has made various challenges such as urban overpopulation and the fragility of supply chains more salient. At the same time, we believe that these circumstances will likely require us to transform our social systems and daily lives by rethinking our values regarding a safe and secure way of life and our attitudes toward mental and physical health. Looking to the new age of innovation, the Tokyo Gas Group will further grow as a corporate group which continually creates value that advances social change while leading the next-generation energy industry. In doing so, our Group will contribute to the realization of a sustainable society.



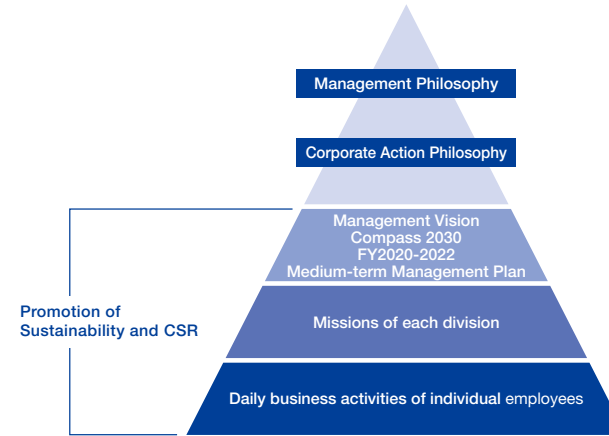
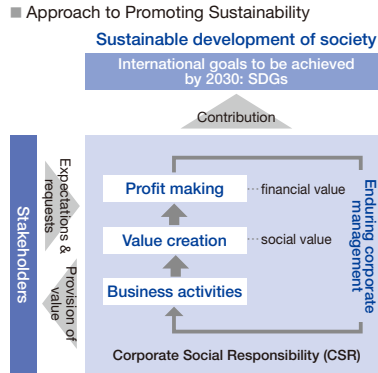
Sustainability

The Tokyo Gas Group's Sustainability

Approach to Promoting Sustainability

The Tokyo Gas Group will enhance its social and financial value by tackling social challenges through our business activities, and we will strive to contribute to the sustainable development of society going forward by realizing an enduring corporate management.

In promoting sustainability, we identify materialities (key sustainability issues) based on the Global Reporting Initiative Standards, which are international sustainable information disclosure guidelines, and the ISO 26000 international social responsibility standards.



Basic Policy on CSR

We have promoted CSR management under our basic approach to CSR – resolving social issues and contributing to the sustainable development of society through our business activities – ever since we established our CSR section in 2004. We codified this as the Basic Policy on CSR in FY2014.

Basic Policy on CSR

The foundation of our CSR is realizing our Management Philosophy and Corporate Action Philosophy through daily business activities and fulfilling our public mission and social responsibility. We aim to continue growing while constantly gaining the trust of customers, shareholders, and the community by contributing to the sustainable development of society. We do this by steadily seeking to resolve social issues through our business activities, while always remaining attuned to public expectations and demands in Japan and overseas.

Management Philosophy

As a leading energy company with focus on its natural gas businesses, the Tokyo Gas Group shall actively contribute to create a pleasant lifestyle and environmentally friendly society, maintain and enhance its trust from our customers, shareholders, and society.

Corporate Action Philosophy

1. We will continue to grow while maintaining awareness of our company's public mission and social responsibilities.
2. We will provide quality products and services, and always endeavor to improve customer satisfaction.
3. We will hold ourselves to high ethical standards, and fairly and transparently conduct corporate activities while observing both the letter and the spirit of related laws and ordinances.
4. We will contribute to alleviating global environmental problems as a leader in environmental management.
5. We will remain keenly aware of our obligations to be a good corporate citizen and work towards the betterment of society by contributing to community activities.
6. We will pursue continual innovation to promote a cost effective business approach that is both flexible and resilient.
7. We will aspire to build organizations that are based upon the full exercise of and respect for the talents, desires, and creativity of each and every employee.

▶ Tokyo Gas Group Management Philosophy, Corporate Action Philosophy, and Our Code of Conduct [Web](#)

▶ Tokyo Gas Group Management Vision Compass 2030 [Web](#)

▶ Tokyo Gas Group FY2020-2022 Medium-term Management Plan [Web](#)

Sustainability

Sustainability Promoting Structure

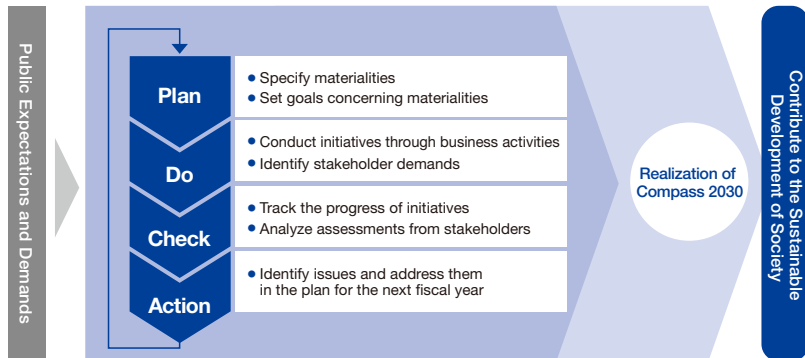
The Tokyo Gas Group forms in-house committees as appropriate for studying, coordinating or promoting actions to address important management issues. These include the Sustainability Committee, which is intended to promote climate change research and other sustainability issues and chaired by the President, and the Sustainability Promotion Committee, a subordinate body of the previous committee chaired by the Officer in charge of sustainability. They deliver reports on important matters to the Board of Directors.



Management

While always remaining attuned to changing public expectations and demands, Tokyo Gas specifies materialities in line with the business direction, set goals concerning materialities, and implement initiatives through its business activities. Moreover, we contribute to the sustainable development of society by disclosing information regarding the content and progress of these initiatives and by gathering opinions from wide-ranging stakeholders and reflecting these in our business activities.

■ PDCA Cycle



▶ Materialities

Participation in External Initiatives

UN Global Compact

The UN Global Compact comprises ten principles to be observed by enterprises and organizations in the four fields of human rights, labor, environment, and anti-corruption. Tokyo Gas announced its support of the UN Global Compact in March 2016 as a responsible member of international community promoting sustainability from a global perspective.

▶ The Ten Principles of the UN Global Compact [Web](#)



Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are 17 international goals toward a sustainable and better world by 2030 listed in “Transforming Our World: The 2030 Agenda for Sustainable Development,” which was adopted at the September 2015 UN Summit. The Tokyo Gas Group also contributes to achieving the SDGs by seeking to resolve social problems through its business activities.

▶ Contribution to Achieving the SDGs



Task Force on Climate-related Financial Disclosures (TCFD)

Climate-related risks and opportunities could significantly affect many companies' financial positions and destabilize financial conditions. In order to reduce such risk, in response to the request from the G20, the Financial Stability Board (FSB) established the Task Force on Climate-related Financial Disclosure (TCFD) in December 2015 and the TCFD released its recommendations in June 2017. We recognize climate change as one of the priority issues that the Tokyo Gas Group is facing today and regard the TCFD as an effective framework in promoting information disclosure and dialogue with stakeholders on climate-related issues. We therefore signed the statement of support for the TCFD in May 2019.

▶ Support for Proposals of the Task Force on Climate-related Financial Disclosures (TCFD), and Our Disclosures



Sustainability

Materialities

Specifying Materialities

The Tokyo Gas Group specifies key sustainability issues as materialities. We enhance our activities and initiatives by setting goals and assessing performance for each materiality.

Process for Specifying Materialities

STEP 1 Sort social issues

- Comprehensively identify issues to be examined referring to GRI standards, ISO 26000 and other representative international guidelines concerning the social responsibility of organizations, as well as the SDGs and criteria used by institutions that assess ESG.

STEP 2 Prioritize

- Assess and prioritize each issue on the two axes of stakeholder expectations and social impact of the organization and business.
- Specify the important issues that the Tokyo Gas Group should address on a priority basis through in-house consultations.

STEP 3 Confirm validity and decide

- Have experts assess the validity of the identified important issues, and specify these as materialities. Decide these with the approval of the Sustainability Committee (sustainability promotion body).
- Set targets for the specified materialities through consultations with the related divisions.

STEP 4 Review

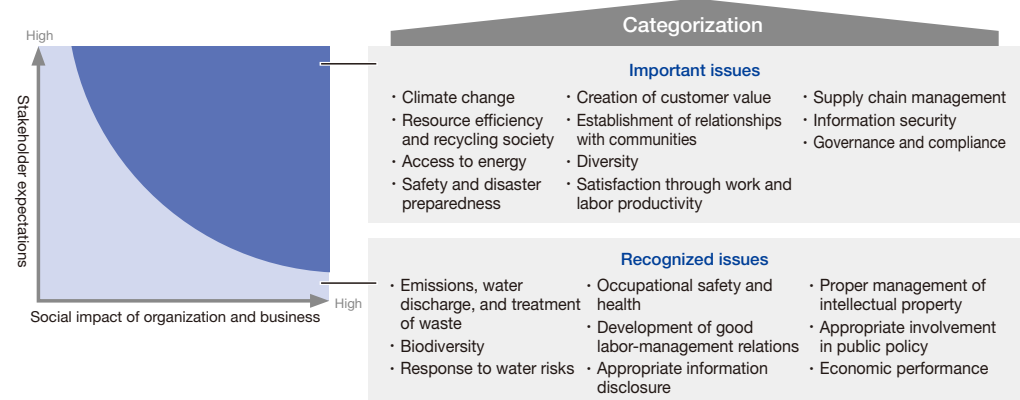
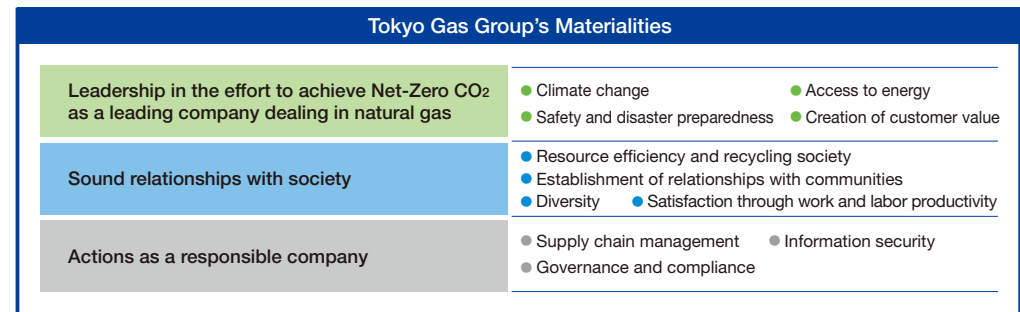
- Conduct activity assessments on the materialities based on the targets and results, and disclose these in the Sustainability Report.
- Conduct a review each fiscal year considering the results of internal and external questionnaires, the opinions of outside experts, the SDGs and other international targets and guidelines, as well as the criteria used by institutions that assess ESG. Use these for revision of materialities and targets, incorporation into business, and improvement of reporting content.

FY2020-2022 Materialities

In FY2019, the Tokyo Gas Group identified new materialities based on changes in public expectations and demands, as well as the formulation of our management vision Compass 2030.

We have organized the materialities into three categories. The pillar is “Leadership in the effort to achieve Net-Zero CO₂ and continuing to create customer value while ensuring stable supply and energy access as a leading company dealing in natural gas”. The other materialities are “Sound relationships with society”, which supports this, and “Actions as a responsible company”, which is the foundation of our business activities.

FY2020-2022 Materialities





Sustainability

Reasons for Specification of Materialities, and Scope of Impact

	Materiality	Reasons for Specification	Scope of Impact	
			Internal	External
Leadership in the effort to achieve Net-Zero CO ₂ as a leading company dealing in natural gas	Climate change	Corresponds to Compass 2030 Challenge 1 “leadership in the effort to achieve net-zero CO ₂ .”	○	○
	Access to energy	Corresponds to Compass 2030 Action 4 “enhanced resilience functions through the use of natural gas” and Action 5 “overseas expansion.”	○	○
	Safety and disaster preparedness	Corresponds to Compass 2030 Action 4 “enhanced resilience functions through the use of natural gas.”	○	○
	Creation of customer value	Corresponds to Compass 2030 Challenge 2 “establishment of a value co-creation ecosystem” and Challenge 3 “transformation of the LNG value chain.”	○	○
Sound relationships with society	Resource efficiency and recycling society	Corresponds to Compass 2030 Challenge 1 “leadership in the effort to achieve net-zero CO ₂ ” and Challenge 2 “establishment of a value co-creation ecosystem.”	○	○
	Establishment of relationships with communities	Corresponds to Compass 2030 Challenge 2 “establishment of a value co-creation ecosystem.”	○	○
	Diversity	Corresponds to Compass 2030 “engagement with current and future colleagues”	○	○
	Satisfaction through work and labor productivity	Corresponds to Compass 2030 “engagement with current and future colleagues.”	○	○
Actions as a responsible company	Supply chain management	Corresponds to Our Code of Conduct “3. We will deal with customers, business partners, shareholders, and all our stakeholders sincerely and equitably.”	○	○
	Information security	Corresponds to Our Code of Conduct “7. We will handle information appropriately.”	○	○
	Governance and compliance	Corresponds to all items in Our Code of Conduct.	○	○

Materialities and Targets

	Materiality	Targets concerning materiality (FY2022)		
Leadership in the effort to achieve Net-Zero CO ₂ as a leading company dealing in natural gas	Climate change	Challenge of achieving net-zero CO ₂ emissions	Contribution to reductions through solutions combining renewable energies with natural gas: contribution to CO ₂ emissions reductions of 6.5 million tons	
			Reduction through expanding renewable energy transaction volume: renewable power source transaction volume of 2 million kW	
			Contribution to reductions through development of LNG infrastructure business overseas	
			Promotion of forest and land use initiatives that contribute to decarbonization	
			Contributions regarding national energy conservation and CO ₂ emissions reductions	
		Promotion of technology innovation contributing to decarbonization		
	Access to energy	Number of serious supply disruptions: maintained 0 cases		
		Natural gas transaction volume: 17 million tons		
	Safety and disaster preparedness	Percentage of main and branch gas pipelines with improved earthquake resistance: 89.3%.		
		Supply Command Center emergency measures drills: maintained 100% participation rate		
Creation of customer value	Promotion of value co-creation related to the environment	Continuously create customer value in line with the change and diversification of customer values		
		Number of customer accounts (total number of contracts for gas, electricity, and services): 14.8 million		
Sound relationships with society	Resource efficiency and recycling society	Promotion of the conservation of biodiversity, collaborating with business partners in the electric power and LNG value chains		
		Maintenance of industrial waste recycling ratio: 95% or more		
		Limiting the volume of soil excavated during gas pipeline construction (by FY2020)		
		Recycling of plastic waste (maintain polyethylene pipe recycling ratio of 100%)		
		Water risk countermeasures (maintenance of water consumption volumes, BCP for disasters, etc.)		
	Establishment of relationships with communities	Sound relations with stakeholders regarding the environment	Promoting transmission of information and education concerning the environment, and social contribution activities	
			Reinforcement of engagement through the strategic disclosure of non-financial ESG information	
			Continuous implementation of social contribution and volunteer activities	
		Continuous implementation of activities to support school education		
	Diversity	Promotion of the activities of diverse personnel		
Satisfaction through work and labor productivity	Promotion of systems and work environments leading to job satisfaction			
	Promotion of initiatives toward boosting labor productivity			
Act as a responsible company	Supply chain management	Promotion of supply chain management		
	Information security	Promotion of information security initiatives		
	Governance and compliance	Enhancement and reinforcement of corporate governance		
	Promotion of compliance			

Sustainability

Opinions from experts

Voice

I think it is really important to directly connect materialities with the bold efforts toward net-zero CO₂ emissions set forth in the management vision Compass 2030, and to make it really clear what the important issues are. The role of the Tokyo Gas Group is to lead the transition to net-zero CO₂ while maintaining the stable supply of energy and resilient social infrastructure. In that sense, I think the specification of the materialities this time was right on the mark. Going forward, I expect the Tokyo Gas Group to show itself as a company working toward the target of limiting average temperature rise to 1.5°C and to reveal how it will participate in the reform of Japan's energy society.



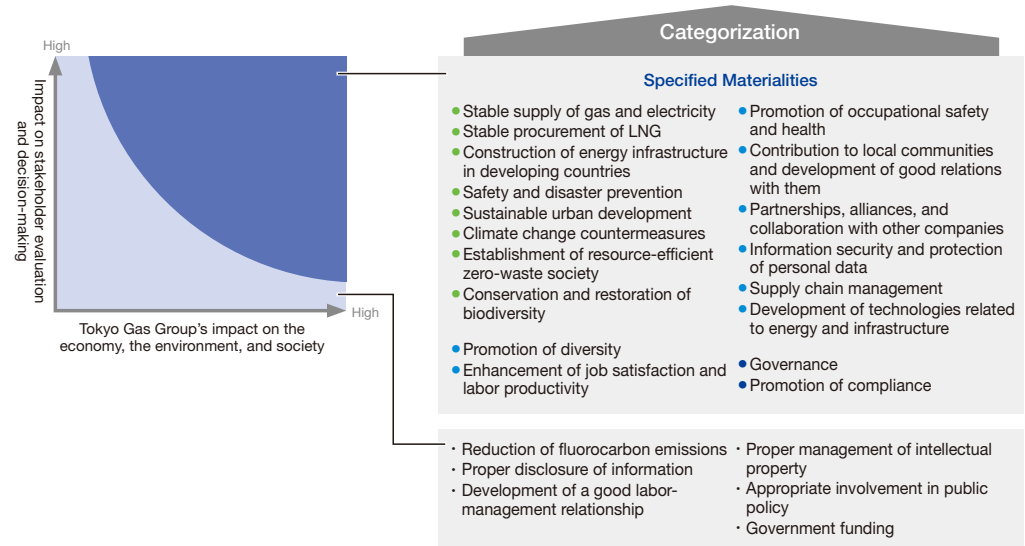
Peter David Pedersen
Representative director
NELIS
(Next Leader's Initiative for Sustainability)

FY2019 Materialities

In FY2019, the Tokyo Gas Group implemented initiatives to promote sustainability in line with the materialities specified in FY2017 based on the FY2018-2020 management plan GPS 2020. The materialities were divided into strategic issues and fundamental business issues, and the strategic issues were categorized into three pillars to lay out a clear course of action.

FY2019 Materialities

Tokyo Gas Group's Materialities		
	Priority Area	Materiality
Strategic	Ensuring stable supply of energy in Japan and overseas	<ul style="list-style-type: none"> Stable supply of gas and electricity Stable procurement of LNG Construction of energy infrastructure in developing countries
	Constructing a robust energy platform	<ul style="list-style-type: none"> Safety and disaster prevention Sustainable urban development
	Decarbonization through energy supply	<ul style="list-style-type: none"> Climate change countermeasures Promotion of resource recycling Promotion of biodiversity conservation
Fundamental		<ul style="list-style-type: none"> Creating a lively organization Sound stakeholder relationships Achieving our public mission as an energy company
Governance and Compliance		





Sustainability

FY2019 Targets and Results

Stable supply of energy in Japan and overseas

Criteria for evaluation:

○ Target achieved (100% or above)

△ Target not achieved but maintained same level or improved from the previous fiscal year

× Target not achieved

Note: Qualitative CSR KPIs with no evaluation axes are assessed on the basis of whether progress was made since the previous fiscal year.

Materiality	CSR KPIs	FY2019 Major Outcomes	Evaluationality
Stable supply of gas and electricity	Maintain zero cases of serious supply disruptions to customers	<ul style="list-style-type: none"> • Serious supply disruptions: 0 cases • Construction of LNG tank No. 2 at the Hitachi LNG Terminal (projected completion FY2020) • Construction of Ibaraki Line (Hitachi City – Kamisu City) (projected completion FY2020) 	○
	Stable operations of existing power plants	<ul style="list-style-type: none"> • Began receipt of all electric power from the Moka Power Station owned by Kobelco Power Moka Inc. 	○
Stable procurement of LNG	Achieve stable and low-cost LNG procurement through the three diversifications: <ul style="list-style-type: none"> • Diversification of procurement sources • Diversification of contract content • Diversification of the LNG network 	<ul style="list-style-type: none"> • Procurement of LNG under long-term contracts from 16 projects in 6 countries (as of March 31, 2020) • LNG procurement volume: 13.23 million tons (FY2019) 	○
Construction of energy infrastructure in developing countries	Contribution to the natural gas value chain in Southeast Asia	<ul style="list-style-type: none"> • Concluded a Memorandum of Understanding with Petrovietnam Power Corporation regarding the development of the LNG to Power project in Quang Ninh Province in northern Vietnam and Ca Mau Province in southern Vietnam. • Received order for front end engineering design (FEED) for the expansion project of Yung An LNG Receiving Terminal in Taiwan. • Concluded contract with One Bangkok Co., Ltd. for district cooling and power distribution for a development project in Bangkok, Thailand. 	○

▶ Ensuring Safety and the Stable Supply of Energy

Constructing a Robust Energy Platform

Criteria for evaluation:

○ Target achieved (100% or above)

△ Target not achieved but maintained same level or improved from the previous fiscal year

× Target not achieved

Note: Qualitative CSR KPIs with no evaluation axes are assessed on the basis of whether progress was made since the previous fiscal year.

Materiality	CSR KPIs	FY2019 Major Outcomes	Evaluationality
Safety and disaster prevention	Percentage of main and branch gas pipelines with improved earthquake-resistance FY2019 target: 87.90%	<ul style="list-style-type: none"> • Percentage of main and branch gas pipelines with improved earthquake-resistance: 88.4% 	○
Sustainable urban development	Increase in the cumulative number of regional development projects	<ul style="list-style-type: none"> • Constructed a smart energy network (SEN) in the northern district at Tamachi Station's east exit • Began SEN project in the Nihonbashi Muromachi area • Began SEN project for core facilities in front of Toyosu Station • Realized SEN project linking five companies at Kiyohara Industrial Park 	○
	Provision of services for a secure and comfortable lifestyle	<ul style="list-style-type: none"> • Cumulative sales of more than 130,000 ENE-FARM residential fuel cells • Prompt sales, repairs, and installation of gas equipment • Provided services that support a comfortable lifestyle, including renovation work for kitchens, living rooms, bathrooms, etc., gas appliance guarantee services, and housework and childcare support services 	○

▶ Ensuring Safety and the Stable Supply of Energy

▶ Value Co-creation



Sustainability

Decarbonization through Energy Supply

Criteria for evaluation:

○ Target achieved (100% or above)

△ Target not achieved but maintained same level or improved from the previous fiscal year

× Target not achieved

Note: Qualitative CSR KPIs with no evaluation axes are assessed on the basis of whether progress was made since the previous fiscal year.

Materiality	CSR KPIs	FY2019 Major Outcomes	Evaluability
Climate change counter-measures	Promote the use of natural gas and introduce highly energy efficient gas appliances and systems to reduce CO ₂ emissions at customer sites FY2019 CO ₂ reduction target: 4.17 million tons from FY2011 level	<ul style="list-style-type: none"> Reduced CO₂ emissions at customer sites by 3.7 million tons Third-party Assured 	×
	Production energy intensity ^{*1} at gas production plants FY2019 target: 210 GJ/million m ³	<ul style="list-style-type: none"> Production energy intensity: 206 GJ/million m³ Third-party Assured 	○
	Heat sales energy intensity ^{*2} at district heating and cooling facilities FY2019 target: 1.31 GJ/GJ	<ul style="list-style-type: none"> Heat sales energy intensity at district heating and cooling facilities: 1.38 GJ/GJ Third-party Assured 	×
	Area energy intensity ^{*3} at Tokyo Gas offices, etc. FY2019 target: 1.69 GJ/m ²	<ul style="list-style-type: none"> Area energy intensity at Tokyo Gas offices, etc.: 1.56 GJ/m² Third-party Assured 	○
	Reduce the CO ₂ emissions factor at the electricity retail level	<ul style="list-style-type: none"> Promoted the procurement of electricity generated by high-efficiency thermal power and renewable energy sources 	○
Promotion of resource recycling	Industrial waste recycling rate FY2019 target: 95% or higher	<ul style="list-style-type: none"> Industrial waste recycling rate: 97% Third-party Assured 	○
	Zero emissions at production plants FY2019 target: less than 1%	<ul style="list-style-type: none"> Final disposal rate at production plants: 0.2% Third-party Assured 	○
Promotion of biodiversity conservation	Promote biodiversity conservation activities in the LNG value chain	<ul style="list-style-type: none"> Surveyed the status of biodiversity consideration at source gas fields and confirmed there were no significant problems Managed ballast water discharged during LNG transport, conducted habitat surveys at green areas inside three LNG terminals, planted trees, and implemented conservation activities Practiced the 3Rs (reduce, reuse, and recycle) on soil excavated when laying gas pipelines to reduce the impact caused by the excavation of pit sand on ecosystems Conducted water risk analysis and evaluation at all Group bases in and outside of Japan and confirmed there were no major risks Implemented forest conservation activities and conducted habitat surveys at the Nagano Tokyo Gas Forest 	○

Other Environmental Guidelines	FY2019 Major Outcomes	Evaluability	
Promotion of resource recycling	Maintain recycling rate for general waste of 75% or higher through FY2020	<ul style="list-style-type: none"> Recycling rate for general waste: 74% Third-party Assured 	×
	Reduce copy paper usage 8% from the FY2012 level (to 132 million sheets or less) by FY2020	<ul style="list-style-type: none"> Copy paper usage: 102million sheets Third-party Assured 	○
	Limit soil excavated during gas pipeline construction to 16% or less by FY2020	<ul style="list-style-type: none"> Limited soil excavated during gas pipeline construction to 15% Third-party Assured 	○
Promotion of environmental communications	Participated in environmental events organized by local governments, organized lectures and tours, and introduced Tokyo Gas Group initiatives and proposed an energy-conservation lifestyle through information sharing at our museums and on our website	<ul style="list-style-type: none"> Implemented activities to support school education (total attendance: 1,144,503, as of March 31, 2020) Implemented activities that contribute to the environment and society, including neighborhood cleanup activities at each site and the Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project Fostered environmental awareness through study groups on environmental regulations and other in-house education programs, and by presentation of the Environmental Program Promotion Award 	○
	Promotion of the development of technologies for decarbonization	<ul style="list-style-type: none"> Began sales of ENE-FARM MINI, the world's smallest residential fuel cell (rated power output: 400 W) Began sales of GHP XAIR gas air conditioning system, which realizes energy conservation and electricity savings Opened the Toyosu Hydrogen Station, which supplies hydrogen produced from carbon-neutral city gas Participation in a virtual power plant construction demonstration test Began demonstration test of 5 kW class high-efficiency solid oxide fuel cell Invested in Next Energy & Resources Co., Ltd. and began joint development of IoT platform that controls coordination among photovoltaic power generation, storage batteries, gas cogeneration systems, and other decentralized energy equipment 	○

*1 Energy consumption per gas production volume

*2 Energy consumption per heat sales volume

*3 Energy consumption per total floor area

▶ Environment



Sustainability

Fundamental Business Issues

Criteria for evaluation:

○ Target achieved (100% or above)

△ Target not achieved but maintained same level or improved from the previous fiscal year

× Target not achieved

Note: Qualitative CSR KPIs with no evaluation axes are assessed on the basis of whether progress was made since the previous fiscal year.

Materiality	CSR KPIs	FY2019 Major Outcomes	Evaluationality
Creating a lively organization	Number of employees working 60 to 80 hours of overtime per month FY2019 reduction target: 50% from FY2017 level *1	<ul style="list-style-type: none"> Increased the number of employees working 60 to 80 hours of overtime per month by 42% from the FY2017 level * Including increased overtime with the response to COVID-19. 	×
	Enhance the teleworking system and expand its application to more workplaces *1	<ul style="list-style-type: none"> Replaced mobile personal computer terminals for all employees Prepared environment for no limitations on where employees work by introducing the WebTV conference system and through paperless procedures and electronic decision making. 	○
	Maintain the ratio of employees receiving health examinations, which are the foundation for health management, at 100%.	<ul style="list-style-type: none"> The ratio of employees who received health examinations was 100% 	○

*1 Non-consolidated basis.

▶ Consideration for Our Employees

Materiality	CSR KPIs	FY2019 Major Outcomes	Evaluationality
Sound stakeholder relationships	Promote operational improvements based on customer feedback and customer satisfaction surveys	<ul style="list-style-type: none"> Customer feedback: 8,234 comments Identified and analyzed operational improvement issues based on customer feedback Expanded initiatives and services related to security and safety, household appliances, and food and health 	○
	Conduct dialogue with shareholders and investors based on the Corporate Governance Code	<ul style="list-style-type: none"> Hosted briefings for individual investors, and tours of facilities Held individual meetings with domestic and overseas institutional investors and analysts Provided regular feedback to management on the content of dialogues with shareholders 	○
	Develop and expand social contribution programs toward resolving social issues	<ul style="list-style-type: none"> Participated in and cooperated with local events and volunteer activities Held events and hands-on programs related to disaster countermeasures, and disseminated information through our museums and on our website Conducted events related to climate change countermeasures and biodiversity conservation, and hands-on environmental education programs School classes taught by employees 614 classes attended by 18,926 students Training for teachers 51 sessions attended by 1,377 teachers Attendance at parasports events 3 events attended by 1,170 participants Hands-on educational field trip programs (Universal Challenge) 3 times, attended by 326 participants 	○

▶ Building Relations with Stakeholders

Materiality	CSR KPIs	FY2019 Major Outcomes	Evaluationality
Achieving our public mission as an energy company	Respond correctly to trends in personal information protection in Japan and overseas	<ul style="list-style-type: none"> Conducted e-learning for all Tokyo Gas Group employees regarding the strengthening of the protection of personal information (23,141 participants) Provided training by job level and outside training to establish thorough compliance with rules governing the management and use of personal information 	○
	Conduct a CSR survey for supply chain management and analyze the results	<ul style="list-style-type: none"> Conducted a CSR survey on 513 suppliers (response rate 90.6%) and analyzed the results 	○

▶ Respect for Human Rights

▶ Governance

Sustainability

How We Implement CSR

CSR Initiatives

The Tokyo Gas Group strives to raise CSR awareness so that employees can understand how CSR can be realized through their work and put those insights into action in their daily jobs. A booklet summarizing the Group's CSR and activities is given to all employees to deepen awareness, and we hold all types of training, and disseminate CSR information via our intranet, Group publications, and internal social media tools.

We deepen understanding of the SDGs among Group employees through SDGs-focused training and a video.



Booklet on the Tokyo Gas Group's CSR



Tokyo Gas Group video explaining the SDGs

Sustainability and CSR Training

The Tokyo Gas Group provides awareness training by job level and workplace to introduce employees to the fundamentals and latest trends of CSR and SDGs, and to encourage them to think about how CSR relates to their jobs.

■ Training Programs in FY2019

		Participants, etc.	Number of sessions
Training on CSR	Training by job level	For first-year employees, third-year employees and newly promoted managers (organized by the Personnel and Compliance Depts.)	24 sessions
Training on the SDGs	Training by workplace	Workplaces that request training (planned and provided by the Sustainability Dept.)	6 sessions

Contribution to Achieving the SDGs

The Tokyo Gas Group's contribution to achieving the SDGs

At the Tokyo Gas Group, our approach to promoting sustainability is to contribute to the sustainable development of society by addressing social issues through our business activities. This is consistent with the concept of SDGs ; we believe we can broadly contribute to the achievement of the SDGs through the Tokyo Gas Group's business activities.

The Tokyo Gas Group will contribute further to the realization of the SDGs by creating business opportunities originating from social issues.

Contribution to SDGs via initiatives for materialities

■ Relationships between materialities and SDGs

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Leadership in the effort to achieve Net-Zero CO ₂ as a leading company dealing in natural gas	Climate change						●		●			●		●				●
	Access to energy						●		●			●						●
	Safety and disaster preparedness						●		●			●		●				●
	Creation of customer value			●	●		●	●		●			●	●	●			
Sound relationships with society	Resource efficiency and recycling society						●						●		●			●
	Establishment of relationships with communities	●	●	●	●		●	●			●	●	●	●	●	●	●	●
	Diversity				●	●			●			●						●
	Satisfaction through work and labor productivity				●				●									●
Actions as a responsible company	Supply chain management				●			●			●		●	●	●	●	●	●
	Information security																	●
	Governance and compliance				●						●						●	●

* The relationships portrayed above are subject to revision as appropriate according to changes in the Tokyo Gas Group's actions.

Topic

Collaboration with local government bodies toward achieving the SDGs

On May 28, 2019, Tokyo Gas and Tokyo Gas LIVEVAL TAKEUCHI Co., Ltd. signed a comprehensive agreement with Itabashi City, Tokyo, on coordination and cooperation to promote the SDGs. This agreement aims at helping to achieve the SDGs while appropriately responding to community needs through coordination and collaboration among the three parties in light of SDG 17 "Partnerships for the goals." The agreement stipulates six coordination items, including energy and environment, realization of an inclusive society, and promotion of health. The partners are expanding their initiatives for the SDGs by combining their respective strengths, using Itabashi City's wide-ranging information and networks together with the Tokyo Gas Group's expertise and well-established local service capabilities.



At the signing of the agreement.

▶ Video "Tokyo Gas Group and SDGs" [Web](#)



Contribution to Achieving the SDGs

Toward Value Creation Originating from the SDGs

Topic

Social contribution shopping site “junijuni sponsored by TOKYO GAS”

In April 2019, Tokyo Gas and Aucfan Co., Ltd. opened the social contribution shopping site “junijuni sponsored by TOKYO GAS,” which aims to assist with the resolution of social issues. The site collects and markets food products and daily goods from manufacturers that were discarded in the past because of changes in packaging, the conclusion of limited-time promotions, or approaching the expiration of freshness dates. The product prices include a donation to an organization working to resolve social issues. Customers get to choose which group receives the donation when they purchase their product, and can thus contribute to the resolution of social problems by linking the product purchase with donations. The site is named “junijuni” (which means “12 12” in English) after SDG 12 “Responsible consumption and production.”



Topic

Vacant House Management Service “Care for Your Parents’ Home”

According to a Ministry of Internal Affairs and Communications survey, there were a total of approximately 8.49 million vacant houses in Japan in 2018, accounting for 13.6 percent of all houses, and that number is increasing year by year. Moreover, the rise in the number of unoccupied houses not being properly managed is resulting in various problems, including worsening of public hygiene, scenic value, and public safety. To resolve these issues, Tokyo Gas has begun working toward the commercialization of “Care for Your Parents’ Home,” a service manages vacant homes.

Under this service, staff visit vacant houses once per month to confirm that there are no visible abnormalities outside or inside and that trees and weeds are not growing beyond the plot boundaries. They also air out the house, run water, turn on electricity, collect mail, give a simple cleaning of the rooms and garden, and afterwards send a photographic report to the customer. This periodic maintenance slows building deterioration and prevents the degradation of public safety (such as illegal entry) and the worsening of public hygiene from weeds and offensive odors, thus contributing to SDG 11 “Sustainable Cities and Communities.” Appropriate management of buildings also supports SDG 12 “Responsible consumption and production.” After judging the commercial viability, Tokyo Gas will continue to advance examinations on contributing to sustainable communities and a circular economy through this management service, including the use of vacant houses, etc.





Feature Striving toward Net-Zero CO₂

In the 1960s, Japan's economy emerged from its postwar recovery and began expanding at a rapid pace and drove a dramatically increase in demand for energy. As a result, it became an urgent task for the country to build up the capacity to supply the energy needed. At the same time, the air pollutants emitted from combustion of petroleum, the primary fuel used to generate energy at that time, became a major issue. Our company responded to these challenges by introducing to Japan in 1969 its first supply of natural gas as a highly environmentally friendly fuel with high calorific value. Over the half century since then, we have continued to stably supply energy while providing diverse new products and solutions. In doing so, we helped to open the door to the natural gas era by ushering in the wider use of this new energy source, both in Japan and overseas.

Today, as climate change intensifies, the global movement toward decarbonization is accelerating, as typified by the Paris Agreement. Amid these shifts, natural gas is expected to play a key role in supplementing unstable renewable energies with its superior environmental properties, supply stability, and economy, and the demand for natural gas is expected to grow both inside and outside of Japan. At the same time, it is our duty as a leading company that handles CO₂-emitting natural gas to play a proactive role in the global movement for tackling climate change. Accordingly, we have made "Leadership in the effort to achieve net-zero CO₂" the first of the three goals of our Group management vision Compass 2030 so that we can contribute to the resolution of climate change issues. Going forward, we will further strive to pair natural gas with renewable energies and other new technologies to offer new solutions for lifestyles, cities, and our planet.

Initiatives at Compass 2030

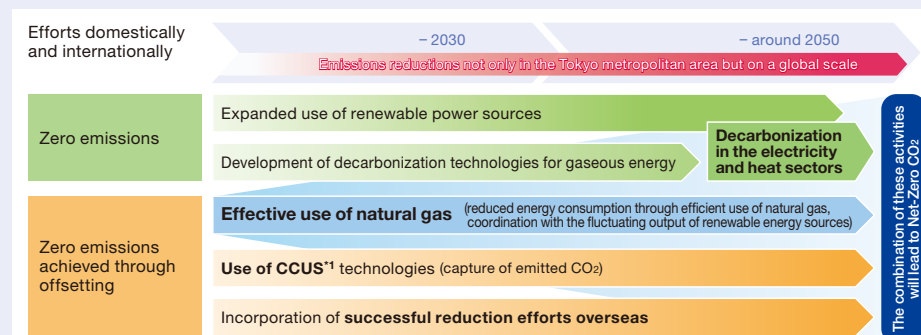
In its overall business activities, the Tokyo Gas Group will work to achieve Net-Zero CO₂ emissions including customer emissions and lead the transition to a decarbonized society.

We will use technologies and expertise for the effective use of natural gas to promote decarbonization in the electricity and heat sectors as well as for CO₂ capture technologies.

We will contribute to reduce carbon emissions on the scale of 10 million tons by 2030 (which exceeds Japan's target ratio*) and lead the way to reducing CO₂ emissions on a global scale.

▶ Tokyo Gas Group Management Vision Compass 2030 [Web](#)

■ Efforts to achieve Net-Zero CO₂ in the Tokyo Gas Group's style



*1 CCUS: Carbon Capture, Utilization, and Storage.

Specific Actions

● Solutions combining natural gas and renewable energy

- We will strive toward net-zero CO₂ emissions through various actions, including by conserving energy through the efficient use of natural gas in natural gas-fired thermal power generation, cogeneration systems, smart energy networks, and other areas, and by balancing fluctuations in renewable energy output.
- We will expand renewable energy sources domestically and internationally, and develop new businesses combining decentralized resources such as photovoltaic power systems and storage batteries.

● Decarbonization technology innovations

- Working toward 2030, we will pursue innovation in core technologies contributing to decarbonization, and go further by introducing hydrogen, methanation, and other technologies.
- We will leverage combinations of technologies and approaches, including optimal use and control of renewable power sources, and advanced use of natural gas.

● Resolving problems in daily life and businesses

- We will expand the use of renewable energy in communities and at businesses while resolving customer needs and challenges, including by installing photovoltaic power systems on the roofs of homes and businesses free of charge, and supplying the power generated to customers.

● Overseas expansion

- We will strive to achieve Net-Zero CO₂ on a global scale through business development, considering the energy market environment in each country. Including our businesses in LNG infrastructure and renewable energy.

**Feature** Striving toward Net-Zero CO₂**Steady Reductions in CO₂ Emissions from the Effective Use of Natural Gas**

Natural gas has the lowest CO₂ emissions among all fossil fuels. By ceaselessly working to spread and expand its use, we will steadily reduce CO₂ emissions. This includes converting customers' fuel sources to city gas, which is made from environmentally friendly natural gas. We also achieve further CO₂ emissions reductions by improving the efficiency of industrial burners and furnaces and providing heat that is suitable for each application. Moreover, we are steadily promoting the use of gas cogeneration systems (CGS) and fuel cells, which offer high efficiency and energy-saving benefits. Our efforts also involve initiatives to maximize the CO₂ emissions reduction result from the effective use of natural gas, including the introduction of digital solutions such as IoT and smart energy networks that optimize electricity and heat at the district level.

We became the first company to introduce carbon-neutral liquefied natural gas to Japan when we began purchasing it from the Shell Group in FY2019. This LNG is carbon-neutral because all the greenhouse gases emitted in the processes from natural gas exploration to combustion is offset by CO₂ credits (carbon offsets) held by the Shell Group, and thus this gas is globally considered to be carbon free, even if combusted. Through the provision of this and other new solutions, we are embracing the challenge of net-zero CO₂ in our original way together with our customers.

▶ Kiyohara Industrial Park Smart Energy Project Realizes Large Energy Conservation by Linking Factories

Voice**Japan's First Supply of Carbon-Neutral City Gas**

At Marunouchi Heat Supply Co., Ltd., we have worked to reduce CO₂ emissions in various ways, purchases are our first initiative to reduce CO₂ emissions via the city gas itself. We are utilizing carbon-neutral city gas to build up a robust and environmentally friendly heat supply network, and achieve further environmental load reductions and enhanced disaster resistance in our district heat supply business. Together with Tokyo Gas, we continue to explore other opportunities to use this approach to further reduce the impact on the environment, including potential projects like this initiative that aim toward realizing a sustainable society through urban development.



KOBAYASHI Shigehiko
Managing Director
Marunouchi Heat Supply Co., Ltd.

Expansion of Renewable Energies

As part of our endeavors to help bring about net-zero CO₂ emissions in our electrical power business, we are advancing efforts to secure renewable energy power sources. We are also working to realize the new business of providing energy services that make the most of the compatibility between natural gas and renewable energies. For example, we are developing virtual power plants, which consolidate customers' various resources by using digital technologies to combine thermal power, renewable energies, and other centralized power sources with distributed power sources such as solar energy, storage batteries, and CGS.

Voice**Responding to Various Needs for Renewable Energy**

We develop and operate renewable energy power sources centered on photovoltaic power, wind power, and biomass. Our aim is to supply carbon-free renewable energy-sourced electric power that our customers can use with peace of mind as we sustainably grow our business over the long run. For this to happen, we must deliver affordable electricity through more efficient power generation that takes into account the natural conditions affecting the output. And, we must also gain the understanding of the communities where power sources are installed and give consideration to the local ecosystems and scenery. In January we purchased the Annaka Solar Power Plant (Gunma Prefecture), one of the largest plants of its kind in the Kanto Region, and we are already stably delivering renewable energy electricity to customers. We aim to realize Net-Zero CO₂ emissions and to be chosen by customers not only for natural gas, but also for our renewable energy business. In addition to photovoltaic power, we will continue actively pursuing projects in biomass as well as wind power, which has strong potential for the future.



OHONUKI Kahori
Renewable Energy Business
Development Dept.
Tokyo Gas Co., Ltd.

**Feature** Striving toward Net-Zero CO₂**Decarbonization of Gaseous Energy**

During the ongoing transition to the decarbonized society, Tokyo Gas will continue providing value to customers through the effective use of natural gas, from the perspective of the maximum utilization and reinforcing the resilience of existing infrastructure and facilities. Because innovations in decarbonization technologies will be essential to achieve Net-Zero CO₂ emissions, we are also advancing the open innovation of core factor technologies that contribute to decarbonization, the decarbonization of gaseous energy (the recovery, effective use, and storage of CO₂ from hydrogen and methane), and the development of ultra-high-efficiency fuel cells.

Voice**Advancing Research to Achieve Net-Zero CO₂**

The Tokyo Gas Leading-edge Energy System Research Institute, which I belong to, develops scenarios for Tokyo Gas to achieve Net-Zero CO₂ emissions and focuses on the research and development of technologies contributing to Net-Zero CO₂. When drafting a scenario, we first conceive of growth strategies that backcast the path to achieving Net-Zero CO₂ emissions. We then identify the technologies that Tokyo Gas should focus on developing within the scenario and carry out research and development. For example, methanation and other approaches have been proposed as methods for the future carbon-neutral production and supply of gaseous energy. This has the potential to become an important measure for Tokyo Gas to achieve Net-Zero CO₂, but it is not actually useful unless the price of hydrogen derived from renewable energy declines. Therefore the Institute is presently conducting research and development toward decreasing the cost of hydrogen production technologies using renewable energies. While there may be many technologies that contribute to decarbonization, we will carefully identify those which are critical to the business growth of the Tokyo Gas Group, pursue research and development on them technologies, and achieve Net-Zero CO₂.



KUSHI Takuto
Leading-edge Energy System
Research Institute
Fundamental Technology Dept.
Tokyo Gas Co., Ltd.

Reducing CO₂ Emissions on a Global Scale

We are making use of our integrated energy business technologies and expertise to respond to the increase in natural gas demand driven by rapid economic growth. We are also leveraging that know-how to help create comfortable, environmentally friendly cities in Southeast Asia, where LNG imports are expected to increase. To do this, we are introducing LNG/natural gas systems and constructing energy infrastructure in collaboration with governments and enterprises in each country.

Voice**Construction of State-of-the-art Urban District Cooling Center in Thailand**

I am in charge of the engineering for One Bangkok, which is a private-sector redevelopment project in the central district of Bangkok, Thailand and is that country's first urban district cooling project. Air conditioning is critical throughout the year in Bangkok, which has a harsh climate. One Bangkok is the first project in Thailand to seek LEED Platinum Certification for Neighborhood Development* for its environmentally friendly smart city redevelopment concept. The design utilizes rainwater and other recycled water, and incorporates the knowledge cultivated by businesses in Japan together with cutting-edge technologies. The system contributes to reducing the environmental load of the entire area by predicting the cooling load using weather forecasts for the next day and past demand data, and by effectively operating state-of-the-art, high-efficiency chillers and thermal storage equipment.

* The highest level of certification under a system developed and operated by the U.S. Green Building Council (USGBC) for evaluating the environmental performance of buildings and land use.



MAEDA Hidetoshi
Energy Service Dept.
Overseas Business Div.
Tokyo Gas Engineering Solutions
Corporation

Tokyo Gas has worked as a leading company for the spread of natural gas with its superior environmental properties, supply stability, and economy. The Tokyo Gas Group is working to achieve Net-Zero CO₂ emissions and lead the transition to a decarbonized society by creating new value. We do this by collaborating with stakeholders and advancing renewable energy businesses that are highly compatible with natural gas, in ways that leverage the expertise we have gained from reducing CO₂ emissions through the effective use of natural gas.

Environment

Basic Policy

Environmental Policies and Environmental Goals

The Tokyo Gas Group is working to promote environmental management throughout the Group in accordance with Environmental Policies formulated based on its Management Philosophy and Corporate Action Philosophy, and Environmental Goals that set out challenges to be addressed and set quantitative targets.

● Environmental Policies

Philosophy

The Tokyo Gas Group will promote more sustainable ways of energy use to contribute to the protection of regional and global environments as well as to the sustainable development of society.

Policies

1. Reduction of the Environmental Impact of Customers' Energy Use
2. Reduction of the Total Environmental Impact of Tokyo Gas's Business Operations
3. Strengthening of Environmental Partnerships with Local and International Communities
4. Promotion of Green Technology R&D Programs
5. Biodiversity Conservation and Sustainable Use
6. Compliance with Environmental Law and Fulfillment of Social Responsibilities

● Environmental Goals

- (1) Strive toward Net-Zero CO₂ emissions
- (2) Promote environmental value co-creation
- (3) Develop a resource-efficient recycling society
- (4) Cultivate positive stakeholder relationships regarding the environment



▶ FY2020-2022 Materialities

Environmental Action Milestones

Tokyo Gas has supplied energy to customers for the more than 130 years since its founding in 1885. We introduced eco-friendly LNG (liquefied natural gas) to Japan for the first time in 1969 as raw material for city gas, and now use LNG not only for producing city gas but also for power generation. In 2005, we acquired company-wide ISO 14001 certification and have continued to actively implement environmental protection actions. We launched in fiscal 2020 our own environmental management system, TG-EMS, which builds on our experience with ISO 14001 to provide enhanced efficiency, effectiveness, and continuity. Going forward, we will remain committed to unified environmental management across our entire Group.

Environment

■ Milestones in Environmental Actions by Tokyo Gas

- *1 EMS (Environmental Management System): Established environmental management at subsidiaries and Tokyo Gas LIFEVAL companies, and introduced a proprietary EMS.
- *2 ESCO (Energy Service Company): A comprehensive service providing systematic solutions required to save energy, such as technologies, equipment, human resources and funds.
- *3 SRIMS: Tokyo Gas original waste collection and recycling system, which collects waste during the delivery of gas appliances, parts and piping materials to partner companies.

Note: Acts of law are listed according to their year of enactment.



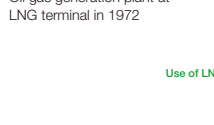
The Gas Science Museum



Sodegaura LNG Terminal



Oil gas generation plant at LNG terminal in 1972



Gaslights on Benten Bridge in Yokohama

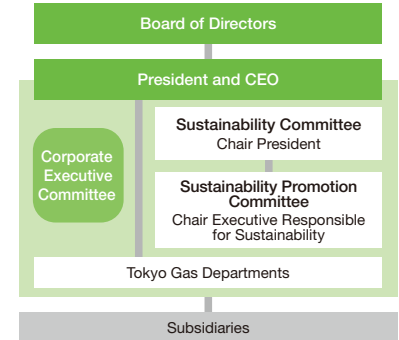


Environmental Management

Environmental Management Promotion System

The Sustainability Committee and the Sustainability Promotion Subcommittee lead the Group's environmental management by defining environmental targets, tracking progress toward them, and taking other actions.

■ Organization for Promoting Environmental Management



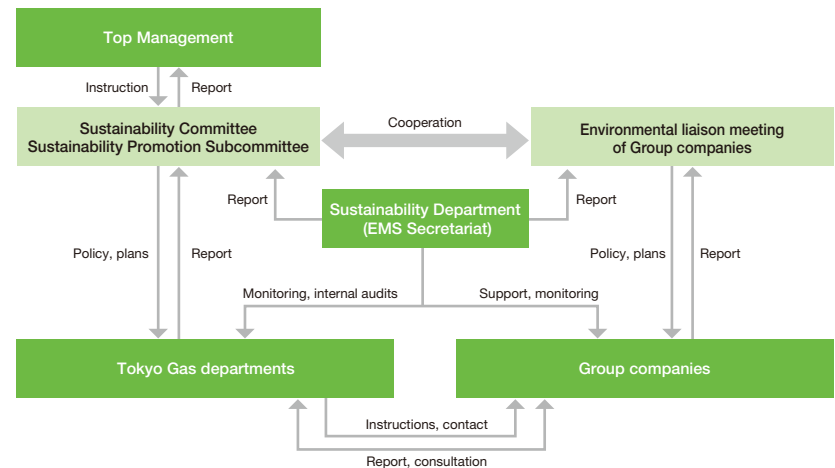
(as of April 2020)

Continual Improvement to the Environmental Management System

Tokyo Gas has conducted environmental management under the leadership of top management since establishing its Group-wide environmental management system in 2005 based on ISO 14001. In fiscal 2020, we evolved our system into TG-EMS, which further enhances efficiency, effectiveness, and continuity by building on our experience with ISO14001. Implementing PDCA cycles under the EMS makes our environmental protection activities both systematic and substantive, ensuring legal compliance and reduction of environmental impact.

To strengthen our Group's environmental governance, we constructed the environmental management system described below and support the operation of environmental management systems at each Group company.

■ Environmental Management System





Environment

Internal Audit Results

The internal audit in fiscal 2019 found that the EMSs in all our sections complied with the requirements specified by ISO 14001:2015 and that the EMSs were effectively operated.

Compliance with Environmental Laws

As in the previous year, the Group was not involved in any accidents that significantly impacted the environment nor was it cited for any violations of environmental laws or regulations in fiscal 2019.

Management of Chemical Substances

The Tokyo Gas Group adheres to prevailing laws and regulations for effectively controlling hazardous substances in its production and supply of gas and electricity and is working to reduce the release of these substances.

Compliance with PRTR Law and Other Laws and Regulations

The following list indicates the amounts released and transferred for chemicals subject to reporting requirements under the pollutant release and transfer register law and the Ordinance for the citizens of Tokyo^{*1} in fiscal 2019.

^{*1} Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and the Ordinance on the environment to ensure the health and safety of citizens of Tokyo

■ The amounts of chemicals subject to reporting requirements under the register law: Tokyo Gas

Substance	Released (kg)	Transferred (kg)	Note
Xylene	0.3	0.0	Refueling
1,2,4-Trimethylbenzene	0.1	0.0	Refueling
Toluene	1.7	0.0	Refueling
N-hexane	4.9	0.0	Refueling
Styrene	1,800	0.0	Coating

■ The amounts of chemicals subject to reporting requirements under the register law: Subsidiaries

Substance	Released (kg)	Transferred (kg)	Note
Dichlorodifluoromethane	460	0.0	Chemical industry

Measures to Address Fluorocarbons

We identified the Class I Specified Products (commercial air conditioners, refrigerators and freezers) managed by Tokyo Gas and its subsidiaries, and inspected them. In fiscal 2019, there was no leakage from Tokyo Gas or any of its subsidiaries at a level requiring reporting to the competent minister for this business domain.

There were no instances of fluorocarbon recovery or processing in our role as a registered operator for Class I fluorocarbon filling and recovery.

Electric chillers installed in recent years use low GWP (global warming potential) fluorocarbons. Low GWP fluorocarbons will continue to be used for new chillers.

■ Calculated Leakage as a Manager: Tokyo Gas

Substance	Calculated Leakage (t-CO ₂ equivalents)
HCFC	35.4
HFC	127.7
Total	163.0

Anti-VOC Measures

Since fiscal 1991, Tokyo Gas has strived to reduce volatile organic compounds (VOCs), which are released during the painting of gas holders and other equipment. We recently shifted to a painting method that achieves lower VOC emissions by utilizing a weaker paint solvent, and we will continue striving for further reductions.



Gas holder painting work

Hazardous Waste Management

We properly store and manage our polychlorinated biphenyl (PCB)-containing hazardous waste and process it by the required deadlines in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes.



Environment

Environmental Risk Management

Mitigating Environmental Risks

All business offices of the Tokyo Gas Group operate environmental management systems under which they annually assess the environmental risks of all operations. We endeavor to improve high-risk operations by setting specific targets and also conduct employee training, including study groups on relevant laws and regulations, to mitigate risks by raising environmental awareness. In the event any violations of environmental laws occur, we seek to prevent any recurrence by sharing information and applying the learnings to similar operations across the Group.

As part of our crisis management system, we have formulated the Emergency Response Regulations to provide the foundation for rapid formation of an Emergency Response Organization whenever a major crisis occurs. In addition, we are further strengthening the system by conducting periodic training and formulating business continuity plans to address major risks.

Climate Change Mitigation and Adaptation Measures

The Tokyo Gas Group recognizes concerns that climate change may affect our business activities in the following ways and is responding appropriately.

Climate Change Countermeasures (Climate Change Mitigation)

To reduce greenhouse gas emissions, which are associated with rising global temperatures, the Tokyo Gas Group has formulated Environmental Goals. Also, the Group is working to reduce emissions from city gas production facilities, power plants, district heating and cooling centers and offices as well as from customer sites, which account for the largest share of CO₂ emissions in the LNG value chain. Our efforts to combat climate change also include the development and dissemination of low-carbon systems.

- ▶ Climate Change Actions: Cutting Customer CO₂ Emissions
- ▶ Energy Savings and Reduction of CO₂ Emissions in Business Operations

Natural Disaster Response (Adaptation Measures)

Climate change-induced disasters, such as localized torrential downpours and storm surges, may damage city gas production facilities and delay or halt LNG transport. We have formulated disaster preparedness plans at production, supply and other facilities as well as business continuity plans to prepare for a major accident, large-scale power outage or outbreak of disease caused by a major typhoon. In addition, we believe that diversifying the suppliers of the LNG used to produce city gas will help minimize the risk of supply chain disruption when any single source is affected by a natural disaster.

Managing Water Risks

Recognizing water risks as a key management concern, Tokyo Gas seeks to manage the risks by addressing issues such as water demand and supply, flooding, and public health.

Response to Water Risks

For the three years from fiscal 2016 through fiscal 2018, we combined the use of such international indicators as the WRI Aqueduct, WWF-DEG Water Risk Filter, and WWF-DEG Water Risk Filter (Map) to conduct comprehensive assessments and analyses on current risks, such as water demand, flooding, public health, and biodiversity as well as future risks, including the impact of climate change and securing water resources. The results showed that there currently are no major risks at any of the Group's operating centers in Japan and abroad.

In fiscal 2019, we began using RepRisk to gauge the water risks and other ESG risks of our overseas projects. RepRisk is a research provider used by the Government Pension Investment Fund (GPIF) to set ESG investment indices. This service employs AI to automatically collect ESG data on past projects, and expert analysts score the ESG risks. Through this service, we determined that there were no risks in our overseas projects.

We are also working to identify any potential risks at our domestic suppliers by conducting a questionnaire that includes questions on their efforts to reduce water use.

Flooding

To ensure stable energy supply, we have taken steps to protect LNG terminals and gas pipeline-related and other vital facilities from flooding associated with climate change, such as localized torrential downpours and storm surges, as part of our overall actions against natural disasters.

Public Health and Other Issues

We are striving to use water resources sustainably by monitoring the volume of water use and conservation as well as appropriately managing wastewater.

Status of Water Resource Use Third-party Assured

In fiscal 2019, we used a total of 4,600 thousand m³ of freshwater at LNG terminals where city gas is produced, district heating and cooling centers, power plants using LNG, offices, and other facilities in Japan.

We are working to reduce process water consumption at LNG terminals, district heating and cooling centers and power plants through such means as optimizing boiler operation, reducing steam loss, and replacing chillers with more efficient electric turbo types. To reduce our use of tap water at offices and similar facilities, we are increasing our use of recycled water, installing water-saving toilets, and encouraging employees to conserve water. Regarding wastewater, we measure discharges and manage water quality through the use of indicators, such as pH, COD^{*1}, and nitrogen and phosphorus concentrations, in accordance with national laws and regulations, local government ordinances, agreements and other rules.

We use seawater mainly at LNG terminals and power plants as a heat source and then return the entire amount to the sea.

*1 COD: Chemical Oxygen Demand

Environment

Combating Soil Pollution

Since fiscal 1999, we have been conducting soil tests and groundwater surveys on land currently or previously owned by Tokyo Gas, such as former plant sites, with potential soil pollution. When contaminants were found, we proactively disclosed information through reports to the relevant authorities, briefings for nearby residents, press releases, and other channels, and took measures to contain the contamination.

Depending on specific circumstances, we have paved over or excavated and removed contaminated soil to prevent its dispersal. Also, we have installed impermeable walls or pumped out contaminated underground water to prevent it from spreading. We continue to control soil pollution, reporting excavation work to authorities and conducting surveys in accordance with the Soil Contamination Countermeasures Act and relevant ordinances. Furthermore, we ensure that contaminated dirt is not dispersed and that excavated soil is handled properly.

With the revision of the act in April 2010, we have taken action to address soil pollution caused by natural factors or landfill with the same commitment as legally mandated interventions for pollution associated with our business operations.

Providing Group Employees with Environmental Education and Award System

Environmental Education for Group Employees

The Tokyo Gas Group's system of environmental education for employees comprises: (1) training for new employees to learn about the environmental activities they should practice as soon as they start work, (2) Group-wide training for deepening the basic understanding of environmental issues as well as our Group's environmental initiatives, and (3) EMS training to build the knowledge necessary for environmental management and enhance expertise as leaders and responsible staff at each workplace.

Additionally, we have offered eco-driving training to develop skills for green and safe driving, a class for eco-cooking instructors to learn eco-friendly diets, and other practical programs that are helpful in reducing environmental impact and facilitating environmental communication.

We encourage employees to learn at their convenience through the corporate intranet about climate change-related issues and developments in and out of the company and considerations for handling waste.

■ Main Environmental Education Programs in Fiscal 2019

Type		Period	Number of participants (persons)
EMS education	Training for EMS promoters	May	73
	Study group on environmental laws and regulations	January	210
Eco-driving course ▶ Promotion of eco-driving		September–October	106

Environmental Program Promotion Award System

This is a system to honor workplaces and partner companies that have implemented initiatives that will serve as a model for the Tokyo Gas Group, such as reducing environmental impact, increasing brand value, and contributing to local communities, and to raise awareness of the environmental within the Group by sharing these good practices. Under the award system launched in fiscal 1999, we presented 10 awards in fiscal 2019, which consisted of 3 Eco-Friendly Business Promotion Awards, 2 Eco-Office Activity Awards, 2 Eco-Rookie Awards and 3 Environmental Sustainability Guidelines Excellence Awards.



Award winners at the fiscal 2019 presentation ceremony

Environmental Awareness Survey

We are conducting Group employee surveys to ascertain their environment awareness, environmental behavior, and understanding of our environmental activities, in order to use the results as basic information for formulating the plans for the following year's activities. The fiscal 2016 survey gathered 9,890 valid answers for a response rate of 58%. We make use of survey results to reinforce measures to raise the environmental awareness of the Group employees and improve educational programs.

Environment

Climate Change Actions

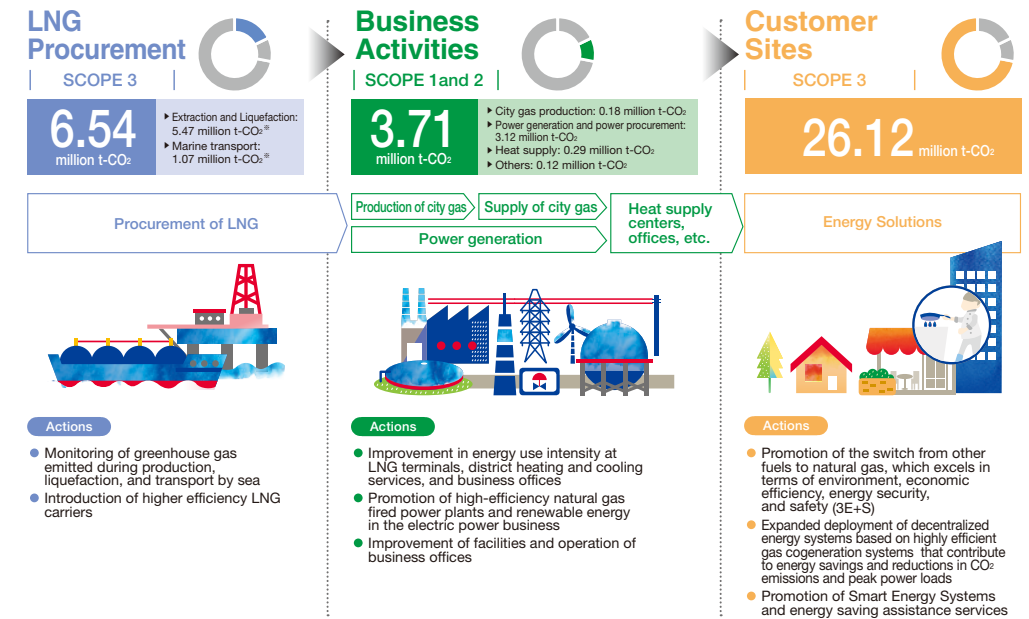
Addressing Climate Change Issues

Climate change has emerged as one of the highest risks to achieving a sustainable global economy. The Tokyo Gas Group has been striving Group-wide to address climate change by setting specific numerical targets under the Environmental Sustainability Guidelines, which apply to our business operations as well as to customer sites where the portion of CO₂ emissions are the largest across our LNG value chain. In addition, in view of the accelerating trend of decarbonization, etc. following the adoption of the Paris Agreement at COP21, we have set, in our Group's management vision "Compass 2030" formulated in November 2019, "Leadership in the effort to achieve Net-Zero CO₂" as one of the specific challenges to be tackled.

To achieve net-zero CO₂ emissions, we will continue our efforts to promote wider use of natural gas, which has a lower CO₂ emission factor, and highly effective use of natural gas by gas cogeneration systems and fuel cells. We will also contribute to developing and expanding smart energy networks and a reduction of greenhouse gas emissions through digitization technologies.

In our electric power business, in addition to decarbonization through increased use of renewable energy sources, we will use digital technology to combine centralized energy sources (thermal, renewable, etc.) and decentralized energy sources (solar, storage batteries, gas cogeneration systems, etc.), increasing the scale of virtual power plants (VPP) that integrate varied energy sources at the customer site. Outside Japan, deploying the Group's carbon-saving and energy-saving technologies will contribute to action on climate change throughout the LNG value chain.

Greenhouse Gas Emissions along the LNG Value Chain (FY2019) Third-party Assured



Source: "City Gas Life Cycle Assessment (issued July 2020)," Japan Gas Association website.

SCOPE 1: Business's own direct emissions of greenhouse gases.

SCOPE 2: Indirect emissions from consumption of electricity, heat, and steam supplied by others.

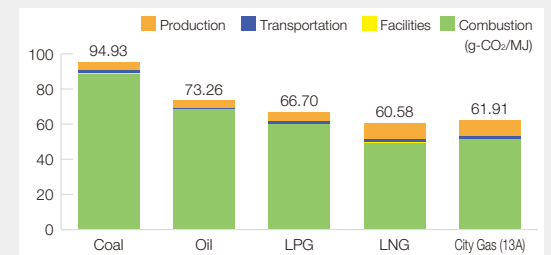
SCOPE 3: Indirect emissions other than covered in SCOPE 2 (emissions by other parties involved with business's activities).

The Tokyo Gas Group Business Activities and Material Balance

Topic

Environmental Advantages of Natural Gas in Terms of Lifecycle CO₂ Emissions

Regarding greenhouse gas emissions from fossil fuels, it is important to evaluate not only during combustion, but also during the life cycle, including emissions from each stage of extracting, processing and transportation. From the comprehensive perspective, natural gas generates the lowest CO₂ emissions of any fossil fuel.



Source: "Future Forecast for Life Cycle Greenhouse Gas Emissions of LNG and City Gas 13A" (Japan Society of Energy and Resources, presentation report 28 (2), pp. 51-56, 2007)

The life cycle greenhouse gas emissions of city gas (13A) announced by the Japan Gas Association in July 2020 is 60.54 g-CO₂/MJ.

Environment

Support for TCFD Recommendations and Information Disclosure

Climate-related risks and opportunities could significantly affect many companies' financial positions and destabilize financial conditions. In order to reduce such risk, in response to the request from the G20, the Financial Stability Board (FSB) established the Task Force on Climate-related Financial Disclosure (TCFD) in December 2015 and the TCFD released its recommendations in June 2017.



We recognize climate change as one of the priority issues that the Tokyo Gas Group is facing today and regard the TCFD as an effective framework in promoting information disclosure and dialogue with stakeholders on climate-related issues. We therefore signed the statement of support for the TCFD in May 2019. We intend to disclose information on the impact of climate change on the Tokyo Gas Group's business activities and the measures we are taking.

Governance

The Tokyo Gas Group forms in-house committees as appropriate for studying, coordinating or promoting actions to address important management issues. These include the Sustainability Committee, which is intended to promote climate change research and other sustainability issues and chaired by the President, and the Sustainability Promotion Committee, a subordinate body of the previous committee chaired by the Officer in charge of sustainability. They deliver reports on important matters to the Board of Directors.

Strategies

In preparation for the next half-century, the Tokyo Gas Group has formulated its "Compass 2030" management vision outlining the course that should be pursued in this age of uncertainty.

Natural gas, one of the pillars of the Tokyo Gas Group's business, is expected to play an even larger role due to its stability, environment-friendly nature, and economic viability, as well as its affinity for use in combination with inherently unstable renewable energy sources. In the meantime, as a leading company dealing in natural gas, (a fossil fuel), we feel it is our responsibility to deal forthrightly with the issue of climate change, look beyond CO2 emission reduction, and promote decarbonization.

While maintaining S+3E¹ as the bedrock of our business activities, we are striving to help reduce CO2 emissions by customers by continuing to promote a shift to natural gas in fuel conversion and advanced use of natural gas, such as in diversified energy systems. Over the longer-term toward 2030, we plan to effectively use natural gas as an adjusting function for renewable energy, which is expected to be increasingly used. We also intend to globally promote our technology and know-how regarding natural gas. By doing so, we will contribute to the stable supply of energy and a reduction in CO2 emissions in Japan and overseas.

We will promote decarbonization technology innovation from a long-term perspective. At the same time, we will combine various means, including natural gas and renewable energy, and aim to achieve Net-Zero CO2 emissions by our entire group, including customer emissions, while leading the transition to a decarbonized society.

*1 S+3E: Safety plus 3Es for Energy security, Energy efficiency, and Environment

Major risks and opportunities driven by climate change, and the Tokyo Gas Group's initiatives

In identifying the Tokyo Gas Group's risks and opportunities related to climate change, we referred to two representative scenarios^{*1} of the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC)—the below 2°C scenario and the 4°C scenario. Considering the medium- to long-term time span of 2030 and after, we comprehensively summarized important factors that may affect our group's business and evaluated (mainly qualitatively) the impacts from two aspects—magnitude of impact and possibility to be affected—for both scenarios. We then identified major factors and put together our initiatives for each factor.

We are determined to steadily implement these initiatives and to realize our business sustainability as well as the measures against climate change even after 2030.

*1 Scenarios for reference: the below 2°C scenario: Sustainable Development Scenario (SDS)(IEA WEO2019)/B2DS (IEA ETP2017)/RCP2.6 (IPCC AR5) the 4°C scenario: Stated Policies Scenario (STEPS) (IEA WEO-2019 /RTS (IEA ETP2017)/RCP8.5 (IPCC AR5)

	Opportunities and risks	Factors	Details of opportunities and risks	Tokyo Gas Group's Initiatives
Below 2°C scenario	Opportunities	Markets	Global increase in demand for natural gas (See Topics Topics① on P.25)	<ul style="list-style-type: none"> Resources development and expansion of LNG/gas infrastructure and other overseas business to increase the natural gas transaction volume
	Opportunities	Energy source	Affinity of renewable energy with natural gas (See Topics Topics② on P.25)	<ul style="list-style-type: none"> Effective use of natural gas to adjust fluctuation of output of renewable energy Increase in renewable energy transaction volume in Japan and overseas Use of PV, storage batteries, EV, etc. to promote new decentralised power source business and VPP
	Opportunities and risks	Resource Efficiency; Technology	Decarbonization technology innovation (See Topics Topics③ on P.26)	<ul style="list-style-type: none"> Development of decarbonization technologies for gaseous energy, such as hydrogen and methanation Introduction and use of CCUS technologies
	Opportunities and risks	Markets; policy and Legal	Introduction of carbon tax (Introduction of appropriately-designed carbon tax may promote shift to energies with less CO2 emissions but excessive taxation may raise energy cost and negatively affect the company's business)	<ul style="list-style-type: none"> Fuel conversion, etc. to accelerate shift to natural gas Effective use of natural gas to adjust fluctuation in output of renewable energy Increase in renewable energy transaction volume in Japan and overseas Use of PV, storage batteries, EV, etc. to promote new decentralised power source business and VPP
4°C scenario	Opportunities	Resilience	Diversified energy system using natural gas to enhance resilience (See Topics Topics④ on P.25)	<ul style="list-style-type: none"> Enhanced resilience in the natural gas infrastructure Expanded use of diversified energy system, such as smart energy networks, co-generation, ENE-FARM, etc. that are highly resilient and reduce energy consumption
	Risks	Acute	Impact on operations, associated with severe abnormal weather*CDisruption to the operation of facilities for production and supply°C	<ul style="list-style-type: none"> Enhanced establishment of water hazard-resilient Life Line, such as and full preparation for BCP., disaster countermeasures of LNG terminals and power stations

Environment

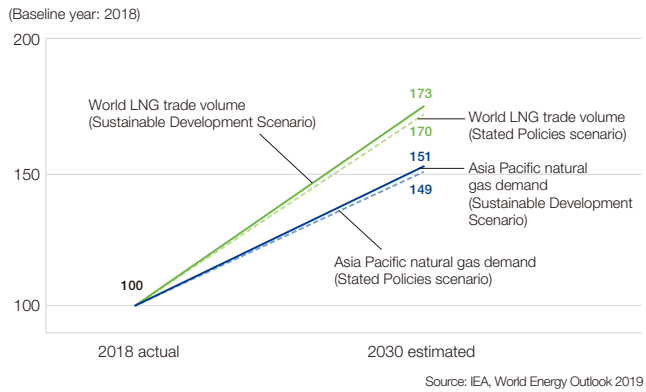
Topics 1

Addressing increased global demand for natural gas (short to medium term)^{*1}

Thanks to its environment-friendly nature, natural gas is viewed as a key energy source on the road to decarbonization, and its expected role in this transition is clearly spelled out in Japan's long-term low greenhouse gas emission development strategy.

The demand for natural gas is projected to continue to grow globally—and especially in Asia—through 2030 under various IEA forecast scenarios.^{*2}

In order to address this global increase in demand, the Tokyo Gas Group will develop upstream resources and also expand overseas operations such as LNG and gas infrastructure as part of its effort to contribute to the goal of achieving global Net-Zero CO₂ by reducing CO₂ emissions.



*1 Rough timeline: short term = FY 2020 to 2022 (3 years), medium term = up to 2030, long term = up to 2050.
 *2 World LNG trade volume is projected to rise about 1.7x and Asia Pacific natural gas demand is projected to rise about 1.5x under the IEA World Energy Outlook 2019 SDS and STEPS forecasts.

Source: IEA, World Energy Outlook 2019

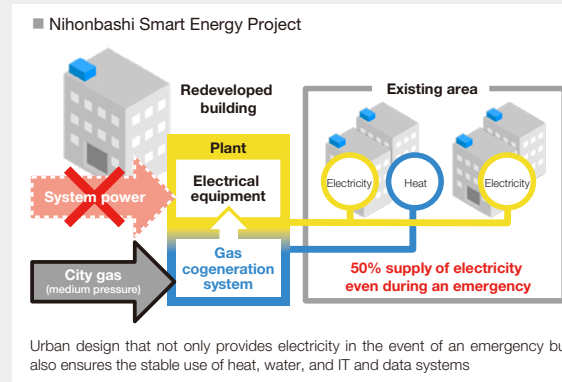
Topics 2

Contributing to the environment and society with decentralized systems and EaaS^{*2} (short to medium term / long-term)^{*1}

Thanks to its affinity with renewable energy sources, natural gas is expected to be used for grid balancing with renewable energy, which will be increasingly introduced in the future.

As we strive for Net-Zero CO₂, we will accelerate the efforts to acquire renewable energy power sources both in Japan and global markets. In addition, we are helping to reduce customer CO₂ emissions by proactively using technologies such as photovoltaic power (PV), storage batteries, and electric vehicles (EV) in order to scale up our new diversified energy source business and virtual power plant (VPP) systems, which combine centralized power sources (e.g., thermal and renewable energy sources) with decentralized power sources (e.g., cogeneration systems).

Cogeneration systems and the decentralized energy systems that take advantage of them, such as smart energy networks, help to make customer sites more resilient and boost national resilience. The Tokyo Gas Group will contribute to society as a whole by pushing ahead with lifestyle and urban design solutions that are resilient in the face of disaster. We will do this by making the natural gas infrastructure even more resilient, and also by making decentralized energy systems more widespread, so that we can continue to supply energy in the event of an earthquake or a disaster caused by climate change, which is expected to be a growing problem.



*1 Rough timeline: short term = FY 2020 to 2022 (3 years), medium term = up to 2030, long term = up to 2050.
 *2 Energy as a Service: Rather than selling just energy, selling a menu of services that combines energy, equipment, control technologies, and maintenance.

Urban design that not only provides electricity in the event of an emergency but also ensures the stable use of heat, water, and IT and data systems

Environment

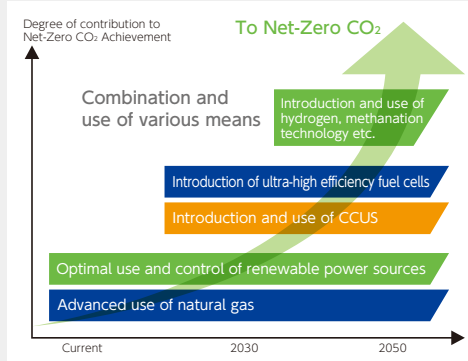
Topics

Striving toward decarbonization technology innovations from a long-term perspective (medium/long term)^{*1}

The Tokyo Gas Group has been encouraging the more widespread deployment of fuel cells that use hydrogen from natural gas reforming (e.g. ENE-FARM) at customer sites as well as the installation of hydrogen stations for fuel cell vehicles.

And now, as we endeavor to reduce CO₂ emissions domestically and internationally towards 2030 through the more widespread use of natural gas, we will also leverage the technology and know-how that we have accumulated through the development of fuel cells and other energy technologies to pursue innovation in the core technologies needed for decarbonization, such as the deployment of ultra-high efficiency fuel cells and the deployment and utilization of CCUS.

And from 2030 onwards we will tackle the challenge of making Net-Zero CO₂ a reality by promoting hydrogen production and direct use that takes advantage of domestic and international renewable energy sources, as well as the deployment of methanation, which enables the effective use of existing city gas infrastructure and our customers' equipment such as cogeneration systems.



*1 Rough timeline: short term = FY 2020 to 2022 (3 years), medium term = up to 2030, long term = up to 2050.

Risk management

The company has established an enterprise risk management (ERM) system, and drawn up risk management regulations that include documented rules concerning major risks faced by the group.

The Risk Management Committee was established with the aim of improving the management level of the ERM system. The Committee checks progress regarding the establishment and operational status of the ERM system, including periodic risk assessments. It also reports to the Corporate Executive Committee and obtains the necessary approvals.

As for specific initiatives, the environment management system (EMS) has been established for the entire group, led by the top management, and we conduct not only compliance with laws and regulations but also various initiatives regarding climate change by promoting a PDCA (Plan-Do-Check-Act) cycle.

Key figures and targets

The Tokyo Gas Group management vision Compass 2030 has set the management guidelines and key figures for realizing corporate growth.

Contribution to CO ₂ emission reduction	Renewable power source transaction volume	No. of customer accounts	Natural gas transaction volume
-10million tons ^{*1}	5million kW (domestic and international, including purchasing)	20million ^{*2}	20million tons ^{*3}

*1 Base year: fiscal 2013, including contribution of emission reduction during consumption by customers

*2 Total no. of gas, power, and service agreements (domestically and internationally)

*3 LNG equivalent including overseas business and trading

Climate Change Actions Cutting Customer CO₂ Emissions Residential Sector Initiatives

Popularization of Highly Efficient Kitchen Stoves

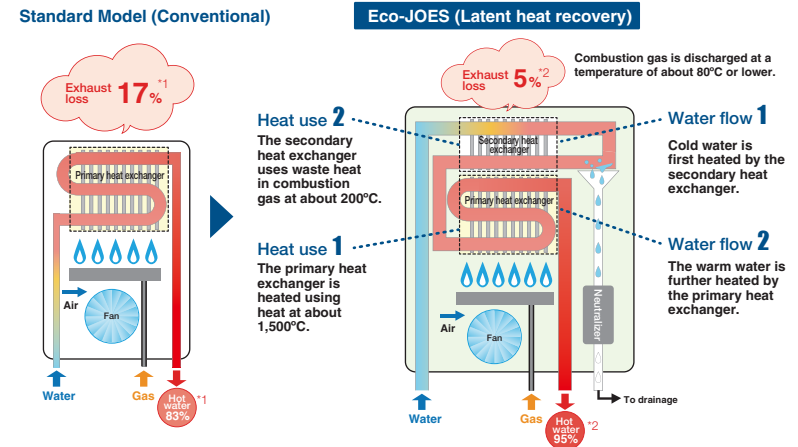
In 1998, Tokyo Gas began selling a kitchen stove equipped with highly efficient burners that reduced heat loss from beneath the pan. We actively promoted the product, and by 2006, almost all stoves were equipped with burners of this type. The high-efficiency burner excels in energy conservation and helps reduce household CO₂ emissions. At the same time, it is safer and easier to use since the flames are less likely to extend from beneath the pan, even when the flame level is raised.

Popularization of Highly Efficient Eco-JOES Water Heaters

While conventional residential gas water heaters have a maximum heating efficiency of 83%^{*1}, the Eco-JOES highly efficient, home-use latent heat recovery water heaters are equipped with an exhaust heat and latent heat recovery system that boosts efficiency to as high as 95%.^{*2} Assisted by the industry-wide Eco-JOES Adoption Campaign to promote the introduction of Eco-JOES, the number of residential installations is rising every year. As of the end of March 2020, shipments reached about 10.36 million units in Japan, according to data compiled by the Japan Industrial Association of Gas and Kerosene Appliances.

Due to their efficient use of heat, the Eco-JOES water heaters reduce the amount of waste heat released into the air and help reduce CO₂ emissions and combat global warming as well. Their remote controllers incorporate the EneLook feature, which visualizes gas and hot water usage information and thus motivates users to save water and energy.

Highly Efficient Eco-JOES Water Heater



*1 Performance of FT4215ARSAW6Q, a standard water heater.

*2 Performance of FT4220ARSAW6C, an Eco-JOES water heater.

* Calculations for *1 and *2 were made using the JIS S 2109-stipulated methods. However, actual heating efficiencies depend on the conditions of use.

Environment

Blue & Green Project: Popularizing Highly Efficient Gas Appliances and Planting Trees

Tokyo Gas, along with other members of the gas industry, participates in the Blue & Green Project organized by the Center for Better Living to promote the use of gas water heaters and room heaters that offer energy savings and benefits for the betterment of society. Under the project, we have sought to popularize our highly energy-efficient ENE-FARM and Eco-JOES appliances (hereafter, “specified appliances”) in combination with tree planting activities since June 2006 so we can hand over a verdant planet to the next generation.

During the first phase, which started in 2006, we planted one tree for each specified appliance sold in Vietnam. We planted about 3.9 million trees over the ensuing ten years, an achievement that was recognized with a certificate of gratitude from the Vietnamese government.

During the current second phase launched in April 2014, we have been supporting reforestation activities in Rikuzentakata City in Iwate Prefecture to restore the pine forest of Takata-Matsubara, which had been destroyed by the Great East Japan Earthquake. At present, we are continuing to raise and supply the pine saplings that are being planted mainly by volunteers from the local community. To date, some 8,500 saplings of the approximately 10,000 planned have been planted. Going forward, we will continue pursuing CO₂ emission reductions through the promotion of high-efficiency appliances while further supporting afforestation efforts.



Tree planting test in Takata-Matsubara

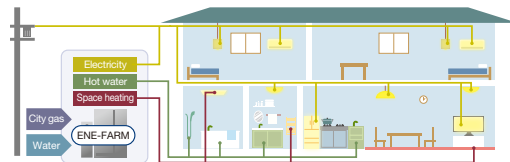
Residential Power Generation: Residential Gas Cogeneration Systems

Residential power generation employs gas cogeneration systems that had been primarily used at large plants and buildings. This energy-saving system extracts two types of energy from one energy source by effectively using heat produced as a byproduct of generating electricity. The system also generates a sense of delight through the value of generating power at home. At the same time, it helps reduce energy consumption and CO₂ emissions.

Saving Energy and Curbing CO₂ Emissions through Residential Power Generation

Energy that can be directly collected in nature is called primary energy, while energy such as electricity, generated through the use of primary energy, is defined as secondary energy. Proper assessment of energy conservation and measures to fight global warming requires taking into account changes in primary as well as in secondary energy. Since residential power generation takes place where electricity is also consumed, exhaust heat can be used for such purposes as heating water, which is not always possible at thermal power stations.

■ Residential Gas Cogeneration System (overview of the system for the Panasonic ENE-FARM 2019 model)



Residential Fuel Cell: ENE-FARM

In May 2009, Tokyo Gas introduced the world’s first fuel cell cogeneration system for detached housing, called the ENE-FARM, developed jointly with Matsushita Electric Industrial Co., Ltd. (now Panasonic Corporation).

In April 2017, we launched a resilient model, which incorporated a continuous power generation function that allows residents to use lighting and communication equipment during power outages caused by natural disasters. This feature is now included as standard. In resilient models, the system continues to supply electricity during a power outage as long as ENE-FARM is generating power. This enables the system to help society meet the growing need to enhance energy security.

Furthermore, a network access service launched in August 2017 offers a You-and-Enepa smartphone app that provides ENE-FARM users with information on ways to use energy efficiently. The app also enables them to turn their bath or underfloor heating on or off from outside their home, check the status of power generated by ENE-FARM, and view household energy consumption (available with Panasonic models). In October 2019, we launched the ENE-FARM Mini (produced by Kyocera and rated at 400 W). This is the smallest model in the world, which makes installation easier, and has enabled a growing number of households to take advantage of ENE-FARM systems.



App screen showing electricity, gas and hot water usage



Messages from “Enepa”



ENE-FARM residential fuel cell gas cogeneration systems (for detached houses: 2019 models by Panasonic Corporation)



ENE-FARM Mini residential fuel cell gas cogeneration system (2019 model by Kyocera)

今日の実績：太陽光発電		2/3
項目	昨日	昨日
発電	311円 10.5 kWh	9.4 kWh
売電	279円 9.3 kWh	8.4 kWh
W発電効果	69円 2.3 kWh	2.1 kWh

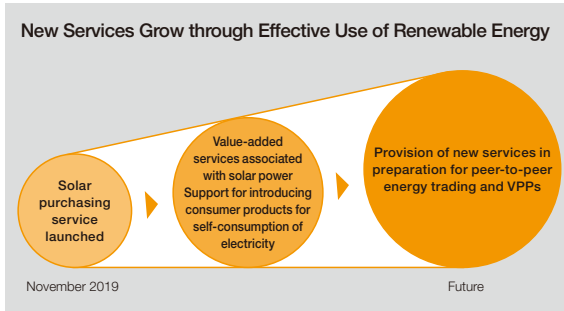
Remote controller display for checking energy use and status (simulation)

Environment

Effective Use of Renewable Energy

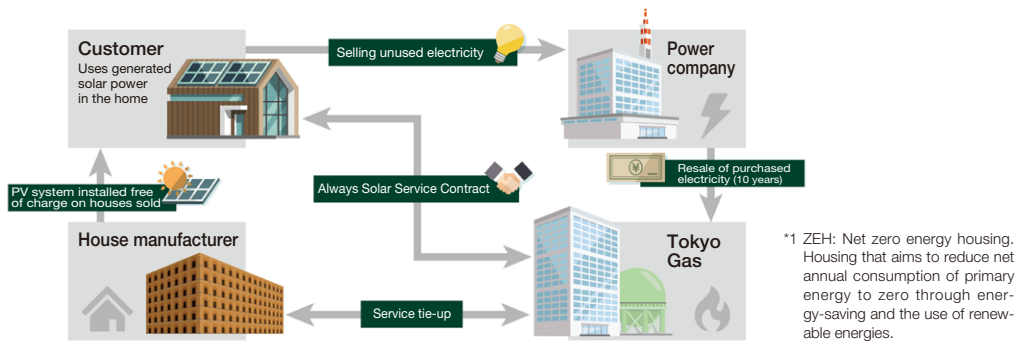
Surplus Solar Power Purchasing Service

In November 2019, we launched a service for purchasing surplus photovoltaic power from customers who are no longer able to use the feed-in-tariff (FIT) system to sell their electricity. The FIT purchasing system is a national initiative that comes to an end after ten years, but since the solar panels are still able to generate electricity, this service enables the electricity to continue to be used for meeting demand and reducing CO₂ emissions. In addition to the purchasing service, we are planning to add a range of services that contribute to effective use of solar power, including maintenance of PV equipment and support for introducing consumer products for self-consumption of electricity, such as storage cells and other requirements for utilizing solar power in the home.



Always Solar Service for Free-of-charge PV Systems

In October 2019, we launched our Always Solar service in conjunction with house manufacturers, providing PV systems free of charge to customers building new houses. In addition to reducing customer energy costs and enhancing disaster resilience, the provision of this service enables Tokyo Gas to promote the use of ZEH^{*1} and reduce CO₂ emissions, thereby contributing to the protection of the global environment.



*1 ZEH: Net zero energy housing. Housing that aims to reduce net annual consumption of primary energy to zero through energy-saving and the use of renewable energies.

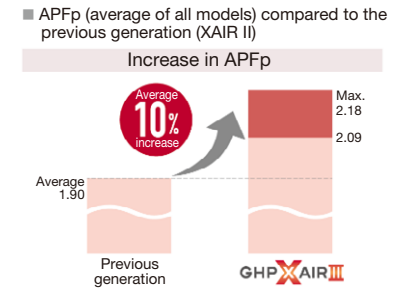
Climate Change Actions Cutting Customer CO₂ Emissions Commercial Sector Initiatives

Development and Promotion of Air Conditioning Systems

In the commercial air conditioning equipment business, for building air conditioning we are promoting high-efficiency gas engine heat pump air conditioning systems that reduce annual energy consumption, and Natural Chiller absorption systems with water refrigerants, using the heat of vaporization of water. Providing a full range of energy services as a one-stop service enables us to promote energy-saving and low-carbon solutions.

Promotion of Highly Efficient Gas Engine Heat Pump Air Conditioners

Tokyo Gas is promoting the GHP XAIR III series of gas engine heat pump (GHP) air conditioners, which achieve the highest level of efficiency. The new generation of XAIR III models, marketed from April 2020 onwards, contributes to further reductions in annual energy consumption and CO₂ emissions. The development and deployment of new engines, compressors, and heat exchangers enhances operating efficiency, providing an approximately 10% increase in annual energy efficiency APFP compared to the previous generation.



“Green Help Smart”^{*1} Energy-Saving Operation Service for Gas Heat Pump Air Conditioners

Our Green Help Smart service achieves energy savings without sacrificing comfort by enabling gas heat pump air conditioners to be remotely controlled over the Internet so users can operate them more efficiently and track their status at a glance.

*1 Green Help Smart is a registered trademark of Tokyo Gas Co., Ltd.

Smart Multi Hybrid Air Conditioner, ENESINFO Optimal Control Service^{*1}

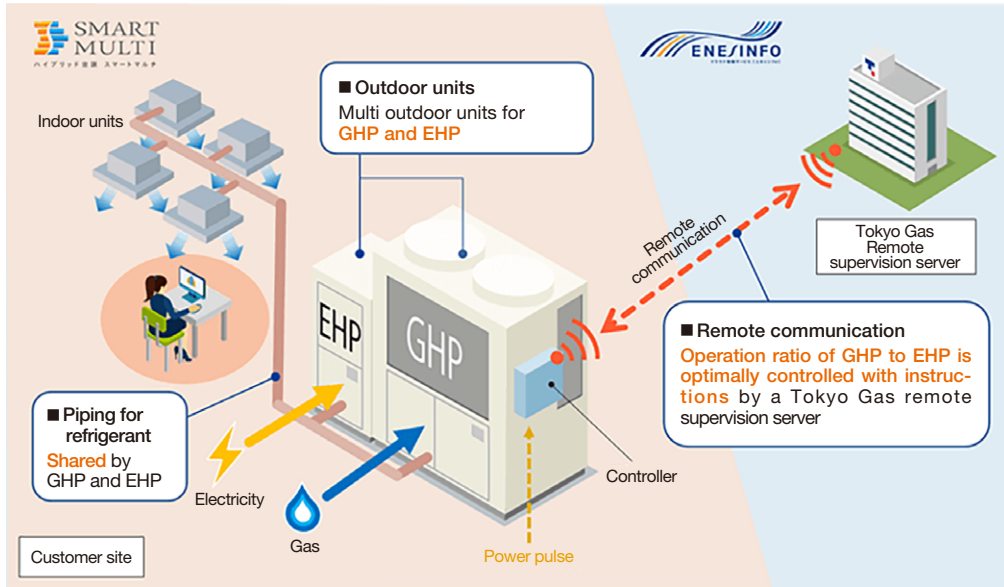
The Smart Multi is a hybrid air conditioning system jointly developed with Osaka Gas Co., Ltd., Toho Gas Co., Ltd., and Panasonic Corporation. It is the world’s first air conditioning system to integrate a GHP and an electric heat pump (EHP) into the same refrigerant line and is optimally operated by remote control. The Smart Multi was launched on the market by Panasonic in April 2016, and in April 2017, Aisin Seiki Co., Ltd., Daikin Industries, Ltd., and Yanmar Energy System Co., Ltd. also began sales of the system. It received the FY2018 Energy Conservation Grand Prize Special Judging Committee Award (Product and Business Model Category) sponsored by Ministry of Economy, Trade and Industry.

The ENESINFO is our originally developed service for remotely controlling optimal operation of the Smart Multi. The service effectively balances GHP and EHP operation to reduce energy costs, monitoring the status of their operation, energy demand and supply situations and energy prices, which vary by season and time of day. It helps to save energy and reduce CO₂ emissions by adjusting the operation ratio of the GHP to the EHP to minimize energy consumption and CO₂ emissions in accordance with the customer’s pattern of system use. Looking ahead, we intend to adapt the service as we anticipate changes in power demand and supply and in electricity prices associated with such factors as the increasing use of solar and wind power and other renewable energy as well as the deregulated electricity retail market. We will also respond to requests for saving electricity in the face of a tight demand and supply balance as our contribution to society as a whole.

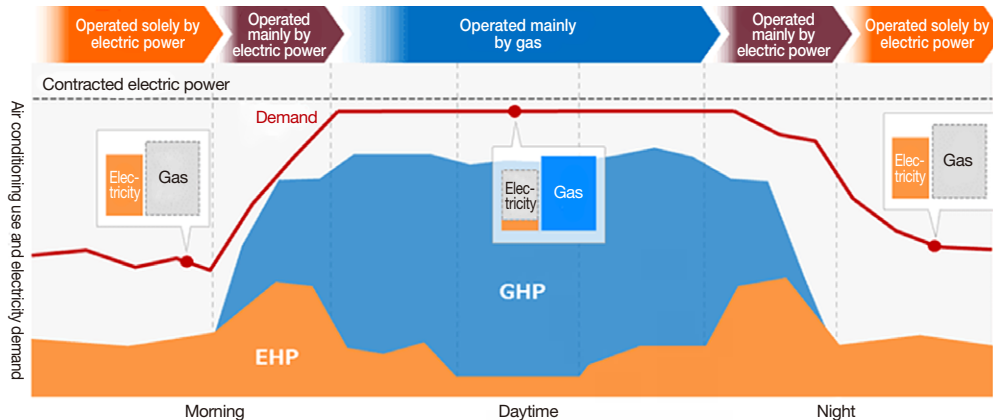
*1 Smart Multi and ENESINFO are registered trademarks of Tokyo Gas Co., Ltd.

Environment

■ ENESINFO Optimally Controlling the Smart Multi



■ Optimal Control by ENESINFO

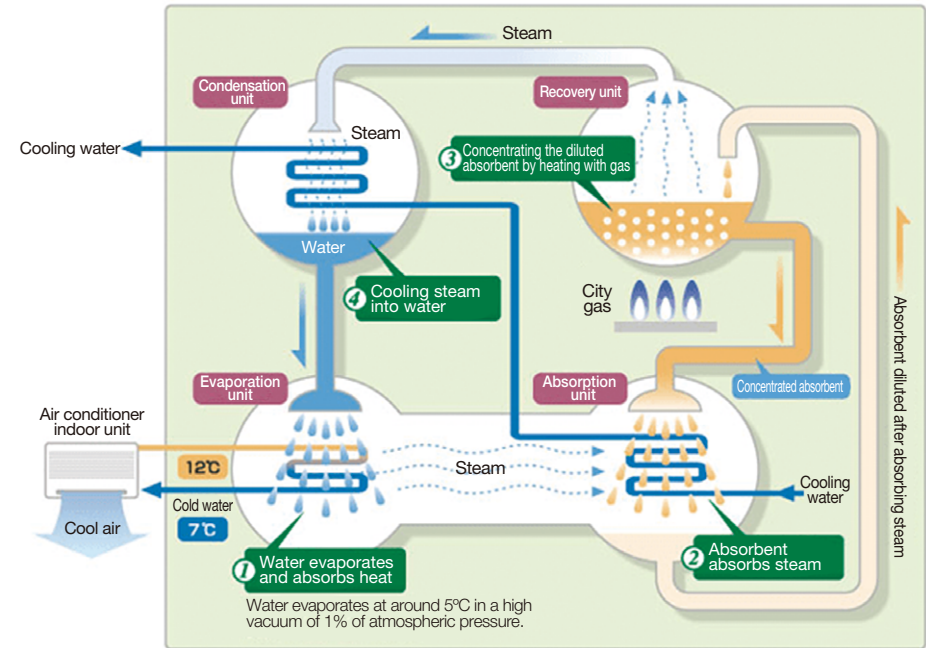


Popularization of Natural Chiller Commercial Air Conditioner Using Vaporization of Water

Natural Chiller systems cool air inside rooms by producing cold water in a cycle of water evaporation, absorption, recovery, and condensation. The system uses water as a refrigerant and a lithium bromide^{*1} water solution as an absorbent that does not include fluorocarbons.

*1 An absorbent absorbs water and a lithium bromide water solution exhibits the properties of saltwater.

■ How Natural Chillers Work



Natural Chiller systems can effectively use renewable energy such as solar heat and low-temperature untapped energy sources such as sewage water, river water, seawater, and groundwater, thereby achieving additional reductions in energy use and CO₂ emissions.

Using clean city gas as backup for an unstable supply of renewable energy maintains reliable performance of the system as a whole.

The latest green models^{*2} boast a higher efficiency than that of conventional units. Using these models as replacements ensures significant cuts in energy use and CO₂ emissions.

*2 Green models are the most eco-friendly and reliable gas-using natural chillers and Genelink natural chillers that use waste hot water from gas cogeneration systems, selected by Tokyo Gas, Co., Ltd., Osaka Gas Co., Ltd., and Toho Gas Co., Ltd.

Environment

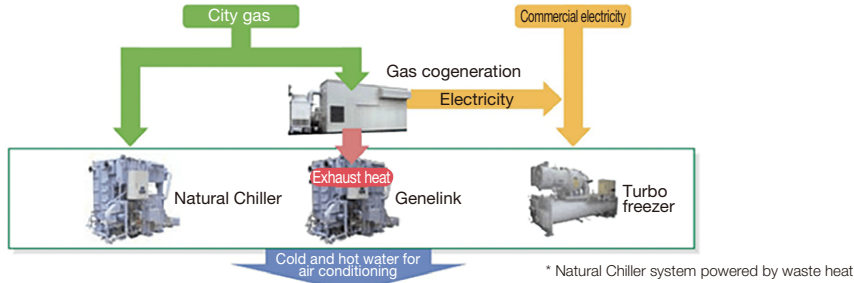
● Combining Natural Chillers with Gas Cogeneration Systems

Natural Chiller systems are capable of recovering heat energy in a variety of different forms, enabling it to be used for cooling or heating. Combining natural chillers with gas cogeneration systems allows for the effective use of exhaust heat and reduces gas consumption, which leads to further energy savings.

● Active Use of Solar Thermal Energy

We support the introduction of renewable energy with a solar cooling system for commercial applications. This is based on a Natural Chiller gas absorption system using solar thermal energy to provide an eco-friendly air conditioning system.

■ Example of Combination with Gas Cogeneration System



Cool Kitchens to Reduce Air Conditioning Load

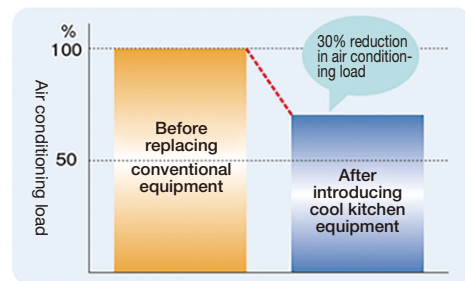
For hot kitchens, we recommend “Suzuchu” cool kitchen equipment that provide efficient ventilation in addition to air conditioning. “Suzuchu” cool kitchen systems reduce air conditioning load by 30%¹ compared to conventional kitchen equipment. This helps to improve the kitchen environment while saving energy and cutting CO₂ emissions.

● Simulation Conditions

- Calculation is based on a school lunch kitchen with a floor area of 18 × 8.5 meters and a height of 2.5 meters
- Displacement ventilation method is used
- Air supply amount comes to 40 kQ
- Equipment: 5 tilting cookers, 4 multi-deck rice cookers, 1 oven, 1 gas stove
(For Suzuchu: tilting cookers, multi-deck rice cookers, oven and gas stove share common specifications)

¹ Sourced from presentation materials of Nishikawa and Omori at Society of Heating, Air-Conditioning and Sanitary Engineers of Japan (Sept. 2009).

■ Air Conditioning Load Reduction Rate with Cool Kitchen Equipment



Development and Popularization of High-performance Industrial Furnaces and Steam Systems

The industrial sector dramatically reduces CO₂ emissions by switching away from the use of fuels such as fuel oil and LPG to natural gas and installing more efficient industrial burners and furnaces.

Promotion of Highly Efficient Burners for Industrial Furnaces

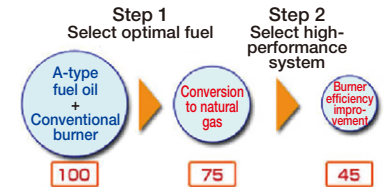
Regenerative burner systems capture heat from exhaust gas into a heat storage unit and use it to preheat an air feed. They boast extremely high combustion efficiency and low nitrogen oxides (NO_x) emissions. Also boasting energy savings up to 50%, they have been drawing attention as the ultimate industrial furnaces for reducing CO₂ emissions.



Regenerative burner system

● Reducing CO₂ Emissions by Switching to Natural Gas, and Using it More Efficiently

Switching from fuels such as fuel oil and LPG to natural gas reduces CO₂ emissions by about 15–25%, however, emissions can be curbed further by switching to more efficient equipment and systems and making more sophisticated use of natural gas.



□ : CO₂ emissions

Reducing CO₂ Emissions by Switching to Natural Gas, and Using it More Efficiently

Promotion of Highly Efficient Steam Boilers

We offer energy savings by replacing conventional large-capacity boilers with small, highly efficient once-through boilers and controlling multiple units. Tokyo Gas has already commercialized small, highly efficient once-through boilers in partnership with manufacturers and is also developing larger once-through boilers featuring outstanding efficiency and durability. We consistently meet the needs for saving energy, cutting CO₂ emissions, and reducing costs by promoting and expanding the use of our Steam Fit energy service in combination with these boilers in order to provide an analysis of energy savings at each stage, from the installation of high-efficiency boilers and supply of steam to consumption by the end-user.



Multiple installation of small once-through boilers

Environment

Development and Deployment of Gas Cogeneration Systems

Gas cogeneration systems are decentralized energy systems that generate electricity by natural gas-fueled highly efficient engines, turbines or fuel cells and supplies, as well as the steam or hot water produced by using the exhaust heat from power generation. The systems are eco-friendly, and also contribute to the business continuous plan and power reduction in an emergency.

Environmental Friendliness of Cogeneration Systems

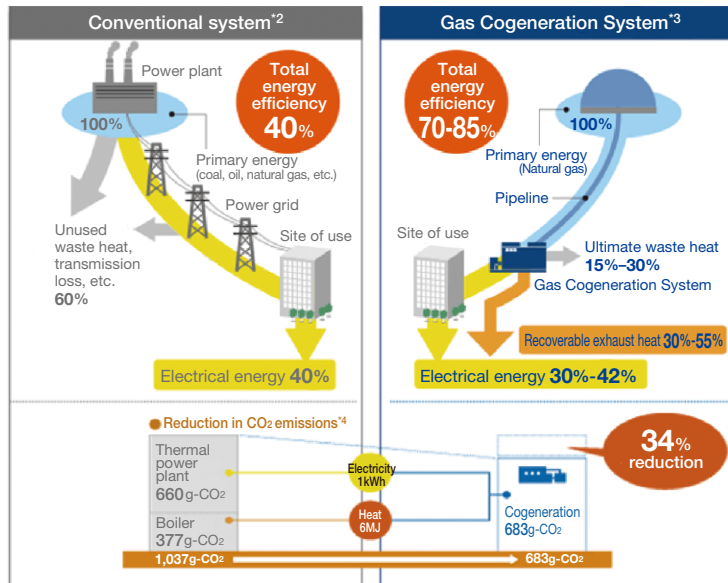
Cogeneration systems are decentralized systems that achieve high energy efficiency because they generate power on users' sites, which realizes no transmission loss and effectively use of exhaust heat from power generation.

Using exhaust heat in centralized power generation is difficult because with centralized systems, electricity is transmitted from remote areas. As a result, 60% of the primary energy for power generation remains unused.

Heat source equipment that uses exhaust heat is suitable for a wide range of uses, such as production processes at plants, hot water or steam supply at hotels and hospitals, air conditioning, and warming baths or swimming pools.

The pursuit of power generation efficiency by R&D allows most cogeneration systems to achieve an efficiency rate that exceeds the average rate of conventional power generation and supply systems (on the demand side at substations, including transmission loss) and to significantly save energy and reduce CO₂ emissions.

Using Energy Effectively and Reducing CO₂ Emissions with Cogeneration Systems^{*1}



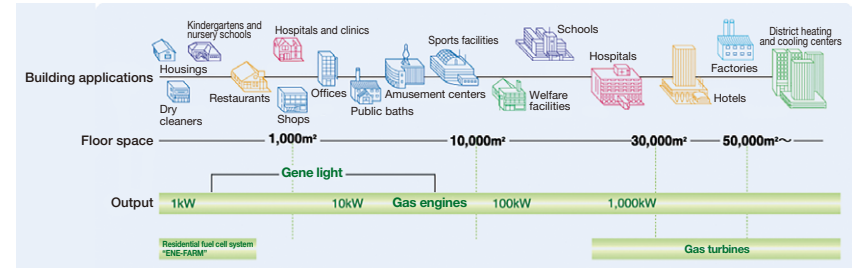
Assessment of CO₂ Emissions Reduction due to Reductions in Purchased Electricity

^{*1} Estimated by Tokyo Gas
^{*2} On a lower heating value (LHV) basis. The heat efficiency and total loss at thermal power plants were calculated on the basis of the operating performance of Japan's nine major power utilities plus power wholesalers in fiscal 2003 (Subcommittee on Classification Standards for Plants and Other Facilities, September 2005).
^{*3} Efficiency of gas cogeneration systems is on an LHV basis using the recommended configuration.
^{*4} Emission factor of the nine power utilities: 0.66 kg-CO₂/kWh (average factor for fiscal 2030 in thermal power generation in the government's Plan for Global Warming Countermeasures announced in May 2016).

Extent of Usage of Cogeneration Systems

As of March 2020, cogeneration systems with a total output of 2,174,000 kW (excluding household units) are in operation in our service area. They are increasingly adopted across a wider range of fields, such as small- and medium-scale consumer use beyond residential use, owing mainly to the development of small models with an output of one kW to tens of kW, in addition to models chiefly designed for plants and commercial facilities with large heat loads.

Diffusion of Cogeneration Systems



Topic

Trials of High Efficiency Fuel Cell System Commence

Tokyo Gas and Miura Co., Ltd. have jointly developed a solid oxide fuel cell (SOFC) system that achieves 65% net AC electrical efficiency, a very high level for a 5kW class fuel cell. System trials commenced in April 2020.

This system merges innovative high efficiency technology under R&D by Tokyo Gas with Miura's technology in the areas of heat, water, and the environment to successfully achieve a generating efficiency of 65%, a world first for a 5kW class fuel cell system. Taking advantage of the high efficiency generating characteristics has enabled the production of a mono-generation system that contributes to saving energy and reduces CO₂ emissions without use of waste heat.

After the trials to verify generating performance, durability, and reliability, Tokyo Gas will investigate how to take advantage of the knowledge gained, resolve issues raised, and push forward to produce marketable products at an early stage.



SOFC system used in the trials



Environment

Promotion of Energy Saving and Reduction of CO₂ Emissions through Energy Services

The Tokyo Gas Group strives to provide the energy-related solution experiences to our customers and promotes efforts to save energy and reduce CO₂ emissions. To this end, we develop services by learning how customers use energy and identifying the problems they have, and introduce advanced equipment, visualize energy use, and provide services to improve equipment operation.

Energy Savings Support Service by One-stop Solutions

We strive to provide one-stop solutions for customer issues related to energy. Concluding package contracts that cover finance, design and construction work, equipment ownership, energy procurement, maintenance, and other matters allows us to address those issues and meet customer needs in order to save energy and cut CO₂ emissions so we can provide an environment in which customers can focus on their business operations.

Energy-saving Services for Plants

We provide various solutions to plants that not only save energy but also reduce CO₂ emissions and costs.

We provide utility services involving a range of plant-wide solutions based on digital communications, digital control, and AI technology to meet customer needs for saving energy, cutting CO₂ emissions, and reducing cost. These include our TG Miru-Net Service that saves energy by using online instrumentation and analysis of equipment to provide a visual representations of energy use, the Steam Fit service that provides comprehensive, ongoing support for steam systems from design to operation, the Furnace Fit service that provides support for energy saving and maintenance of industrial furnaces, the Water Fit service for resolving issues with in cooling water and wastewater treatment, and the Air Fit service that provides support for compressed air and related areas.

Climate Change Actions

Cutting Customer CO₂ Emissions

Best Practices of Smart Networks

Promoting Community-wide Smart Energy Use

To create smart energy communities, we construct smart energy networks that optimize energy demand and supply through a heat and electricity network and energy management by using information and communication technology (ICT).

A smart energy community shares a gas cogeneration system, which generates heat and electricity on site, and renewable or unused energy sources to leveling energy demand so that the community can reduce peak load. The region-wide economical use of heat and electricity increases the energy efficiency of the entire community and sustains business activities and everyday life in the event of a power outage while enhancing the value of urban living.

Development of smart energy communities is increasing in the Tokyo metropolitan area in line with national and local government policies.

Increasing Value Added with Smart Gas Meters

Smart Gas Meters with communication function facilitate measuring and controlling the flow of gas. Besides their incorporation into home energy management systems, they are used for remotely checking whether gas appliances have been turned off and shutting off gas.

The introduction of Smart Gas Meters is intended to increase customer convenience and provide added value through the use of measured data in addition to improving operational efficiency.

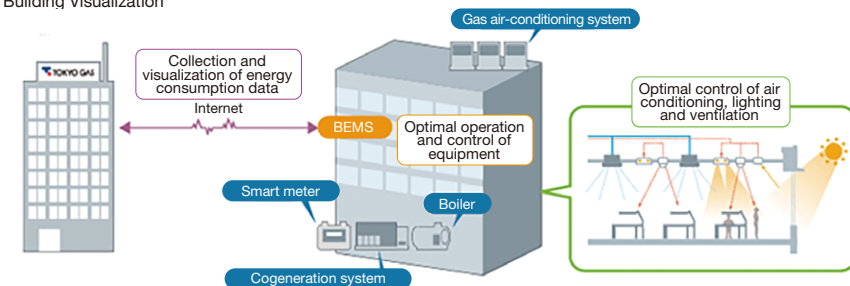


Smart Gas Meter

Promoting Visualization of Office Building Energy Use

Visualizing energy helps customers to save energy, cut costs, and use their equipment wisely.

Office Building Visualization



Environment

● “TG Green Monitor” for Visualizing Energy Use

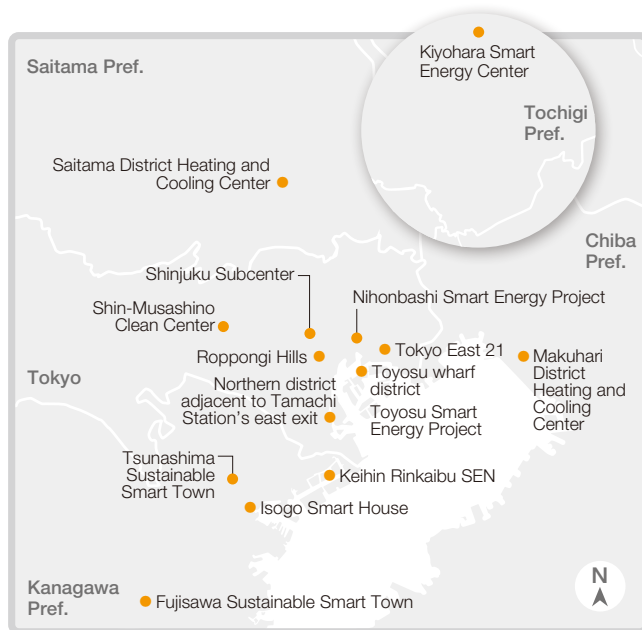
The TG Green Monitor service measures energy use at customer sites and visualizes the usage of gas and electricity as well as the status of equipment operation. The service allows customers to view their data shown in simple charts on a dedicated website designed so they can easily track energy consumption, and use the information effectively to save energy and cut costs.



TG Green Monitor Screenshot (simulation)

Promoting Smart Energy Communities with Cogeneration as a Key

Smart Energy, one focus of Tokyo Group efforts, uses the characteristics of gas cogeneration systems to build communities with strong environmental performance and high resilience. In addition to networking heat and electricity use in the district, with the cogeneration system as the nucleus of the network, we attempt to maximize the use of renewable and unutilized energy, and to provide sound management of such energy and of the demand side through ICT (Information and communications technology), including data on usage status, constructing an optimal energy system. This enhances disaster resilience functionality, and contributes to BCP, raising the value of the city. This approach is being deployed in urban redevelopment projects in the Greater Tokyo Area, including the smart energy network project in Tamachi, which received the Minister of Economy, Trade and Industry Award in the Successful Case of Energy Conservation category at the Energy Conservation Grand Prize awards for fiscal 2016.



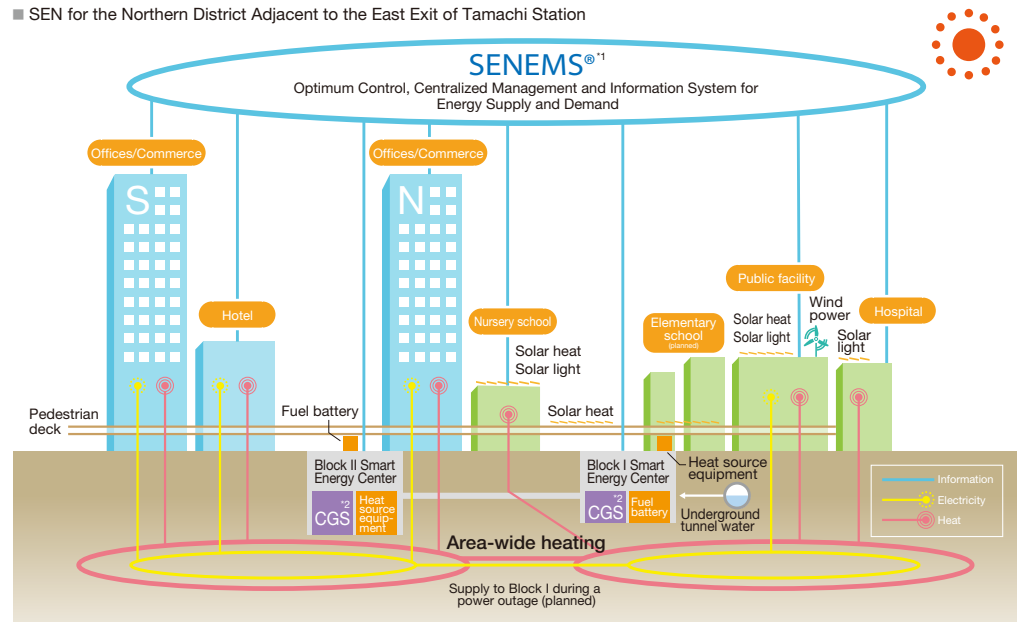
● Developing a SEN in the Northern District Adjacent to the East Exit of Tamachi Station

The Tokyo Gas Group has been promoting the construction of a smart energy network (SEN) in the Northern District adjacent to the East Exit of Tamachi Station^{*1} in Tokyo in collaboration with the Minato City, aiming to create a city that is environmentally friendly and resistant to disasters. We first built the Smart Energy Center in the Block I and started providing heat and energy to Minato Park Shibaura (public utility), Aiku Hospital, and a municipal Shibaura Nursery School in November 2014. This was the first project in Japan to introduce a SEN as part of the new urban development.

Moreover, we have introduced a SEN at “msb Tamachi” in the Block II-2 (West area), which was partly opened in April 2018. We built the Block II Smart Energy Center in step with this development of a business complex at a Tokyo Gas-owned site. We hope to reduce CO₂ emissions in the entire North District by 30% below 2005 levels through the coordinated operation of the two Smart Energy Centers.

*1 The SEN project in the Northern District adjacent to the East Exit of Tamachi Station received the Minister of Economy, Trade and Industry Award in the Successful Case of Energy Conservation category at the Energy Conservation Grand Prize awards in fiscal 2016.

■ SEN for the Northern District Adjacent to the East Exit of Tamachi Station



*1 Abbreviation for Smart Energy Network Energy Management System

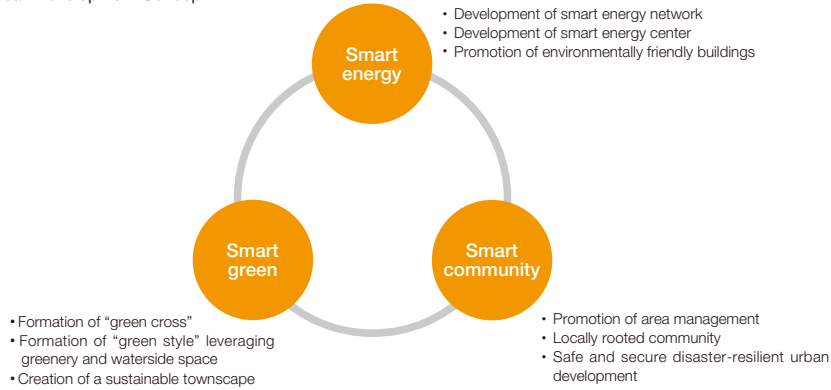
*2 Gas cogeneration system

Environment

● SEN Development in the Toyosu Wharf District

The Tokyo Gas Group is pursuing urban development with the potential to extend deep into the 22nd century in a redevelopment area located around land the Group holds in the Toyosu wharf district of Tokyo's Koto Ward. Under this project, "Tokyo Smart City TOYOSU 22," we are undertaking futuristic urban development guided by the three concepts—"smart energy," "smart green," and "smart community,"—from a long-term perspective looking beyond the Tokyo 2020 Olympics and Paralympics, as a high-quality development to raise the value and appeal of the area.

■ TOYOSU 22 Urban Development Concept



A new smart energy center completed in May 2016 in Toyosu wharf district is equipped with one of the world's most efficient cogeneration systems, which supplies electric power to the Toyosu wholesale market while using its exhaust heat to power equipment at the center. Environmental friendliness has been enhanced by adopting gas pressure differential power generation.¹ By using cogeneration systems with blackout start specifications,² laying independent power lines³ and employing disaster-resistant medium-pressure gas pipelines, we have created a system capable of an uninterrupted supply of heat and electricity, even during power outages or other emergencies, thus enhancing the district's resilience to disaster. The network also has a "SENEMS"⁴ for centrally managing and controlling energy throughout the district using ICT. SENEMS will instantly analyze and process real-time information on supply and demand, weather conditions and specific characteristics associated with each day of the week in order to automatically optimize energy demand and supply for the area. We plan to progressively expand the heat and power network as the development of Zones 4 and 2 progresses.

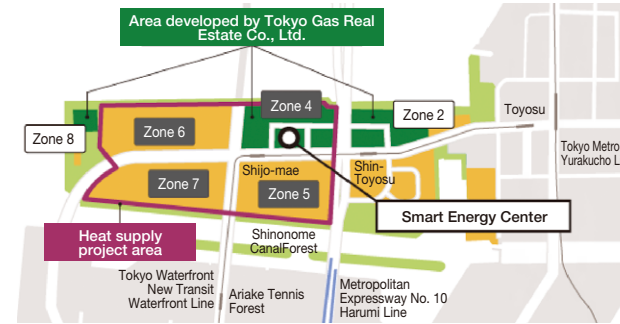
*1 Power generation based on the use of gas supply pressure.

*2 Method for independently restarting generators during a power outage. The installation of independent power lines and disaster-resistant medium-pressure gas pipelines ensure supply of electricity and heat, even during interruptions in the power grid.

*3 Power lines laid independently by an operator. They can be used at a customer's discretion when grid power has been interrupted.

*4 Abbreviation for Smart Energy Network Energy Management System.

■ Toyosu Wharf District Development Area



Tokyo Gas Toyosu Smart Energy Center

Environment

● Kiyohara Industrial Park Smart Energy Network Project

The Kiyohara Industrial Park Smart Energy Network Project, a collaboration between Calbee, Inc., Canon Inc., Hisamitsu Pharmaceutical Co., Inc., Tokyo Gas, and Tokyo Gas Engineering Solutions, became fully operational in December 2019.

This is Japan's first integrated energy-saving project serving multiple operations^{*1} in an inland industrial park. It supplies a combination of electricity and heat in the form of steam and hot water. The project is located in the Kiyohara Industrial Complex on the outskirts of Utsunomiya City in Tochigi Prefecture, and involved construction and operation of supply infrastructure using independently operated power grids and district steam/hot water pipes to connect seven existing plants^{*2} to the Kiyohara Smart Energy Center, which is responsible for supplying energy and operates cogeneration, PV and other facilities within the complex.

The project includes a smart energy network energy management system (SENEMS)^{*3} using ICT to bring together the data on electricity and heat (steam and hot water) usage for the seven operations, which have differing demand. Integrating the data enables optimal operation of the system as demand varies. This results in operational efficiency that would be difficult to achieve by the plants operating independently, achieving energy savings of approximately 20% and an approximately 20% cut in CO₂ emissions.^{*4} The project also benefits from the disaster resilience of medium-pressure gas pipelines, and blackout-start specifications for the cogeneration system, ensuring an uninterrupted supply of energy even if grid power is down for long periods.

This initiative involved the construction of new district infrastructure enabling local production of energy for local consumption in an existing industrial park. It is an advanced project that employs sophisticated use of energy to reduce the impact on the environment while simultaneously strengthening the energy infrastructure. As such, it is working toward achievement of the Sustainable Development Goals (SDGs).

In fiscal 2016, the project was selected to receive a subsidy from the Ministry of Economy, Trade and Industry for supporting energy conservation at plants and other worksites, and it has also received the ministry's certification for its collaborative energy-efficiency plans.^{*5} The center's construction is compatible with Tochigi Prefecture's energy strategy and has submitted notification of its eligibility for the prefecture's grants to new energy businesses. It fits the profile of collaborative use of energy within districts or industrial sites, which is promoted under Utsunomiya City's action plan on addressing climate change. The project is expected to serve as a model, and has attracted attention from other regions in Japan.

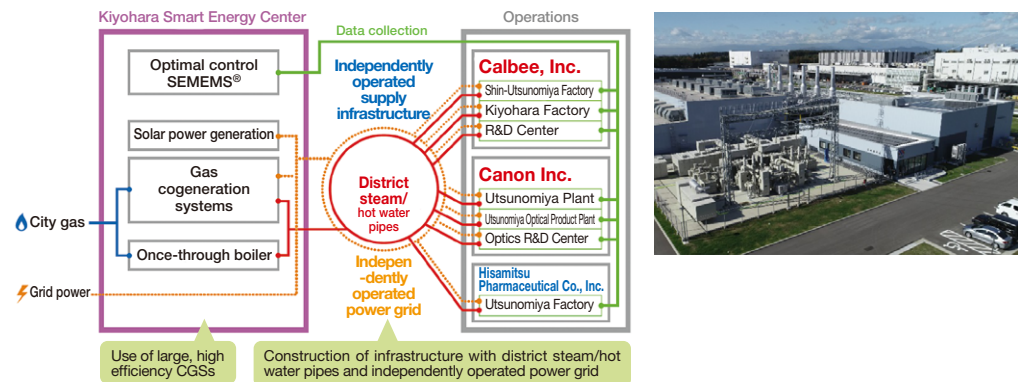
*1 Integrated energy-saving project serving multiple operations: Project for saving energy by sharing utilities (integrating supply facilities for electricity, heat, etc.) between multiple existing plants to facilitate the mutual use of energy and achieve energy savings as a whole.

*2 The seven existing plants are
 Calbee: Shin-Utsunomiya Factory, Kiyohara Factory, R&D Center
 Canon: Utsunomiya Plant, Utsunomiya Optical Products Plant, Optics R&D Center
 Hisamitsu Pharmaceutical: Utsunomiya Factory

*3 Smart energy network energy management system (SENEMS): System for realizing optimal operation and control of CGS systems by visualizing the energy use of each company and predicting electricity and thermal load trends.

*4 Rate of reduction compared to the combined electricity and gas usage data in fiscal 2015 for seven plants operated by Calbee, Inc., Canon Inc. and Hisamitsu Pharmaceutical Co., Inc. This is equivalent to a crude oil equivalent cut of 11,400 kl/year and CO₂ cut of 23,000 t/year.

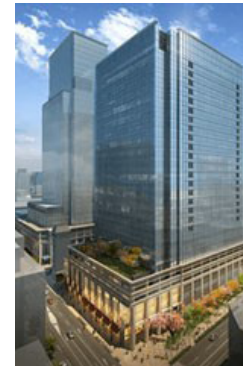
*5 Certification for collaborative energy-efficiency plans: A system applying when multiple businesses collaborate on an energy-saving initiative (collaborative energy-efficiency measures), enabling the individual businesses to split up the joint energy savings achieved. The split savings can be listed as collaborative energy savings in regular reports filed under the Act on the Rational Use of Energy. This system was launched by an amendment of the Act enforced in December 2018.



● Nihonbashi Smart Energy Project: Japan's First SEN to Include Existing Buildings

A large high-efficiency cogeneration system is installed in the redevelopment zone in Nihonbashi Muromachi 3-chome to serve as an independent decentralized power source. In April 2019, it commenced supplying electricity and heat from the Nihonbashi Energy Center to office buildings and commercial facilities in the surrounding area as well as within the redevelopment zone, making it the first such project in Japan. New projects of this kind will encourage the area-wide adoption of smart energy technologies and contribute to the development of cities that are much more resilient to disasters. This project aims to reduce CO₂ emissions in the supply area by approximately 30% through effective use of waste heat, highly efficient equipment and optimization of supply.

The project is operated by Mitsui Fudosan TG Smart Energy, Inc., a joint venture formed by Mitsui Fudosan and Tokyo Gas.



The Nihonbashi Muromachi Mitsui Tower, which houses the Nihonbashi Energy Center



Central monitoring room in the Nihonbashi Energy Center

● Toyosu Smart Energy Project: Energy for Core Facilities around the Station

The Toyosu Smart Energy Project is the second Tokyo Gas smart energy project, following the Nihonbashi Smart Energy Project. It includes construction of the Toyosu Energy Center, primarily to provide cogeneration-based independent decentralized energy, which in April 2020 started supplying electricity and heat to core facilities in the compact area around the station where city functions come together. By supplying energy to existing facilities as well as to the redevelopment zone, the project contributes to efforts to create a resilient and environmentally friendly neighborhood. This project aims to reduce CO₂ emissions in the supply area by approximately 20% through the effective use of waste heat by the cogeneration system.

The project is operated by Mitsui Fudosan TG Smart Energy, Inc., a joint venture formed by Mitsui Fudosan and Tokyo Gas.



The Toyosu Bayside Cross Tower, which houses the Toyosu Energy Center

Environment

Climate Change Actions

Cutting Customer CO₂ Emissions

Establishing Infrastructure for Hydrogen Supply

Construction and Operation of Hydrogen Stations

We construct and operate hydrogen stations to popularize fuel cell vehicles (FCVs) and help establish the infrastructure for supplying hydrogen. We want to create a hydrogen society that makes use of zero-emission hydrogen energy. CO₂ emissions for which FCVs are liable do not differ significantly from those for electric vehicles in terms of mileage, and the use of FCVs helps to reduce environmental impact.

Current Status towards the Realizing a Hydrogen Society

Time	Action
Status at the End of March 2020	FCVs popularization to approximately 3,700 vehicles, with 115 hydrogen stations
Targets for 2030 (Ministry of Economy, Trade and Industry)	FCV diffusion to approximately 800,000 vehicles, and development of around 900 hydrogen stations

Private-sector Initiatives

Time	Action
February 2018	Japan H ₂ Mobility ("JHyM") founded through collaboration between 11 companies ^{*1}

^{*1} The 11 companies (at the time of foundation of JHyM) were three automakers (Toyota, Nissan, Honda), six infrastructure operators (JXTG Nippon Oil & Energy Corporation, Idemitsu Kosan Co., Ltd., Iwatani Corporation, Tokyo Gas Co., Ltd., Toho Gas Co., Ltd., and Air Liquide Japan), and two private investors etc. (Toyota Tsusho Corporation, Development Bank of Japan).

Profile of JHyM

Profile	World-first initiative to accelerate the installation of hydrogen stations through collaboration between infrastructure operators, automakers, and private investors etc.
Main Activities	Strategic development and efficient operation of hydrogen stations
Activity Goals	Enhance convenience for FCV users, increase numbers of FCVs, put the operations of hydrogen stations on an independent footing, and create "a virtuous cycle between FCVs and hydrogen stations"

Tokyo Gas will construct and operate hydrogen stations as an infrastructure company in collaboration with JHyM. Looking ahead, we will continue to pursue efforts to create a sustainable hydrogen society in collaboration with other companies.

History of Construction and Operation of Hydrogen Stations

Time	Outline	Hydrogen Supply Method ^{*1}
May 2003	Senju Hydrogen Station opened in a pilot R&D project	
December 2010	Haneda Hydrogen Station opened in a pilot project. (Japan's first hydrogen station with a natural gas stand) (until 2015)	On-site
December 2014	Nerima Hydrogen Station opened as the first commercial station in the Kanto region	Off-site
January 2016	Senju Hydrogen Station converted into a commercial facility	On-site
February 2016	Urawa Hydrogen Station started commercial operations	On-site
February 2018	Tokyo Gas sets up JHyM with other companies to promote hydrogen stations	—
January 2020	Toyosu Hydrogen Station opened	On-site

^{*1} Hydrogen stations supply hydrogen produced on location from city gas (on-site method) or hydrogen produced elsewhere (off-site method)



Senju Hydrogen Station

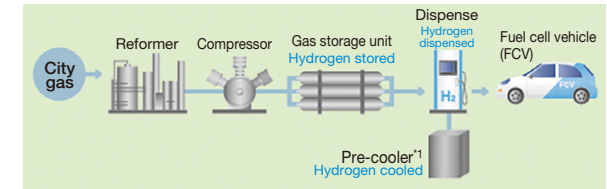


Urawa Hydrogen Station

How City Gas Is Changed into Hydrogen (On-site Hydrogen Station)

Tokyo Gas produces hydrogen through the conversion of city gas, which emits only a limited amount of CO₂ and has a low impact on the environment.

Process of Hydrogen Production in the On-site Method



^{*1} A device for cooling hydrogen to prevent the temperature in an FCV fuel tank from rising during refueling.

Environment

Topic

Toyosu Hydrogen Station

In January 2020, Tokyo Gas opened its fourth hydrogen refueling station, the Toyosu Hydrogen Station, which follows the company's stations in Nerima, Senju, and Urawa. The new station generates the hydrogen on-site, and is the first refueling station in Japan capable of refueling fuel cell buses in large numbers. All of the hydrogen produced and supplied here uses carbon-neutral city gas as feedstock, making this Japan's first hydrogen refueling station to target net zero CO₂ emissions.

Tokyo is aiming to bring more fuel cell buses into service, which led to the need to construct refueling stations that can handle the buses. The Toyosu Hydrogen Station specifically addresses those needs, contributing to the spread of fuel cell mobility and the establishment of a hydrogen supply infrastructure.



Toyosu Hydrogen Station

Development of Hydrogen Technologies

We conducted research and development on hydrogen stations for supplying hydrogen to fuel cell vehicles as a participant in a New Energy and Industrial Technology Development Organization (NEDO) project on research and development of hydrogen utilization technology from fiscal 2013 to fiscal 2017.

We will continue exploring ways to control the quality of hydrogen fuel injected into FCVs, assess the accuracy of hydrogen injection quantity measurement and inject hydrogen into FCVs other than passenger cars, such as buses and motorcycles. In addition, we will help formulate industry guidelines for these methods in the hope of incorporating them into international standards. We are further exploring efficient ways to run commercial hydrogen stations and reduce their maintenance costs.

Climate Change Actions Cutting Customer CO₂ Emissions Transportation Sector Initiatives

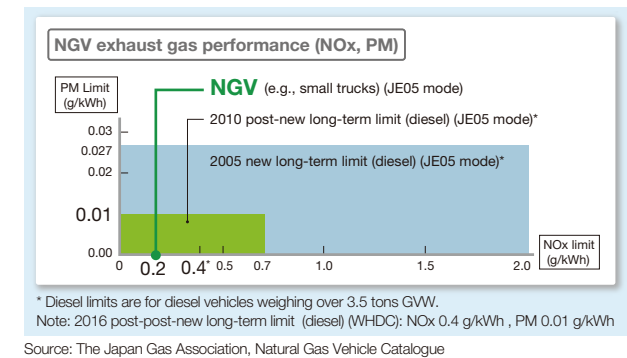
Transportation Sector Initiatives

Tokyo Gas has been working on popularizing the use of natural gas vehicles (NGVs), which are clean and feature low CO₂ emissions. Natural gas refueling stations will withstand earthquakes of a magnitude equivalent to that of the Great East Japan Earthquake and thereby strengthen national resilience.

Environmental Friendliness of NGVs

NGVs, fueled by natural gas instead of diesel or gasoline, emit only small amounts of nitrogen oxides (NOX) and release virtually no black smoke, particulate matter (PM) or sulfur oxides (SOX), which are known to cause respiratory diseases such as asthma. They release about 10% to 20% less CO₂ emissions than gasoline vehicles and are recognized as eco-friendly vehicles.

■ NGV Exhaust Performance



Topic

New Long-Range, Heavy-Duty CNG Truck Launched (Isuzu Motors Limited)

The environmental friendliness and superior energy security of NGVs make them a highly viable alternative to gasoline vehicles, and freight trucks, buses, garbage trucks, vans and other NGVs are already in widespread use on urban roads. With fuel diversification required for long-distance, inter-city trucking, Isuzu Motors Limited released a new heavy-duty compressed natural gas (CNG) truck in December 2015. Efforts are going on throughout the logistics sector to reduce CO₂ emissions and diversify fuels.

Contribution to National Resilience

The transportation sector is highly dependent on oil, which accounts for as much as 98% of the fuel it uses, and so the use of natural gas has been expected to expand in order to improve energy security by diversifying fuel sources.

Almost all the gas supplied to natural gas refueling stations is medium-pressure gas, and the pipelines that carry it are built to withstand earthquakes of a magnitude equivalent to that of the Great East Japan Earthquake. The gas stations are capable of continuously supplying natural gas to fuel vehicles even in the aftermath of a major disaster and thus contribute significantly to maintaining the resilience of transport and logistics.

Environment

Climate Change Actions **Cutting Customer CO₂ Emissions Energy Saving Life with Stakeholders**

We offer lifestyle solutions to help our customers make better use of energy in their everyday lives, including the visualization of energy use and approaches to saving energy.

Visualizing Energy Use

Meter readings slips are distributed to customer sites every month so they can compare monthly gas and power consumption with the previous year and month. Moreover, after registering for the free myTOKYOGAS online service, they can view their monthly gas and electricity bills and consumption with simple charts on a computer or smartphone. They can also access information, such as advice and alerts, to support energy conservation. The EneLook remote control at homes visualizes energy usage as well, showing gas and water used by home hot water equipment.

In addition to these efforts, the Eco-JOES latent heat recovery hot water system features an eco-friendly operation function that helps users save water and energy. Our smartphone app for the ENE-FARM residential fuel cell cogeneration system allows users to enjoy visualized contents on energy and encourages them to continue saving energy and reducing CO₂ emissions pleasantly.



EneLook remote control



Smartphone app

Topic

Exploring and Communicating Effective Ways for Consumers to Save Energy

In addition to conducting research and surveys on popularizing and promoting energy saving actions, Tokyo Gas collaborates with the Japan Gas Association and Kairyudo Publishing, a textbook publisher, to develop effective promotion tools for communicating energy-saving to housing-related companies and consumers.

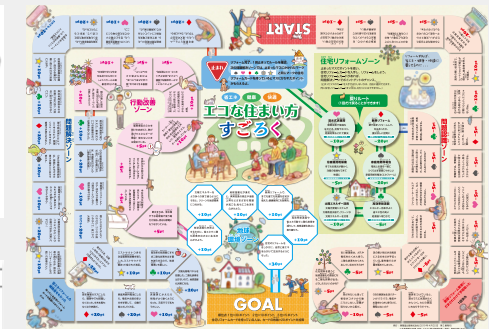
In April 2020, we upgraded our Energy-saving Behavior Card Game, which can be used to play games such as Sevens as a simple way to learn about energy saving actions. The upgrade reviewed the full amounts of savings and the amounts of CO₂ reductions, and added English-language labels. We also developed the Energy Saving, Healthy and Comfortable Home – Eco-Living board game that allows players to feel the effects of housing reform and energy-saving appliances as well as the "Revised Starting Energy-saving Behavior Book," a textbook with worksheets for instructors which can be used to teach energy conservation in schools. These are now in use nationwide. Moreover, since fiscal 2017 we have been participating in the Ministry of Environment's Project for promoting autonomous efforts in residential sector, etc. by using behavioral insights including nudges that elicit low-carbon behavior changes. Through this project, we are developing educational programs for energy conservation and measuring their effects.



Energy-saving Behavior Card Game



Revised Starting Energy-saving Behavior Book



Energy Saving, Healthy and Comfortable Home – Eco-Living Board Game

Environment

Climate Change Actions

Energy Savings and Reduction of CO₂ Emissions in Business Operations
City Gas Production and Supply Stage Initiatives

Actions at the City Gas Production and Supply Stages

Natural gas extracted abroad is liquefied at -162°C and transported by tanker as liquefied natural gas (LNG). Tokyo Gas produces city gas at the Negishi, Sodegaura, Ohgishima, and Hitachi LNG terminals and delivers it to customers via its extensive pipeline networks.

The energy efficiency in producing city gas from LNG stands at 99% or more. Energy loss is also extremely low in city gas supply because the gas is transmitted directly through pipelines to consumption areas.

In addition, we are making further efforts to save energy, such as by using LNG cold energy.



Ohgishima LNG Terminal

Using LNG Cold Energy

Using cold energy of -162°C LNG at various temperatures, we engage in cryogenic power generation, operate cold storage warehouses and produce dry ice. The Negishi LNG Terminal depends on cryogenic power generation for about 38% of its power consumption. In fiscal 2019, it generated 30,961 MWh of electricity, using cold energy of LNG, and reined in CO₂ emissions by about 20,000 tons.

■ Cold Energy Use (FY2019) Third-party Assured

Purpose	LNG Used for Cold Energy (thousand tons)
Supplied to subsidiaries	841
Electricity generated using cold energy	775
BOG ^{*1} , other	1,434
Total	3,050

*1 BOG refers to boil-off gas, which is generated by evaporation of LNG due to heat entering tanks.

Measures to Reduce Methane Emissions

Methane accounts for less than 1% of the Tokyo Gas Group's greenhouse gas emissions.

It is released mainly during city gas production and gas pipeline construction work. The Group strives to further reduce methane emissions by, for example, cutting the amount of sampling gas used in analyzing produced gas, preventing venting during the shutdown of a calorific value adjustment system, planning pressure reductions to curb methane emissions into the atmosphere during pipeline construction work, and developing gas adsorption and recovery systems.

Climate Change Actions

Energy Savings and Reduction of CO₂ Emissions in Business Operations
Best Practices in Electric Power Business

Most Advanced, Highly Efficient Natural Gas-Fired Thermal Power Plant

Tokyo Gas-affiliated power plants are operated by Tokyo Gas Bay-power Co., Ltd. (approx. 100,000 kWh, wholly owned by Tokyo Gas, 50% maximum efficiency on a lower calorific value, or lower heating value (LHV), basis at the generating end), Tokyo Gas Yokosuka Power Co., Ltd. (approx. 240,000 kW, 75% owned by Tokyo Gas, 51% maximum efficiency), Kawasaki Natural Gas Power Generation Co., Ltd. (approx. 840,000 kW, 49% owned by Tokyo Gas, 58% maximum efficiency), and Ohgishima Power Co., Ltd. (approx. 1.22 MW, 75% owned by Tokyo Gas, 58% maximum efficiency).

In addition, Tokyo Gas receives the entire output generated by Kobelco Power Moka Inc. (approx. 1.25 MW, no capital contribution by Tokyo Gas, 60% maximum efficiency).

These plants are all highly energy-efficient natural gas-fueled power plants that generate electricity using cutting-edge gas turbine combined cycle technology.

Generating electricity at these newly built highly efficient power plants in place of conventional thermal power plants helps reduce CO₂ emissions.

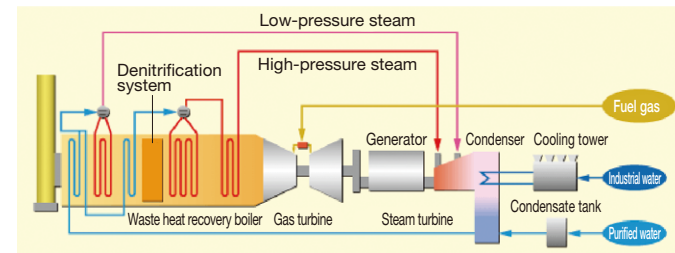


Ohgishima Power Station

Gas Turbine Combined Cycle Technology

Combined cycle power plants that use liquefied natural gas (LNG) as fuel achieve higher power generation efficiency as they draw upon the heat from gas turbines to convert water to steam, which is then collected to run power-generating turbines.

■ The process of combined cycle power generation

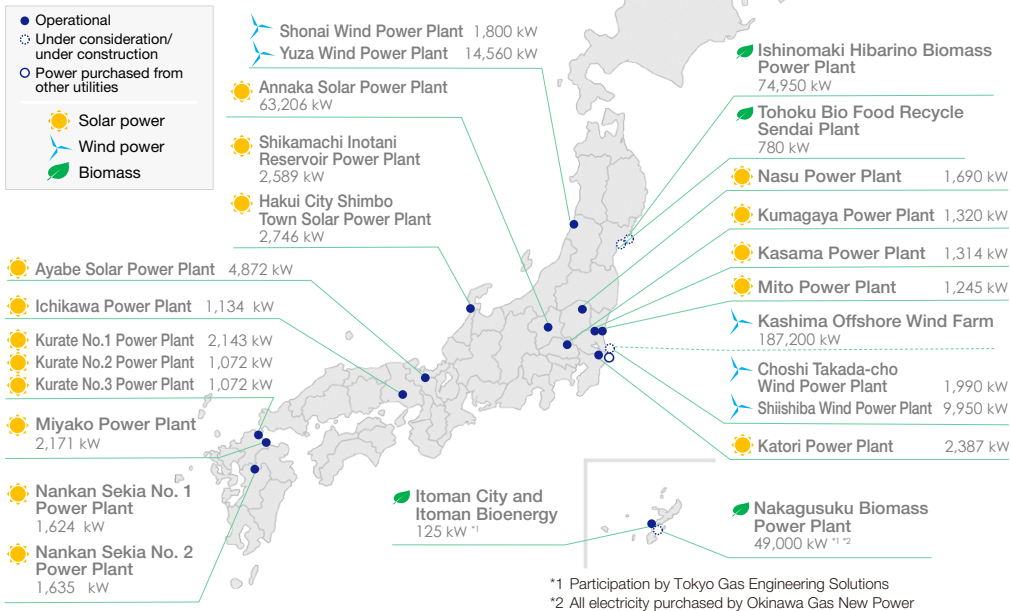


Environment

Promoting Renewable Energy

The Tokyo Gas Group has been involved in solar power, onshore wind power, and biomass power generation both domestically and internationally, and is actively supplying power derived from renewable energy sources. In addition to our ongoing efforts to develop power sources in collaboration with business partners, we will become more actively involved in offshore wind power, which has strong growth potential. Our goal is to acquire access to renewable energy sources capable of generating electricity at the scale of 5 million kW (global total) by 2030.

Total generating capacity: 432,575 kW
Power plants: 25



Tokyo Gas Group renewable energy initiatives (as of August 2020)

▶ Overseas Business

Wind Power Generation

Leveraging our experience in onshore wind power generation at facilities constructed on our own sites in 2005, we invested in Shonai Wind Power Generation Co., Ltd., which operates the Yuza Wind Power Plant in Yamagata Prefecture, and we buy electricity from two wind power plants operated by Kuroshio Fuyoku Hatsuden K.K. in Chiba Prefecture. We are working on the development of fixed-foundation offshore wind turbines at Kashima Port in Ibaraki Prefecture, and also plan to become actively in floating offshore wind power, which is expected to grow.



Artist's impression of floating foundation system for offshore wind power plants (Photo provided by Principle Power)

● Major Projects in Recent Years

• April 2011	Acquired a stake in Shonai Wind-Power Generation Co., Ltd., which operates the Yuza Wind Power Plant in Yamagata Prefecture (30.2% owned by Tokyo Gas, 14,560 kW generating capacity).
• January 2015	Signed a power purchasing agreement with Kuroshio Fuyoku Hatsuden K.K.
• April 2015	Began purchasing approximately 12,000 kW of electricity generated by plants operated by Kuroshio Fuyoku Hatsuden in the Kanto region, such as the Choshi Takada-cho Wind Power Plant, which entered service in 2006 with one 1,990 kW turbine, and the Shiishiba Wind Power Plant, which entered service in 2009 and has five 1,990 kW turbines.
• April 2018	Acquired a stake in Kashima Offshore Wind Farm project run by Wind Power Energy (15.6% owned by Tokyo Gas, 187,200 kW generating capacity).
• May 2020	Acquired a stake in Principle Power, developer and owner of wind float technology, which provides a floating foundation system for offshore wind power plants.

Environment

Solar Power Generation

In addition to operations focused on tie-ups with business partners, another initiative in the area of renewable energy is our operations to actively acquire existing power plants. We were the first to notice and take advantage of the potential of power sources that are no longer eligible for the fixed-price purchasing system.



Annaka Solar Power Plant, one of the largest-capacity PV plants in the Kanto Region.

Major Projects in Recent Years

• February 2017	Entered a capital partnership with Shizen Energy Inc.
• August 2017	Established Prominet Power Co., Ltd.
• May 2018	Prominet Power and Kyudenko Corporation acquired part of Tokyo Century Corporation's stake in solar power plant operator SKF Power Co., Ltd. (39% owned by Tokyo Gas, 9,717 kW generating capacity).
• June 2018	Prominet Power acquired six operators of solar plants developed by Photon Japan: Ichikawa Clean Energy, Kumagaya Clean Energy, Nasu Clean Energy, Mito Clean Energy, Katori Clean Energy, Kasama Clean Energy (all wholly owned by Tokyo Gas, 9,090 kW generating capacity in total).
• January 2019	Prominet Power acquired Kyoto Ayabe Solar Power Plant (wholly owned by Tokyo Gas, 4,872 kW generating capacity).
• December 2019	Shikamachi Inotani Reservoir Solar Power Plant (wholly owned by Tokyo Gas, 2,589 kW generating capacity) and Hakui City Shimbo Town Solar Power Plant (wholly owned by Tokyo Gas, 2,746 kW generating capacity) commenced commercial operations.
• January 2020	Acquired Annaka Solar Power Plant, one of the largest-capacity PV plants in the Kanto Region (wholly owned by Tokyo Gas, 63,206 kW generating capacity).

Biomass Power Generation

We are collaborating with business partners to develop our own power plants. Biomass is advantageous as a fuel for power generation because it can be sustainable, playing a part in our contribution to achieving the SDGs.



Ishinomaki Hibarino Biomass Power Plant (artist's impression)

Major Projects in Recent Years

• September 2018	Tokyo Gas Engineering Solutions acquired a stake in the Nakagusuku Biomass Power Plant Project in Uruma City, Okinawa (2.7% owned by Tokyo Gas, 49,000 kW generating capacity, due in service July 2021)
• March 2020	Acquired a stake in Ishinomaki Hibarino Biomass Power Plant (34% owned by Tokyo Gas, 74,950 kW generating capacity, due in service May 2023)
• July 2020	Acquired a stake in a food recycling biomass project (Tohoku Bio Food Recycle Sendai Plant) in Sendai City (21% owned by Tokyo Gas, 780 kW generating capacity, due in service Spring 2022)

Climate Change Actions Energy Savings and Reduction of CO₂ Emissions in Business Operations District Heating and Cooling Services

District Heating and Cooling Services

The Tokyo Gas Group operates district heating and cooling services, including small-scale heat supply, in 44 districts. We supply steam and hot/cold water with gas cogeneration systems consisting of absorption chillers and boilers, powered by natural gas. We seek to enhance energy efficiency by fine-tuning operations and working to achieve even higher efficiency with our equipment.

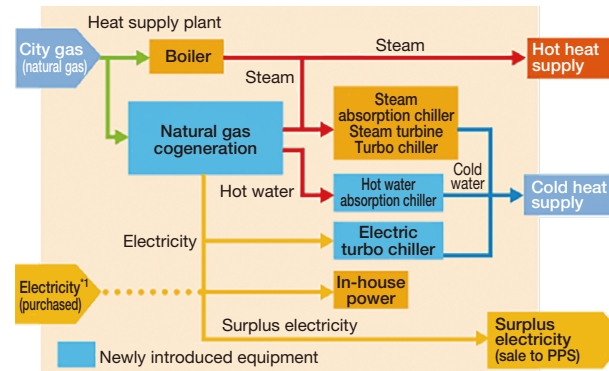


Makuhari District Heating and Cooling Center

Makuhari District Heating and Cooling Center

We upgraded the Makuhari District Heating and Cooling Center to a regional energy center for power generation and heat supply that promotes region-wide reductions of energy use and CO₂ emissions, from a conventional district heating and cooling center that supplied only heat by upgrading the heat source equipment. We have optimally mixed the use of the latest highly efficient large-scale cogeneration system with a total capacity of 15.7 MW, an electric turbo chiller, a boiler and an absorption chiller while also reducing fuel consumption by 19% and CO₂ emissions by 19% (compared with fiscal 2015 results).

Operational Chart of the Makuhari District Heating and Cooling Center



The Makuhari New City area is provided with district heating and cooling services

*1 Only when the cogeneration system cannot meet demand.



Environment

Climate Change Actions

Energy Savings and Reduction of CO₂ Emissions in Business Operations
Best Practices at Business Offices

Effective Energy Use by Gas Cogeneration Systems

Tokyo Gas started its energy-saving efforts with the introduction of a gas cogeneration system at the Hamamatsucho Head Office Building as early as in 1984. In fiscal 2008, we upgraded the system to the best available technology^{*1} and started operation in April 2009. It contributed to significant energy savings by reducing the building's annual CO₂ emissions by about 1,400 tons.

When Japan's electricity supply was severely strained in the summer of 2011 due to the impact of the Great East Japan Earthquake, we significantly reduced our electricity use by putting all the Group's cogeneration systems to work.

^{*1} Upgraded CHP system: Two 930 kW-class gas engines, total efficiency of 72% (38% power generation, 32% exhaust heat capture)

Reconstruction of Aging Buildings into Energy-Saving and Environmentally Friendly Offices

As part of our commitment to advancing environmentally friendly practices, we formulated the "Design Guidelines" in 2010 as a set of policies for energy conservation, seismic safety and durability. We follow these guidelines when drawing up plans to reconstruct buildings owned by the Group.

TG Hiranuma Building: Recognized with the Environment Minister's Award for Global Warming Prevention Activity

The TG Hiranuma Building is a middle-scale, energy-saving, and eco-friendly office building (five stories above ground, about 7,200 m²). The building uses about 30% less energy than other office buildings of similar scale, owing to its systems and equipment, including a solar cooling system that utilizes solar energy and exhaust heat from its gas cogeneration system, the highly efficient gas heat pump GHP XAIR, solar power generators, and natural ventilation systems.

The building was selected as a Leading Project for CO₂ Reduction^{*1} by the Ministry of Land, Infrastructure, Transport and Tourism in fiscal 2011. It was recognized with the Environment Minister's Award for Global Warming Prevention Activity (Early Adopter of Solution Technology category) in December 2015. In fiscal 2016, it obtained the BELS^{*2} certification for buildings that meet the government's energy-saving criteria. (The assessment was four stars, out of five.) In January 2020, the building was certified as a CASBEE^{*3} Wellness Office (graded S, the top rank), and certified as a CASBEE Smart Wellness Office with five stars out of five.

The Group works to promote the wider use of energy-saving and CO₂-cutting technology adopted in the TG Hiranuma Building, aiming for a zero-energy building (ZEB)^{*4} deployment.

^{*1} The government gives subsidies for leading housing and construction projects for CO₂ emission reduction after publicly soliciting applications.

^{*2} The Building Energy-Efficiency Labeling System. In the system, a third-party evaluation body assesses and certifies the energy-saving capabilities of green buildings under the Act on the Improvement of Energy Consumption Performance of Buildings (Building Energy Efficiency Act).

^{*3} Comprehensive Assessment System for Built Environment Efficiency: assesses the environment performance of buildings and gives ratings on a scale of five. The TG Hiranuma Building had also been ranked S under CASBEE-Yokohama, an assessment required by the local authority. This, together with the new S ranking, led to certification as a CASBEE Smart Wellness Office.

^{*4} A zero-energy building (ZEB) aims to achieve zero net primary energy consumption, or the equal balance between total energy used and renewable energy generation, on an annual basis. The government is promoting these buildings, putting the initiative into its basic energy program.



TG Hiranuma Building

Earth Building Tachikawa : Holder of top rank (S) CASBEE certification for buildings

Earth Building Tachikawa (TG Tachikawa Building) was reconstructed in July 2015 into a middle-scale office building (five stories above ground, about 10,600 m²). Designed to be a ZEB, it features diverse environmental considerations, including the use of renewable energy and highly efficient facilities and equipment. Moreover, it offers superb business continuity functionality because it combines seismic base isolation and vibration control in a total system that dramatically reduces the risk of earthquake damage.

It received the top S certification in CASBEE^{*3} for buildings, the first for a Tokyo Gas building. In fiscal 2016, it acquired BELS certification, earning a rating of four stars out of five.



Earth Building Tachikawa (TG Tachikawa Building)

Earth Port as ZEB

In 2010, we began renovating the Tokyo Gas Kohoku New Town Building, dubbed Earth Port, in the City of Yokohama's Tsuzuki Ward. The primary goal is to achieve zero net primary energy consumption on an annual basis by 2030 by increasing the efficiency of equipment and optimizing energy use at a number of buildings. We were able to reduce the building's primary energy consumption by about as much as 40% and CO₂ emissions by around 47% in fiscal 2014 by incorporating renewable energy sources such as solar thermal and photovoltaic power generation and optimizing the operation of the cogeneration system.



Earth Port (after refurbishment)

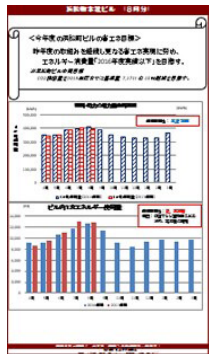
Environment

Saving Energy through Better Management of Equipment and Facilities

We hold an energy-saving committee meeting at each building where we lease an office, including the building's owner and equipment administrator and the relevant Tokyo Gas section. The committee helps examine energy use, optimize temperature and humidity and arrange energy conservation patrols, encouraging each of our employees to promote energy-saving activities.

The Tokyo Gas Group as a whole engages in energy conservation through campaigns in the summer and winter, when power use peaks.

In capital spending, we promote the introduction of more efficient lighting equipment at our offices and facilities, such as LED and high frequency-ballast fluorescent lights, to increase energy-saving.



Example of visualization at the Hamamatsucho head office building

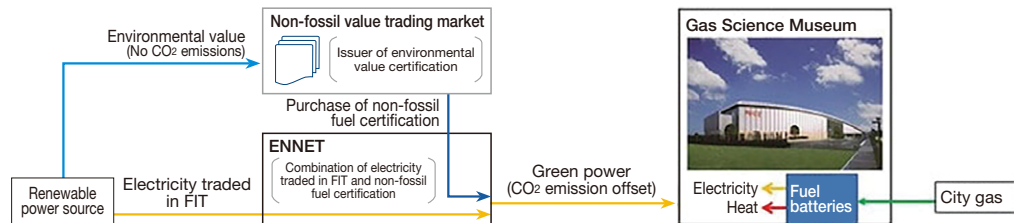


Poster for an energy conservation campaign

Use of Electricity Generated by Renewable Energy (FIT) with Non-Fossil Fuel Certification

In July 2018, the Gas Science Museum began purchasing electricity generated by renewable energy based on non-fossil fuel certification under the FIT¹ program to cover approximately 30% of the electricity used at the facility. The remaining 70% of the energy used at the facility is generated by highly efficient fuel cells using clean natural gas.

¹ A Green Menu offered under the ENNET program based on a CO₂ emission factor of zero. Of electricity provided under the program, Tokyo Gas purchases electricity from renewable energy sources by using non-fossil fuel certification in the FIT program.



Climate Change Actions

Energy Savings and Reduction of CO₂ Emissions in Business Operations
Best Practices to Reduce CO₂ Emissions with Our Stakeholders

Best Practices to Reduce CO₂ Emissions with Our Stakeholders

Promotion of Eco-driving

We encourage employees to obtain green and safe driving skills in September and October every year. These practice sessions are led by professional trainers who have been certified as eco-driving instructors and draw about 100 participants. We also designate November as eco-driving month, and each employee selects one special interest from a list of 10 eco-driving tips for being an eco-driver. In fiscal 2019, we reduced CO₂ emissions from corporate business vehicles by 8% from the previous year.



Briefing a trainee on the key points of eco-driving

Forest Conservation Activities at Nagano Tokyo Gas Forest

Tokyo Gas owns a 194-hectare forest in the town of Miyotamachi in Kitasaku-gun of Nagano Prefecture. As part of our efforts to achieve a sustainable society through activities such as action to mitigate global warming, we engage in conservation activities, such as planting and thinning trees under a forestry management plan. The forest is also used to provide environmental education to Tokyo Gas Group employees.



Nagano Tokyo Gas Forest



Employees participating in an environmental workshop

- ▶ Biodiversity Activities with Our Customers and Local Communities, Biodiversity Conservation Activities at Nagano Tokyo Gas Forest

Environment

Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project^{*1}

In addition to its role as an initiative for fighting global warming, the Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project is beneficial in many different areas, including preservation of diversity, regional revitalization, education, and development of the local community. Those benefits produce connections between regions, and connections to the world as whole, leading to anticipation that this project will contribute to sustainability in a broader swathe of society

In fiscal 2019, we extended our support to the Tokyo government's human resource development program "Listen, Write and Draw" for junior high school students and the forest management project in Saitama Prefecture in our forest activities. In our ocean program, employees joined local teams in the spring and autumn to restore eelgrass, which provides shelter for small fish and other marine creatures, to help clean up the sea and reduce CO₂ emissions. Customers who supported the project joined through their Paccho (Tokyo Gas's mascot character) point^{*2} contributions, which are channeled to donations for organizations engaged in social contribution activities for forests, villages, the ocean and rivers.

Forests, villages and the ocean are all parts of Japan's diverse natural environment. We will continue to use these connections in attempts to enhance the sustainability of our lives and to play a part in community development.



Participants work on the sea in an Umi (ocean) program jointly undertaken with the Amamo (eelgrass) Restoration Collaboration in Kanazawa-Hakkei, Tokyo Bay Area.

*1 For this project, we set up the Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project Committee in cooperation with the Japan Philanthropic Association to discuss and determine which subsidies and contributions are in the public interest and fair.

*2 This reward point program is for myTOKYOGAS members and therefore requires prior registration. Members earn Paccho points by using various Tokyo Gas services and participating in campaigns. The points can be exchanged for those of the loyalty programs of tie-in companies. Contributions to the project begin with 100 points.

Pursuing the Effective Use of Biomass

We are developing technologies that make use of biomass^{*1} in a bid to reduce greenhouse gas emissions.

We plan to promote the wider use of biomass and its diffusion by working on the biogas utilization technologies we have developed through combustion of city gas and biogas as well as technologies for extracting biogas through less costly and more efficient methane fermentation of biomass, such as food waste, and upgrading biogas to a higher quality gas.

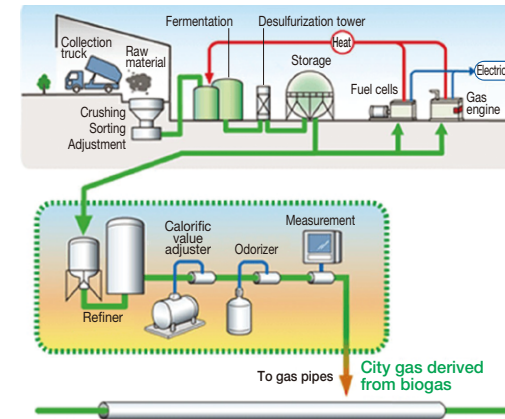
*1 Biomass is a generic term for plant and animal-derived organic resources (excluding fossil resources) that can be recycled into energy or material. Burning biomass releases CO₂, but CO₂ absorbed from the atmosphere by plants during photosynthesis offsets this release. This is the greatest advantage of using biomass.

It can be used as an energy source in a number of ways, such as obtaining heat or electricity with the use of steam generated by burning it, and using biogas acquired from fermented biomass for gas cogeneration systems (gas cogeneration systems generate electricity and recover exhaust heat generated as a by-product).

Developing Biogas Utilization Technologies

The Tokyo Gas Group possesses technologies for converting biomass such as food waste and sewage sludge into gas for use as fuel for boilers and power generation. Biogas generated at customer sites is mainly used as fuel for cogeneration systems. We participated in the Demonstration of Injection of Biogas into City Gas Grid project for manufacturing biogas from food waste, adjusting its calorific value and odorizing it so that it could be injected into city gas pipelines. Between fiscal 2010 and fiscal 2019, we took in such biogas derived from food waste.

■ How Biogas Is Fed into Gas Pipelines



We carried out joint research with the city of Yokohama from fiscal 2013 to fiscal 2018 on ways to expand the use of biogas from sludge at a sewerage facility in northern Yokohama. We set up test equipment for refining biogas at the North Yokohama Sludge Recycling Center and are developing technologies for removing CO₂ in sewage sludge biogas using a separation membrane to concentrate the methane.



Biogas refining test equipment installed at North Yokohama Sludge Recycling Center



Environment

Promotion of a Circular Economy

Creating a Recycling Society

The Tokyo Gas Group has established environmental targets to promote resource recycling, and rigorously practices the 3Rs of reduction, reuse, and recycling of waste across the Group. Specifically, we seek to maintain or raise recycling rates for industrial waste products, reduce the amount of soil excavated during gas pipeline construction, reuse old gas meters, and recycle used gas pipes (steel, cast-iron, and polyethylene pipes), incorporating resource recycling into every stage of our business activities.

Total Volume of Generated Waste, and Recycling Rate Third-party Assured

Every Group office produces various types of industrial waste, such as plastics from containers and packaging and waste from technological development and training as well as maintenance work at customer sites. The Group is strongly committed to waste separation and strives to recycle and properly handle waste.

At offices, we reduce the use of copy paper, generate less paper waste and recycle used paper, making such efforts a regular part of our everyday activities.

■ Industrial Waste (FY2019)

Item	Generation (t)	Amount recycled (t)	Landfill (t)	Recycling rate (%)	Landfill rate (%)
Industrial Waste	146,243	141,204	1,702	97	1.2
Production Plants*1	689	167	2	24	0.2
Tokyo Gas Co., Ltd.	4,924	3,464	508	70	10.0

*1 Production plants includes data at facilities that make products, including city gas, and district heating and cooling centers as well as power plants.

■ General Waste (FY2019)

Item	Generation (t)	Amount recycled (t)	Recycling rate (%)
General Waste	2,780	2,060	74
Tokyo Gas Co., Ltd.	1,001	799	80

■ Copy Paper (FY2019)

Item	Amount purchased (million sheets)
Copy Paper	102
Tokyo Gas Co., Ltd.	45

Promoting the 3Rs

Working to Reduce Waste

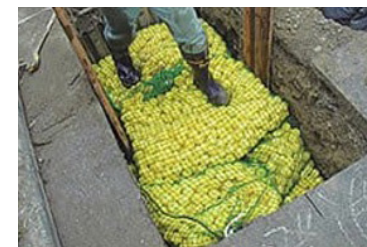
Efforts Concerning Excavated Soil

Underground construction works of gas pipelines entails excavating roads so, pit sand is used to refill gaps. Reducing the use of pit sand suppresses environmental destruction and lowers CO₂ emissions generated by the vehicles transporting sand to construction sites. The Tokyo Gas Group strives to reduce the volume of excavated soil and the use of pit sand by laying pipes in shallow, narrow trenches and has adopted the non-open-cut construction method.

To reduce the use of pit sand further, we are pursuing 3R efforts such as increasing the use of excavated soil (reuse), improved soil, recycled road surface materials (recycle), and Eco-balls (reduce, reuse) for refill work.



"Eco-ball," an innovative temporary backfiller



Gas pipeline installation work using Eco-balls

Measures at Production Plants Third-party Assured

We take steps to reduce waste toward achieving zero emissions (a landfill rate of less than 1%) not only at LNG terminals, which are city gas production plants, but also at power plants and district heating and cooling centers. In fiscal 2019, total waste from our business was 689 tons, of which 2 tons were subjected to landfill, and a landfill rate reached as small as 0.2%.*1

*1 Calculation excludes hard-to-recycle industrial waste such as asbestos.

Environment

Initiatives for Reuse

Reuse and Recycling of Gas Meters

We have played a leading role in reusing gas meters immediately after initial introduction of gas meters, prior to other gas service companies and companies in other industries.

Gas meters installed at customer sites are regularly replaced before the expiration of their 10-year certified life. However, we collect such retired gas meters, replace consumable parts, recalibrate them and reuse them for up to three cycles, which means they can be used for up to 30 years. In fiscal 2019, we reused 333 thousand gas meters, thereby succeeding the suppression of 1,387 tons of potential waste.

Gas meters reused for three cycles have been materially recycled through our own channel and effectively used as material for new products by electric furnace makers and other companies.



Gas meter



Disassembled gas meter

Recycling Initiatives

Recycling of Used Gas Pipes

In fiscal 1994, we established a system for recycling used gas pipes, which are recovered during gas pipeline installation work. We have achieved an annual recycling rate of 100% for polyethylene (PE) pipes^{*1}, which are recycled into raw materials for plastics, and for steel and cast-iron pipes that are reused as materials for metals. We also materially recycle PE pipes in-house by reprocessing them into such items as gas meter instruction tags that show how to restart gas delivery after shut-off in the event of an emergency such as big earthquakes.

^{*1} PE pipes have been in widespread use since the Great Hanshin-Awaji Earthquake in 1995 because of their earthquake resilience and corrosion-resistant properties.

■ Recycling Rate for Used Gas Pipes

		FY2015	FY2016	FY2017	FY2018	FY2019
Gas pipes	PE pipes	100	100	100	100	100
	Steel and cast-iron pipes	100	100	100	100	100

■ PE pipes are reborn as useful plastic material



Plastics Smart: Campaign led by Japan's Environment Ministry to promote efforts aimed at resolving the global issue of marine plastic pollution through broad collaboration and cooperation among individuals, local governments, NGOs, companies and research institutions. Tokyo Gas has registered its initiative as a Plastics Smart campaign.

Environment

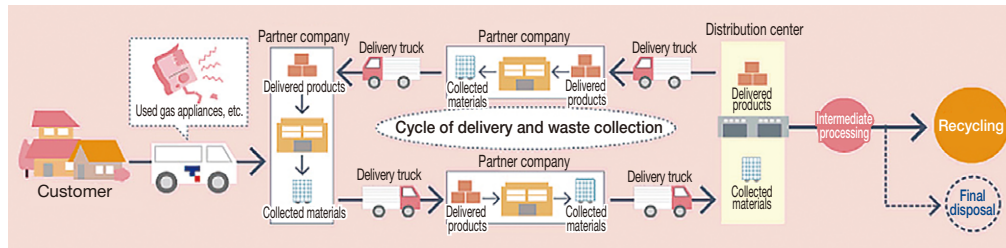
Dealing with Waste at Customer Sites

We promote the 3Rs at customer sites as well by controlling waste generation through the business value chain from the design stage, reducing container and packaging waste, to collecting used appliances.

System for Collecting and Recycling Waste such as Used Gas Appliances (SRIMS)

We collect used gas appliances and waste from replacement works at customers and gas installation or home renovation work. Since August 1994, we have been operating our own Saving & Recycling Innovative Model System (SRIMS), which offers the combined benefits of reducing environmental impact and cutting costs. Under the system, we collect waste when we deliver gas appliances, parts, and piping materials to partner companies. In fiscal 2019, we collected 7,058 tons of waste and recycled 6,683 tons.

■ Saving & Recycling Innovative Model System (SRIMS)



Assisting Recycle Home Electric Appliances

The so-called “A Group,” mainly organized by Panasonic Corporation and Toshiba Corporation, collects and recycles Tokyo Gas-brand household gas air conditioners and clothes dryers. These are eligible for recycling under the Act on Recycling of Specified Kinds of Home Appliances (Home Appliance Recycling Act).

■ Recycling under the Home Appliance Recycling Act (FY2019)

Item		Unit	Air conditioners	Clothes dryers
Collected at specified places		Number	11,016	6,429
Transported to processing plants		Number	11,034	6,439
Recycling	Recycled by number of units	Number	11,166	6,492
	Recycled by weight	t	454	264
	Recycled products by weight	t	414	235
	Recycling rate	%	91	88
Fluorocarbons	Collected	kg	7,102	—
	Destroyed	kg	524	—

Reducing Waste of Containers and Packaging

We have made it a rule to collect discarded containers and packaging to reduce waste at customer sites when partner companies sell and install gas appliances.

Collected containers and packaging are recycled in the Saving & Recycling Innovative Model System (SRIMS). In fiscal 2019, approximately 585 tons of corrugated cardboard and 13.3 tons of polystyrene foam were recycled.

In addition, we work to reduce the quantity of containers and packaging for gas appliances. These efforts include reducing cushioning through the redesigning of cardboard packaging, cutting back on the use of cardboard through shrink wrapping in plastic film, and adopting returnable packaging, in which packaging materials are collected and reused repeatedly.



Cardboard boxes designed to require less cushioning



Shrink wrapping



Returnable packaging (repeatedly used containers)

Environment

Best Practices in Dealing with Waste from Business Activities

Dealing with Waste from Construction Work

The Tokyo Gas Group deals with waste from gas equipment installation work under direct contracts with gas utilities, gas pipe work at customer sites, installation of cooling, heating, and hot water systems, and home renovation work. We are making our utmost efforts to reduce such waste, which is mainly construction rubble and sludge, scrap metal, and woodchips.

Working to Reduce Waste in Installation Work for New Gas Equipment

We have adopted the prefabrication and precut method for piping work for the TES (Tokyo gas Eco System) gas/water heating equipment. Pipes and joints as well as other materials are processed at manufacturing plants and supplied as piping sets in time for installation work at each house. The only work necessary at the worksite is connecting and fixing the pipes to appliances.

In addition, we are cooperating with manufacturers and installation contractors to promote this method, which generates less waste by requiring no onsite processing.

Working to Achieve Zero Mixed Waste in Gas Equipment Renewal Work

Replacement of equipment or pipes for our HEATS gas central heating and cooling system installed at condominiums requires dismantling and removal work. While the scale of the work is relatively small, constraints on time and space limit waste separation, often resulting in disposal as mixed waste (which has a low recycling rate, and mainly ends up in landfills). We have therefore reinforced our efforts to formulate a waste separation protocol at the planning stage of construction work in coordination with relevant parties and educating staff on waste separation. Consequently, we have achieved zero mixed waste from construction work and reduced the volume of landfill waste disposal.

Promotion of Biodiversity Conservation

Efforts for Biodiversity Conservation







Biodiversity Conservation and Sustainable Use

Recognizing the critical value of nature's blessings and to ensure that we continue to enjoy these blessings into the future, the Tokyo Gas Group has established "Biodiversity Conservation and Sustainable Use" as an environmental policy. Based on this policy, we strive to understand and alleviate the impact of our business activities on biodiversity, promote the sustainable use of resources, and partner with local communities in biodiversity conservation activities.

In addition, we are a promotion partner of "The Declaration of Biodiversity by Keidanren" initiative

Carrying Out Environmental Impact Assessment

Natural gas extraction and construction of LNG (liquefied natural gas) terminals or power stations have a considerable impact on the landscape and natural environment. Tokyo Gas reviews the state of biodiversity conservation at overseas gas wells from which it procures LNG and confirms that local ecosystems are being considered. In Japan, we conduct the required environmental assessments for the construction of LNG terminals and power plants and cooperate with nongovernmental organizations to undertake such activities as managing green spaces with due consideration for ecosystems.

<p>1. Raw material procurement</p> <p>Risk Loss of ecosystems in areas surrounding gas fields</p> <p>Action</p> <ul style="list-style-type: none"> Monitor how suppliers are showing consideration for biodiversity in their development of gas fields 	<p>2. Raw material transport</p> <p>Risk Disruption of ecosystems by invasive species</p> <p>Action</p> <ul style="list-style-type: none"> Manage ballast water during transport by ships that we own/manage 	<p>3. City gas production & power generation</p> <p>Risk Impact of operations on ecosystems</p> <p>Action</p> <ul style="list-style-type: none"> Carry out habitat surveys and greenification/conservation projects at LNG terminals Assess environmental impact of power plants 
<p>4. City gas supply Power transmission (general transmission system operators)</p> <p>Risk Loss of ecosystems from pit sand excavation</p> <p>Action</p> <ul style="list-style-type: none"> Reduce amount of soil excavated in gas pipeline laying 	<p>5. Offices</p> <p>Risk Loss of ecosystems from illegal harvesting of wood used to make paper</p> <p>Action</p> <ul style="list-style-type: none"> Reduce paper waste, recycle used paper, and use paper certified by Forest Stewardship Council® Carry out greenification projects 	<p>6. Customer and community relations</p> <ul style="list-style-type: none"> Engage in conservation efforts at Nagano Tokyo Gas Forest, the Watashi no Mori (My Forest) Project, and other initiatives Conduct the Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project, support NPO-led activities through the Keidanren Committee on Nature Conservation, and take other actions 

Environment

Measures in Our LNG Value Chain

We are working to conserve biodiversity by accurately understanding the impact of each segment of our LNG value chain, from natural gas procurement to transportation, production and supply.

Procurement

Measures at LNG Suppliers

Our LNG suppliers implement measures to conserve biodiversity around their gas fields, including afforestation projects and efforts to protect endangered species, forests, and marine ecosystems.

For example, in our LNG project in Malaysia, we installed 1,500 artificial reef balls in a national park. It was subsequently confirmed that sea turtles last seen along the park's coast in 2010 have been returning since 2015 to lay eggs. And in our LNG project in Australia, we are working jointly with the Australian Institute of Marine Science to record the status of the coral reef and marine life in the area of our business activities and to conduct research on bleaching and rehabilitating the coral reef.



Installing artificial reef balls
Source: Petronas, "Bringing life to a barren ocean"

Transport

Measures during LNG Transport

Concerns have risen over the potentially adverse ecosystem impact of aquatic organisms contained in the ballast water*1 of LNG vessels, as they are transported outside their normal habitat and discharged at ports where LNG is loaded. Although we have already taken some steps, such as discharging ballast water on the high seas, we are also installing ballast water treatment equipment on LNG vessels that we own and operate, including those under construction, to reduce the impact on ecosystems under the International Convention for the Control and Management of Ship's Ballast Water adopted by the International Maritime Organization (IMO), which came into effect in September 2017.

*1 Seawater taken into a vessel as a counterweight to maintain stability after LNG is unloaded.



LNG vessel



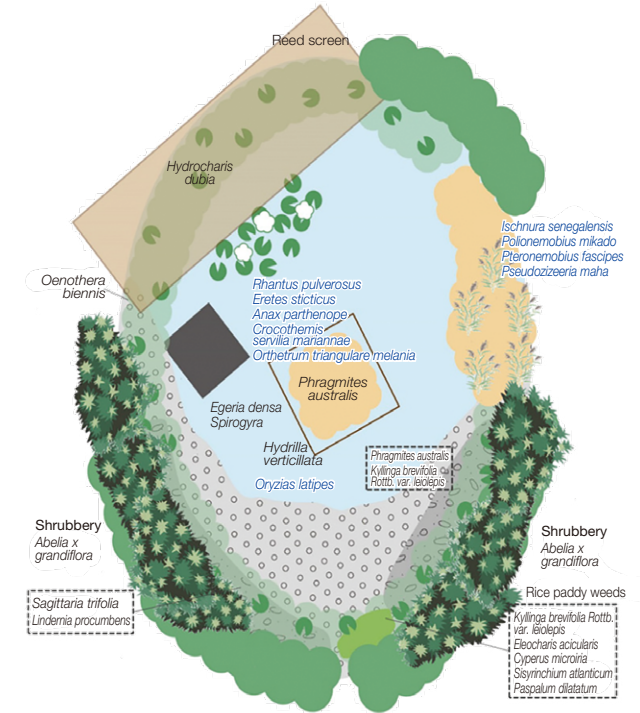
Hard clams not previously found in Japanese waters

Measures at City Gas Production Sites

At LNG terminals, we take biodiversity into consideration in managing green areas. Actions include variations in grass-cutting frequency to create areas with different grass heights, and the replacement of some fertilizers with organic fertilizers. To monitor and assess the resulting green areas, we also collaborate with the Jumoku Kankyo Network Society, a nonprofit organization that works towards greening projects that are effective for biodiversity conservation. The assessments show that creating areas with a variety of grass heights and thinning out trees and other vegetation results in a greater variety and number of plants and insects. This shows that we were successful in raising the level of biodiversity. Artificial biotope ponds introduced at our LNG terminals are home to a range of living creatures, including medaka (*Oryzias latipes*), a vulnerable species.



Logs from felled trees are stacked in eco-piles or used to make steps on footpaths. The eco-piles show the traces of use by insects.



Environment

■ Dark damp woodland transformed to let in the light



Trees and scrub were tightly packed together, making the woodland floor dark. Thinning out the vegetation brought in the light, encouraging new plant growth and attracting butterflies and other insects.

Measures during City Gas Supply

We use pit sand to refill sites excavated for gas pipeline work. Reducing the use of pit sand, however, mitigates environmental destruction and reduces CO₂ emissions by vehicles that carry sand to worksites. The Tokyo Gas Group seeks to lower its impact on the ecosystem by laying pipes in shallower, narrower trenches than conventional installations and adopts a non-open cut construction method, which enables minimizing road excavation, to reduce the volume of excavated soil.

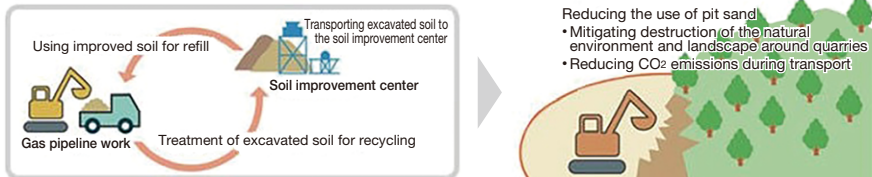


Departure shaft in a non-open cut gas pipeline construction



"Eco-balls," an innovative temporary backfiller in pipeline works

■ Recycling Excavated Soil



Measures at Offices

We plant trees on rooftops and create green curtains at our offices and corporate PR facilities. We have greened the rooftop of the Gas Science Museum and opened it to the public as a means of communicating with customers as well as with local elementary schools and other community groups.



Greened rooftop of the Gas Science Museum, open to the public

Biodiversity Activities with Our Customers and Local Communities

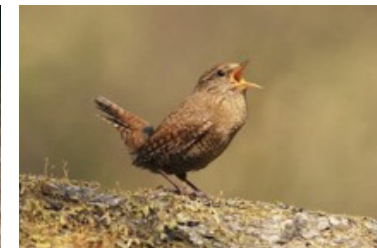
We have been making efforts to address climate change and conserve biodiversity through the forest preservation activities at the Nagano Tokyo Gas Forest, which opened in 2005, and the Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project, which started on June 1, 2017.

Biodiversity Conservation Activities at the Nagano Tokyo Gas Forest

We have been monitoring the environment at the Nagano Tokyo Gas Forest since 2007 in an effort to conserve biodiversity. We have confirmed a total of 447 species of living organisms in the forest (351 plants, 17 mammals and 79 birds) based on our flora survey and biota monitoring conducted in 2018. We are steadily accumulating data on how we managed the trees, and on the number of animals and birds. This information is very useful when we draw up new plans for forest and biodiversity conservation.



A hare



A wren

▶ Best Practices to Reduce CO₂ Emissions with Our Stakeholders, Forest Conservation Activities at Nagano Tokyo Gas Forest

Environmental and Social Contribution Activities in the Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project

▶ Best Practices to Reduce CO₂ Emissions with Our Stakeholders, Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project



Ensuring Safety and the Stable Supply of Energy

Stable Procurement of LNG

Further Diversification of LNG Procurement

The growth in global LNG demand centered on Asia and the potential for larger fluctuations in LNG demand in Japan from liberalization and other developments have given rise to the need for greater competitiveness and flexibility in LNG trading. The Tokyo Gas Group is striving to achieve stable and affordable LNG supply through the further diversification of raw material procurement. This includes diversifying contract conditions for better flexibility in procurement, advancing domestic and international alliances, boosting transportation efficiency, and expanding inventory adjustment and other trading.

Three Types of Diversification

1. Procurement sources

We will expand our procurement sources from our customary ones in Asia, Australia, and Russia to encompass suppliers across a wider range of regions around the world, including North America and Africa.

2. Contract conditions

We will diversify price indices by incorporating contracts linked to benchmarks such as U.S. natural gas prices and coal prices, in addition to our customary crude oil price-linked contracts. We will also achieve greater flexibility in procurement by increasing the number or contracts with no destination clauses and diversifying contract periods, including short-term and spot transactions.

3. LNG network

Through strategic alliances with companies in Japan and overseas, we aim to develop an LNG network linking the markets of Asia, North America, and Europe, improve LNG transportation efficiency, reduce costs, and increase the flexibility of procurement and sales contracts.

Since Tokyo Gas became the first company in Japan to procure LNG from Alaska in 1969, our LNG imports have steadily risen each year, with import volume reaching 13,230,000 tons in fiscal 2019.

Tokyo Gas currently imports LNG under long-term contracts from 16 projects in six countries, including Russia (Sakhalin), Qatar, and the United States, as well as from Asia-Pacific countries such as Australia, Malaysia and Brunei.

We are strengthening our alliances with buyers and other partners, including PetroVietnam Gas in Vietnam, Korea Gas Corp., Centrica LNG in the United Kingdom, and RWE in Germany, as well as domestic partners such as Kansai Electric Power, Kyushu Electric Power, and Chugoku Electric Power. We are striving to ensure the stable, affordable procurement of LNG by diversifying our sources and contract terms and by partnering in Japan and overseas and to develop the LNG market.

■ LNG Project Contract Volume (as of April 2020)

Project name	Contract volume(Unit : 10,000 tons)	Start year	Period
Brunei	100	1973	20+20+10 years (until 2023)
Malaysia I (Satu)	2018-2023 Up to approx. 50 2024- Up to approx. 90	2018	Up to 13 years (until 2031)
Australia (Western Australia)	53	1989	20+8+7 years (until 2024)
Malaysia II (Dua)	90	1995	20+10 years (until 2025)
Qatar	35	1998	24 years (until 2021)
Malaysia III (Tiga)	34	2004	20 years (until 2024)
North West Shelf (NWS) Expansion (Western Australia)	107.3	2004	25 years (until 2029)
Darwin (Australia)	100	2006	17 years (until 2022)
Sakhalin II	110	2009	24 years (until 2031)
Pluto (Australia)	150	2012	15 years (until 2025)
Queensland Curtis (Australia)	120	2015	20 years (until 2035)
Gorgon (Australia)	110	2016	25 years (until 2039)
Cove Point (U.S.A.)	140	2018	20 years
Ichthys (Australia)	105	2018	15 years
Cameron (U.S.A.)	Approx. 72	2020	Approx. 20 years
Mozambique LNG	260 (joint procurement with Centrica)	Mid-2020s	Up to 20 years
Royal Dutch Shell Group portfolio	Avg. approx. 50	2020	10 years

Enhancement of LNG Transportation Arrangements

We efficiently dispatch our own fleet of tankers for transporting LNG under long-term contracts from Malaysia, Australia, Russia (Sakhalin), and the United States through our wholly owned subsidiary Tokyo LNG Tanker Co., Ltd.

We also built four LNG tankers with a highly economical new design which are capable of transiting the Panama Canal, primarily for shipping LNG from Cove Point in the United States. The tankers have been successively put into operation since 2018.



Energy Horizon



Energy Innovator



Ensuring Safety and the Stable Supply of Energy

Production of City Gas

Stable Production of City Gas and Thorough Quality Control

Stable Production of City Gas

In addition to our three LNG terminals in the Tokyo Bay area*¹, we launched the Hitachi LNG Terminal (Hitachi City, Ibaraki Prefecture) as our first LNG terminal located outside that area in March 2016. This expansion has improved the overall reliability of our LNG supply infrastructure.

Our four city gas production terminals back up each other so that we can continue stably supplying city gas to customers, even in the event of power outages or other disruptions. We achieve stable production of city gas with highly reliable power receiving systems and dual redundancy in key facilities.

Each terminal is equipped with highly reliable facilities. We are steadily upgrading aging facilities, strengthening earthquake resistance, and improving safety measures for greater stability in production.

*1 Negishi LNG Terminal (Yokohama City, Kanagawa), Sodegaura LNG Terminal (Sodegaura City, Chiba), and Ohgishima LNG Terminal (Yokohama City, Kanagawa).

Compliance with Statutory Requirements

To ensure delivery of high-quality city gas to customers, we conduct statutory tests of calorific value, combustibility, and other properties on a daily basis. We also strive to further improve quality through not only regular voluntary monitoring, but also facility maintenance and management, including periodic repairs and daily inspections.

Strategic Development of Production Facilities

In 2012, we began construction of the Hitachi LNG Terminal as a key element of our production and supply infrastructure to accommodate the anticipated increase in natural gas demand toward 2020. This terminal is equipped with a large pier to receive LNG tankers and LPG tankers, a 230,000-kl LNG tank, a calorific-value-adjustment LNG tank, and gas production facilities. Operation commenced in March 2016.

In April 2018, we began constructing a second tank at the Hitachi LNG Terminal, scheduled to start operating in fiscal 2020. In addition, we are increasing the looping of our high-pressure gas pipelines. This will help to enhance the energy security of the Kanto region overall.



Hitachi LNG Terminal

Skills Transfer Initiatives

The Tokyo Gas Group actively promotes knowledge management by sharing and utilizing the valuable know-how, technology and skills it has acquired over many years of operating terminals, and deepening each employee's understanding, and thereby enhance their performance and abilities. We systematically and effectively develop our human resources so that skills are smoothly transferred to each succeeding generation. At the same time, we strive to improve these efforts by amplifying knowledge utilization, holding periodic committee meetings, and taking other actions to ensure the successful transfer of skills.

Ensuring Safety and the Stable Supply of Energy

Supply of City Gas

Tokyo Gas is further developing its natural gas transportation pipeline network for the long-term stable supply of gas, keeping in pace with the growing demand for city gas and the expansion of areas served.

The Pipeline Network Division was renamed the Pipeline Network Company in April 2020 in preparation for its legal separation in April 2022 under the government's electric power and gas systems reforms. We are also restructuring it to mirror as closely as possible the form it will take upon legal separation, so as to ensure the neutrality, fairness, and transparency of pipeline network use. Additional actions and procedures are being taken to steadily advance toward the legal separation.

Stable Supply of City Gas

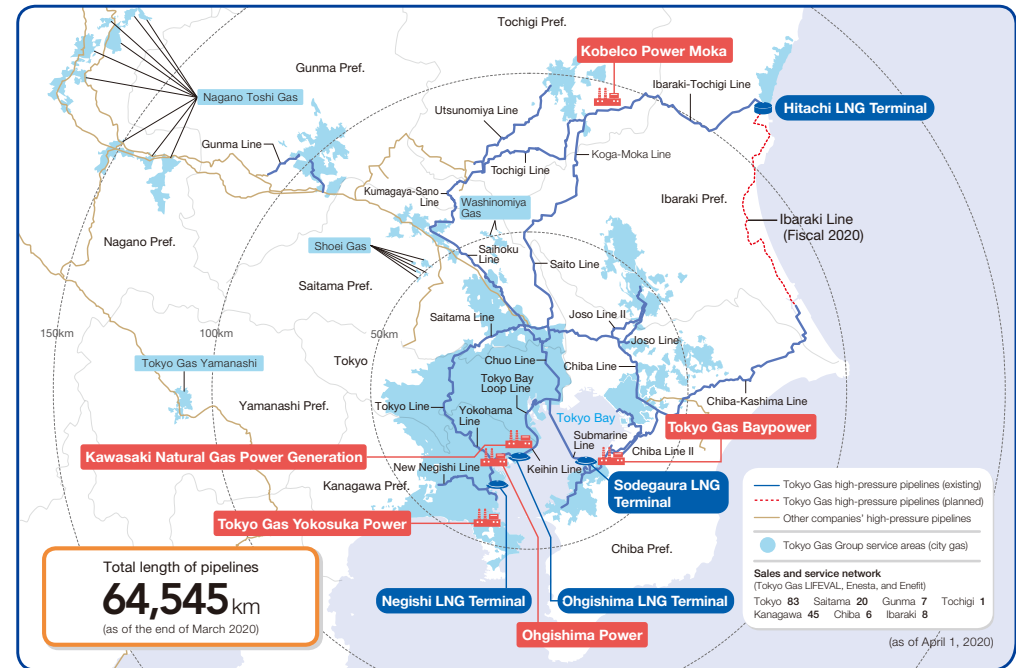
The abundance of natural gas reserves around the world ensures a stable supply of raw materials, which is fundamental to providing a stable long-term supply of city gas to customers.

Pipeline Network Development to Meet Demand Growth and Service Area Expansion

We are developing our gas pipeline network to meet customer needs and expand the use of city gas. Our high-pressure pipelines in the Tokyo metropolitan area stretch to a total length of about 960 kilometers. In addition, construction is underway on the Ibaraki Line, scheduled to start service at the end of fiscal 2020. We are building this high-pressure pipeline to improve supply stability and expand the transportation capacity of the entire network through a looped network of 7-MPa high-pressure pipelines. Moreover, we are laying medium and low-pressure local distribution pipelines while ensuring supply stability to secure demand in areas where we already supply city gas and to seek new customers in the northern Kanto region and other areas with vigorous demand. As we continue to expand our transportation capacity for city gas through these initiatives, we will pursue even higher management efficiency to become a streamlined and powerful network operator.

We continually provide infrastructural personnel with the training and skills development opportunities needed to ensure stable gas supply. This includes the fiscal 2020 continuation of efforts to reinforce the inspection of high-pressure gas pipelines, key medium-pressure routes, receiving facilities served by other companies, and other important supply facilities. It also includes enhancing and training our teams that implement backup operations during emergencies.

The Tokyo Gas Group's Energy Supply Infrastructure



Expansion Plan for Main Supply Infrastructure

Purpose	Line	Section	Period
Expansion of wide-area infrastructure	Ibaraki Line	Hitachi City-Kamisuru City	Fiscal 2020



Ensuring Safety and the Stable Supply of Energy

Initiatives at the Supply Control Center

The Supply Control Center centrally monitors and controls city gas production and transportation facilities in the Tokyo metropolitan area 24 hours a day, 365 days a year. Using a highly reliable dedicated wireless transmission network, the center collects data on the operational status of city gas production and supply facilities in real time and accurately controls various operational parameters in order to ensure the stable transportation of city gas. While accounting for the impact of periodic regular inspections and maintenance of LNG terminals and high-pressure pipelines, it regulates the gas feed for transportation service clients, the production volume of manufacturers (LNG terminals, etc.), pressure at governor stations, and gas holder storage and withdrawal, among other parameters.

In the event of a disaster, the center collects information, assesses the extent of the damage, and implements initial response measures to prevent secondary disasters such as a suspension of gas supply. Also, in cooperation with the Cabinet Office and the Tokyo Metropolitan Government, the center works to prevent the damage from expanding by sharing damage information through dedicated communications terminals installed at the center and discussing response measures through teleconferencing.



Supply Control Center

Transportation Service in Response to the Growing Number of Switch Applications

We established the Transportation Service Center in response to the growing number of switch applications. The center has built a system to accept applications for transportation service using the company's gas pipelines and for billing of fees after the transportation service contract begins, and thus helps the growing number of new gas retailers to operate smoothly. We maintain the neutrality of the center's operations through features designed to treat all gas retailers fairly. These include physical isolation of the office to ensure appropriate management of information on gas retailers, and prohibition of the use of transportation service-related information for other purposes.

Maintenance of Gas Pipelines

Replacement of Aging Gas Pipes, etc.

Given that we deliver city gas to customers via gas pipelines, we recognize the importance of pipeline maintenance.

Each of our Pipeline Network Centers formulates every year a prioritized replacement and upgrade plan for the aging gas pipelines and other facilities it manages, and thoroughly implements measures to ensure pipeline safety.

In an ongoing effort to deal with aging underground house gas pipes (galvanized steel pipes) at buildings that are a high safety priority, we continue informing customers of the need for replacement and working toward completing all upgrades by fiscal 2020, as much as possible. We are also negotiating with public facilities on the need to upgrade their aging pipes, also with the goal of completing work by fiscal 2020.



Replacing an aging gas pipe

Periodic Gas Leak Inspections

In accordance with the Gas Business Act, we conduct periodic inspections to ensure the early detection of gas leaks from pipes buried under roads. We carry out repairs promptly at any locations where leaks are detected. We comply with the Gas Business Act and related laws and regulations and notices when we plan, conduct, and manage periodic inspections. In addition, we plan and implement our own ongoing gas leak inspections over and above the legally mandated periodic leakage inspections so our customers can use our services safely.

Patrolling High-pressure Gas Pipelines

High-pressure gas pipelines are the arteries for delivering city gas from our four LNG terminals to the Tokyo metropolitan area and the rest of the Kanto region. We go to great lengths to ensure the stable transportation of city gas and use the latest equipment for maintaining and managing these pipelines. One important effort is to conduct periodic patrols along routes above high-pressure gas pipelines.

During the patrols, we check whether any businesses are implementing construction work above buried gas pipelines without inquiring with Tokyo Gas in advance. We also look for any road cracks, depressions, or other damage that may affect gas pipelines. The patrols include inspecting gas supply equipment and confirming that the pressure regulators which adjust gas pressure and the valves which shut off gas flow are functioning properly. By conducting daily route patrols with these extensive inspections, Tokyo Gas secures safety with even greater certainty.



Route Patrol

Highly Efficient Transportation

When electricity is supplied from a power station to offices and residences, as much as 60% of the energy is lost due to exhaust heat and transmission, which means that only about 40% of the primary energy is actually supplied. In contrast, city gas, which is produced by vaporization at LNG terminals, is directly transported to consumption areas through pipelines, and thus requires no energy conversion and results in no energy loss during transportation.



Ensuring Safety and the Stable Supply of Energy

Delivering Gas Safely

Highly Safe Pipelines and Gas Holders

City gas supply facilities utilize materials and design methods with superior earthquake resistance based on the standards set by the Japan Gas Association. Among the supply facilities, gas holders and high-pressure and medium-pressure gas pipelines incorporate numerous safety technologies, with a structure that can withstand ground deformation during earthquakes. Low-pressure gas pipelines are also highly durable, and use materials with a flexible structure.

Technologies that Sustain the City Gas Service Business

In developing our expertise, Tokyo Gas conducts research and development focusing on technologies related to combustion, heat transfer, and fluids, which are all essential for balancing energy conservation and safety in using gas; technologies for assessing materials and seismic capacity required for ensuring the safety of infrastructure, such as pipeline networks; and gas analysis technologies for maintaining the high quality of the gas supplied to customers.

In the event of an accident caused by a natural disaster or faulty gas appliance, engineers with expertise in relevant fields respond quickly to investigate the cause and take the necessary measures to prevent the recurrence of a similar accident or equipment failure. We work to develop and improve various methods for pipeline construction, maintenance, and management for further improvements in the safety and performance of pipeline construction work. As an industry pioneer, we contribute to improving the safety of gas pipelines and advancing the entire gas industry by actively introducing the fruits of our efforts to other gas utilities and supporting their introduction.

As a gas supplier, we must maintain both basic and expert knowledge regarding gas itself and regarding gas supply facilities and gas appliances at a higher level than anyone else in order to support customers in the safe use of gas. Tokyo Gas will continue to refine our system for passing on basic technologies that are indispensable for customer safety and security as we seek to deepen and broaden our technologies.

Research on Earthquake and Disaster Preparedness of Gas Supply Infrastructure

We conduct research and development on ways to protect pipelines and other gas supply infrastructure from earthquakes and other disasters so customers can use gas safely. Testing with the aid of a 3D shaking table, which simulates ground motions from an earthquake as strong as the 7.3-magnitude Great Hanshin-Awaji Earthquake in 1995, allows us to assess the safety of the various equipment that comprises the gas supply infrastructure. We use numerical analysis simulation, which simulates real-world phenomena on computers, to conduct seismic performance assessments that take into account the complex deformation behavior of underground pipelines.

The knowledge gained from this research has been applied to our own measures to protect gas supply infrastructure against earthquakes and to similar efforts across the entire gas industry. Through such initiatives, we will continue conducting research and development to contribute to improving the earthquake resistance of the gas industry as a whole.



Testing seismic resistance with a 3D shaking table



Pipeline deformation behavior assessment using numerical analysis

Ensuring Safety and the Stable Supply of Energy

Earthquake Disaster Countermeasures

Tokyo Gas works on earthquake disaster preparedness under the three pillars of prevention, emergency, and recovery so that customers can use gas safely and conveniently 24 hours a day, 365 days a year. We strive to minimize the impact on customers in the event of a disaster.

1 Prevention

Highly earthquake-resistant facilities

Minimize potential damage by continuing to further strengthen earthquake/tsunami countermeasures for critical facilities.



2 Emergency Response

Quick shutdown of gas supply to prevent secondary disasters

We have systems for shutting off gas supply to individual buildings and for remote shutoff of area gas supply.



3 Recovery

Safe and swift restoration of gas supply

We reduce the time it takes to restore gas supply in affected areas by leveraging IT systems to their fullest and streamlining recovery operations.



The three pillars of earthquake and disaster countermeasures: prevention, emergency response, and recovery.

Prevention

Highly Earthquake-resistant Gas Production and Supply Facilities

While reinforcing LNG tanks, gas holders, gas pipelines, and other facilities themselves, we also implement multiple layers of safety measures for our gas production and supply systems. Main facilities are designed to withstand earthquakes as powerful as the 7.3-magnitude Great Hanshin-Awaji Earthquake in 1995 and the 9.0-magnitude Great East Japan Earthquake in 2011.

Emergency Response

Quick Shutdown of Gas Supply to Prevent Secondary Disasters

In preparation for a major earthquake, we have developed systems to locally shut off gas supply to individual homes and buildings. For example, our gas meters for homes are equipped with safety devices that automatically shut off the gas supply when they detect earthquakes measuring 5 or greater on the Japanese seismic scale.

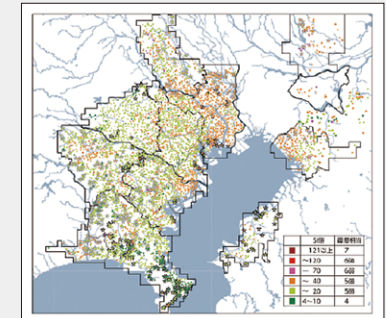
Also, all the approximately 4,000 district pressure regulators in our service area are equipped with seismographs to shut off gas supply automatically at each district pressure regulator when a major earthquake is detected. Gas supply can also be shut off remotely. Our disaster-prevention system facilitates the remote shutoff of gas supply throughout the entire region.

Moreover, by dividing the gas pipeline network into small blocs, the system minimizes the inconvenience resulting from the shutoff of gas supply to unaffected areas.

Topic

SUPREME Ultrahigh Density Real Time Earthquake Disaster Prevention System

Tokyo Gas's SUPREME earthquake disaster prevention system uses densely installed seismographs. The system is capable of collecting earthquake data at about 4,000 locations, remotely shutting down district pressure regulators, and estimating damage on gas pipelines in order to monitor district safety. Within about five minutes after a major earthquake, the system identifies damage based on data measured by seismographs. In about ten minutes, the system swiftly ensures safety by remotely operating district pressure regulators and suspending gas supply to areas where major damage is expected.



Locations of seismographs in the Tokyo Gas service area and intensities measured in the southern Kanto region during the Great East Japan Earthquake on March 11, 2011

Ensuring Safety and the Stable Supply of Energy

Recovery

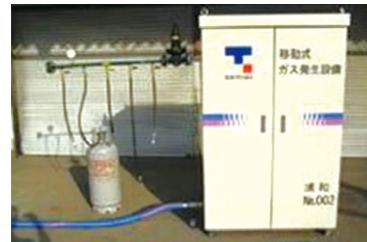
Safe and Swift Restoration of Gas Supply

Tokyo Gas strives to restore gas supply as soon as possible to resolve inconvenience in areas where service has been suspended. We make full use of equipment, materials, and systems prepared and maintained at all times while cooperating with other gas utilities nationwide for quick recovery. Furthermore, from fiscal 2014 we began introducing a system for remotely operating district pressure regulators toward realizing same-day gas supply restoration in areas with no earthquake damage. Tokyo Gas is presently moving forward with the full-scale introduction of this system.

Post-disaster Relief and Support System

Drawing lessons from relief activities after the 1995 Great Hanshin-Awaji Earthquake and the 2007 Niigata Chuetsu Offshore Earthquake, we have deployed mobile gas generators (large PA-13A) to hospitals and other high-priority customers to provide an emergency gas supply in the event that regular service is disrupted by a disaster. These mobile generators were put into action in the wake of the Great East Japan Earthquake in 2011. We continue to provide training using the actual equipment to ensure that it can be operated properly when needed.

We have also made arrangements with gas utilities nationwide for them to dispatch personnel, equipment, and supplies to one another via the Japan Gas Association to aid recovery in the wake of a major disaster.



Mobile gas generator

The Gas Service Restoration Map shows the progress of gas supply restoration

We have developed and operate the Gas Service Restoration Map, an online map that customers in our service area can access to view the status of gas supply suspensions and restoration operations following a major earthquake. The map is color-coded for easy understanding.

When a major earthquake results in a gas service suspension, the map displays the progress of restoration in the affected areas using different colors for each level. Customers can check the suspension/restoration status of their residence or building by manually zooming in or by entering their address in a search bar.



Gas Service Restoration Map

Topic

Restoration Response to the 2018 Osaka Earthquake

On June 18, 2018, an earthquake centered on northern Osaka Prefecture resulted in gas supply suspensions across the region. The Tokyo Gas Group supported work to restore the city gas service. We set up a local task force that day and dispatched about 1,200 personnel to aid restoration operations, working together with Osaka Gas Co., Ltd. and other gas utilities. As a result, service was restored to all affected customers on June 24, six days after the quake. Our group-wide support included efforts by partners such as Tokyo Gas LIFEVAL, Enesta, a gas equipment installation company, and a mapping company. The entire Tokyo Gas Group stands ready to do everything possible to restore service swiftly in response to future disasters.



Workers restoring gas service



Personnel in a field shelter compile data on reopened valves

Disaster Preparedness

We have formulated a business continuity plan and built a disaster prevention system against the risk of a major earthquake in the Tokyo metropolitan area.

Business Continuity Planning

We regularly review all of our more than 600 operational procedures to prioritize our disaster response actions, so that we can efficiently shut off gas supply to prevent secondary disasters while continuing to safely supply less affected areas.

When the gas supply to an area is interrupted, we promptly assign personnel to recovery operations and take other company-wide actions to restore service as quickly as possible.

Establishment of a Backup Center

Our systems are operated in a data center that meets high earthquake resiliency standards. We have also established a backup center in case of a major disaster. The backup center maintains systems concerning customer information and emergency safety operations, as well as extra equipment and data backups for swift restoration of services. Emergency drills are conducted regularly, and redundancy is built into the power supply and communication systems to minimize the impact on customers during an emergency.

Ensuring Safety and the Stable Supply of Energy

Comprehensive Disaster Prevention Drills

We conduct comprehensive disaster prevention drills each year to further strengthen of our disaster response capabilities. These exercises are intended to verify that all Emergency Response Organization teams are capable of acting in accordance with the guidelines to provide an initial response, facilitate smooth transition to recovery, and ensure effective collaboration with other gas retailers.



Emergency Response Organization meeting during a comprehensive drill

Disaster Response System

We operate an integrated system for monitoring the real-time status of our disaster response activities. This enables all employees to share accurate information and swiftly take appropriate action to minimize damage. Earthquake data collected by our SUPREME system is sent to employees' mobile phones within minutes of an earthquake. This system can also be used to confirm employee safety and deliver instructions on reporting for duty during an emergency. We also share our earthquake data with local and national authorities to aid their disaster operations.



The Disaster Information Station site on the Tokyo Gas intranet

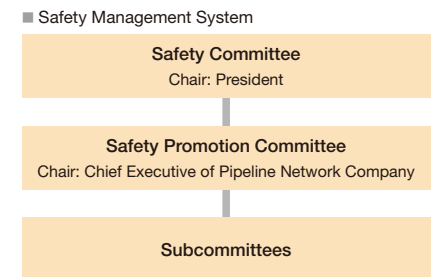
Ensuring Customer Safety

Our commitment to safety

Securing customer safety is our fundamental mission as an energy company. To fulfill this commitment, we have established a safety management system led by top management, and we strive for customer safety and security by periodically inspecting customer gas equipment and by operating an emergency dispatch system 24 hours a day, 365 days a year.

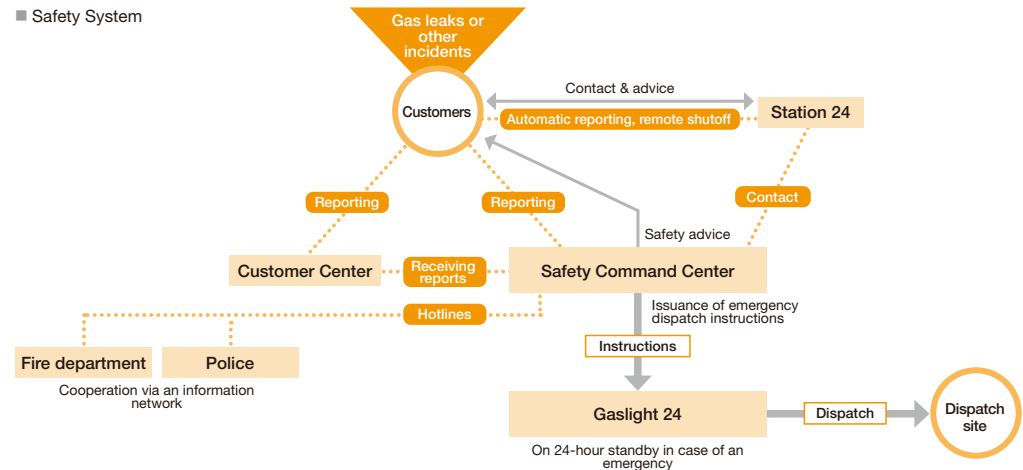
Safety Management System

Our safety management system rests upon our firm belief that safety must be at the heart of our duty as an energy company and must directly involve top management. This organization is headed by the Safety Committee, which is chaired by the President and is tasked with coordinating and promoting safety measures. It also includes the Safety Promotion Committee, chaired by the Chief Executive of the Pipeline Network Company, as well as several subcommittees to ensure agile response to various safety issues.



Safety System

We operate an emergency dispatch system 24 hours a day, 365 days a year to deal with gas leaks and other problems that may arise. This comprehensive system is designed to respond to all situations to ensure the safety of our customers.



Ensuring Safety and the Stable Supply of Energy

Safety Command Center

Any report of a gas leak to a Tokyo Gas customer center or other office is immediately relayed to the Safety Command Center. This center accurately obtains information regarding the situation and provides safety advice to the reporting party. Gaslight 24 personnel immediately rush to the gas leak site from their respective bases after receiving instructions from the center. We have also established police and fire department hotlines to facilitate cooperation.



Safety Command Center

Gaslight 24

Gaslight 24s are 24-hour emergency dispatch bases capable of responding immediately to a gas leak or other emergency. Approximately 600 personnel specialized in emergency safety response are stationed at 50 sites within our service area. They are on call around the clock and dispatch personnel swiftly in accordance with instructions from the Safety Command Center.

Emergency vehicles are equipped with a mapping system that can instantly display gas pipelines and facilities at the site.



Gaslight 24 emergency vehicle

Periodic Safety Inspections of Gas Equipment

Under the Gas Business Act, the Tokyo Gas Group periodically inspects gas equipment at all customer sites at intervals mandated by law. As a general gas pipeline business operator, we check for gas leaks on customer premises. As a gas retailer, we visit customers to inspect gas appliances as well as air supply and exhaust equipment. In addition, we recommend the installation of gas alarms as necessary, and provide contact information for occasions when an industrial ventilation alarm is activated.

As part of our commitment to customer safety, we will continue to enhance inspector training and make other efforts to maintain and improve the quality of our work.

Improving the Quality of Field Service and Passing on Skills

We regularly hold exhibitions on emergency safety techniques and skills as one way to strengthen our ability to provide customers with safe, secure, reliable, and convenient service. Designed to enhance the quality of our emergency safety operations and pass on skills to each new generation of employees, these exhibitions are opportunities for teams representing Tokyo Gas and its partners to demonstrate their everyday skills, and thereby inspire one other and further hone their techniques. In fiscal 2019, 380 people attended, including employees from other gas service companies and gas retail companies. The participants shared knowledge and insights as they demonstrated their techniques and skills through competitions and role-playing. Through these efforts, we endeavor to raise awareness and ensure safety, security, and reliability for customers.



Skills exhibition



Ensuring Safety and the Stable Supply of Energy

Enhancing the Safety of Gas Appliances

To make sure customers are able to safely use gas equipment and appliances, we conduct legally mandated periodic safety inspections of gas equipment without fail. We also provide customers and appliance manufacturers with information on safe use. In these and other ways, we provide both tangible and intangible support for ensuring safety.

Launch of Voluntary Action Plan on Product Safety

In accordance with the Consumer Product Safety Act, we have formulated the Tokyo Gas Voluntary Action Plan on Product Safety to fulfill our responsibility as a company that repairs, installs, and sells household gas appliances. Our aim is to ensure product safety and foster a culture of product safety.

Under this plan, we strive to ensure and improve safety to meet the needs and expectations of society. Moreover, in our drive to promote a culture of gas appliance safety, we post important notices on the use of household gas appliances on our website to enable customers to quickly find important, accurate information on the correct use of products. We also post bulletins on recalls and reported problems so that customers can use their household appliances safely.

The entire Tokyo Gas Group is committed to acting promptly and appropriately to ensure safety and improve the quality of gas appliances under our three pillars of safety, security, and reliability.

Tokyo Gas Voluntary Action Plan on Product Safety

Launched on November 7, 2007

Tokyo Gas defines the following Voluntary Action Plan on Product Safety to ensure product safety and establish a culture of product safety, thereby strengthening our group values of “Safety, Security, and Reliability” in our role as a company that sells, repairs and installs home gas appliances.

1. Compliance with laws

We shall comply with laws and regulations concerning product safety, formulate in-house voluntary standards for repair and installation work, and strive to ensure product safety.

2. Establishment of a product safety promotion system

We shall improve our company's product safety promotion system to ensure product safety.

3. Risk reduction of product-related accidents

We shall contribute to reducing the risk of product-related accidents by sending feedback on product-related accidents and problems that come to our attention to the manufacturers and importers of gas appliances.

4. System for collecting and transmitting information on product-related accidents

Whenever we learn of a product-related accident we will promptly forward the information to senior management and related departments in the company, as well as to manufacturers and import companies.

5. Maintenance and enhancement of product safety

We shall promote awareness and disseminate information to our customers on the proper use of gas products, follow-up on questions from customers on product safety and commit to the cultivation of a culture of product safety.

6. Cooperation with manufacturers and importers

Whenever manufacturers or importers recover products due to recalls or other reasons, we shall cooperate with them to efficiently facilitate product recovery.

Measures for the Product Safety of Gas Appliances

Measures to Improve the Quality of Gas Appliances

We have established quality assurance and response units tasked with addressing gas appliance failures and accidents by swiftly identifying the causes and formulating response measures.

In the event of any gas appliance failure that requires the identification of a technical cause or results in an accident, we strive to resolve customer concerns by immediately investigating the cause and taking the necessary actions in cooperation with the manufacturer. We also share with manufacturers the insights gained from analysis of appliance failure causes and repair data so that this information can be used to prevent recurrence and improve quality in future products.

For example, all balanced-flue bath boilers are equipped with safety devices to prevent irregular ignition caused by improper handling and prevent the boiler from being left on. Also, some of our popular models use an alert light or remote control error message to remind the user that the equipment has to be checked when it has exceeded its operating life. These and other safety features reflect our ongoing efforts to advance safety measures together with the industry.

Improving Gas Appliance Safety and Convenience

The Japanese gas industry—gas energy suppliers and gas appliance manufacturers and sellers—voluntarily established standards for all household gas stoves^{*1} in April 2008. As an industry, we are collectively making gas stoves safer by providing standard safety functions to prevent flame failure and the overheating of cooking oil, and to automatically close burners which users forget to turn off.

Since even before those standards were set, Tokyo Gas has been a pioneer in sales of highly safe gas stoves.

We have also been selling alarms that detect and warn users of a gas leak, carbon monoxide, or fire. Recently, we have begun selling models with other value-added functions for daily life. These include models that can detect changes in room temperature and humidity to prevent heat stroke and excessive dryness, and alarms that also serve as a nightlight during power outages.

*1 Excluding single-burner tabletop stoves.



“Kaiteki Watch”
comfort sensor

Alarm with nightlight
function



Ensuring Safety and the Stable Supply of Energy

Promoting Switchover to Safer Appliances

Tokyo Gas has been encouraging the switchover to safer appliances since January 2007. We use direct mail and periodic safety inspections of gas equipment to recommend early switchover to customers using water heaters or bath boilers not equipped with devices to prevent incomplete combustion. This has helped to bring down the number of such appliances in our service area from about 160,000 at the start of the replacement campaign to 12,896 at the end of March 2020.

We will continue advancing these and other safety improvement so that customers can use their gas appliances with peace of mind.

■ Progress in the Switchover to Safer Appliances

Air supply and exhaust type	Target appliances	Number of units targeted for replacement at campaign start	Number of target units remaining at end of FY2019
Open-type gas appliances	Small water heaters	37,000	2,096
	Wire mesh stoves	4,200	396
Semi-closed-type gas appliances	Conventional flue-type water heaters and bath boilers / forced exhaust-type water heaters (with downdraft diverters)	120,000	10,404
	Total	161,200	12,896

Development of the Electric Power Business

Japan's energy landscape has undergone dramatic changes in recent years, including a rise in expectations for the role of natural gas in the wake of the Great East Japan Earthquake, and the full-scale deregulation of the electric power and gas retail markets. Against this backdrop, the Tokyo Gas Group is developing its electric power business in the belief that providing a stable and affordable supply of energy answers critical expectations of society.

Expansion of Competitive Power Sources

Building an Optimal Portfolio of Power Sources

We recognize that it is now more important than ever before to provide a stable source of electricity, taking into account major changes in the energy landscape such as power and gas system reforms, and growth in our sales stock. To answer that need, we must secure stable power sources, and thus we are establishing an optimal power source portfolio that combines our own power sources with power purchased from other companies.

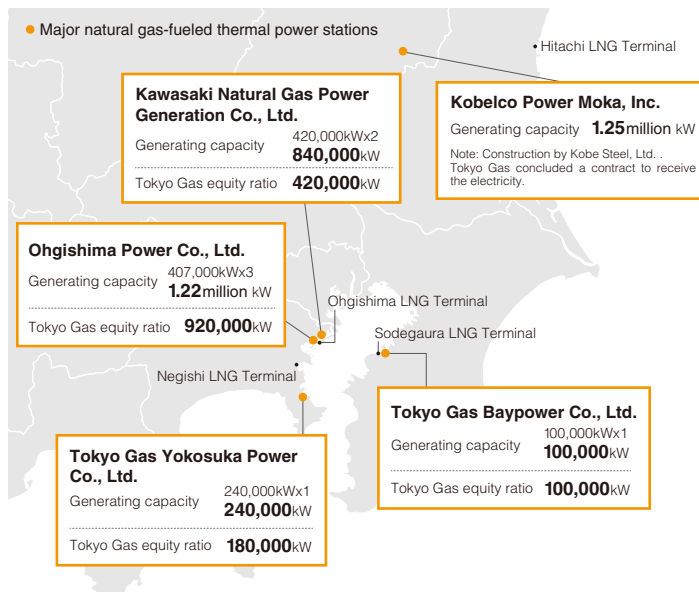
Ensuring Safety and the Stable Supply of Energy

Expanding Power Sources

Tokyo Gas is advancing the construction of natural gas-fired power plants toward reinforcing the foundations of our electric power business. In this construction, we realize stable supply by (1) locating power plants close to demand areas, (2) using state-of-the-art, high-efficiency combined cycle power generators to reduce the load on the environment, and (3) locating power plants near our LNG terminals to achieve efficient and stable management maximizing synergies.

With the receipt, from October 2019, of all the electric power generated by the Moka Power Plant operated by Kobelco Power Moka, Inc. (a subsidiary of Kobe Steel, Ltd.), the Tokyo Gas Group's power sources are now as follows: Tokyo Gas Baypower Co., Ltd. (generating capacity of approx. 100,000 kW, Tokyo Gas equity ratio 100%), Tokyo Gas Yokosuka Power Company, Ltd. (240,000 kW, 75%), Kawasaki Natural Gas Power Generation Co., Ltd. (840,000 kW, 49%), Ohgishima Power Company, Ltd. (1.22 million kW, 75%), and Kobelco Power Moka, Inc. (1.25 million kW, 0%). With this structure, our own power source capacity, in terms of equity ratios, has expanded to around 3 million kW. Anticipating future system design requirements and the market environment, we will continue to establish an optimal portfolio to secure power sources on the scale of 5 million kW in the 2020s.

■ Tokyo Gas Group's Major Power Sources (as of March 2020)



Stable Power Generation

The Tokyo Gas Group's thermal power plants are fueled by natural gas produced at our LNG terminals. These power plants maintain a stable supply of electricity through operational and monitoring activities as well as daily checks and periodic inspections. Capitalizing on expertise acquired in the gas service and power generation businesses, we will supply more affordable electric power while doing our best to ensure safety and stable supply and address environmental concerns in our efforts to meet social demands and expectations as a total energy service company.



Ensuring Safety and the Stable Supply of Energy

Overseas Business

Overseas Business

By making use of our strengths and performance record in the LNG value chain to focus on the development of the LNG infrastructure business in Asia, where the demand for natural gas is rising, the Tokyo Gas Group is contributing to the access to energy in Asia. We are also working to expand renewable energy sources overseas.

Overview of Our Overseas Business

	Production / Procurement	Transportation	Production	Sales
	Upstream		Midstream / Downstream	
Tokyo Gas	North America Shale gas development		Mexico Natural gas-fueled power generation	Vietnam Gas distribution
	Australia Liquefaction and shipping of natural gas		Thailand Natural gas-fueled power generation	Indonesia Gas distribution
			North America Natural gas-fueled power generation	Thailand Gas distribution
			Mexico Renewable energy power generation	Malaysia Gas distribution
TGES			Thailand LNG receiving terminal FEED ^{*1} & PMC ^{*3}	U.S.A Energy services
			Bangladesh LNG receiving terminal FS & Engineering ^{*2}	Malaysia Energy services
			Taiwan LNG receiving terminal FEED ^{*1}	Thailand District cooling & power distribution
				Indonesia Energy services

*1 Front End Engineering Design
*2 Feasibility study & engineering
*3 Project management consulting

Upper row: region
Lower row: business

Tokyo Gas Group Overseas Operations

Main Overseas Locations

- Paris Representative Office
- Hanoi Representative Office
- Ho Chi Minh City Representative Office
- Bangkok Representative Office
- Kuala Lumpur Representative Office
- Jakarta Representative Office
- Manila Representative Office
- Tokyo Gas Asia Pte. Ltd. (Singapore)
- Tokyo Gas Australia Pty. Ltd. (Perth)
- Tokyo Gas America Ltd. (Houston)
- TGES America Ltd.
- Gas Malaysia Energy Advance Sdn. Bhd. (GMEA)
- TGES (Shanghai) LNG Engineering Co., Ltd.
- Bangkok Smart Energy

Midstream and downstream business projects

- GWHAMT
- EPEC
- Gas Malaysia
- PRA
- PVGD
- LNG Vietnam
- Bajio
- MT Falcon
- Tres Mesas 3
- Trompezon
- Birdsboro
- Cove Point LNG
- Petrobranga
- Nong Fab LNG terminal
- Yung An LNG terminal
- Toray South Carolina
- Toray Malaysia
- Panasonic Malaysia
- One Bangkok
- Yakult Indonesia Persada Pt



2 EPEC



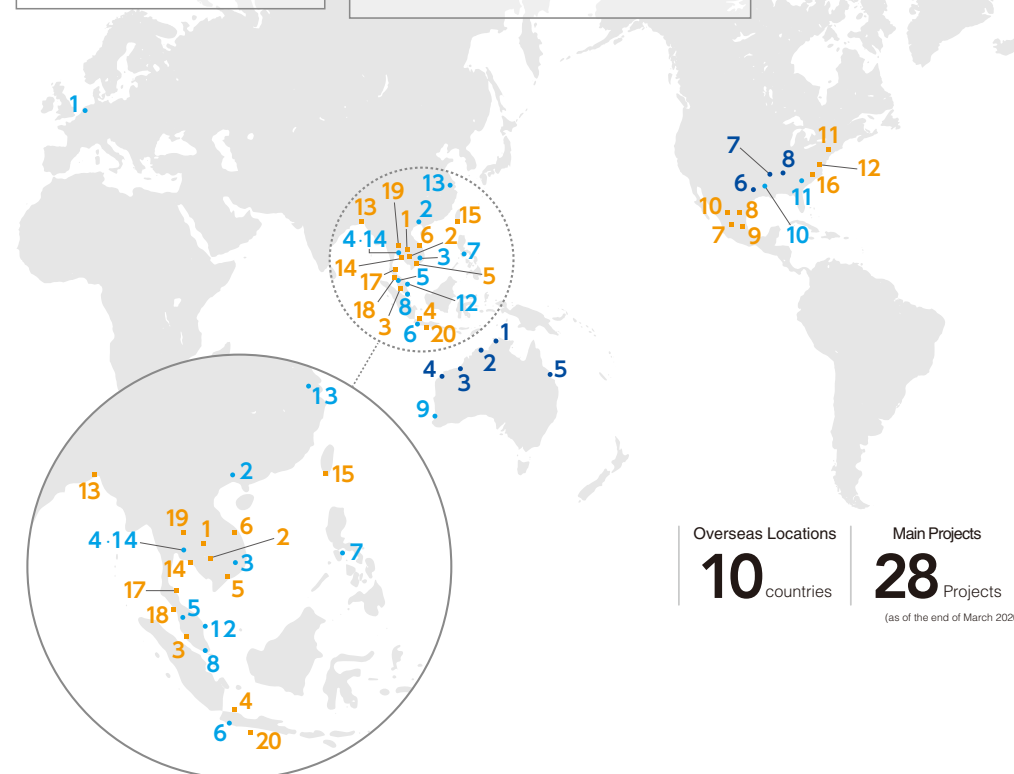
8 MT Falcon

Upstream business projects

- Darwin LNG
- Ichthys LNG
- Pluto LNG
- Gorgon LNG
- Queensland Curtis LNG
- Eagle Ford Shale Gas
- Castleton Resources
- Barnet Shale Gas



7 Castleton Resources



Overseas Locations
10 countries

Main Projects
28 Projects
(as of the end of March 2020)



Ensuring Safety and the Stable Supply of Energy

Building Energy Infrastructure in Southeast Asia

In Southeast Asia, demand for natural gas is projected to rise along with the region's economic growth. To meet this growing demand, Tokyo Gas will collaborate with leading local companies to accelerate business development focused on midstream and downstream operations. We will leverage our technology and expertise to popularize the use of LNG as an environmentally friendly energy source and to contribute to the construction of infrastructure.

FY2019 Results

Taiwan (Yung An) LNG Receiving Terminal Expansion Plan

Tokyo Gas Engineering Solutions Corporation (TGES) was awarded a contract from the Republic of China (Taiwan) state-owned petroleum and gas company CPC Corporation to conduct the Front End Engineering Design (FEED) for an expansion project of the Yung An LNG receiving terminal, and implemented the FEED services. Because Taiwan has a policy of increasing its percentage of natural gas-fired thermal power plants due to environmental concerns, the demand for natural gas is expected to increase in the future. By receiving this FEED contract as part of this expansion of the LNG receiving terminal, the Tokyo Gas Group is contributing to the development of the local energy infrastructure, and to the conservation of the environment.

The First Urban District Cooling Project in Thailand (One Bangkok)

In January 2020, Tokyo Gas Engineering Solutions Corporation (TGES) concluded a utility development contract with One Bangkok Co., Ltd. to supply district cooling and power to the One Bangkok redevelopment project in Bangkok, Thailand via Bangkok Smart Energy Company Ltd. in which TGES has invested. This project will construct Thailand's first urban district cooling center in a redevelopment area in central Bangkok, and supply cooling and electricity to a total of 16 buildings including offices, hotels, residences and commercial facilities over a period of 30 years. By realizing optimal supply from efficient operation of facilities based on cooling demand projections, TGES is contributing to environmentally friendly and comfortable urban development in Thailand.



Conceptual drawing of One Bangkok.

LNG to Power Project in Vietnam

In January 2020, Tokyo Gas signed a Memorandum of Understanding with Petrovietnam Power Corporation regarding the development of the LNG to Power project in Quang Ninh Province in northern Vietnam and Ca Mau Province in the south. This project is for the unified development of LNG terminals and natural gas-fired thermal power plants. Vietnam currently faces the challenge of securing future electric power sources needed to stay abreast with economic growth. We are contributing to energy access in Vietnam utilizing our LNG procurement and LNG terminal and power generation business expertise.

Boiler Energy Service in Indonesia

In February 2020, Tokyo Gas Engineering Solutions Corporation (TGES) concluded a contract to provide boiler energy service to the PT Yakult Indonesia Persada factory in Sukabumi, West Java Province, together with PT Mitsubishi UFJ Lease & Finance Indonesia and PT Miura Indonesia. This boiler energy service, which is the first project by the three companies, packages the installation of highly efficient boilers with no initial capital expenditure by the customer together with comprehensive maintenance services, energy management support, and boiler efficiency guarantees. The service grasps the details of energy usage and realizes operational improvements to achieve further energy conservation, stable boiler operations, and management efficiencies that are difficult to achieve with regular boiler replacement. By providing boiler energy service to wide-ranging customers in the future, we will contribute to industrial growth and the reduction of environmental load in Indonesia.

Renewable Energy Initiatives

To advance toward net zero CO₂ emissions on a global scale, the Tokyo Gas Group is engaged in efforts to expand the scale of renewable energy power sources overseas. We aim to handle 5 million kW of renewable energy power sources in 2030.

FY2019 Results

Renewable Energy Project in Mexico

In April 2019, Tokyo Gas agreed to invest in a renewable energy joint venture with the French energy company ENGIE. We will acquire 50% of a joint venture established by ENGIE to develop and operate renewable energy projects in Mexico, and engage in business together. The joint venture is scheduled to own six renewable energy power generation projects comprising two onshore wind farms and four solar power plants with a combined electricity output of 899,000 kW. Tokyo Gas recently completed its investments in two of the projects: the Tres Mesas 3 wind farm and the Trompezon solar power plant. All six projects are scheduled to begin commercial operations by 2020.

The Mexican government is seeking to raise the ratio of clean energy in Mexico to 35% by 2024. The Tokyo Gas Group will help reduce Mexico's carbon footprint through this venture, which is our first participation in the renewable energy business outside Japan.



Wind farm (Tres Mesas 3)

Value Co-creation

Lifestyle Services

Tokyo Gas flexibly combines diverse products, technologies, and services, proposes solutions to various challenges affecting individual lifestyles or local communities, and creates new value together with all types of stakeholders.

Services That Provide Peace of Mind

Our “Always Peace of Mind” and “Always Home Services” services bring peace of mind to customers with 24/7 response to problems with gas equipment, plumbing, and door locks. We also provide digital technology-driven services that help customers watch over their homes and families.

Always Peace of Mind Service

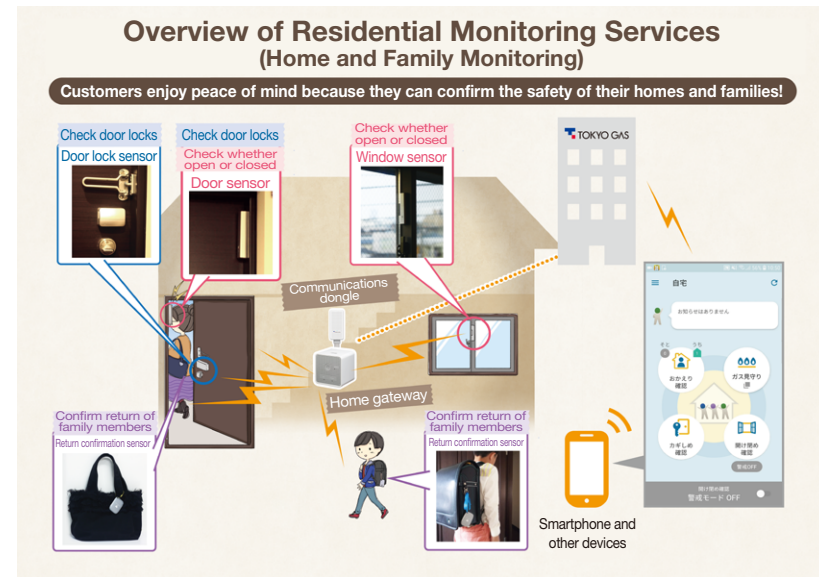
<p>Gas Equipment Special Support</p>	<p>With this service, Tokyo Gas provides customers who pay a monthly fee with on-site repairs any number of times for any number of household city gas appliances and hot water terminal devices produced by Japanese manufacturers. The service also includes subsidizing part of the cost when customers purchase replacement appliances. In June 2020, we added an optional warrantee covering electric air conditioning repairs, in addition to gas equipment.</p>
<p>Gas Equipment Repairs</p>	<p>Tokyo Gas provides on-site repair services with no dispatch fee so that Tokyo Gas service customers can request repairs without concern when their city gas water heaters or kitchen stoves break down. * This service will be terminated at the end of September 2020.</p>
<p>Emergency Home Assistance</p>	<p>When unexpected problems occur with plumbing or door locks, for example, Tokyo Gas staff respond 24/7 to ease customer concerns. Customers have expressed their gratitude for our quick response to plumbing problems and for providing free service.</p>
<p>Response to Electricity Problems</p>	<p>Tokyo Gas also responds to problems with electricity. We offer services designed for our electricity customers, delivering peace of mind by responding to emergencies with not only gas but also the electricity that powers people’s everyday life.</p>
<p>Residential Monitoring Services</p>	<p>Gas Monitoring We alleviate daily concerns customers may have by enabling them to remotely check if gas equipment has been turned off, or gas supply shut off, and providing automated notice when gas equipment has been left on. Customers can also monitor gas use by family members who live far away for any irregularities.</p> <p>Home and Family Monitoring With this service, customers away from home can check whether their doors are locked, whether the windows are open or closed, and whether family members have returned. Customers receive crime-prevention stickers for their households, and can summon security company staff to come to their homes when necessary. It also helps customers to unobtrusively monitor elderly family members who live elsewhere. They can also consult with medical and nursing experts about concerns regarding the health of those family members, such as sudden fevers other physical complaints.</p>

Always Home Services*1

Always Home Services is a one-stop system to support minor home repairs, renovations, household safety measures, and the resolution of other customer housing problems.

*1 We may not be able to meet requests that involve only installing equipment purchased by the customer. Some services are provided by affiliated companies. Also, the service areas vary by service.

Overview of Residential Monitoring Services (Home and Family Monitoring)



Value Co-creation

Paccho I'm Home

Tokyo Gas began providing the “Paccho I’m Home” service, which works together with the Amazon Alexa*¹ cloud-based voice service provided by Amazon.com, Inc., from February 2019. (Paccho is the mascot character of Tokyo Gas). The service can be used with Amazon Echo*² and other devices equipped with Amazon Alexa functions. When a customer returns home and says “Alexa. Paccho I’m Home” the device responds in Paccho’s voice, and sends e-mail messages to family members to inform them that the customer has returned home and to let them know what the customer did that day.*³ Like our residential monitoring services, Paccho I’m Home can also be used as a tool to monitor family members.

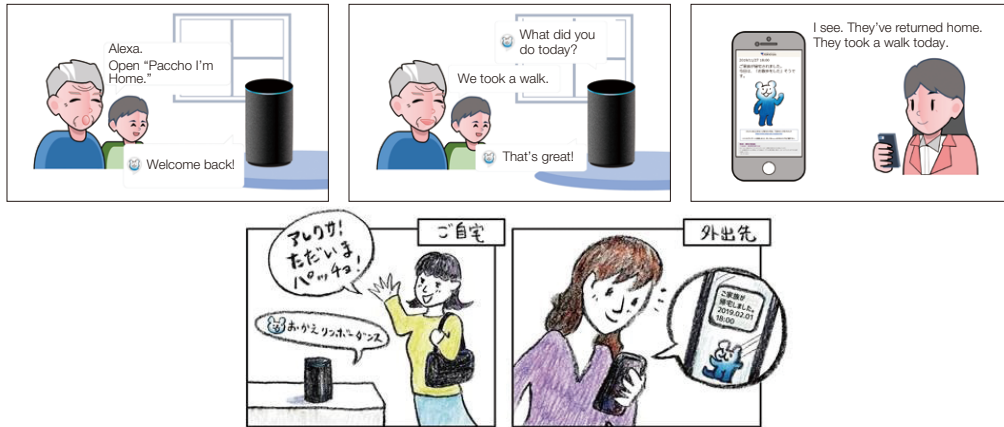
This service can be used free of charge by anyone with Amazon Echo or another device equipped with Amazon Alexa functions.

*1 Amazon Alexa is the continually evolving cloud-based construct that serves as the brain of Amazon Echo.

*2 Amazon Echo is a smart speaker operated by voice. Customers with Amazon Echo (and other devices with Amazon Alexa functions) can ask the device, from anywhere in the room, to answer questions, play music, or provide news, weather, or other information, and Alexa promptly responds.

*3 Customers respond to Paccho’s question “What did you do today?” and the answer is written in an e-mail message. (The voice recognition is not always accurate).

■ Example of usage



* Note: Amazon, Alexa, and Echo are the trademarks of Amazon.com, Inc. and its associated companies.

Heat Shock Forecasts

Tokyo Gas has been providing heat shock forecasts*¹ jointly developed with the Japan Weather Association via their “tenki.jp” weather forecast site since October 2017. This service calculates temperature differentials inside the home based on weather forecast data and presents a “heat shock risk estimate” which can be used for safe bathing practices in winter.

The icon was redesigned in 2019 to boost recognition.

Tokyo Gas also led the launch of the STOP! Heat Shock® project as a collaborative corporate initiative in the autumn of 2018 to raise awareness of heat shock, and continues efforts to further educate the public on prevention.

*1 Forecasts are to be provided from October through March each year.



Value Co-creation

Services That Provide Freedom from Stress

By providing services that offer convenience and comfort together with security in various aspects of customers' lives, we bring customers a psychological sense of ease and time to spare, for a healthy lifestyle. In this effort, Tokyo Gas is examining services that could provide new value, including joint value creation with partner enterprises.

TorisetsumyTOKYOGAS and Torisetzu + Home

Tokyo Gas began providing a free service for the unified management of gas appliances and other household appliance information from the autumn of 2017 by linking the "TorisetsumyTOKYOGAS" service for easy access to user manuals with "myTOKYOGAS." Through this partnership, customers' main gas appliances are automatically registered for easy access to user manuals. When appliances break down, customers can look up the contact information for their local LIFEVAL and Enesta service outlets at the touch of a button.

Tokyo Gas began providing the "Torisetzu + Home" smartphone app and web service to condominium operators from August 2018. We then began providing this service to rental apartment operators and homebuilders from March 2020, along with the establishment of a new plan. With this service, residents can easily check the user manuals to the appliances in their residences via their smart phones. The housing business operators reduce their workload through the paperless provision of user manuals for each residence, and eliminate the trouble of dealing with lost and damaged user manuals when tenants change. The service is also expected to improve response accuracy from the unified management of household appliance information by residence using the manager's account.

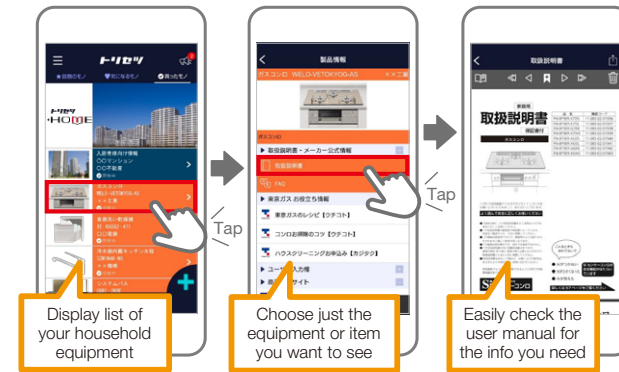
*1 "TorisetsumyTOKYOGAS" is a smart phone app and web service provided by TRYGLE Co., Ltd. that facilitates the integrated management of user manuals and other information on household appliances.

*2 "Torisetzu + Home" is a service provided by Tokyo Gas on "TorisetsumyTOKYOGAS" that can be used by the residents in housing where the housing business operator has introduced this service.

Overview of the TorisetsumyTOKYOGAS Service



Overview of the Torisetzu + Home Service



Housework Support Service

We collaborate with Actier, Inc. of the Aeon Group to provide housecleaning, home-delivered laundry, and housekeeping services at reasonable prices*1.

*1 Tokyo Gas customers can use the service at a 10% discount from regular prices offered by Actier (as of April 2020, with some exceptions). Specifications and pricing of the service are subject to change without prior notice.

Miimi*1 App for Parents and Children to Love Books More

Since December 2019, Tokyo Gas has been providing the Miimi smart phone app audio book service as a novel type of housework support. Users can enjoy listening to narrators read picture books and children's books, and your child's voice can be substituted to read some of the lines of a character in the story, and that version recorded to enjoy later on. This service was jointly developed with OTOBANK, Inc., with which Tokyo Gas formed a capital alliance in November 2018. The service uses OTOBANK's publisher network to offer regularly updated audio content of more than 50 picture books and children's books, ranging from classic fairy tales to today's popular children's stories.

Parents can use Miimi to casually enjoy books with their children, or to reduce their workload when putting children to sleep.

*1 "Miimi" is a registered trademark of Tokyo Gas Co., Ltd.



Overview of the Miimi Service

* This image is from a December 2019 press release; the content offered is updated on an ongoing basis.

Value Co-creation

Initiatives to Deliver Products and Services to Wide-ranging Customers

Tokyo Gas Web Shop

We operate the Tokyo Gas Web Shop*¹ to sell gas appliances and related parts, as well as selected goods for daily use. With the service, customers can get an estimate, place an order, and pay by credit card on their personal computer or smartphone anytime. Those in two-income families or with small children who may find it difficult to come to our shop or arrange a staff visit can easily purchase products and services which improve their quality of life via our website. For gas appliances that require installation, customers can use our online service to request an estimate, purchase the product, and schedule the installation appointment. Customers can also use their Paccho points*² (which accumulate with payment of gas and electricity fees, etc.) for their purchases, which also qualify for Paccho points.

*1 The use of this website is limited to customers registered with the myTOKYOGAS free Web membership service for families.

*2 Loyalty program for myTOKYOGAS members. In some cases, depending on the type of membership, points cannot be acquired or exchanged.



Tokyo Gas Web Shop



Installing an appliance

Urban Development

At the Tokyo Gas Group, we are working for the effective use of energy through the development, utilization, and management of real estate and for safe and secure urban development that is highly resistant to disasters by making use of our strengths as an integrated energy company.

Real Estate Development Service

We engage in real estate development primarily in central Tokyo through the use of owned land, acquisition of new real estate, and joint ventures with business partners.

Office Rental Business

Tokyo Gas engages in the construction, ownership, and rental management of several buildings, mainly in central Tokyo, to provide high-quality office spaces. Examples include:

- Shinjuku Park Tower
A high-rise complex completed in 1994.
- msb Tamachi
Directly connected to the JR Tamachi Station and featuring a smart energy network and reinforcement of business continuity plans (BCPs), with Phase I completed in May 2018 and Phase II Completed in July 2020.
- Shiba Park Building
A large-scale office building in Hamamatsu-cho and the Daimon area which has one of the largest floor areas in Tokyo.



Shinjuku Park Tower



msb Tamachi



Shiba Park Building



Value Co-creation

Residential Leasing Business

Tokyo Gas is developing the La Tierra series of rental condominiums, primarily in central urban areas, to offer housing that supports comfortable living. We began construction of La Tierra Nerima in Nerima City, Tokyo in October 2019 as our first medium-scale project on land owned by Tokyo Gas, and we acquired four new buildings for rental housing during the fiscal year.



La Tierra Toritsu-daigaku



La Tierra Nerima

Building Relations with Stakeholders

Stakeholder Engagement

Basic Policy

The Tokyo Gas Group is involved with diverse stakeholders in the conduct of our business activities.

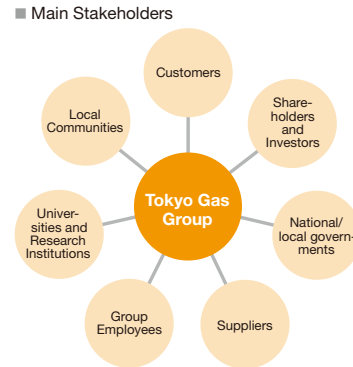
Based on our Corporate Action Philosophy and Our Code of Conduct, all Group officers and employees seek to develop good relationships with stakeholders and to work together with society toward achieving sustainable growth.

Purpose of Engagement

When conducting business activities, as one judgment factor to maximize value creation in decision-making and business activities, and to minimize any negative impacts, it is necessary to understand stakeholders' expectations and assessments of the Tokyo Gas Group, as well as the responsibilities we should fulfill toward stakeholders. We also emphasize building up appropriate relations and partnerships with stakeholders and enhancing the transparency of our business activities. We engage with stakeholders through interactive communication to achieve these goals.

Identifying Our Stakeholders

Stakeholders are organizations and individuals with some sort of interest in the decision-making or business activities of the Tokyo Gas Group. In order to make our engagement more significant, we identify stakeholders from the perspectives of (1) being, or possibly being, directly or indirectly impacted by the decision-making or business activities of the Tokyo Gas Group, or impacting, or possibly impacting, the Tokyo Gas Group, (2) economic, social, and environmental responsibility, and (3) providing diverse perspectives on our management, products, and services.



Implementing Engagement

The division or base which has the closest relations with each stakeholder becomes the responsible contact and engages with the stakeholder through interactive communication. The results of engagement are shared with related divisions, and with the Sustainability Committee and other committees as necessary, efforts made for further improvements. We make efforts to disclose information through our website and Sustainability Report, and execute the PDCA cycle. We also promote understanding of stakeholder engagement among our employees through trainings, etc.

Customers

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> Stable supply of energy Ensuring energy and product safety and quality Appropriate provision of information on products and services Provision of environmentally friendly products and services 	<ul style="list-style-type: none"> Customer contact opportunities Customer Center (phone, etc.) Visits to company museums and facilities Events Website, social media, myTOKYOGAS

Shareholders and Investors

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> Increase of corporate value Fair shareholder returns Timely and appropriate information disclosure 	<ul style="list-style-type: none"> General Shareholders Meetings Financial results briefings Briefings and facility tours for individual investors One-on-one meetings with institutional investors Integrated Report, Investors' Guide, and Newsletter for Shareholders Disclosure of investor relations information on the Tokyo Gas website

Local Communities

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> Contribution to solving social issues in each region Sustainable urban development Provision of information and awareness-raising on disaster prevention/ and the environment Support of education for the next generation 	<ul style="list-style-type: none"> Regional disaster prevention events Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project School education support activities Volunteer activities by Group employees

Government Agencies and Local Governments

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> Payment of taxes Compliance with laws and regulations Cooperation with public policies to solve social issues 	<ul style="list-style-type: none"> Participation in policy boards, etc. Participation in business and industry associations Dialogue with local governments

Suppliers

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> Fair and equitable business transactions Practice of CSR procurement Development of better partnerships and information sharing 	<ul style="list-style-type: none"> Disclosure and sharing of Purchasing Guidelines for Suppliers, etc. Briefings for suppliers Surveys of CSR initiatives Exchanges of opinions and consultations

Building Relations with Stakeholders

Universities and Research Institutions

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> • Collaboration and innovation in solving social issues and building a better way of life and society 	<ul style="list-style-type: none"> • All types of joint research and information exchange

Group Employees

Main Expectations and Requests	Main Communications Methods
<ul style="list-style-type: none"> • Job satisfaction • Human resources development • Promotion of diversity • Occupational safety and health 	<ul style="list-style-type: none"> • Workplace visits by the president • Management vision briefings • Group newsletter and intranet • Health support for Group employees • Labor-management exchange of opinions and consultation

Contacts for Stakeholders

Shareholders and investors	Information for shareholders and investors
Local communities	Inquiries: Individual (residential) customers Tokyo Gas Customer Center Local service outlets Tokyo Gas showrooms Fax service (for customers with hearing or speech impairments) Online inquiries
Government agencies	Department in charge
Suppliers	Materials Department inquiries desk
Employees	Tokyo Gas Labor Union, compliance consultation desks

Efforts to Enhance Customer Satisfaction

Basic Policy

Customer Service Orientation

The Tokyo Gas Group believes that delivering customer satisfaction is more important than what products or services we deliver to the customer. With this understanding, the Group has prescribed "customer service orientation" as our basic stance, as stipulated in Tokyo Gas Our Code of Conduct. This customer service orientation is the criteria for decision-making and the guideline for action for all Tokyo Gas Group employees. We continue working to spread these contents and become a customer-oriented corporate group.

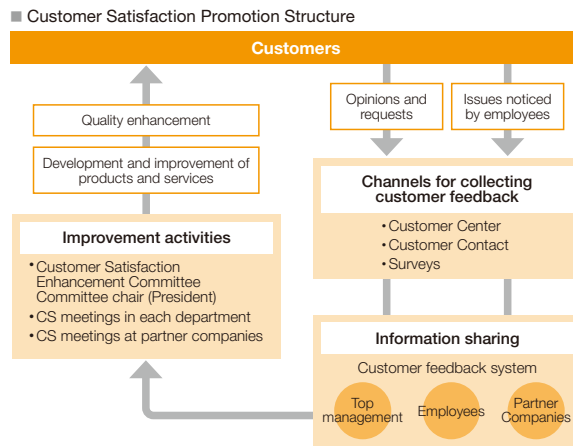
Customer Service Orientation



Building Relations with Stakeholders

Customer Satisfaction Promotion Structure

We receive feedback from customers through calls to our Customer Center, opportunities for customer contact, and various surveys. The opinions and requests we receive are shared within the company all the way up to top management as the customer's voice, and actively incorporated into our daily improvement activities and in quality improvements, etc.



Customer Satisfaction Enhancement Committee

At Tokyo Gas, we position boosting customer satisfaction as an important management issue, and hold meetings of the Customer Satisfaction Enhancement Committee which comprises members of the Corporate Executive Committee with the President as the chair. This committee holds deliberations toward resolving issues that are difficult to solve at individual workplaces or departments, and regarding company-wide issues. We have also established a Customer Satisfaction Enhancement Promotion Committee, mostly comprising the heads of departments which have a great deal of customer contact, and we are advancing various policies so that our customers will be satisfied.

CS Meetings in Each Department

Various CS meetings are held in each department and business to listen to customer feedback and quickly respond to customer requests. The meetings offer opportunities to grasp the current feedback from customers, discuss and implement operational improvement measures, and consider and share CS measures.

Initiatives to Collect Feedback from Customers

Customer Center

In addition to handling questions about gas and electricity fees and contracts, the Customer Center responds to a wide range of inquiries, including a round-the-clock responses to emergencies. We are further improving our system to respond quickly and effectively to customer requests, while collecting opinions and suggestions from customers that could lead to operational improvements and better services, and sharing them with the relevant departments.

Surveys

We apply the results of various surveys to our efforts to respond to diversifying customer needs.

FY2019 Survey Results

HDI-Japan Rating Benchmark survey	
Retail electricity industry: Web support	☆☆☆ 3 stars
Retail electricity industry: Inquiry Desk	☆☆☆ 3 stars
JCSI (Japanese Customer Satisfaction Index)	
Gas retail business	1st place in customer satisfaction

Initiatives to Utilize Customer Feedback

Using a Database to Identify Issues

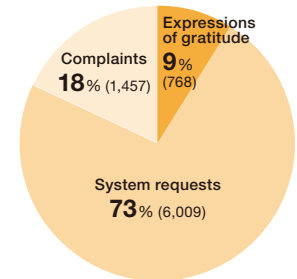
Customer feedback is promptly and accurately relayed to the relevant departments so they can respond quickly at the location where the issue occurred. The information obtained through these processes is stored in our customer feedback database to grasp and analyze customer expectations toward the Tokyo Gas Group and to identify issues that need to be addressed.

Breakdown of Customer Feedback

We received 8,234 items of customer feedback in FY2019. The breakdown is presented in the figure on the right.

The Customer Center continues implementing initiatives to broadly collect customer feedback, centered on opinions regarding systems (system requests).

Breakdown of Customer Feedback



Building Relations with Stakeholders

Operations Improvement Based on Customer Feedback

Each department uses customer feedback for various improvement activities. We report back to customers on some of these efforts through the Tokyo Gas website.

Improvement Example 1

● Customer feedback

- It's a bother to go out to pay at the convenience store using the payment slip provided, so I want you to make arrangements for direct payments online.
- Please arrange easy payment online.
- I would like to pay with the payment slip using LINE Pay

● Improvement Contents

- The smartphone settlement services LINE Pay, PayPay, and Rakuten Bank have been added to the payment methods with the Tokyo Gas payment slips for gas and electricity fees, etc.
- In addition to the traditional methods of bank transfer, credit card, and payment at financial institutions and convenience stores (payment slips), it is now also possible to pay via the smart phone settlement services PayB, LINE Pay, PayPay, and Rakuten Bank. This expands customer payment methods options.

Note: Gas and electricity fees and other payments can be made by using the smart phone apps to scan the bar code printed on the payment slip.

Improvement Example 2

● Customer feedback

- It is difficult to get through on the phone to schedule a visit by the Emergency Home Assistance.
- I tend to forget the scheduled date and time when I am informed over the telephone.

● Improvement made

- In addition to telephone calls, we began using SMS (short message service) as a method to communicate scheduled visits to customers. Customers can request communications via SMS when they register for service.

Community-based Service Structure

The Tokyo Gas Group's Community-based Service Structure

To meet specific needs and foster a close relationship with each customer, the Tokyo Gas Group has set up the Tokyo Gas LIFEVAL network as a one-stop shop for products and services that improve the quality of life. As of April 1, 2020, the network comprises 30 corporations in 63 regional blocs.

Tokyo Gas LIFEVAL performs a number of tasks related to city gas such as periodic safety inspections of gas equipment, meter readings, opening and closing of gas valves, the sale, installation, and repair of gas appliances, and procedures for gas and electricity service contracts. In addition, LIFEVAL provides information related to energy and daily life, such as plumbing renovations for kitchens and bathrooms, energy conservation, and power generation, to help local residents enjoy safe, environmentally friendly, and comfortable lives. We hold various events in our showrooms, where we encourage visitors to see, touch, and experience the appliances and equipment we recommend, as well as cooking classes in which participants can experience the advantages of a gas-powered kitchen firsthand. The Tokyo Gas Group provides diverse services that support a comfortable lifestyle through Enesta and Enefit as well as LIFEVAL.



An event at LIFEVAL

Building Relations with Stakeholders

Dialogue with Shareholders and Investors

Timely and Appropriate Disclosure of Investor Relations (IR) Information

Proactive and Timely Disclosure of Business Results

We place a high priority on the timely and appropriate disclosure of information as a means to ensure sound, transparent management and to gain understanding and trust from our shareholders, investors, and other stakeholders. As part of this effort, we actively disclose our business results, stock price trends, and financial status through our website and other media and update this information on a timely basis. Furthermore, we announce all our strategies and action plans for achieving the Tokyo Gas Group's short-term and medium-term targets and publish progress reports and results each time.

Publication of Various Reports

We focus on preparing various reports which are important IR tools. In FY2019, we produced the Tokyo Gas Integrated Report, Investors' Guide, and Tokyo Gas Tsushin (shareholder newsletter), in addition to the annual securities report and quarterly securities reports. All these publications are available at the IR Library on our website.



Integrated Report2020



Investors' Guide2020



Tokyo Gas shareholder newsletter for the 2nd Quarter of FY2019

▶ Integrated Report [Web](#)

▶ Investors' Guide [Web](#)

Realizing Interactive Communication

General Shareholders' Meetings and Financial Results Briefings

We hold the Ordinary General Shareholders' Meeting in June of each year and financial results briefings on a quarterly basis. These are venues for decision-making and reporting on business performance, plans, and strategies, and also important opportunities for communicating with shareholders, institutional investors, and analysts. We listen carefully to stakeholder opinions regarding company policies and results to avoid unilateral information disclosure, and strive to maintain and boost corporate value through repeated, in-depth dialogue and discussions with stakeholders.

IR Events

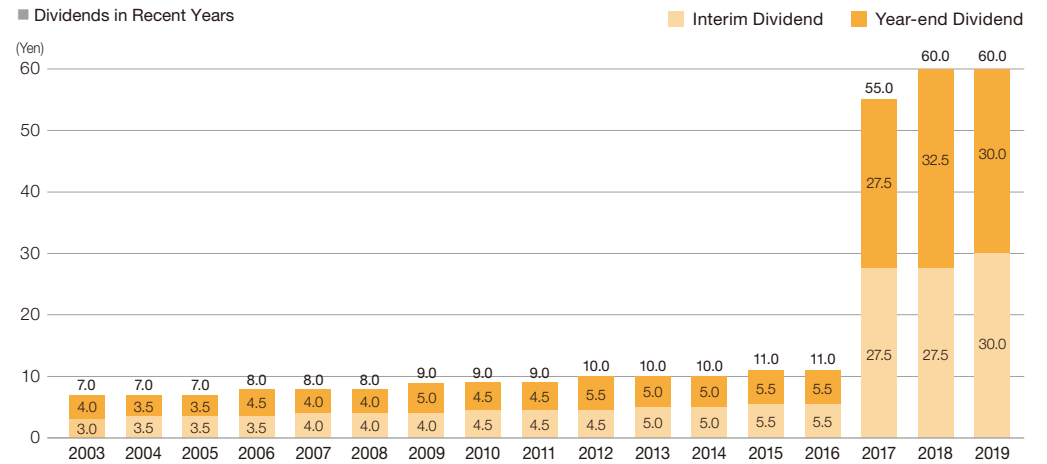
Tokyo Gas actively organizes various events for investors. In FY2019, we held six briefings for individual investors at branches of leading securities companies, with a total of nearly 400 participants. These seminars presented explanations centered on the growth strategies and shareholder returns policy in our medium-term management plan, and the growth strategies for our gas and electricity business in light of the deregulation of energy.

In addition, we hold individual meetings with institutional investors and analysts in Japan and overseas and arrange facility tours for individual shareholders.

Fair Shareholder Returns

Realizing a Total Payout Ratio of 60%

The Tokyo Gas Group FY 2020 - 2022 Medium-term Management Plan sets a basic shareholder returns policy of dividends and share repurchases of around 60% of consolidated net income through the fiscal year ending in March 2023. This is a policy to gradually increase dividends, with stable dividends as the base, while providing timely returns on management results. We aim for higher share prices and an increased profit level to meet shareholder expectations.



Note: As of October 1, 2017, the Company carried out a common stock share consolidation at a ratio of 5 shares to 1 share.

Building Relations with Stakeholders

Communications with Our Suppliers

Communications with Our Suppliers

We strive to interactively communicate with our suppliers through diverse means, including by sharing information during routine meetings and conducting annual surveys. In addition, we established a contact desk for materials procurement inquiries that is patterned after supplier consultation desks and whistle-blower systems.

▶ Purchasing [Web](#)

Contribution to Local Communities

Basic Approach

The Tokyo Gas Group implements activities for creating a sustainable society together with local communities based on the following guidelines.

Social Contribution Guidelines

1. Basic Policy

At the Tokyo Gas Group, we aim at the realization of a sustainable society where diverse people can live comfortable and fulfilling lives. To those ends, we work together with local communities to resolve social issues and pursue activities that can only be implemented by the Tokyo Gas Group as a company that people continue to trust and choose.

2. Three Priority Fields

- (1) Building lifestyles and communities that are safe and secure
- (2) Building lifestyles and a society that are good for the environment
- (3) Building an enriched culture of everyday life

Building Lifestyles and Communities that are Safe and Secure

We are advancing initiatives to reinforce ties with local communities, such as boosting disaster resistance through self-help and mutual aid, environmental beautification to contribute toward the building communities that are disaster resistant and more comfortable. We carried out 198 activities in FY2019.

Public Education Activities at Disaster Prevention Events

The Tokyo Gas Group shares and provides information regarding disaster countermeasures through disaster prevention events in each region, for smooth coordination with local communities and governments in the event of a disaster. In FY 2019, 198 activities were carried out.

Participation in Local Disaster Prevention Drills

We actively participate in disaster prevention drills organized by local governments, and provide useful information for a safe and secure daily life, such as how to reset gas meters when gas supply is shut off during earthquakes with a seismic intensity of 5 or above.

Let's Learn Disaster Prevention from the Outdoors

In FY2019, Tokyo Gas held the disaster prevention event "Let's Learn Disaster Prevention from the Outdoors" at our museum to contribute to further raising the self-help capabilities of local communities. We communicated to approximately 1,100 participating customers who participated acquired the knowledge and skills to survive during disasters from introductions on using outdoor goods for disaster prevention and through our own Tokyo Gas disaster prevention program.



Participating in a disaster prevention event



Building Relations with Stakeholders

Disaster prevention Program “Prepare an Emergency Toilet”

As part of our activities for safety and security in daily life and for protecting life, we began in fiscal 2017 to widen the reach of our emergency toilet program, which was developed from our experience of restoring gas in disaster-affected areas. This program teaches participants how to prepare for times when flush toilets cannot be used, gives them the ability to survive disasters, and fosters self-help and mutual aid capabilities.



Learning how to install an emergency toilet

Daily Meals and Emergency Meals for Disaster Readiness

In 2018, we began introducing the Daily Meals and Emergency Meals disaster-readiness recipes to assist self-help efforts in relation to food. We offer information on preparations during normal times for surviving a disaster and on securing warm meals in the event that utilities fail. The recipes can be downloaded free of charge from our website.



Daily Meals and Emergency Meals

Building Lifestyles and a Society that are Good for the Environment

To contribute to a sustainable global environment as an energy company, the Tokyo Gas Group conducts activities to raise awareness about energy and the environment, and offers various proposals that can be implemented in daily life. In advancing these initiatives, we positively develop activities in collaboration with government organs, other enterprises, and external groups tackling environmental issues in an effort to raise the environmental awareness of society overall. We carried out 153 projects in FY2019.

Eco-Cooking

Eco-Cooking^{*1} is an environmental activity that begins with the familiar daily activity of cooking.

Energy and resources are consumed in all processes from the production of ingredients to cleaning up. Eco-Cooking offers practical ideas for giving consideration to the environment at each stage where we are directly involved—shopping, cooking, eating, and cleaning up.

We also train Eco-Cooking instructors, with 4,000 instructors nationwide as of the end of March 2020.

^{*1} Eco-Cooking is a registered trademark of Tokyo Gas Co., Ltd.



Demonstration by an instructor during a cooking class

School Education Support Activities

We teach children about the importance of energy and the environment, cultivate their zest for life, which is the goal of school education, and support their personal growth.

Workshops for Teachers

We hold workshops for teachers that incorporate facility tours and group work to provide them with information about the relations between city gas and other energy sources and environmental issues that they can use in their own lesson plans. We held 51 of these workshops in FY2019, and these were attended by 1,377 teachers.

Classes Taught by Tokyo Gas Employees

We have been dispatching Tokyo Gas employees to teach classes in schools since 2002. As of the end of FY2019, the classes have been attended by a cumulative total of 1,144,503 children. Two of our visiting lecture programs, “Energy That Sustains Daily Life—How City Gas Is Delivered to Homes” and “Nurturing Eco-eating—Let’s Learn about Eco-Cooking and Food Education,” have been approved by the Tokyo Organizing Committee of the Olympic and Paralympic Games as part of the Tokyo 2020 educational program “Yoi Don!” As of the end of FY2019, the “Energy That Sustains Daily Life” program had been attended by 3,922 students, and the “Nurturing Eco-eating” program by 22,510 students.



Sixth-grade class on energy and the environment

Educational Website

We also provide the “Odoroki! Naruhodo! Gas World” (“The Amazing and Interesting World of Gas”) educational website that makes learning about energy and the environment fun for both children and adults alike and is also used by children to learn on their own.



Building Relations with Stakeholders

Gas Science Museum

The Gas Science Museum is an experiential facility with the concept of “let’s think about energy and imagine the future,” where visitors can learn while thinking about energy which supports daily life, the SDGs, global warming, and other social issues. The museum hosts social studies field trips, holds workshops, and provides other educational support, and serves as a venue for out-of-school learning. In 2019, the museum received 104,692 visitors.

Building an Enriched Culture of Daily Life

As a company whose mission is intertwined with the power of fire, we seek to bring about an enriched way of life that makes wise use of energy. We also implement initiatives based in local communities such as providing sports opportunities for children, as well as all types of cultural activities. We carried out 257 activities in FY2019.

Cooking Classes that Warm the Body and the Heart with Food

Tokyo Gas implements diverse initiatives that realize happiness through food.

One representative example is the cooking classes which Tokyo Gas has maintained for over 100 years since 1913. We hold diverse classes for depending on the participants and needs including the children’s cooking class Kids in the Kitchen¹ which aims to give children “food independence” as they gain the ability to select ingredients, cook, and think systematically, La Cucina Espresso¹ course on quick cooking which uses all three gas burners and the grill at once, and the Japanese Aesthetics course which hands down the traditional culture of Japanese cooking. About 40,000 customers take the classes each year. All cooking classes incorporate the Eco-Cooking¹ approach, which presents environmentally friendly food practices.

¹ “Kids in the kitchen,” “La Cucina Espresso,” and “Eco-Cooking” are registered trademarks of Tokyo Gas.



Children’s cooking class Kids in the Kitchen

Fire education for fostering skills to survive disasters and live enriched lives

We have conducted a fire education program since 2012 that enables children of elementary school age and older to experience fire and how it enriches our lives. Hands-on lessons introduce children to fire, its proper handling, and the benefits it can bring. The program equips children with skills that can help them to survive disasters and enrich their own lives. A total of 246 children participated in FY2019.



Learning how to light a match safely

Support for Employee Volunteer Activities

The Tokyo Gas Group provides employees with opportunities to engage in volunteer activities, and works together with local communities to resolve social issues.

Recovery Support Activities: Earthquake Disaster Volunteers

Tokyo Gas began earthquake disaster volunteer activities in June 2011 to provide support to meet the needs of people in areas affected by the Great East Japan Earthquake. These activities have been conducted 52 times so far, with the participation of 1,880 Group employees and their family members.

In fiscal 2019, volunteers participated in support activities for the Fukushima Organic Cotton Project¹ in Iwaki City, Fukushima.

¹ This community revitalization project seeks to reclaim the area’s unused and abandoned farmland, which suddenly increased following the earthquake, to organically cultivate salt-tolerant cotton and sell products made from the harvested cotton.



Sowing cotton seeds

Para Sports Events Volunteers

As part of our support for para sports, we have been providing volunteers for para athletic competitions since 2015. The volunteers help set up and clear venues, staff reception desks, and serve as interpreters. To date, a total of 243 Group employees have participated.



Volunteers clearing a sports venue

Collecting Spoiled Postcards and Used Stamps

The Tokyo Gas Group began collecting spoiled postcards from FY2003 and used stamps and cards from FY2017.

The used stamps and cards are donated to the Minato Council of Social Welfare for redemption into money that is used to promote welfare and volunteer activities in local communities. The spoiled postcards, which are also redeemed for money, are donated to the Darunee Scholarship Fund administered by EDF-Japan, which supports the education of disadvantaged children in Vietnam, Thailand, Myanmar, Laos, and Cambodia through international one-on-one educational sponsoring. We are presently supporting the education of seven junior high school students in Laos, Vietnam, Thailand, and Myanmar.



Darunee Scholarship certificate

Building Relations with Stakeholders

Working with the International Community

Tokyo Gas Southeast Asia Japanese Language Education Support Program

The Tokyo Gas Southeast Asia Japanese Language Education Support Program is implemented through support activities in Japanese language programs conducted by the Japan Foundation.

As a company seeking to expand its midstream and downstream operations in Southeast Asia, we aim to contribute to the development of a sustainable society by supporting the human resources development of local youth interested in Japan, and to strengthen our ties with local communities, and in so doing further grow as a corporate group that can be trusted and counted on.

Vietnam

Tokyo Gas has been supporting Japanese language education in Vietnam since December 2016 at Ba Ria-Vung Tau University in Vung Tau City, Ba Ria-Vung Tau Province. We provide support for Japanese language education for students majoring in Japanese in the Faculty of Oriental Studies, School of Languages-Cultures-International Relations (classes and speech contest guidance for students in all grades, support for graduate theses, assistance for teachers, etc.). We also support Japanese language education for students in science and engineering courses. On April 19, 2018, we presented a lecture at the university introducing Japanese culture.



Class for Japanese language majors in the Faculty of Oriental Studies at Ba Ria-Vung Tau University

Thailand

Tokyo Gas presented a lecture to around 40 students taking Japanese language courses at Kohn Kaen University in northeast Thailand on March 24, 2017. The three-hour program was attended by graduate students in science and technology courses and undergraduates in the engineering and environmental science departments. The lecture introduced the overseas business of the Tokyo Gas Group and the energy conditions in Japan and Thailand, as well as our basic technology initiatives and the future outlook for a hydrogen-based society.



Lecture at Kohn Kaen University

Initiatives for the Tokyo 2020 Games

Basic Policy

As a company operating in the Tokyo metropolitan area, where the Olympic and Paralympic Games Tokyo 2020 will take place, Tokyo Gas signed an agreement with the organizing committee on July 27, 2015 to serve as an Official Partner in the Gas and Gas Utility Services category under the Tokyo 2020 sponsorship program.

Our eyes are firmly trained on a future beyond the excitement. We have been promoting diverse initiatives recognizing the Tokyo 2020 Games as an opportunity to create an inclusive society in which people show mutual respects and live in peace.

The Tokyo 2020 Games have been delayed by one year, but our goals remain unchanged, and we are continuing with our activities.

Contributing to the Success of the Tokyo 2020 Games

As an Official Partner of the Tokyo 2020 Games, we are working to build momentum for their success and making preparations to support the running of the Games, which will take place in our hometown.

Building Momentum for the Success of the Tokyo 2020 Games

Tokyo Gas is placing special emphasis on activities for the success of the Paralympic Games. We are organizing all types of events related to culture, education, and sports and health as part of the Tokyo 2020 Participation Program to build momentum toward the Games.

We are also holding Paralympic sports experience events inside and outside the company, arranging opportunities for employees to view Paralympic sports competitions, and otherwise working to spread Paralympic sports and the recognition of Paralympic sports.

Exhibitions at Local Government Events

Since FY2016, Tokyo Gas has been hosting community events related to the Olympic and Paralympic Games Tokyo 2020, and these events include activities that enable the public to experience Paralympic sports. We convey the excitement of Paralympic sports and foster support for the athletes by having visitors try on prosthetic legs for athletes and experience boccia and football 5-a-side.



Exhibition at an Event at the Saitama Branch

Building Relations with Stakeholders

Supporting the Running of the Tokyo 2020 Games

We are currently making preparations to support the running of the Tokyo 2020 Games by maintaining a robust energy supply system for the continuous stable supply of energy to Games facilities. Security measures are important, so in addition to protecting infrastructure (including LNG terminals, pipelines, and governor stations) against terrorism and other contingencies, we are working closely with the central government, the Tokyo Metropolitan Government and other local governments, and the Tokyo Metropolitan Police to guard against cyberterrorism.

Furthermore, we will support the smooth running of the Tokyo 2020 Games through in-house actions for helping reduce traffic congestion during the Games. These measures include encouraging our employees to stagger their commuting hours, telework, and take paid leaves.

Toward the Realization of an Inclusive Society

While doing our utmost to ensure the success of the Tokyo 2020 Games, we are also aiming to achieve what lies beyond, which is the creation of an inclusive society.

To accomplish this, we will work to raise employee awareness and strive to address customer needs more closely toward improving people's lives, developing communities, and providing services.

Fostering Employee Awareness

Our in-house initiatives for creating an inclusive society are led by Olympic and Paralympic Ambassadors appointed at each workplace. These individuals are responsible for promoting para sports, hands-on programs, and other events hosted by Tokyo Gas. Around 100 of these ambassadors will participate as volunteers to support the running of the Tokyo 2020 Games.

Moreover, we have held Para Sports Viewing Days since 2016 to increase understanding and recognition of para sports among as many employees as possible. To date, we have held 22 of these events and have also provided opportunities for our employees and their families to meet athletes sponsored by Tokyo Gas at the major events in which they compete. We implement various other initiatives toward an inclusive society, including encouraging employees to take basic training on how to assist and engage with seniors and people with disability.

■ Number of Olympic and Paralympic Ambassadors

FY	2016	2017	2018	2019
Number appointed	150	273	301	274

Note: This role was called "Para Sports Support and Promotion Leaders" up through FY2017.



Olympic and Paralympic Ambassadors at an event



Para Sports Viewing Day

Together with our Customers

Tokyo Gas actively works to raise public awareness outside the company toward the realization of an inclusive society. We educate the next generation by organizing out-of-school learning where elementary school children participate in simulated experiences of disability and para sports as an opportunity to learn about the importance of diversity in society as well as mutual understanding and respect. In addition, we provide various tools for people with disabilities. These include pamphlets and business cards in Braille for visually-impaired customers, a sign language version of our online video on the Tokyo Gas website that explains how to restart gas meters after emergency shutdown, and publication of the One-Handed Cooking recipe collection, which is filled with ideas for cooking that can easily be enjoyed by people who can use only one hand due to paralysis or injury.

We also implement initiatives that respond to the needs of diverse customers. These include universal design diagnostic trials in which wheelchair users are asked to maneuver through restricted pedestrian passages at our construction sites to provide advice on ways to improve safety and accessibility, and the introduction of a multi-lingual speech translation smartphone app for interactions with foreign customers.



Video instructions for restarting gas meters (with sign language interpretation)



The One-Handed Cooking recipe collection



Introduction of multi-lingual speech translation app



Building Relations with Stakeholders

■ Main Initiatives

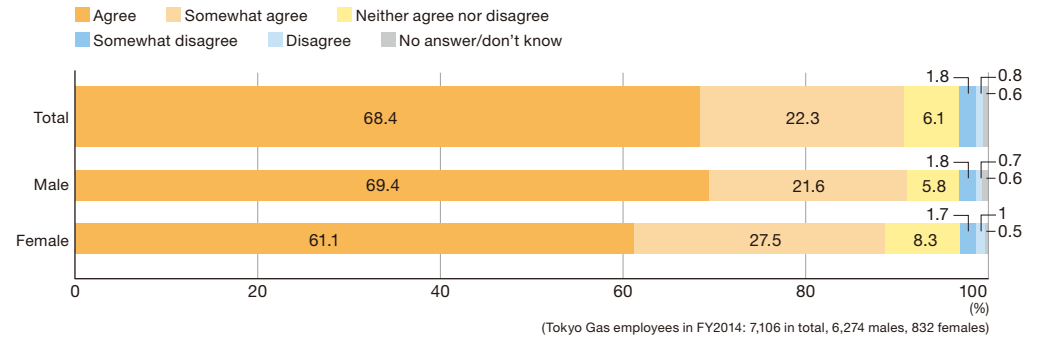
Genre	Major Events & Activities	Year Started	Participation
Viewing para sports events	Japan Wheelchair Basketball Championship Japan Para Wheelchair Rugby Championship Japan Para Goalball Championship Japan Para Swimming Championship Japan Sitting Volleyball Championship Wheelchair Rugby Japan Championship and others	2016	FY2019: 1,170 participants Cumulative total: 5,032 participants (including employees of group companies and their families)
Volunteer work for organizing para sports events	Japan Para Wheelchair Rugby Championship Japan Para Goalball Championship Japan Para Swimming Championship and others	2015	FY2019: 77 participants Cumulative total: 243 participants
Hands-on programs and other events aimed at creating an inclusive society	Para Sports Festa 2016 at Shinjuku Park Tower Para Sports Experience at Ajinomoto Stadium "What's Universal?" event at the Gas Science Museum Toyosu Universal Festa Shinjuku Universal Festa One-Handed Cooking Class at Studio +G GINZA Shintoyosu Autumn Festival Hands-on educational field trip at the Shintoyosu Brillia Running Stadium Shintoyosu Summer Night Festival	2016	—
Raising employee awareness	Introduction of the Olympic and Paralympic Ambassador system and training sessions	2016	FY2019: 274 participants Cumulative total: 998 participants
	Basic training in assisting and engaging with seniors and people with disability	2016	FY2019: 339 participants Cumulative total: 926 participants
In-house exhibits	Head office lobby, Yokohama showrooms, LNG terminals Corporate museums (Gas Science Museum and Gas Museum)	2016	—
Tokyo 2020 Games Participation Program	Hands-on educational field trips: "Tokyo Gas Universal Challenge" Visiting lecture program: "Energy That Sustains Daily Life-How City Gas Is Delivered to Homes" Visiting lecture program: "Nurturing Eco-eating-Let's Learn about Eco-Cooking and Food Education" "Learning about the Culture of City Gas" at The House of Gas Lamps "What's Universal?" event at the Gas Science Museum Toyosu Universal Festa Shintoyosu Summer Night Festival, etc.	2016	• Universal Challenge FY2019: 3 events, 326 participants Cumulative total: 10 events, 1,145 participants • Shintoyosu Summer Night Festival 18,500 participants

Communications with Employees

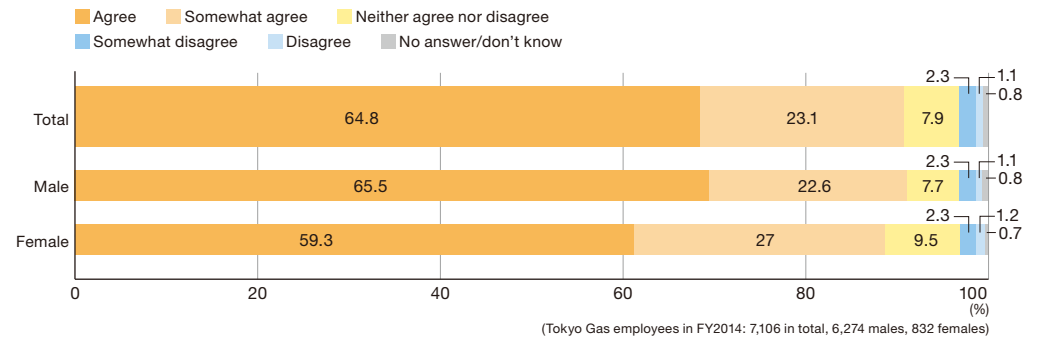
Employee Survey

We regularly survey all employees to ascertain their views on work, the workplace, daily life, and other areas. The survey responses are used for personnel systems and other policies. The surveys have shown that, in general, our employees are satisfied working for Tokyo Gas.

■ I am satisfied working for Tokyo Gas.



■ I feel connected to Tokyo Gas.





Building Relations with Stakeholders

Building Positive Labor-Management Relations

Our labor union operates under a union shop system. All employees except for those in management are members of the Tokyo Gas Labor Union based on a union shop agreement^{*1} and therefore the labor union participation rate of subject employees is 100%.

The Company and the union build up sound and amicable labor-management relations based on mutual understanding and trust, and engage in frank exchanges of opinions regarding management issues and working conditions through regular labor-management discussions. We strive to arrange an environment where contract employees, who are not union members, can also work with security, and have concluded a minimum wage agreement. At our overseas sites, we observe the local laws and regulations, and respect workers' rights.

*1 Union shop agreement: A labor agreement under which workers employed by the company must join a certain labor union within a certain period of time.

■ Main Labor-Management Consultations and Topics in FY2019

Consultation	Period	Main Topics
Spring intensive labor-management consultation	February through March	Economic working conditions, personnel system, rules of employment and other working conditions
Special Subcommittee of the Management Council (policy related)	September and March	Current status and future direction of business strategies and key policies
Special Subcommittee of the Management Council (financial results)	May	Financial results performance and forecast
Working Hours Committee	May and November	Working hours and productivity improvement performance and forecast
Employee Pay and Benefits System Committee	October and December	Current status and future direction of personnel systems and policies
Departmental labor-management councils	June	Current status and future direction of departmental/divisional policies

Sharing our Vision

Ever since July 2018, the President of Tokyo Gas has visited Tokyo Gas divisions and subsidiary companies to exchange opinions with workers who lead the company on the front lines. This provides an opportunity for the President to directly convey the management vision and expectations to group employees in the field, and to discuss issues regarding each workplace and operation, and plan the necessary improvements. In FY2019, the President made a total of 21 visits (13 Tokyo Gas divisions, 8 subsidiaries).

Also, when the Tokyo Gas Group Management Vision "Compass 2030" was announced, 41 briefings (38 inside Japan, 3 overseas) were held within the Group to deepen the understanding of employees regarding the Vision's details, with the participation of approximately 5,000 Group employees. Videos with the President's greetings and briefings have been posted on the Company's intranet and articles explaining the Vision have been published in the Group in-house magazine, in an effort to further instill understanding of the Vision throughout the Group.



Management Vision "Compass 2030" briefing.

Consideration for Our Employees

Human Resources Development

Basic Policy

Basic Policy on Personnel Affairs

Tokyo Gas develops its personnel affairs measures with the understanding that people are the source of corporate vitality and that the company cannot grow without the personal growth of our employees.

We strengthen human resources through hiring and training and prepare a work environment where employees with different values can fully manifest their abilities to create and provide diverse value for customers and boost competitiveness.

Tokyo Gas uses a completely performance-based compensation system. We aim to boost employee motivation and satisfaction through compensation that rewards results, and to become an organization that is lively and dynamic.

Basic Policy on Human Resources Development

With the belief that people grow through their work, Tokyo Gas develops the skills of our employees by effectively combining on-the-job training by their supervisors with off-the-job education and training, self-education, transfers, and job rotations. We also conduct career planning and open recruitment so that employees can experience satisfaction through self-realization in their work.

Evaluation System

Tokyo Gas has adopted a goal management system. After each employee understands the company and division goals and the employee's own roles and responsibilities, we set individual performance goals and evaluate goal achievement and contribution to the organization to determine appropriate compensation.

In addition to evaluation based on goal management, we also assess performance using "role achievement evaluation," which tracks the achievement of expected roles and is used for skills development and training, and by using "360-degree evaluations" (behavioral diagnostics, multifaceted evaluation) by colleagues and subordinates as well as superiors.

Education and Training Structure

Our Human Resources Development Program combines education on basic and common abilities as businesspeople with a wide range of specialized skills training. By expanding, upgrading, and increasing abilities, we work to foster employees who think for themselves and draw others into their actions, and who can respond flexibly to changes in the business environment. We aim for employees to maximize their individual abilities and strengths for improved productivity through the growth of each employee, and to proactively take initiative as leaders at the Tokyo Gas Group.

Developing Basic and Common Abilities Required as Businesspeople

In addition to job transfers and rotations for professional development, we conduct employee training for basic education, management skills development, and career planning support. Tokyo Gas Group employees also participate in some training to foster common abilities and a sense of cohesiveness throughout the Group.

■ Training Program

Training	Training Objectives
Management Skills Development	Training for managers and recently promoted employees at all levels are conducted to instill awareness of the expected roles of managers who make different types of contributions and to foster managerial abilities.
Next Generation Leaders Development	Training for managers, centered on exchanges with other companies, are conducted to foster leadership with a high and broad perspective for times of change.
Human Network Development	Programs for in-depth discussions centered on young employees are conducted to promote networking inside the company.
Digital and Innovation Personnel Development	Open training sessions are conducted to develop human resources for the digital and innovation fields.
Study Abroad System	We encourage our employees to study at graduate schools and technical schools in Japan and overseas so they can broaden their views, gain business knowledge, and develop extensive networks of contacts toward contributing to our business.
Self-development Support Program	We provide seminars, external training, online training and other types of education to support employee self-development. While enhancing expertise, the program content also includes improving the abilities to identify and tackle diverse challenges, work cooperatively, and execute tasks.

▶ Basic and Common Abilities Education and Training Structure Chart (PDF: 273KB) [Web](#)

Development of Human Resources in the Residential Services Field

Our Human Resources Development Centers provide education and training for the Tokyo Gas Group, mostly for employees in the residential services field. In FY2019, the centers presented some 440 courses (744 sessions in total) taught by around 50 instructors including current and former Tokyo Gas employees as well as employees from Group companies. The training courses are provided in collaboration with related departments and cover technical training to guarantee quality in field operations (safety inspection, equipment repair, installation of gas appliances and water heaters) using internal credential systems and training for acquisition of the fundamental knowledge and mindset so that Tokyo Gas will remain the customer's choice. The centers also conduct study tours of manufacturers' facilities including production sites and showrooms to gain wide-ranging product knowledge and management training to develop leaders at Tokyo Gas Group companies.

We offer e-learning courses as a convenient way for participants to renew credentials.





Consideration for Our Employees

Development of Human Resources in the Pipeline Field

Tokyo Gas is advancing human resources development policies in the pipeline field to build up the foundations for developing personnel from a middle to long-term perspective. We conduct on-the-job training centered on day-to-day guidance and off-the-job training at our training centers and using other means to solidify the maintenance and transmission of skills and technologies.

Technology and Technical Skills Recognition System

Tokyo Gas has introduced a system whereby work is performed by employees certified to have a certain level of technologies and technical skills, so that each employee has the necessary technologies and skills to continue fulfilling our responsibility to customers and to society.

Meister Instructor System

This in-house credential system supports the development of personnel by certifying employees with a high level of skills in order to improve workplace capabilities and for the smooth transmission of skills to the next generation. The system clarifies the image of a professional among professionals in emergency safety operations, maintenance and management, and construction management. It aims at having young employees strive to boost their skills levels to match those of the certified “meister” instructors, and at having the certified instructors gain greater awareness of their roles in the transmission of skills to young employees.

Training Centers

The Tokyo Gas Group operates five training centers for different lines of work as off-the-job training facilities. The regular courses for the employees of Group companies and affiliates are Introductory Basic Training, Job Performance Improvement Training, and Common Training. In addition, the centers implement customized training and on-site training, lend out training tools and videos, and provide access to facilities.



Development of Human Resources at Group Companies

The Tokyo Gas Group conducts training for subsidiaries to reinforce the development of human resources and advance networking at Group companies.

■ Training Programs for Tokyo Gas Group Companies

Training	Training Objectives
Training for Newly Appointed Directors	This training is conducted so that newly appointed directors can acquire the required knowledge to understand the importance of corporate governance for the Tokyo Gas Group.
Training for Reform Execution Leaders	This training is conducted for managers so they can learn about leadership that pulls the organization forward in order to enhance their management abilities and business perspective, and examine their own issues to achieve self-development.
Training for Managers	This training is conducted so that managers can acquire performance assessment and staff training skills and learn about diversity management to gain fundamental management knowledge and recognize their roles as managers.

Transfers and Job Rotations

We endeavor to place the right person in the right position so that employees will find their work rewarding and worthwhile. Every year, employees have interviews with their supervisors to discuss their career plans. Their self-evaluations are recorded in the personnel system along with remarks by the supervisors, and used for transfer and rotation plans and career development.

As supplements to our regular personnel rotation system, Tokyo Gas also has an “open recruitment system” in which employees can apply for transfer to new businesses, as well as a “free agent system” in which employees can apply for their desired work position.

Consideration for Our Employees

Diversity

Basic Policy

Management Commitment to Diversity

The Tokyo Gas Group pursues diversity toward our future growth and development.

The Tokyo Gas Group seeks to grow and develop as a global comprehensive energy corporate group which contributes to creating a safe and comfortable life and society for customers and remains the customer's choice in the energy competition era.

The promotion of diversity is a key issue which the entire Group must address. To satisfy our diversifying customers, employees must excel by making the greatest possible use of their knowledge, abilities, and experience, and manifesting teamwork.

The Tokyo Gas Group will continue actively advancing diversity by upgrading and expanding systems, fostering employee awareness, and instilling organizational culture toward being a corporate group where employees can excel regardless of sex, age, disability, employment format, nationality, sexual orientation, or gender identification.

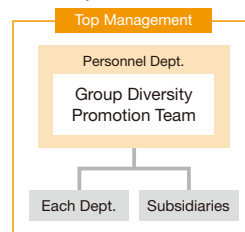
April 2018
UCHIDA Takashi
Representative Director, President and CEO
Tokyo Gas Co., Ltd.

Basic Policy

The Tokyo Gas Group promotes workplace diversity toward becoming a corporate group where employees excel by fully applying their knowledge, abilities, and experience.

- (1) We aim to be an organization where employees show mutual respect for diverse work styles while enhancing productivity.
- (2) Our promotion of diversity begins with promoting the professional careers of women. Going forward, we will continue to actively promote the advancement of women.
- (3) We have established a Group Diversity Promotion Team to advance diversity throughout the Group together with management.

Diversity Promotion Structure



Diversity Concept Message

Tokyo Gas has drafted a concept message to more clearly explain the ideal of contributing to Group growth by manifesting the diverse strengths of each individual, which we uphold in our top management's commitment to diversity.

► Diversity Concept Message for Tokyo Gas Group Employees (in Japanese only) (PDF: 3,500KB) [Web](#)

Diversity Month

The Tokyo Gas Group designated November 2019 as Diversity Month and held various seminars on diversity, with about 600 participants, to reform the awareness and behavior of more Group employees.

Diversity Month Seminars and Events

Seminar	Content	Number of Participants (subsidiaries and affiliates)
Career Seminar for Young Female Employees	Participants consider their own strengths and career plans from a middle to long-term perspective in preparation for life events.	41 (12 from 5 companies)
Tokyo Gas Group Women's Forum	Participants learn about the true joys of work and about how to approach their careers from the experiences of senior female Group employees.	269 (33 from 10 companies)
Basic Training on Service Assistance	Participants learn how to assist the elderly and disabled persons through hands-on practice.	28 (8 from 5 companies)
Seminar for balancing work and nursing care	Participants learn how to turn concerns about nursing into preparations for the future.	87 (10 from 7 companies)
Seminar for male employees on balancing work and childcare	Participants learn how to balance work and childcare.	50 (29 from 1 company)
Visit to Paccho Farm	Participants visit Paccho Farm, where people with psychological and intellectual disabilities work, and learn about the inclusive society through exchanges with the staff.	28
Paccho Farm vegetable sale	Farm staff sell fresh produce from Paccho Farm at a Tokyo Gas office building.	47
Special Cinema Night "Let's Learn from Diversity Films"	Viewing and expert discussion on Kalanchoe no Hana, which features LGBT issues.	61



Career Seminar for Young Female Employees



Basic Training on Service Assistance



Visit to Paccho Farm



Seminar for male employees on balancing work and childcare

Consideration for Our Employees

Efforts for Promoting the Advancement of Female Employees

The Tokyo Gas Group has positively promoted the professional advancement of women. In addition to enhancing programs that help employees balance work and childcare, we hold career development seminars for women and make other efforts to foster employee awareness and build up a supportive organizational culture.

■ Seminars and Lectures in FY2019

Seminar	Content	Number of Participants (subsidiaries and affiliates)
Career Seminar for Young Female Employees*1	Participants consider their own strengths and career plans from a middle to long-term perspective in preparation for life events.	41 (12 from 5 companies)
Tokyo Gas Group Women's Forum*1	Participants learn about the true joys of work and about how to approach their careers from the experiences of senior female Group employees.	269 (33 from 10 companies)
Seminar for Employees Returning to Work after Childcare Leave	Employees who have returned to work after childcare leave and spent some time balancing work and childcare consider their long-term career development.	31 (6 from 4 companies)
Seminar for Supervisors with Subordinates Who Are Raising Children	Supervisors who have subordinates who are raising children deepen their understanding of supporting them in balancing work and childcare, and learn management methods to encourage and support their success.	57 (15 from 6 companies)
Training for Managers	New managers learn about promoting the advancement of diverse personnel beginning with women as diversity management.	231 (40 from 9 companies)

*1 Held as part of the Diversity Month program.

Initiatives by Group Companies

Tokyo Gas

● Formulation of an Action Plan

Tokyo Gas has formulated an Action Plan for Promoting Women's Careers and will further promote the advancement of female employees.

Goal	Action Plan
Ratio of women in management in FY2020 10%	<ol style="list-style-type: none"> 1 Increase percentage of female job applicants 2 Create more opportunities for female employees 3 Increase the number of women seeking positions in management 4 Identify and tackle other issues (PDCA cycle)

● Preparation of Systems that Exceed Legal Requirements

Tokyo Gas has arranged systems for childcare leave and shorter working hours for parents of small children that exceed the legal requirements. These are used by many employees, and nearly 100% of employees taking leaves return to work each year.

Tokyo Gas has also arranged a leave of absence system for employees who accompany their spouses when they are posted overseas. We have prepared an environment where female employees can continue to excel as they move through various life events.

● Expanding Opportunities for Female Employees to Succeed

Female employees are taking active roles in wider range of areas and posts than in the past, including maintenance and management of city gas pipelines, positions overseas, and sales division management.

● Supporting the Further Advancement of Female Employees

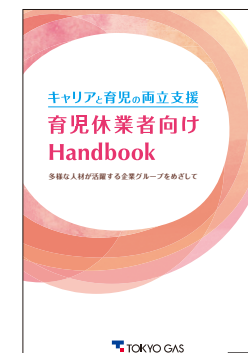
The Tokyo Gas Group provides seminars for young female employees aimed at early career development, seminars on balancing work and childcare after returning from childcare leave, and training in other industries to gain management experience. We have arranged a mentor system for consultation with senior employees as part of our efforts to help female employees develop their careers and networking. We have also prepared a handbook for women with young children and work to support employees so they can return early from childcare leave. Tokyo Gas holds training and seminars for supervisors who have female employees as subordinates, and we work to foster awareness among employees and a supportive corporate culture.

● Advertising for Women when Hiring

The Tokyo Gas Group implements PR activities to convey the appeal of our company to female students. These include a women's career web site for hiring women and special booths for women to make inquiries at events where the company is introduced.



Female employee working at a pipeline construction site.



"Support for Balancing Careers and Childcare" handbook for employees taking childcare leave.

Tokyo Gas Living Holdings

● Support for initiatives to advance women's success at Tokyo Gas LIFEVAL

Tokyo Gas Living Holdings conducts the following initiatives to advance women's success in collaboration with the local energy service office Tokyo Gas LIFEVAL (hereafter, "LIFEVAL").

Consideration for Our Employees

● Preparing women's work uniforms and making tools lighter

With the increase in female employees engaged in field operations at LIFEVAL, women's work uniforms have been prepared to improve work safety. The design incorporates various ideas suggested by women. Also, many tools and items of equipment which were previously heavy have been made lighter.

● Seminars for Young Female Employees

Seminars are held for young female employees at LIFEVAL each year so they can think about their future careers and build up networks among women.

● Seminars for the supervisors and colleagues of female employees

These seminars are held for the supervisors and colleagues of LIFEVAL female employees to share hints for better communication with female employees.



LIFEVAL women's work uniform



Seminar for young female employees



Seminar for the supervisors and colleagues of female employees.

Tokyo Gas Customer Support

● Roundtables for Employees Returning to Work after Childcare Leave

These roundtable discussions are held for employees with reduced working hours for childcare and employees returning from childcare leave. Participants build up networks of employees balancing work and childcare.



Roundtable for employees returning to work after childcare leave

Tokyo Gas iNet

● Development of Systems to Support Diverse Work Styles

In addition to providing systems related to childcare that surpass the legal requirements, Tokyo Gas iNet has established a welcome back system that positively accepts former employees who retired because of life events, and offers options for employees to choose their work styles in accordance with changes in their living environment.

External Recognition

“Eruboshi” Certification

Enterprises with superior efforts for the advancement of female employees are certified by the Minister of Health, Welfare and Labour under a system based on the Act on the Promotion of Female Participation and Career Advancement in the Workplace. There are three levels of certification. In the Tokyo Gas Group, Tokyo Gas Customer Support was certified at the highest level and Tokyo Gas at the second highest level.



Nadeshiko Brand

Tokyo Gas was selected by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange (TSE) for the fourth consecutive year as a “Nadeshiko Brand” company that actively promotes women including improvement of the corporate environment so that women can continue working.



Award to Commend Leading Companies Where Women Shine Minister of State (for Gender Equality) Award

This award is presented by the Cabinet Office to commend enterprises with outstanding results in policies and initiatives regarding the promotion of women as officers and managers. Tokyo Gas became the first electricity and gas utility company to receive the award in FY2019.



Support for Balancing Work and Childcare or Nursing Care

Tokyo Gas advances a style of management that cultivates and optimally utilizes the diverse sensibilities and capabilities of employees and strives to create a workplace environment that is comfortable for employees at different life stages, so that everyone can meet the expectations for their respective roles and make the most of their strengths.

We provide systems for childcare leave, shorter work hours for parents of small children, and nursing care leave that exceed statutory requirements. For employees seeking to balance work with nursing care, we made revisions that enable them to work with greater flexibility by introducing a flex-time system for nursing care with no core time periods in April 2018.

We also offer systems that allow employees to take leaves of absence for fertility treatment, to attend events at their children's and grandchildren's schools, and to provide nursing care for family members. These systems are widely used by employees. We have introduced other arrangements to further increase the options for employee work styles, including leaves to allow employees to accompany spouses working overseas and various systems offering shorter work hours for employees receiving medical treatment.

Support for Childcare by Male Employees

The Tokyo Gas Group recognizes that the active participation of male employees in child care is extremely important for employees to work with vitality and improve their performance. We provide a five-day special leave within 180 days after a spouse gives birth. In FY2019, 81.7% of the eligible employees made use of this leave.

The Tokyo Gas Group has held seminars for male employees on balancing work and childcare since FY2018. These are presented for male employees who are raising young children and their supervisors, and have been attended by a total of 93 participants. We have also added a section on supporting male employees in balancing work and childcare in our Handbook for Managers to Support Balancing Careers and Childcare.



Consideration for Our Employees

Major Systems to Support Balancing Work and Childcare or Nursing Care *1 (Systems which exceed statutory requirements are marked in bold.)

	System	Outline
Working hours	Shorter hours for childcare	During pregnancy and until the child completes the 6th grade Flex-time system is available
	Shorter hours for nursing care	Applicable to relatives within the second degree of kinship for up to 5 years per care receiver Flex-time system is available
Long-term leaves of absence	Childcare leave	Until the end of April immediately following the child's 3rd birthday (employees are allowed to change the scheduled date of reinstatement if they are unable to enroll their child in a nursery school)
	Nursing care leave	Up to 3 years for one care receiver within the second degree of kinship
Short-term leaves of absence	Maternity leave	By employee application, six weeks before birth and eight weeks after birth
	Spousal maternity leave	Five days within 180 days after spouse gives birth
	Child nursing leave	Ten days in cases where the child suffers injury or illness and requires care, or for the child to receive vaccinations or health examinations, until the child completes the third grade
	Accumulated Annual Leave	Infertility treatment, outpatient treatment, nursing of family members, and school events are to be covered with the remaining days of accumulated annual leave , in cases where they meet the requirements for taking accumulated annual leave days.
	Leave to Accompany a Partner	For employees accompanying a spouse posted overseas, for up to three years
	Community service leave	Granted special leave (paid) for up to 5 days, within 1 year
	Sabbatical system	For employees who reach the ages of 30, 35, 40 and 50 Granted commemorative gifts and special leave (paid)

*1 Data are for Tokyo Gas, Co., Ltd.

External Recognition

“Kurumin” certification

Tokyo Gas has obtained “Kurumin” certification from the Minister of Health, Labour and Welfare as a company that actively supports childcare based on the Act on Advancement of Measures to Support Raising Next-Generation Children.



Supporting Career Development for Employees in their 50s

In April 2016, Tokyo Gas established the Grand Career Support System, which replaced our program that had primarily focused on enriching the life of employees in retirement. This new system provides detailed support for developing the careers of employees who are in their 50s, with the aim of raising their motivation and performance by clarifying the work they can contribute to through training, one-on-one meetings with supervisors, and interviews with career consultants in the Personnel Department. We are creating an environment so that employees can continue to work actively after becoming 60 years old by appointing career consultants from various divisions with work expertise and enhancing career consultation offices. As we consistently offer such support, many employees are opting for re-employment when they retire. They have almost all been rehired by the Tokyo Gas Group.

Employment of Persons with Disabilities

At Tokyo Gas, the ratio of persons with disabilities employed was 2.55% as of June 2020, which is well above the statutory rate, and these individuals are actively engaged at each workplace. In April 2016, we launched the Liaison Committee to Promote Employment of Disabled People to foster understanding for creating more opportunities for persons with disabilities so they can succeed professionally as we continue to develop safer, more accessible working environments. As part of our efforts to realize an inclusive society, we opened a farm in fiscal 2018 to provide a safe and lively workplace for persons with intellectual and psychological disabilities.

Initiatives Addressing LGBT Discrimination

Our Code of Conduct, which defines the values and standards of behavior expected of everyone at the Tokyo Gas Group, explicitly prohibits discrimination and harassment on the grounds of sexual orientation or gender identity. Top management's commitment to diversity clearly states that we are committed to be a corporate group where every employee can excel, regardless of sexual orientation or gender identity.

The Tokyo Gas Group provides a sound working environment by setting up consultation offices to address employee concerns related to the personnel system and benefits. These are in addition to our consultation offices for issues related to compliance and communications in the workplace. We also organize human rights training and talks by outside lecturers on LGBT themes.

Accessible Restrooms

Tokyo Gas has installed multipurpose, accessible restrooms equipped to accommodate people using wheelchairs and ostomates*1, with fitting boards for changing clothes, at three locations in our head office building. Throughout the Group, we have installed nine of these accessible restrooms at seven locations.

*1 An ostomate is a person who has undergone surgery to create an artificial opening in the body (a “stoma”) to discharge waste due to damage to the digestive or urinary tract caused by illness or accident.



Multipurpose, accessible restroom

- ▶ Social Data
- ▶ Key ESG Ratings



Consideration for Our Employees

Work Style Reform

Basic Policy

Tokyo Gas actively strives to reform work styles to rectify and reduce long working hours and place greater focus on “the value of time,” and positions this as a key issue requiring management involvement, so that employees can work with enthusiasm and fully manifest their potential.

Rectifying and reducing long working hours

We are working to rectify and reduce long working hours to prevent employee health disorders and enable employees to engage in work with vigor and fully manifest their potential.

Goals and Outcomes

Goals by FY2020	Goals for FY2019	Outcome
By FY2020, completely eliminate cases of overtime work in excess of 80 hours per month and reduce cases of overtime of 60–80 hours/month to half of the fiscal 2017 level Note: Non-consolidated basis	Reduce the number of employees working 60–80 hours of overtime per month to half of the fiscal 2017 level Note: Non-consolidated basis	Number of employees working 60–80 hours of overtime per month has increased by 42% from the fiscal 2017 level Note: Including increased overtime with response to COVID-19

Our Initiatives

Persuasion to Reduce Long Working Hours

We manage the working hours of employees on a daily basis, confirm the conditions during the month, and seek improvements when employees accumulate a given number of hours of overtime.

Premium Friday & Leave-on-Time Day

Tokyo Gas has designated Friday of each week as “Premium Friday” and encourages employees to leave work early on Fridays by taking a half day off or using flex time, provided this does not disrupt work.

We also designate one day each month as “Leave-on-time Day” as an opportunity to reflect on working productively to achieve high results in a limited time.

Review of Business Processes

We take a top-down approach to raising efficiency and enhancing operations inside the Group by reviewing the operations of each department from the process level and making active use of digital technology. We set up the Project Department in FY2019 to implement a fundamental review of operations for the entire Group.

Robotic Process Automation (RPA)

We make active use of RPA, which automates standardized tasks through software, and advance operational efficiency.

Promoting flexible work styles

Tokyo Gas is reviewing uniform work formats and promoting flexible work styles with no limitations on where employees work to establish an environment where diverse personnel can fully demonstrate their abilities. In FY2018, we upgraded systems, approved teleworking for all workplaces excluding those with shift work, and eliminated limitations on the number of times employees can work remotely. In FY2019, we replaced the personal computer terminals of all Tokyo Gas employees so they can be used for teleworking. Tokyo Gas is preparing an environment with no limitations on where employees work by advancing paperless transactions and electronic decision-making.

Goals and Outcomes

Goal by FY2020	Goal for FY2019	Outcomes
Create an environment that allows teleworking by all employees by FY2020 to promote flexible work styles Note: Non-consolidated basis	Remove infrastructure restrictions on teleworking by employees Note: Non-consolidated basis	<ul style="list-style-type: none"> Replaced all employees' personal computers with portable models Prepared environment for no limitations on where employees work by introducing the WebTV conference system and through paperless procedures and electronic approvals

Content of Initiatives

Enhancing the “Work from Anywhere” System

To boost productivity, a remote working system was introduced at some workplaces in FY2016. In FY2018, this system was enhanced with the added purpose of balancing work with childcare, nursing care, and other aspects of private life, and applied to a wider range of workplaces, and the restrictions on the number of times employees can work remotely were eliminated. Work from parents' homes or hospitals was also permitted to balance nursing care with work. Tokyo Gas implemented Work from Anywhere campaigns in the summer and winter of FY2019, with efforts to spread systems and IT tools.



Consideration for Our Employees

Flex-time System (Super Flex-Time System)

Employees can flexibly alter their reporting and leaving time each day through consultation with their supervisors as long as they include the required core time. This system applies to about 90% of our employees, excluding shift workers. When operations present a special reason for different working hours, or when the press and slack of business is evident, a flex-time system without a core time, which we call a “super flex-time system,” is introduced to eligible employees in an effort to raise the productivity of the entire workplace and reduce working hours.

Arrangement of Workplaces

We have signed agreements with outside satellite office operators to develop an environment where employees can work on location without limitations. We are also preparing office spaces optimized to each workplace's operations and work style. The Digital Innovation Division is developing an environment where employees can work together to create value. This involves making our offices paperless and encouraging employees to use any available desk while also enhancing communications spaces.



Communication space



Meeting space

Preparation of tools that do not limit where employees work

Enabling electronic approvals via laptop computer and smartphone facilitates speedy approval that is not affected by the location of the decision makers. Tokyo Gas has also introduced a WebTV conference system which facilitates smooth communications among remote workplaces.

Industrial Safety and Health Initiatives

Basic Policy

Basic Principles

Industrial safety and health, which protects workers' lives and wellbeing, is the foundation of a company's existence and a fundamental corporate social responsibility. The Tokyo Gas Group believes that the “safety, security, and reliability” that we advocate for our customers as our corporate brand can only be accepted when we consistently secure our own industrial safety and health, and we view this as the most important corporate management issue.

The Tokyo Gas Group places the highest priority on ensuring safety and health. We enforce compliance, including adherence to all related laws and regulations, and make every effort to eliminate the risk of disasters and accidents and to ensure a high level of safety and health toward becoming a “safety and health excellent company.”

Basic Policy

To put our Basic Principles into practice, the Tokyo Gas Group takes concerted action to promote safety and health in line with policies presented by workplace leaders in each organization based on our Group-wide Industrial Safety and Health Policy. This policy is revised every year.

FY2020 Group-wide Industrial Safety and Health Policy

All employees, from top management down, will actively promote safety and health activities to safeguard the safety and health of each individual.

1. With full awareness of its public mission and social responsibilities, the Tokyo Gas Group will strictly enforce internal rules on safety and health and work procedures, as well as legislation such as the Industrial Safety and Health Act and the Road Traffic Act. Furthermore, the Group will fully comply with the “13th (2018–2022) Occupational Safety and Health Program” set by the Ministry of Health, Labour and Welfare as well as the revisions to Industrial Safety and Health Act.
2. To maintain a high level of industrial safety and health, the Tokyo Gas Group will work to eliminate work-related accidents by certainly implementing the PDCA cycle using its occupational safety and health management system (OSHMS).
3. Workplace leaders will take the initiative in preventing work-related accidents to firmly maintain the Tokyo Gas corporate brand of safety, security, and reliability.
 - In work accidents, to eliminate accidents from carelessness, the Group strives to strengthen safety awareness by fully implementing pointing and calling out of procedures, danger prediction, and other fundamentals, and to maintain zero high-severity casualty accidents.*1
 - In traffic safety, the Tokyo Gas Group is emphasizing “replete education of younger employees” and “elimination of accidents at intersections, where there is a high risk of accidents with physical injuries.” With further analysis on accident causes and the execution of countermeasures, the Group aims to reduce accidents causing damages to self or others to the lowest level in recent years (72 accidents).
4. The Tokyo Gas Group is upgrading its initiatives to ensure that all employees undergo health examinations, which are the basis of health management, and to spread the stress-check system, prevent physical and mental illness, and maintain and promote health based on health examination results. The Group will implement thorough countermeasures to passive smoking in accordance with the revised Health Promotion Act and reinforce measures to help employees stop smoking, toward reducing illness risk.
5. The Tokyo Gas Group provides support toward promoting safety and health activities through coordinating our compliance with laws and regulations, sharing issues, and via education so that Group companies can smoothly develop their own thorough health and safety activities.

*1 High-severity casualty accidents are fatal accidents and accidents with injuries that result in a leave of absence of one month or more.



Consideration for Our Employees

Structure for Promoting Industrial Safety and Health

The Tokyo Gas Group has established a Central Safety and Health Committee, which is chaired by the executive officer in charge of the Personnel Department. To advance the safety and health and wellbeing of Group employees, the Committee drafts safety and health activities policies, examines measures to prevent accidents and disasters and measures to promote mental and physical health, and works to instill these policies. The Committee also presents a Safety Prize and a Health Promotion Prize as Central Safety and Health Committee Chairman's Prizes. The matters examined by this committee are reported to the Corporate Executive Committee and to the Board of Directors, as necessary, for deliberations and decisions.

■ Safety and Health Management Structure



Industrial Accident Prevention

Occupational Safety and Health Management System

Tokyo Gas manages safety and health through a company-wide occupational safety and health management system (OSHMS) to reinforce the everyday industrial safety and health activities undertaken by each workplace.

All workplaces proactively implement safety and health activities that reflect their particular circumstances, and we continuously raise our safety and health standards by following a PDCA cycle for all related activities. Using a common framework throughout the Group for safety and health activities facilitates periodic confirmation and checks of the management system. We will continue to strengthen our OSHMS administration to prevent industrial accidents.

Risk Assessment

Tokyo Gas conducts risk assessment to quantify potential accident risks and take action to reduce or eliminate them. We have been complying with the chemical substances risk assessments made mandatory in 2016 and working to raise awareness of their risks.

Preventing Traffic Accidents

Driving training is conducted at outside facilities as part of the in-house driver's license system developed and administered by Tokyo Gas. The company has been introducing telematics (dashcams with telecommunications functions) since April 2020, and endeavors to ensure safe driving at all times by reviewing past driving data and improving the skills level of each driver.

Advancing Health Management (Health Management and Health Promotion Initiatives)

Tokyo Gas proactively strives to promote work-life balance based on work style reform throughout the company, have all employees undergo health examinations which are prerequisite for health management, and otherwise enhance the physical and mental health of employees.

Under our safety and health activities policy, industrial physicians, public health nurses, and other industrial health staff who belong to the Personnel Department serve as the core for advancing various initiatives toward maintaining and improving the health of employees, and we transmit those initiatives and health-related information throughout the Group. Tokyo Gas has expanded the number of items covered by health checkups, and implemented activities to increase the ratio of female employees receiving cancer screenings, and we are collaborating with labor unions and the Tokyo Gas Health Association in implementing kenko keiei (health management).^{*1}

^{*1} Kenko keiei (health management) is a registered trademark of the NPO Kenko Keiei Kenkyūkai.

Safety and Health Management Initiatives

- 1. Health Examinations**
Examinations for all employees
- 2. Health Examinations Follow-up Measures**
 - (1) Health examinations results are confirmed and industrial health staff consult with employees as necessary.
 - (2) Industrial nurses provide health guidance to all young employees.
 - (3) We encourage and support treatment by outside medical institutions for employees whose examination results show a need for further examination.
 - (4) We implement health measures (reinforce health guidance to young employees to reduce future illness risk) making use of health examinations results.
- 3. Interview and guidance for employees working long hours**
- 4. Workplace Return Support**
We provide support, in cooperation with employment managers and attending physicians, for employees to return to work, including recurrence prevention measures, so that employees on medical leave can smoothly return to their jobs.
- 5. Establishment of Physical and Mental Health Consultation Desks**
Industrial health staff are assigned to each building so that employees can consult about their physical and mental health at any time.
- 6. Confirmation of the Health Conditions of Employees with In-house Driver's Licenses**
Tokyo Gas confirms the health conditions of the licensed drivers and supports safe driving for work, including the imposition of driving restrictions.
- 7. Promotion of Workplace Safety and Health Activities**
 - (1) Industrial health staff attend meetings of the Safety and Health Committee and promote safety and health at each workplace.
 - (2) We encourage and support the implementation of PDCA toward firmly establishing health promotion activities.
- 8. Health Support for Employees with Disabilities**



Industrial health staff interviewing an employee



Consideration for Our Employees

Mental Health Measures

The Tokyo Gas Group is strengthening its ongoing efforts to manage mental health, since about 60% of all sick leaves taken are due to mental health issues.

1. Stress checks
 - (1) We promote use of the stress-check system and encourage self-monitoring of mental health.
 - (2) We encourage participation in the "workplace culture check," which is a group analysis, and provide support toward improvement of workplaces.
2. Support for employee care by line managers

We utilize manager training and other opportunities to provide education on improving workplace environments and on how to respond as managers
3. Individual support
 - (1) We provide individual support through the stress-check system and support for employees returning to the workplace after taking a leave of absence
 - (2) Our consultation structure includes our resident industrial health staff as well as telephone consultations and counseling by external institutions

Health Support for Employees Posted Overseas and Employees on Business Trips Overseas

Health management support is offered to the growing number of employees posted overseas and taking overseas business trips from the development of our overseas business.

1. Full implementation of statutory health checkup before and after posting, and consultation with an industrial physician.
2. Measures to prevent infectious diseases according to location of posting (prevention education and recommendation of vaccinations).
3. Ongoing health consultation for employees and their families

Initiatives for Health Issues and Improvement

Tokyo Gas follows a highly refined approach in line with the issues so that employees can grasp their own health problems and voluntarily act to improve their own health.

1. Promotion of Regular Exercise

We are working to increase the number of participants in our walking campaign, which is an event for the entire company (FY2019: 1,500 participants)
2. Tobacco-related Efforts

We are working to decrease the ratio of smokers throughout the company (FY2019: All employees: 26.1%; male employees: 30.8%)

 - (1) Passive Smoking Countermeasures
 - We strictly implement smoking room environmental management and use rules in accordance with the revised passive smoking guidelines.
 - We have prepared a passive smoking prevention countermeasures promotion plan
 - (2) Promotion of No Smoking
 - We approach young employees from the time they enter the company at training sessions and lectures to prevent them from becoming smokers.
 - We offer individual assistance toward smoking cessation at interviews following health examinations.
 - We arrange an environment that supports smoking cessation through the introduction of no-smoking hours and no-smoking days.
 - We provide individual support to employees who want to stop smoking.
3. Preparation of a Framework toward Health Maintenance and Management
 - (1) Enhancement of self-care (health management, exercise, diet) and preparation and support of a framework to maintain physical and mental health
 - (2) Strengthening of health guidance from age 35 to prevent illness from age 40
 - (3) Reinforcement of ties with the medical institutions which conduct cancer screening and provision of information to all younger female employees to boost the ratio of female employees who undergo cancer screenings.

External Recognition

Tokyo Gas was selected in the 2020 Health & Productivity Stock Selection jointly implemented by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange (TSE). The Health & Productivity Stock Selection recognizes enterprises that implement particularly outstanding initiatives from among enterprises listed on the TSE pursuing strategic efforts for employees' health management from a business perspective. Tokyo Gas was recognized in FY2020 for having all its employees receive physical examinations, and for its mental health initiatives and measures to normalize working hours.

In 2020, Tokyo Gas was also recognized for the fourth consecutive year as a 2020 Certified Health and Productivity Management Organization (White 500, large enterprises category) under a certification program jointly implemented by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.





Respect for Human Rights

Respect for Human Rights

Basic Approach to Respect for Human Rights

At Tokyo Gas, we recognize respect for human rights as a prerequisite for all our business activities toward achieving sustainable development in an increasingly globalized society. We consequently established the Tokyo Gas Group Human Rights Policy in April 2018 for promoting human rights initiatives and fulfilling our obligations in this regard. The policy is based on the United Nations Guiding Principles on Business and Human Rights and other global standards to guide the efforts of the Tokyo Gas Group, comprising Tokyo Gas Co., Ltd. and its consolidated subsidiaries.

We prescribe Purchasing Guidelines for Suppliers and make certain that our suppliers thoroughly understand and observe these guidelines and that their subcontractors also comply with these same standards. In addition, we conduct due diligence on human rights and continuously work to promote respect for the human rights of the diverse stakeholders involved in all processes of our business activities.

Tokyo Gas Group Human Rights Policy

Established April 2018

Introduction

The Tokyo Gas Group (Tokyo Gas Co., Ltd. and its consolidated subsidiaries) believes that creating a society that respects human rights is essential in fulfilling its public mission and social responsibilities through its energy business. We recognize that respecting human rights must therefore be prerequisite to all our business activities.

We established the Tokyo Gas Group Human Rights Policy based on the United Nations Guiding Principles on Business and Human Rights to guide our Group-wide efforts to promote human rights and fulfill our obligations. Our Human Rights Policy is directly linked to the Group's Management Philosophy and Corporate Action Philosophy, and was determined with the approval of the Board of Directors of Tokyo Gas Co., Ltd. to stand as our public commitment to respect human rights.

1. Our Commitment to Respect Human Rights

The Tokyo Gas Group upholds and respects international norms on human rights, including the UN International Bill of Human Rights, which stipulates the basic human rights of all persons, the OECD Guidelines for Multinational Enterprises, and the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy. Moreover, we strive to implement the UN Guiding Principles on Business and Human Rights in our daily operations.

We comply with all applicable laws and regulations in each country and region where we operate. In cases where we face inconsistencies between internationally recognized standards of human rights and national or regional laws and regulations, the Tokyo Gas Group seeks ways to honor the principles of international norms on human rights.

2. Scope of our Human Rights Policy

Our Human Rights Policy applies to all officers and employees of the Tokyo Gas Group.

3. Respect for Human Rights in All the Processes of Our Business Activities

3-1 We seek to avert or mitigate adverse impacts on human rights caused by stakeholders of the Tokyo Gas Group throughout our value chain, which encompasses all the processes of our business activities.

3-2 We respect the human rights of our employees and the people we work with, and create a healthy and comfortable working environment.

3-3 We sincerely respond to customers and strive to ensure safety and improve quality.

3-4 We pay due respect to human rights in our relationships with suppliers. In cases where our suppliers or other related parties are causing or contributing to adverse impacts on human rights that are directly linked to our businesses, products, or services, the Tokyo Gas Group requires the concerned parties to respect human rights and avoid infringing upon human rights.

3-5 We seek to understand how our business activities may impact local communities and strive to cooperate with local communities.

4. Human Rights Due Diligence

We identify and assess any actual or potential adverse impacts on human rights and take action to prevent or mitigate human rights risks through ongoing efforts to develop a human rights due diligence framework and continually put it into practice to ensure respect for human rights.

5. Relief and Rectification

In cases where it becomes clear that the Tokyo Gas Group has caused or contributed to adverse impacts on human rights, we provide relief and rectification through legitimate procedures.

6. Dialogue and Consultation

We engage in dialogue and consultation with relevant stakeholders on measures for addressing potential and actual impacts on human rights.

7. Human Rights Education and Promotion of Awareness

We implement appropriate education and human rights awareness activities to ensure that our Human Rights Policy is understood, embedded throughout all the business activities of the Tokyo Gas Group, and effectively implemented.

8. Information Disclosure

We disclose information on our human rights initiatives through various means, including our corporate website and CSR report.

Accession to the UN Global Compact

We joined the UN Global Compact in March 2016 to demonstrate our commitment to protecting human rights and respecting the rights of workers.

Respect for Human Rights

Structure to Promote Human Rights Awareness

The Tokyo Gas Group has set up a 16-member Central Human Rights Promotion Committee, which is chaired by the executive officer in charge of compliance and mostly comprises the general managers in charge of personnel affairs in each department. The committee convenes once a year for a central human rights promotion meeting to confirm the Group's overall understanding of human rights issues, the outcomes of training, and action plans for raising awareness for the next fiscal year. Branch Human Rights Promotion Committees, chaired by the general manager in charge of personnel affairs at each department, are established as subordinate committees, and branch secretariats and human rights promotion leaders organize human rights training and related activities at each workplace.

Tokyo Gas has trained human rights promotion leaders to lead efforts to create a vibrant environment at every workplace since 1995. They serve as instructors for workplace study sessions and as advisors for consultation desks.

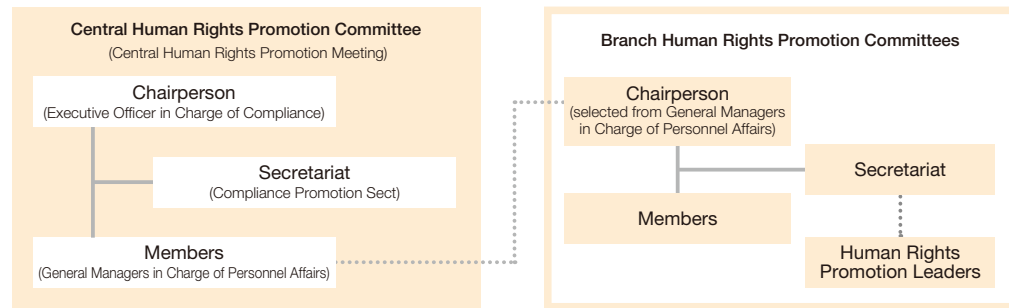


Central Human Rights Promotion Meeting



Training course for human rights promotion leaders

Structure to Promote Human Rights Awareness



Training Course for Human Rights Promotion Leaders: Themes

- CSR and human rights
- Compliance
- Human rights efforts by Tokyo Gas
- Dowa issues*
- Various human rights issues (e.g., LGBT, people with disabilities, women, the elderly, ethnic Koreans in Japan), harassment
- Mental health issues
- Communications skills (anger management and assertive communications), consultation
- Diversity and an Inclusive Society
- Visits to facilities related to human rights

* Owing to forms of discrimination rooted in social structures that developed in Japanese society in the past, some segments of the population have been forced to endure a lower economic, social, and cultural status and remain subject to various types of discrimination in their daily lives.

Initiatives on Respecting Human Rights

For the Tokyo Gas Group, human rights awareness promotion begins with establishing fair hiring practices and creating vibrant workplaces. We are implementing a variety of measures as a group to achieve these goals. In addition, we will continue to address human rights issues, such as promotion of diversity and prevention of harassment, in advancing our management vision "Compass 2030".

Training on Human Rights and Compliance

Tokyo Gas conducts training sessions for Group employees with the objective of creating vibrant workplaces. Through training we encourage employees to understand the latest trends in human rights surrounding companies, the significance of supply chain management as a social responsibility required of global companies, and various human rights issues including assimilation issues, harassment, and communications in the workplace, and we work to sharpen their personal sensitivity to human rights.

We have adopted a participatory approach in many of our training programs to encourage participants to develop a personal awareness of issues. For example, we compile case studies of workplace situations that make employees feel uneasy from a human rights perspective as learning materials for our level-specific training. We develop our training to be more realistic by having participants take a personal interest in those case studies and discuss them among themselves.



Level-specific human rights awareness training

Human Rights Awareness Training in FY2019

Type	Outline	Number of Participants
1. Level-specific training	Four levels of training: upon entry to the company, during the third year, and at the time of qualification promotions (two levels)	1,311
2. Workplace study groups	Training at each workplace mainly for compliance promotion coordinators	21,088
3. Training courses and follow-up training for human rights promotion leaders	New leader training (six months) and follow-up training for current leaders	354
4. Human rights lectures	Human rights lectures for middle management by outside speakers	300



Respect for Human Rights

Initiatives on Human Rights Due Diligence

The Tokyo Gas Group strives to develop human rights due diligence in order to identify, prevent, and mitigate human rights issues in various aspects of our business activities.

We have consistently implemented the following main initiatives, and we will continue to strengthen our efforts in accordance with Tokyo Gas Group Human Rights Policy, formulated in February 2018.

■ Main Initiatives for Human Rights Issues

Stakeholders	Main Initiatives
Employees	<ul style="list-style-type: none"> • Address human rights issues through the compliance consultation desks • Conduct training for human rights promotion leaders who serve as instructors in human rights study groups at workplaces and as human rights counselors • Conduct various training to sharpen sensitivity to human rights toward creating vibrant workplaces • Conduct compliance surveys to identify potential risks • Prevent the occurrence of issues in the working environment through occupational safety and health activities
Suppliers	Survey suppliers to track how they deal with human rights issues
Customers	Monitor the status of personal information management

Human Rights Consultation Desks

Consultation desks have been established both inside the company in the Compliance Department and outside the company at a comprehensive consultation service company to handle workplace issues on communications and compliance, including human rights. In fiscal 2019, we received 64 requests for consultations, which were addressed appropriately depending on content. First and foremost, we work to protect the person who is seeking consultation from being placed at a disadvantage. We address issues through face-to-face consultations whenever possible, and help create a safe and secure working environment together with employees.

Human Rights Lectures

In October 2019, we held a human rights lecture entitled “Expectations and Roles of the Tokyo Gas Group in a Multi-cultural Inclusive Society.” The lecture was attended by around 300 participants, including members of human rights promotion committees and employees in charge of personnel affairs from Tokyo Gas, employees in charge of human rights education at subsidiaries, managers and heads of general administration departments at LIFEVAL companies, managers of the Tokyo Gas Merchandisers Organization (TOMOS), and human rights promotion leaders.

Human Rights Week Initiative

During Human Rights Week from December 4 to 10, we invite Group employees and their families to submit slogans for raising human rights awareness.

In fiscal 2019, we received 9,584 entries, and posters of the best entries were displayed at each workplace.

Respecting Human Rights throughout the Supply Chain

As part of our initiatives for respecting human rights throughout the supply chain in Japan and overseas, we present our suppliers with the Purchasing Guidelines for Suppliers and conduct management activities through CSR surveys, etc. Among Tokyo Gas Group employees, we seek to ensure understanding and stringent adherence to these guidelines in the Tokyo Gas Group Our Code of Conduct. We also survey our suppliers to track how they deal with human rights issues.

▶ Supply Chain Management

Governance

Compliance

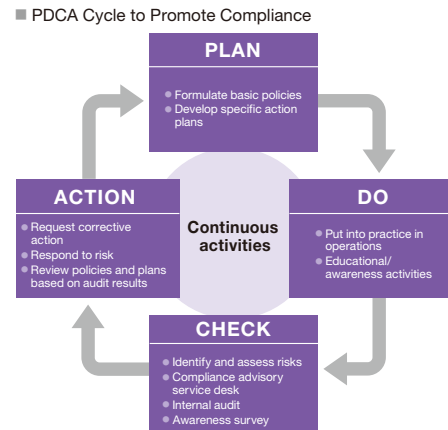
Basic Policies

The Tokyo Gas Group aspires to be a sound business enterprise that earns society's trust by ensuring all management and employee decisions and actions are rooted in legal compliance, ethical standards, and public expectations. To this end, the Group promotes compliance in accordance with its established basic policies.

Coordinated Promotion of Compliance by Business Departments Based on Basic Policies

Recognizing the importance of flexible and sustainable business activities in order to continuously adapt to changing business content and legal environments, the Tokyo Gas Group promotes collaborative cross-departmental efforts to strengthen compliance based on basic policies formulated each year by the Management Ethics Committee.

Under these basic policies, each department of the Tokyo Gas Group establishes and follows a PDCA cycle to review and improve its operations from the perspective of compliance.



Tokyo Gas Group Our Code of Conduct

This code sets forth the values and standards of conduct for everyone who works at the Tokyo Gas Group. From fiscal 2003 to fiscal 2016, the code spelled out seven pledges. In fiscal 2017, however, the code was revised in the form of 11 pledges that incorporate international standards such as ISO 26000, the Olympic Charter, legal amendments, and other key developments.



Tokyo Gas Group: Our Code of Conduct

Tokyo Gas Group Our Code of Conduct

Purpose and vision

1. "Our Code of Conduct" sets forth the values and standards of conduct that everyone who works in the Tokyo Gas Group is expected to share and follow in order to implement our Management Philosophy and Corporate Action Philosophy and ensure a focus on compliance in business.
2. By following this Code of Conduct, we will contribute to the creation of an affluent society through the Tokyo Gas Group's growth and development as a corporate group that people will continue to trust and make their first choice.

Eleven Pledges

1. **We will constantly think and act responsibly as individual members of this "energy frontier corporate group" so that people will continue to trust our group and make it their first choice.**
 - 1) Continual innovation
 - (1) We will pursue continual innovation, unfettered by convention and ever sensitive to the expectations of customers, shareholders, and society.
 - (2) We will create the maximum outputs working in partnership with one another, while being fully aware of our individual roles and responsibilities and committed to self-improvement.
 - 2) Doing more for the customer

We will put the customer at the heart of everything we do.
 - 3) Everyone is a brand builder

Day in and day out, we will strive to build the security, safety, and trust that underpin the Tokyo Gas Group's brand value.
2. **We will constantly conduct business in a clear-cut and fair manner.**
 - 1) Legal compliance
 - (1) We will constantly conduct business in compliance with laws, internal rules and regulations, and socially accepted rules.
 - (2) We will act swiftly to resolve issues where infringements of laws, internal rules and regulations, or socially accepted rules have occurred or may occur.
 - 2) Separation of professional and private spheres
 - (1) We will not use our professional position for personal gain.
 - (2) We will not use company property for private purposes.



Governance

3) Active disclosure of information

We will enhance the transparency of business activities and actively and promptly disclose accurate information to customers, shareholders, communities, and other stakeholders in order to earn their trust.

4) Firm stand against antisocial forces

(1) We will stand firm against illegal and improper demands made by sokaiya racketeers, organized crime groups, and other antisocial forces.

(2) We will not, under any pretext, give benefits to or otherwise accommodate the demands or interests of antisocial forces.

3. We will deal with customers, business partners, shareholders, and all our stakeholders sincerely and equitably.**3-1. Customers****1) Satisfaction beyond expectations**

(1) We will provide high value-added products and services that customers will make their first choice.

(2) We will always put ourselves in the customer's shoes in order to deliver the best possible work that exceeds customer expectations.

(3) In the event of a customer complaint or accident, we will respond swiftly and in good faith to prevent a recurrence.

3-2. Business partners**1) Fair business dealings**

(1) We will respect business clients and suppliers as business partners and do business with them in good faith.

(2) We will comply with the Antimonopoly Act and other applicable laws and ordinances, and will practice fair dealings in accordance with the principles of free competition.

(3) We will not exploit our position or authority to obtain undue benefit or make unreasonable demands.

2) Maintenance of proper relations

(1) We will always be conscious of social point of view in our interactions with business partners, and will never commit any act that might cause misunderstanding or distrust from inside and outside the company.

(2) We will maintain fair relations and do nothing questionable under applicable national and local laws and ordinances in our dealings with government and other public officials and employees.

3) Understanding and observance of the Purchasing Guidelines for Business Partners

We will promote understanding and observance of the Purchasing Guidelines for Business Partners by our business partners and others along our supply chains, and we will require partner businesses involved in transactions with those companies to observe the same standards.

3-3. Shareholders

We will facilitate the appropriate exercise of shareholders' rights through fair, timely, and appropriate disclosure and constructive dialogue.

4. We will respect diversity and individuality among our colleagues and create an inclusive working environment.**1) Respect for human rights**

(1) We will respect human rights, prohibit child labor and forced labor, and not discriminate or harass anyone on the basis of race, nation, religion, gender, age, origin, nationality, disability, education, social status, sexual orientation, gender identity, or other such grounds.

(2) We will respect one another's positions and treat everyone equally, irrespective of form of employment, gender, title, or any other differences.

(3) We will not commit sexual harassment, workplace bullying, pregnancy discrimination and other types of harassment, discrimination against employees who take family care leave, or any other acts that infringe the dignity of the individual. We will also not condone such acts.

2) Attainment of excellent record of occupational safety and health

We will enforce compliance, including adherence to all related laws and regulations, and make every effort to eliminate the risks of disasters and accidents in order to establish an excellent safety and health.

3) Creation of a cheerful workplace

(1) We will create a lively workplace where everyone can realize their full potential and individual differences are respected.

(2) We will create an open workplace where everyone can share necessary information and engage in free expression and discussion.

4) Promotion of diversity

We will accept one another's values and various work styles, and get the best from our own knowledge, abilities, and experience. We will also all work to raise productivity and meet the diversifying needs of society.

5. We will act for the protection of the global environment.**1) Promotion of environmental protection**

(1) As a leader in environmental management, we will reduce our environmental footprint and endeavor to make sustainable use of natural resources in every aspect of the Tokyo Gas Group's business activities.

(2) We will promote use of highly eco-friendly energy sources centered on use of natural gas, and provide high-efficiency systems and equipment that have a low environmental impact.

We will work with local communities to make people's lives more environmentally friendly.

6. We will contribute to local communities and society as a good corporate citizen.

(1) We will respect and contribute to local communities, building trust with them through active dialogue and cooperation, and making effective use of our business resources.

(2) We will contribute to local communities as good citizens, recognizing that we ourselves are all members of communities.

7. We will handle information appropriately.**1) Prevention of information leaks**

We will handle confidential information obtained in the course of business properly and will not divulge such information during or after our employment at the Tokyo Gas Group.

2) Compliance with the Act on the Protection of Personal Information

(1) We will obtain and manage the personal information of customers, employees, and others by appropriate methods and use such information only insofar as permitted for legitimate purposes.

(2) We will not disclose personal information to third parties except where permitted by law.

3) Appropriate use of information systems

We will use information systems, including email systems and the Internet, in accordance with strict rules on proper use. Company information systems will not be used for non-business purposes.

4) Respect for intellectual property

We will respect patents, trademarks, copyrights, and other intellectual property rights, protect and use rights held by our company, and not infringe the rights of others.



Governance

8. While conducting business globally, we will not only comply with national and local laws and regulations and respect international standards on human rights and similar issues, but also engage in business activities in a manner that is sensitive to different cultures, customs, and stakeholders' concerns.

9. We will act with integrity and decency as members of society, and maintain high ethical standards in our private lives.

In our private lives, too, we will comply with all applicable domestic and foreign laws and regulations, be aware of changes in social expectations, and always be mindful of how we should behave as a model citizen.

1) Compliance with regulations on insider trading

We will not engage in insider trading, such as the purchase or sale of shares and other such transactions, using information obtained in relation to business. We will not communicate information or recommend transactions to other parties to enable them to make a profit or avoid a loss.

2) Prohibition of annoying or disturbing behavior

In our private lives, we will not injure or deceive others, commit indecent acts, or engage in any other annoying or disturbing behavior.

3) Responsible drinking and compliance with traffic rules (including not driving under the influence of alcohol)

We will be careful to drink responsibly and will never drive under the influence of alcohol. We will always stop anyone who attempts to drive while drunk, and we will not encourage anyone who is driving a vehicle to drink and will not provide a vehicle to anyone who has been drinking. We will also obey all other traffic rules.

4) Prohibition of possession and use of illegal drugs

We will not possess or use illegal drugs, and we will not be involved in any way in their manufacture, purchase, sale, distribution, or other such acts.

5) Prohibition of gambling

We will never engage in any acts of gambling, including the betting of even small amounts of money on golf, mahjong, or sporting events.

6) Compliance with rules on use of social media

If communicating information via social media, we will not commit any act, even as individuals, that might harm the reputation or property of the company.

7) Compliance with other laws, regulations, social norms, and standards of ethical conduct, and prohibition of acts that outrage public decency

10. If we transgress this Code of Conduct or learn of a transgression, we will immediately report the matter to our workplace and rectify it.

11. Executives and managers will lead from the front and take action themselves.

1) Awareness of position and conduct as executives and managers

(1) Executives and managers will themselves provide models of compliance with this Code of Conduct and encourage understanding and practice of the same throughout the workplace.

(2) Executives and managers will lead from the front in working to resolve any problem that may arise and ensure organization-wide action to prevent a recurrence.

(3) Executives will take strict action (including against themselves) where necessary.

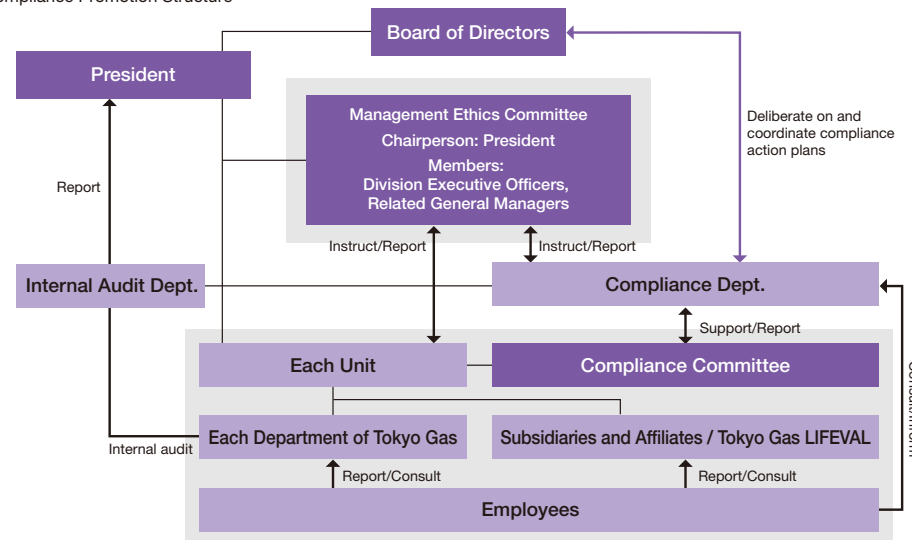
Compliance Promotion Structure

The Management Ethics Committee, chaired by the president, meets twice a year, in principle during March and November, to formulate Company-wide policy and confirm and discuss matters, such as the handling of inquiries and consultation by the consultation desks and the results of the monitoring of compliance awareness among employees.

We have also established Compliance Committees in each unit to consistently and proactively engage in initiatives for promoting compliance.

Over 300 management-level personnel have been appointed as compliance managers and compliance promoters at each workplace to lead in promoting concrete compliance activities.

■ Compliance Promotion Structure





Governance

Consultation Desks

The Tokyo Gas Group has set up consultation desks internally through its Compliance Department and externally through a law firm and communication support center. All individuals working at the Tokyo Gas Group, including officers, regular and temporary staff members can directly contact these desks by phone or email whenever they feel uncomfortable raising a matter within their organization. The Compliance Department also handles consultation for our suppliers. These consultation systems serve as internal points of contact, as stipulated in the Whistleblower Protection Act.

Under the operational guidelines of the consultation desks, advice and solutions are provided to employees who make inquiries or request consultation. The requests are treated in strict confidence, and the employees are protected against any discriminatory treatment for using the desks.

Independent advisory services have also been established at all subsidiaries and Tokyo Gas LIFEVAL (“LIFEVAL”) companies. In July 2019, training sessions were held for the personnel staffing the consultation desks at the Tokyo Gas Group to strengthen their ability to handle inquiries and consultations.

These desks play an effective role in enabling Tokyo Gas to discover and resolve problems at an early stage so that the Company’s self-regulating processes function effectively.

■ Number of Cases Handled by Consultation Desks (FY2019)

Consultation Topics	Number of Cases
Interpersonal relations and harassment	35
Compensation, working hours, and related issues	14
Internal rules	11
Laws and regulations, and other issues	4
Total	64

Compliance Practices

Tokyo Gas, our subsidiaries and LIFEVAL companies organize a range of activities to encourage employees to apply Tokyo Gas Group Our Code of Conduct to their own situations.

Workplace Workshops Using Training Resources

Workshops led by compliance promoters are held at the level of individual workplaces at Tokyo Gas, our subsidiaries and LIFEVAL companies (21,088 employees participated in fiscal 2019). These workshops feature awareness-raising resources entitled “The Case Method,” “Collected Cases of Compliance,” and “Learning from Cases! Compendium of Case Law.” Developed in alignment with Tokyo Gas Group Our Code of Conduct, the resources are used to improve participant understanding of the laws, ordinances, and regulations governing the practice of Our Code of Conduct and to help them apply the code in practice.

Instilling a Compliance-oriented Mindset through Training

Level-specific training for new employees and others is provided with the active participation of subsidiaries and LIFEVAL employees to foster a compliance mindset (1,311 employees underwent training in fiscal 2019).

Strict Compliance with the Antimonopoly Act, the Act against Unjustifiable Premiums and Misleading Representations and the Subcontract Proceeds Act

Training is provided annually to the Tokyo Gas Group employees to improve understanding of legal compliance.

In fiscal 2019, a total of around 7,700 Group employees took part in training sessions on the Antimonopoly Act, the Act against Unjustifiable Premiums and Misleading Representations, and the Subcontract Proceeds Act. The sessions are designed to provide practical information, including details on the purposes of various laws, and specific cases studies released by organizations such as the Fair Trade Commission and the Consumer Affairs Agency.¹

¹ Case studies include examples of cartels and abuses of superior bargaining position (Antimonopoly Act), and misleading representation (Act against Unjustifiable Premiums and Misleading Representations).



Governance

Sharing Information on Compliance

We are working to raise the standard of compliance by widely publicizing across the Tokyo Gas Group up-to-date information on the compliance risks associated with changes in the organization’s business environment, including those associated with our evolution as a total energy business, acceleration of our global business development, and the revision and stricter enforcement of prevailing legislation.

Specifically, information is shared through the regularly published “Compliance Information” newsletter, a resource for compliance managers and promoters who lead activities at the Company, subsidiaries, and LIFEVAL companies. Contemporary issues are shared quickly to keep people abreast of changes in society, such as information about the enforcement of the amended Immigration Control and Refugee Recognition Act , which was featured in the publication in fiscal 2019. The newsletter is also used in workplace workshops to share details about cases in and outside the Company.



Compliance information

Support for Tokyo Gas Group Compliance Promotion

Tokyo Gas promotes compliance by LIFEVAL and partner companies providing regional services on behalf of Tokyo Gas. We also make educational tools available that are tailored to the circumstances of each company and assist in implementing PDCA cycles.

As part of our compliance promotion activities, we distribute copies of Tokyo Gas Group Our Code of Conduct and booklets on subjects such as the protection of personal information, and hold lectures for management-level personnel. Since fiscal 2010, we have exchanged opinions on compliance with some partner companies, and we share news on compliance and information on compliance measures to raise awareness.

Basic Policies on the Prevention of Bribery and Corruption

The Group is fully committed to preventing bribery and corruption in all domestic and international transactions by complying with the anti-bribery and corruption laws in each country and region. This includes specifying in Tokyo Gas Group: Our Code of Conduct our obligations to comply with laws and be fair and honest with our customers and suppliers.

In line with the expansion in our overseas business under GPS2030, we have established the Basic Policy on Overseas Business Promotion, in which we pledge to play our part in developing a sustainable society, and are carrying out equitable and transparent corporate activities in the international business community. In particular, bribery and corruption not only damages the social credibility of a company but can also become a global issue when it hampers economic growth in developing countries. We have thus formulated the Foreign Public Official Anti-Bribery and Corruption Guidelines in accordance with our Basic Policy in order to outline specific actions necessary for maintaining appropriate relationships with foreign public officials as a means of safeguarding orderly competition.

Foreign Public Official Anti-Bribery and Corruption Guidelines

Summary of Guidelines for Action

- Bribery and corruption of foreign public officials and other individuals and spending on facilitation payments to foreign public officials and other individuals are prohibited.
- The provision of inappropriate hospitality, gifts, donations, and the like is prohibited.
- All hospitality, gifts, donations, and the like made to foreign public officials and other individuals and appointments of certain third parties must first be approved through the procedure described in the guidelines and must be accurately accounted for in a timely manner.
- To prevent the bribery and corruption of agents, consultants, and similar third parties, due diligence must be performed before they are appointed, clauses prohibiting bribery and corruption must be incorporated into their contracts, and other appropriate measures must be completed. The same applies to M&As with foreign firms.

Action Items of the Foreign Public Official Anti-Bribery and Corruption Guidelines

- Prohibition of bribery of foreign public officials
- Prohibition of facilitation payment
- Prohibition of inappropriate hospitality, gifts, invitations, overseas donations, etc.
- Prohibition of bribery (other than foreign public officials)
- Transactions with third parties
- Relationships with partners of joint ventures, etc.
- Prohibition of taking bribes
- Mergers and acquisitions
- Prohibition of fraudulent accounting
- Obligation to whistle-blow and cooperate with investigations
- Emergency response
- Disciplinary action
- Training and monitoring



Governance

Operating Structure for Preventing Bribery and Corruption

The chief compliance officer acts as the executive officer with chief responsibility for preventing overseas bribery and corruption. Supervisors responsible for implementing measures to prevent bribery and corruption overseas are appointed in every department and company of the Group that is subject to the guidelines to take responsibility for the approval of hospitality, gifts, donations, and the like, confirmation of the findings of due diligence when appointing third parties, approval of entry into contracts, and other matters. The Compliance Department decides on specific measures for implementing the guidelines.



Anti-bribery and corruption training session for employees involved in international business

Effective Application of the Guidelines to Prevent Bribery and Corruption

The Tokyo Gas Group provides training to employees primarily involved in business overseas to ensure proper compliance with the guidelines. In fiscal 2019, 384 personnel received this training. We have produced an English version of the guidelines for locally hired employees and have distributed to them the English edition of Tokyo Gas Group: Our Code of Conduct and other informational resources. We have also established a system to enable Group employees working overseas to report and seek advice. We implement PDCA cycles to ensure that bribery and corruption are being prevented by monitoring the situation through internal audits and other means to confirm that the procedures established by the guidelines are being followed.

Verification and Audit of Penetration of Compliance

Compliance Awareness Surveys

We regularly conduct surveys of all employees of Tokyo Gas and its subsidiaries to monitor the effectiveness of compliance promotion activities.

In fiscal 2019, we sought responses from employees at Tokyo Gas, its subsidiaries, and LIFEVAL companies with a focus on the following points.

- Company compliance measures
- Understanding of laws, regulations, and manuals
- Conditions preventing compliance violations in the workplace
- Issue escalation
- Supervisor/workplace efforts to promote compliance
- Sharing of information and opinions on work-related aspects
- Compliance actions of the respondent

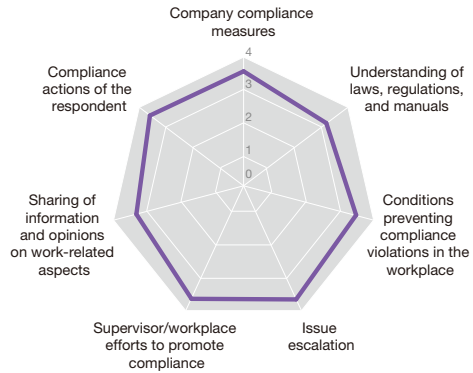
The results showed that Tokyo Gas, its subsidiaries, and LIFEVAL companies have maintained high average scores of at least 3 points on a 4-point scale in every category.

As a reference for future improvement, we offered feedback on common tendencies and, where necessary, individual corporate tendencies with respect to the survey results and corresponding actions to be taken. The results are posted on the intranet for review by all employees of Tokyo Gas, its subsidiaries, and LIFEVAL companies.

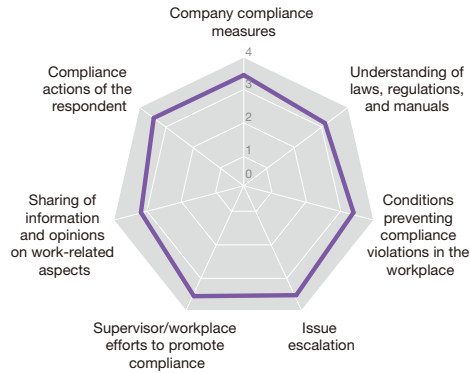
Governance

Overview of the FY2019 Compliance Survey Results

■ Tokyo Gas



■ Subsidiaries



■ LIFEVAL companies



Compliance Auditing

The Internal Audit Department regularly conducts audits of Tokyo Gas and its subsidiaries and affiliates focusing on the severity of risks and the probability of their materialization from the perspective of legislation related to the audited unit's operations, as well as corporate ethics and social norms.

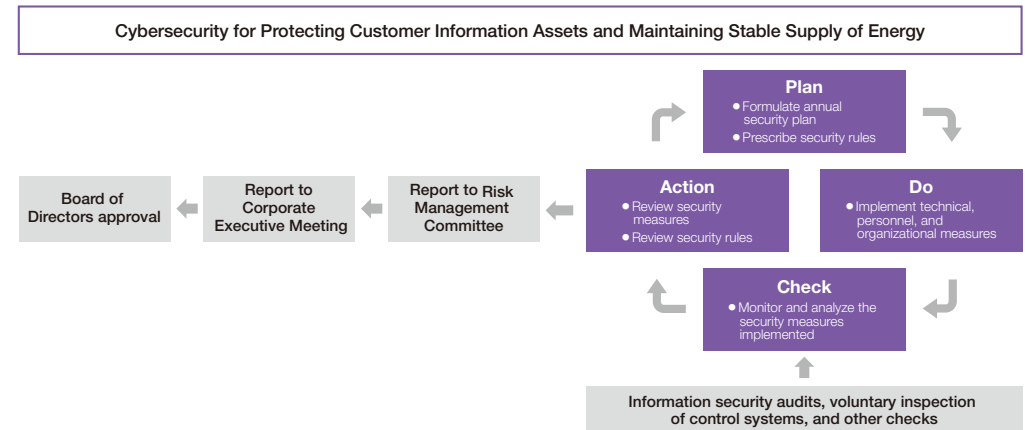
Cybersecurity Management

Basic Policy

As an infrastructure provider, Tokyo Gas considers cybersecurity to be an important management issue. Our management leads efforts to ensure the security of the information systems that handle customer and other data and the control systems for gas production/supply, power generation, and other facilities. Through these efforts we strive to protect the customer information assets under our stewardship and to maintain the stable supply and safety of energy services. Furthermore, we implement measures for preventing cybersecurity incidents, and, recognizing the sheer difficulty of thwarting all cyberattacks, carry out management-involved training sessions and other actions for readying ourselves to respond to a potential intrusion.

In addition, we are seeking to further strengthen our cybersecurity through a PDCA cycle that adapts to recent advances in digital technologies, the growing threat of cyberattacks, and other changes in the cybersecurity landscape.

■ PDCA Cycle for Ensuring Cybersecurity



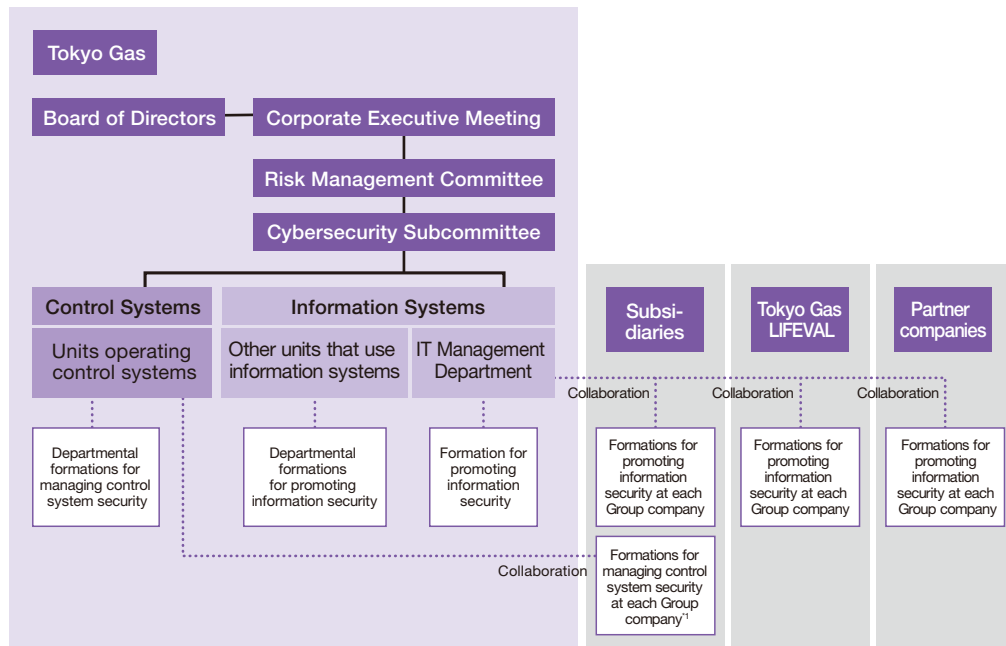
Governance

Cybersecurity Promotion System

As cyberattacks become more advanced and sophisticated, risk management is increasingly important for information systems and control systems. We manage cyberattack risks through efforts informed by the Ministry of Economy, Trade and Industry's Cybersecurity Management Guidelines. These actions are led by our Cybersecurity Subcommittee, which reports to the Risk Management Committee and provides integrated risk management for both information and control systems.

In addition, all Tokyo Gas units and the subsidiaries and some 220 partner companies that support Tokyo Gas Group operations strive together to ensure cybersecurity. This concerted effort develops the information security promotion and control system management formations needed to prevent cybersecurity incidents and minimize the damage and other impacts of incidents that do occur.

■ Cybersecurity Organization



*1 Only the companies that operate control systems.

Practices to Ensure Cybersecurity

We take a comprehensive approach to cybersecurity that combines technical measures such as those for preventing system intrusions, personnel measures such as employee training, and organizational measures such as establishment of security response formations and the holding of cyberattack response training. Through our sustained implementation of these efforts, we raise the level of security across the entire Tokyo Gas Group.

Protection of Personal Information

Basic Policy

We recognize that properly protecting and handling personal information is at the foundation of our business activities and a vital social responsibility. To fulfill these responsibilities, we have established the following policies for guiding our best efforts to protect personal information.

Tokyo Gas Policy on Protection of Personal Information

- 1. Legal compliance
2. Personal information management
3. Collection and use of personal information
4. Provision of personal information to third parties
5. Disclosure, correction, etc., of personal information

▶ Handling of Personal Information Web



Governance

Secure Control of Personal Information

The Tokyo Gas Group collects and utilizes a massive volume of personal information, including information on over 11 million customers. We have established a security control system for ensuring the personal information of all our customers is appropriately protected and managed. Moreover, we are committed to thoroughly educating employees and raising their awareness about legal concerns and implications.

We established a Group-wide personal information security control system even before the Act on the Protection of Personal Information took full effect on April 1, 2005. Since then we have been working to ensure that all employees are thoroughly familiar with the content of the act by developing in-house rules and manuals in compliance with it. In addition to voluntary checks conducted to confirm whether personal information is being properly managed, internal audits are conducted by the Internal Audit Department to assess compliance with the act and other applicable laws, ordinances and guidelines as well as our own policy on the protection of personal information and internal rules. In order to constantly foster awareness of information security, we educate employees about protecting personal information as part of the level-specific training provided when they join the Company, during their third year and qualification promotions, and on other appropriate occasions.

In response to the revised Act on the Protection of Personal Information that took effect in May 2017, we began informing each company of the Tokyo Gas Group of the details of the revised act. We also formulated guidelines for clarifying personal information and handling anonymously processed information. In April 2017, we distributed a pamphlet that explains the practical aspects of the Act on the Protection of Personal Information to all employees of Tokyo Gas, its subsidiaries, and Tokyo Gas LIFEVAL companies in order to strengthen understanding and encourage rigorous compliance.



Let's Follow the Rules: A Guide for Protecting Personal Information

Information Security Audit

The Internal Audit Department audits the Company and its subsidiaries and affiliates to determine whether the audited organizations are taking proper steps to ensure information security, to identify specific information security risks, and to confirm whether controls are being properly developed and implemented to manage these risks.

Appropriate Information Disclosure

Basic Policy

Tokyo Gas believes that the timely and proper disclosure of information to stakeholders is a core element of its public mission as an energy company. We proactively and appropriately communicate information on our corporation, the safety and usage of our products and services, and other matters to enable customers to enjoy the safe, reliable, and convenient use of the energy and gas appliances we supply.

Tokyo Gas Website

In addition to providing corporate and lifestyle information, and pages for carrying out gas/electricity service procedures, our website posts important notices, including on home gas appliances, to rapidly provide customers with accurate information on product recalls, defects, and other such matters that require their attention.

We also operate membership websites for customers of our electricity and gas services. The myTOKYOGAS site enables residential customers to check their monthly gas and electricity usage, convert their service usage points into rewards points of partner services, or use the usage points for purchasing items from the Tokyo Gas Web Shop or making donations to support environmental protection projects, the Japanese Para-Sports Association, and other causes. The myTOKYOGAS Business site provides commercial and industrial customers with a service that visualizes their monthly gas and electricity usage and charges.

Tokyo Gas Website – Important Notices



Governance

Tokyo Gas Official Social Media

We maintain a corporate Facebook page and Twitter account to offer instant access to our information. We post our seasonal information, recipes and other useful information for everyday life, including entertainment content such as Paccho's (Tokyo Gas's mascot character) Diary and disaster preparedness information on the safe use of city gas. In the event of a disaster, we share information through social media on how we are responding.

Proper Information Provision under Statutory and Voluntary Standards

We strive to provide the accurate information that customers need to make informed decisions about Tokyo Gas Group products and services. For example, we have created checklists for making sure that advertising and representations are appropriate and comply with the Act against Unjustifiable Premiums and Misleading Representations. We also strive to thoroughly ensure the accuracy of information in flyers, catalogs, brochures, and other materials through collaboration between the publications production team and the employees responsible for guaranteeing proper representation. Those employees are provided training to enhance their knowledge of this area.

To ensure that customers can safely use our products and services, we also abide by the guidelines for appropriate information provision and other matters that the Ministry of Economy, Trade and Industry has set forth in concert with the full deregulation of the electricity and gas markets.

Supply Chain Management

Tokyo Gas believes that it must fulfill its social responsibility in cooperation with business partners, rather than doing so on its own when delivering products and services to customers. In 1992, we introduced guidelines and basic requirements to pursue open, equitable, and fair purchasing activities. Adhering to these guidelines, we have forged relationships of trust and jointly implement CSR initiatives.

In 2017, we revised the Basic Requirements for Purchasing, Purchasing Guidelines for Suppliers, and Green Purchasing Promotion Guidebook to promote procurement in ways that show even greater consideration for CSR. Going forward, we will further enhance our brand values of Safety, Security and Reliability by continuing to work with suppliers to pursue open, equitable, and fair purchasing activities based on these policies.

Basic Approach

Adhering to the Basic Requirements for Purchasing revised in 2017, Tokyo Gas has developed trusting relationships rooted in highly transparent, fair, and equitable transactions with its business partners, and it is working with them to maintain and enhance the "Safety, Security, and Reliability" that are the hallmarks of the Tokyo Gas Brand.

To enhance customer trust, it is essential that not only Tokyo Gas Group but also its business partners practice compliance, preserve the environment, ensure occupational safety, respect human rights, and show concern for local communities. The Group has included provisions on transactions and relations with its business partners in Our Code of Conduct, and it is working to ensure awareness of and compliance with these provisions. To assist trust-based cooperation on purchasing activities with our business partners, we ask them to work with us on meeting the conditions set forth in our Purchasing Guidelines for Business Partners and Green Purchasing Promotion Guidebook. We have also established Environmental Common Specifications covering areas such as legal compliance, reduction of environmental impacts, and concern for occupational safety and health. Our business partners are informed of these specifications and required to comply with them every time that we place an order with them.

Procurement Policies

- Purchasing Guidelines: code of conduct governing the purchasing activities of Tokyo Gas
- Purchasing Guidelines for Suppliers: requirements for doing business, including quality, legal compliance, labor, safety and human rights, environment, and local communities
- Green Purchasing Promotion Guidebook: environmental aspects of procurement that require consideration



Governance

Purchasing Guidelines

Tokyo Gas established the Purchasing Guidelines as a code of conduct for its purchasing activities that embodies its Corporate Action Philosophy. In fiscal 2017, we revised the Principles and Standards to promote procurement in ways that show even greater consideration for CSR.

Purchasing Guidelines

1. Openness

The Company will procure goods and services, both domestically and internationally, that meet the Company's standards for quality, safety, and cost, through procedures that are simple and easily understood.

2. Fairness and Equality

The Company will select its suppliers in a fair and equitable manner on the basis of economic rationality, with due consideration to quality, price, reliability, guaranteed delivery, after-sales service, suitability with existing facilities, technological ability, financial health, and CSR stance.

The Company is fully committed to complying with the laws and regulations prohibiting bribery, corruption, misappropriation, antitrust, and other illegal behavior.

3. Mutual Trust

The Company will establish relationships of trust with its suppliers based on fair and equitable transactions and strive to maintain and enhance the safety, security, and reliability of its brand through mutual prosperity and cooperation. Indispensable to providing stable energy is the stable supply of quality goods and services from suppliers at fair prices and within the designated delivery periods, all based on mutual trust.

4. Commitment to Compliance

The Company and its suppliers must fully comply with the letter and spirit of all relevant laws and regulations, social norms, and corporate ethics when conducting business transactions.

5. Environmental Protection

The Company will work with its suppliers to protect the natural environment toward realizing a resource-saving society by adopting the perspective of environmental friendliness in addition to economic considerations.

The Company will promote Green Purchasing in accordance with its Green Purchasing Promotion Guidebook and also to follow through with its Environmental Policies.

6. Occupational Safety and Respect for Human Rights

The Company will work with its suppliers to ensure occupational safety and respect for human rights.

7. Consideration for Local Communities

The Company will work with its suppliers to preserve the environment and ensure respect for human rights in local communities, while also striving to ensure their safety and security.

The Company will actively engage in activities that contribute to the development of local communities toward the betterment of society.

▶ Action on Resource Procurement [Web](#)

Purchasing Guidelines for Suppliers

To clarify and address the tasks in a collaborative effort, the Tokyo Gas Group sets out its requirements in the Purchasing Guidelines for Suppliers and requests that they be put into practice.

Promotion of CSR will also result in reducing risks and enhancing quality across the supply chain. Our objective is to achieve mutual growth alongside our suppliers and play a part in creating a sustainable society.

Purchasing Guidelines for Suppliers

The Company seeks the cooperation of its suppliers and requests that they understand and act in accordance with the Basic Requirements so as to ensure mutual trust throughout purchasing activities.

1. Quality Guarantee

The Supplier must meet the requirements for quality and performance as set by Tokyo Gas and maintain that level of quality and performance over a reasonable period of time.

2. Reasonable Pricing

The Supplier must offer prices deemed reasonable with respect to quality, performance, specifications, terms of delivery, terms of payment, trends in market prices, and other relevant areas.

3. Compliance with Terms of Delivery

The Supplier must observe the contractual time of delivery specified by the Company.

4. Safety Assurance

The Supplier must ensure the safe use and operation of its products.

5. Maintenance and After-Sales Service

The inspection, maintenance, and repair services that the Supplier is required to provide should be undertaken in a fast and precise manner, an approach that should also be applied to its design and production or implementation of goods and services. In addition, the Supplier must be capable of quickly providing the necessary parts and technical assistance for standard repairs and in the event of an emergency.

6. Risk Management

(1) Quick and appropriate response

The Supplier must be able to respond quickly and appropriately to quality-related issues and emergencies such as natural disasters or accidents.

(2) Personal and confidential information

The Supplier must appropriately handle personal information and confidential information.

(3) Intellectual property

The Supplier must appropriately manage intellectual property, including confidential information and expertise.

7. Commitment to Compliance

The Supplier must comply fully with the letter and spirit of all relevant laws and regulations, including the antitrust law and subcontractor law, and is expected to observe social norms and corporate ethics. The Supplier must also maintain a fully functioning system for the prevention and early detection of illegal behavior.



Governance

8. Consideration for Labor, Safety, and Human Rights

The Supplier must act in compliance with laws, regulations, and social norms related to occupational health and safety, working conditions, and human rights, and must engage in initiatives for addressing these issues. Specific requirements include:

- Eliminating all discriminatory practices based on race, ethnicity, religion, gender, age, place of birth, nationality, physical and mental disability, academic background, social status, sexual preference, sexual identity, and other factors, and striving to provide equal opportunities and fair treatment;
- Attending to the health and safety of employees and implementing the necessary measures;
- Properly managing working hours and avoiding forcing work against the will of the employee;
- Respecting employees' right to organize and allowing collective bargaining and labor-management consultations;
- Protecting the rights of workers, complying with minimum wage requirements, and giving due consideration to providing a living wage; and
- Prohibiting child labor and forced labor and preventing illegal labor practices.

9. Environmental Protection

The Supplier is required to implement sufficient measures to avoid harming the global environment, pay due consideration to environmental issues, and reduce its environmental impact. The Supplier is also expected to implement initiatives in line with the Company's Green Purchasing Guidelines.

10. Consideration for Local Communities

The Supplier is required to work with its business partners to protect the environment, respect human rights, and ensure the safety and security of local communities. The Supplier is encouraged to actively engage in activities that contribute to the development of local communities toward the betterment of society.

11. Supply Chain Management

In addition to observing these Guidelines, the Supplier is expected to encourage its business partners to implement the initiatives set forth therein.

12. Prohibition of Involvement with Conflict Minerals

As a precondition to any business transaction, products supplied by the Supplier must not contain conflict minerals (gold ore, coltan, wolframite, and cassiterite) produced to fund militant groups in the Democratic Republic of the Congo and its neighboring countries and regions.

Environmental Common Specifications

The Environmental Common Specifications cover rules on issues such as legal compliance, reduction of environmental impact and consideration for occupational safety and health. We present the Specifications to suppliers whenever we commission construction and other work, and request their cooperation.

Green Purchasing Promotion Guidebook

Tokyo Gas has practiced green purchasing^{*1} since fiscal 1996.

We systematically pursue green purchasing in accordance with our Green Purchasing Promotion Guidebook and require suppliers to adhere to specifications based on our Purchasing Guidelines for Suppliers.

*1 Placing priority on purchasing products and services with lower environmental impact.

The Tokyo Gas Group will promote Green Purchasing in accordance with this Guidebook and by adopting the perspective of environmental friendliness, in addition to common criteria such as cost, quality, and terms of delivery, when procuring and purchasing construction work, services, materials, manufactured goods, and components (hereafter collectively referred to as "goods and services").

1. Purpose of Green Purchasing

- 1.1 Tokyo Gas endeavors to proactively and consistently contribute to protecting the global environment and building a resource-saving society, not only by reducing the environmental impact of its business activities through initiatives such as energy conservation and waste reduction but also by promoting Green Purchasing in the upstream segment of its business activities toward reducing its overall environmental impact.

2. Considerations for Selecting Goods and Services

- 2.1 In accordance with the Green Purchasing Guidelines laid out by the Green Purchasing Network (GPN), Tokyo Gas will select goods after considering the diverse environmental impacts throughout their life cycles, from extraction of raw materials to disposal, as explained below.
 - 2.1.1 Reduction of environmental impact
Reduced use or emission of substances that are harmful to the environment and human health. Proper control of legally designated chemical substances.
 - 2.1.2 Conservation of resources and energy
Limited consumption of resources, energy, and water during product manufacture, use, and installation.
 - 2.1.3 Sustainable extraction and use of resources
Sustainable extraction methods and effective utilization to prevent depletion of resources.
 - 2.1.4 Capacity for long-term use
Enable long-term use based on ease of repair, parts exchange, and other considerations.
 - 2.1.5 Reusability
Can be reused.
 - 2.1.6 Recyclability
Can be recycled.
 - 2.1.7 Use of recycled materials
Contains a significant ratio of recycled materials and reused components.
 - 2.1.8 Ease of treatment and disposal
Can be easily treated and disposed of as waste.
 - 2.1.9 Legally compliant waste disposal
Promotes the recycling of resources through reduced waste generation, reuse, and thorough sorting and ensures a legally compliant waste disposal process.
 - 2.1.10 Biodiversity conservation
Mitigates direct and indirect impacts of business operations on the ecosystem.



Governance

3. Considerations for Selecting Suppliers

- 3.1 When selecting suppliers, Tokyo Gas will give higher priority to companies that actively pursue environmental protection initiatives, such as implementation of an environmental management system (EMS) that includes:
- 3.1.1 Establishing environmental principles and guidelines;
 - 3.1.2 Appointing dedicated environmental officers;
 - 3.1.3 Complying with environmental laws and regulations;
 - 3.1.4 Identifying the environmental impacts of business activities;
 - 3.1.5 Disclosing environmental information;
 - 3.1.6 Protecting the environment in collaboration with local communities and NGOs;
 - 3.1.7 Promoting Green Purchasing; and
 - 3.1.8 Asking suppliers to pursue environmental protection activities.

4. Collection and Use of Environmental Information

- 4.1 Tokyo Gas will actively collect, organize, and analyze environmental information on goods and services as well as manufacturers and sales companies. The information will be shared by the Purchasing Department and used to ensure appropriate management of Green Purchasing.

5. Note on Implementing Green Purchasing

- 5.1 When undertaking procurement and purchasing, the Purchasing Department of Tokyo Gas will give priority to selecting the goods and services with the least environmental impact, from among candidates that meet requirements such as quality and terms of delivery, while at the same time striving to contain costs.

Conducting In-house Education on Procurement

In promoting CSR procurement, it is important that every staff member responsible understands the purpose.

In fiscal 2019, we conducted training for responsible staff members and newly assigned staff, basic seminars on purchasing for employees in other departments, workshops on responding to medium-term issues, and self-study sessions. In addition to this core content, we also provided in-house education focused on issues expected to emerge in the future, including through lectures by external experts and forums for exchanging opinions.

Training	Content	Overview
Training for responsible staff members	Purchasing rules, communication with suppliers, contracts, relevant laws and regulations, risks related to procurement, ideal role of the Purchasing Department	Target: Purchasing Department staff 16 courses
Training for newly assigned staff	Purchasing rules, communication with suppliers, contracts, relevant laws and regulations, risks related to procurement, procurement system, etc.	Target: Newly assigned Purchasing Department staff 6 courses
Basic seminars on purchasing for employees in other departments	Laws and regulations related to purchasing, basic knowledge for appropriate purchasing practices	Target: All employees 14 courses
Seminars on responding to medium-term challenges	Dealing with policy and institutional challenges such as legal separations, transmission cost assessments, and procurement reforms	Target: Purchasing Department staff 16 courses
Self-study sessions	Improvement of procurement skills, including negotiating, inventory management and demand forecasting, and supplier development (continuing into next fiscal year)	Target: Purchasing Department staff 5 courses

Example of Promoting Green Purchasing through Electronic Catalog

Tokyo Gas has introduced purchasing from an electronic catalog^{*2} that lists over 100,000 items.

Office supplies, fixtures and equipment, and printed matter comprise the majority of listed items, and we place priority on products that meet green purchasing requirements. The catalog provides us with environmentally-friendly options. In addition, we also promote the use of Tokyo Gas Recycled Paper made of paper waste generated by Tokyo Gas.

*2 Our PASPO purchasing system facilitates simple and timely ordering from an online electronic catalog.



Governance

Supplier Survey

Overview

As part of our annual supplier survey, we review the status of CSR efforts at each company.

In fiscal 2019, we formulated the survey questions based on past survey results and the latest societal trends and also established procedures for confirming status along with a management checklist. In addition, we have been providing feedback across the board to encourage two-way communication and strengthen cooperation with Purchasing Guidelines for Suppliers.

Results of FY2019 CSR Survey of Suppliers

In fiscal 2019, we conducted a wide-ranging survey asking 513 companies to provide information on their policies and codes of conduct for promoting CSR. We received responses from 465 of them, which was a significant increase from the previous year. We compiled and analyzed their responses and confirmed specific points directly with them as needed. None of the suppliers demonstrated any serious risks such as legal violations.

The details and results of the survey are as follows.

■ Details of Implementation

Training	FY2018	FY2019
Target (companies)	509	513
Respondents (companies)	454	465
Response rate (%)	89.2	90.6

■ Overview of Survey Results

Categories/Typical Questions	Ratio of Suppliers Addressing the Issues (%)
1. CSR management and compliance - Establishment of codes of conduct on CSR	94
2. Risk management - Formulation of business continuity plan	80
3. Product quality and safety - Establishment of policies on product quality and safety	80
4. Human rights and working conditions - Establishment of codes of conduct on human rights and working conditions	93
5. Occupational safety, hygiene, and health - Establishment of codes of conduct on occupational safety and health	90
6. Environment - Formulation of environmental policy, efforts on conservation of resources	67
7. Supply Chain - Formulation of policies on the supply chain	60



Corporate Governance

Basic Policy

As an "Energy Frontier Corporate Group" focused on natural gas, Tokyo Gas shall actively contribute to the creation of pleasant lifestyles and an environmentally friendly society and work to ensure continued development while consistently earning the trust of customers, shareholders, and society. Under its management philosophy, Tokyo Gas seeks to fulfill and bolster its corporate governance in order to increase its corporate value by ensuring legality, soundness and transparency of management. Simultaneously, it engages in appropriate, prompt decision-making, efficient business operations, enhancement of the audit and supervisory functions, and clarity of responsibility of management and operations.

Corporate Governance Systems

Outline of Implementation System of Corporate Governance

We limit the number of our directors to no more than 15 in order to increase the speed and effectiveness of management decision-making. We also invite outside directors to serve on the Board of Directors to increase transparency and reinforce the supervision of business operations. Our Board of Directors now has nine members, including four outside directors. Furthermore, we have established the Advisory Committee, comprised of two outside directors, one outside Audit & Supervisory Board member, the chairman and the president to select candidates for officers in a fair and proper manner in response to an inquiry by the Board of Directors. It also deliberates on the salaries of officers, based on the Basic Policy on Officer Remuneration, and submits decisions to the Board of Directors. Our audits are conducted based on stringent standards by five Audit & Supervisory Board members, with three of them being outside members.

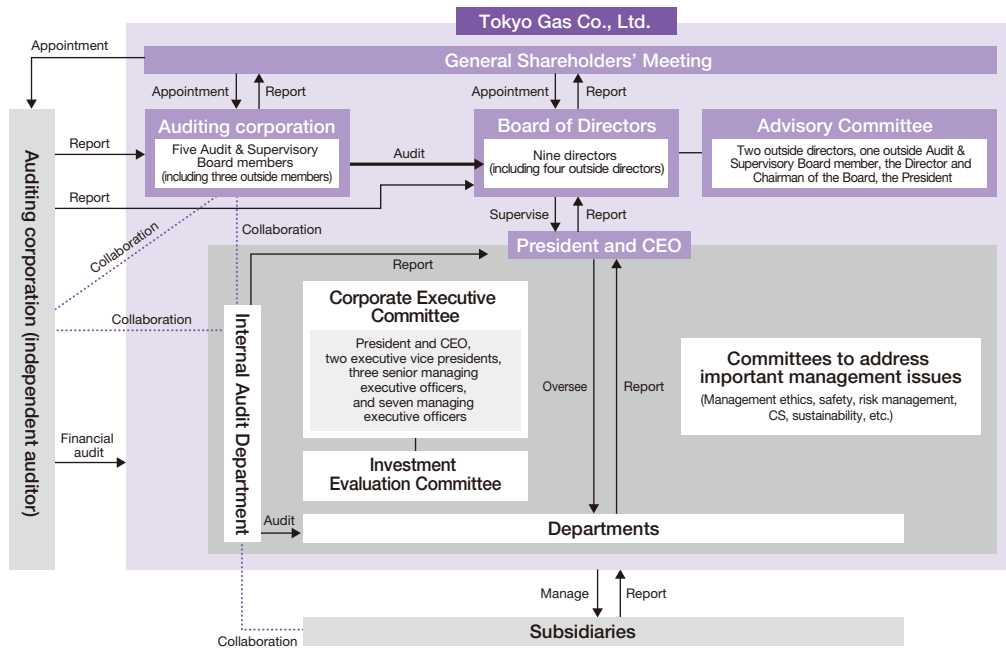
The Corporate Executive Meeting, which is held once a week in principle, deliberates on important management-related issues, including matters requiring approval from the Board of Directors, to achieve accurate, prompt decision-making and efficient business execution. In business execution based on the resolution of the Board of Directors, by introduction of an executive officer system, the Board of Directors delegates substantial authority to executive officers in their designated criteria of responsibility by resolution. On the other hand, the directors supervise those executive officers in an appropriate manner and in accordance with a report they receive on the status of business execution by executive officers, if needed, which is submitted to the Board of Directors. (The term of office of directors and executive officers is set at one year to clarify management and executive responsibilities.) We established the Management Ethics Committee, chaired by the president, and other in-house committees to address key management concerns such as compliance, security, customer satisfaction, sustainability, and risk management and to promote transparent management and create a flexible, open corporate culture. These committees facilitate the sharing of information within the Group as well as deliberations and adjustments regarding the Group's overall direction.

Tokyo Gas has adopted and built up a highly objective and transparent governance system by proactively bringing on board outside directors and Audit & Supervisory Board members to create multiple layers in its supervisory and audit functions.



Governance

System for Promoting Corporate Governance (as of June 26, 2020)



Overview of Corporate Governance System (as of June 26, 2020)

Number of directors	9	Participation of outside directors and outside Audit & Supervisory Board members in selecting director candidates	Yes
Average age of directors	62.6	Number of meetings of Board of Directors*1	12
Number of outside directors	4	Attendance rate of outside directors at meetings of Board of Directors*1	100%
Number of Audit & Supervisory Board members	5	Term of office of directors	One year
Number of outside Audit & Supervisory Board members	3	Performance-linked remuneration	Yes
Number of independent officers	7	Share purchase system to reflect the perspective of shareholders in management	Yes
Participation of outside directors / outside Audit & Supervisory Board members in determination of remuneration	Yes		

*1 Total for the period from June 2019 to May 2020

Compliance with Japan's Corporate Governance Code

Tokyo Gas has formulated the "Basic Policy on Corporate Governance" in compliance with Japan's Corporate Governance Code for listed companies. To achieve sustainable growth and increase its corporate value over the medium- to long-term, we will collaborate with our stakeholders, ensure appropriate information disclosure and transparency, and fulfill the commitment of the Board of Directors, and at the same time, we will pay due consideration to communicating and gaining the understanding of stakeholders including shareholders. Our response to each of the principles of Japan's Corporate Governance Code as of June 2020 is summarized below.

Principles	Location of Disclosure		
	Website	Basic Policy on Corporate Governance	Corporate Governance Report
Principle 1.4 Cross-Shareholdings		Article 22	●
Principle 1.7 Related Party Transactions		Article 23	●
Principle 2.6 Roles of Corporate Pension Funds as Asset Owners		Article 29	●
Principle 3.1 Full Disclosure	(1) Management Philosophy, strategies and medium- and long-term management plans	●	
	(2) Basic views and guidelines on corporate governance	●	Article 2
	(3) Policy and procedures for determining officer remuneration	●	Article 14
	(4) Policy and procedures for election (nomination) of officers	●	Article 7 Article 9 Article 12
	(5) Reasons for election and nomination of individual officers	●	
Supplementary Principle 4.1.1 Scope of Matters Delegated to Management by the Board of Directors		Article 4	●
Principle 4.9 Independence Standards and Qualification for Independent Directors	●	Article 7	●
Supplementary Principle 4.11.1 View of the Board of Directors as a Whole		Article 4 Article 5 Article 7	●
Supplementary Principle 4.11.2 Concurrent Posts Held by Directors and Audit & Supervisory Board Members	●		●
Supplementary Principle 4.11.3 Analysis and Evaluation of Effectiveness of Board of Directors as a Whole		Article 6	●
Supplementary Principle 4.14.2 Policy for Training of Directors and Audit & Supervisory Board Members		Article 17	●
Principle 5.1 Policy for Constructive Dialogue with Shareholders		Article 21	●

▶ Corporate Governance Report (PDF: 344 KB) [Web](#)

▶ Basic Policy on Corporate Governance (PDF: 214 KB) [Web](#)

▶ Integrated Report [Web](#)

▶ Financial Results [Web](#)

▶ Independence Standards for Outside Officers (PDF: 76 KB) [Web](#)

▶ Basic Policy on Officer Remuneration [Web](#)



Governance

Management Structure

Board of Directors

The management structure of Tokyo Gas is composed of the right number of directors to ensure speedy, effective decision-making. We have adopted an executive officer system and invited outside directors to serve on the Board of Directors to improve transparency and reinforce the execution and supervision of business operations. As of the end of June 2020, the board had nine members, including four outside directors. Their respective terms of office are set at one year.

Officer Remuneration System

Our Basic Policy on Officer Remuneration clarifies the management responsibilities of officers in terms of Company performance and ensures objectivity and transparency in remuneration. To reflect shareholders' perspectives in management, all directors excluding outside directors are required to purchase Company stock every month and maintain ownership of this stock during the term of their service in accordance with the Guidelines for Stock Purchases.

Types of directors	Total value of remuneration (million yen)	Total value of remuneration by type (million yen)			Number of directors subject to remuneration
		Fixed remuneration (paid monthly)	Performance-linked remuneration (paid monthly)		
			Monthly remuneration	Bonuses	
Directors (excluding outside directors)	331	240	55	34	5
Audit & Supervisory Board members (excluding outside members)	74	74	—	—	3
Outside directors	41	35	—	6	6
Outside Audit & Supervisory board members	34	34	—	—	3

Note 1: Figures above include payments to two outside directors and one Audit & Supervisory Board member who retired at the conclusion of the 219th Ordinary General Shareholders' Meeting.

Note 2: The total basic monthly salary for all directors, including outside directors, approved at the 205th Ordinary General Shareholders' Meeting, is to be a maximum of 50 million yen per month, and total bonuses for all directors approved at the 206th Ordinary General Shareholders' Meeting is to be a maximum of 90 million yen per year.

Note 3: The total basic monthly salary for all Audit & Supervisory Board members, including outside members, approved at the 190th Ordinary General Shareholders' Meeting, is to be a maximum of 12 million yen per month.

Executive Officer System

By adopting an executive officer system, we have delegated substantial authority over business operations in individual business departments to the corresponding executive officers and established clear lines of responsibility. Executive officers are assigned to ensure that Company decisions on business matters are executed quickly and reliably. These officers work to maximize Group value in accordance with policies determined by the Board of Directors. To ensure clear accountability, executive officers are appointed for terms of one year.

Advisory Committee

We have established the Advisory Committee, which comprises five members with outside members in the majority. These members are appointed by the chairman, president and Board of Directors. In response to inquiries from the Board of Directors, the committee deliberates on issues such as the appointment of officer candidates and officer remuneration, thus ensuring management transparency and objectivity.

Corporate Executive Meeting

The purpose of the Corporate Executive Meeting is to deliberate on measures pertaining to corporate management issues. It is composed of 13 executive officers with operational responsibilities. In addition, two full-time Audit & Supervisory Board members attend the committee meetings.

In-house Committees

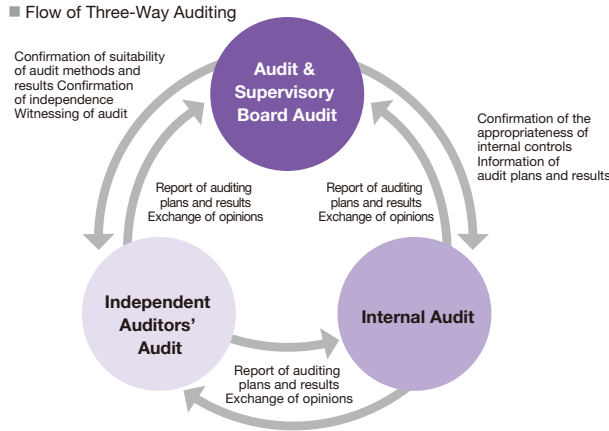
Important management issues concerning the Company's overall policies require investigations, studies and arrangements spanning multiple business departments, subsidiaries or business domains, and to that end we have established cross-divisional in-house committees to enhance the consistency, effectiveness and cohesiveness of our policies. These committees are chaired either by an executive officer with operational responsibility or, in the case of the four most important committees responsible for ethics, safety, customer satisfaction, and sustainability, by the president. The matters considered by each committee are reported as necessary to the Corporate Executive Meeting.

Governance

Audit Structure

Mutual Collaboration among the Audit & Supervisory Board Audit, Internal Audit, and Independent Auditors' Audit

In order to enhance the effectiveness of three-way auditing (Audit & Supervisory Board Audit, Internal Audit, and Independent Auditors' Audit) as well as to improve the quality of audits as a whole, Tokyo Gas strives to strengthen the mutual collaboration between each audit in areas such as the reporting of audit plans and results as well as exchanges of opinions and witnessing of audits, as shown in the diagram below.



Audit & Supervisory Board

The Audit & Supervisory Board meets once a month in principle and additionally on an ad hoc basis, and consists of five members, including three outside auditors. This Board deliberates and decides upon auditing policy and related matters, and receives audit status reports and other reports from the members. In line with the Corporate Auditor's Audit Standards set forth by this Board, each member attends meetings of the Board of Directors and the Corporate Executive Meeting, as well as other important meetings. They also examine the state of operations at the head office and other business offices, and gather information through means such as communications with accounting auditors. In addition, when necessary they request explanations, state their opinions, and audit the execution of duties by the directors.

Internal Audit Department

Our company has established the Internal Audit Department as an internal audit body (with 38 assigned staff members as of June 26, 2020, including those in charge of operations in response to the Internal Control Reporting System) with a structure that can effectively implement specialized audits from the perspectives of accounting, operations, compliance, information systems, and risk management, among others.

Procedures and Status of Internal Audits

Internal audits are made of Tokyo Gas and its subsidiaries, which are completed over a three- to six-year cycle based on the annual audit resolved by the Board of Directors. The results of these audits are reported not only to the president, Corporate Executive Meeting, Board of Directors, and Audit & Supervisory Board but also to the managers of all audited offices. Offices are required to submit their responses to recommendations arising from these audits, and progress on implementing these responses is followed up and reported to the Corporate Executive Meeting the following year. In fiscal 2019, five divisions of Tokyo Gas and four subsidiaries were audited, two divisions and four subsidiaries were given follow-up audits, and issue-specific audits were conducted on the state of internal controls at overseas subsidiaries.

Collaboration on Audits within the Group

In the Tokyo Gas Group, Audit & Supervisory Board, Audit & Supervisory Board of subsidiaries, and the Internal Audit Department periodically exchange opinions. We have established a system that ensures efficient and effective audit activities across the Group through close ongoing coordination and liaison meetings. In fiscal 2019, we held two liaison meetings.

Internal Control

Internal Control System

To secure the soundness and transparency of our management and realize our management philosophy, Tokyo Gas has formulated the Basic Policy on Development of Corporate Structures and Systems for Ensuring Appropriateness of Operations (Internal Control System) for Tokyo Gas Group and is applying this policy in an appropriate manner.

Compliance with the Internal Control Reporting System

To comply with the Internal Control Reporting System under the Financial Instruments and Exchange Act, Tokyo Gas follows the internal controls basic framework presented in Financial Services Agency standards, arranges and administers internal controls related to financial reporting, assesses their status and improves them as necessary. In the internal controls report for the previous fiscal year prepared under this system, which found our internal controls regarding financial reporting to be effective, the auditors expressed the opinion that all the material points were represented appropriately.



Governance

Risk Management

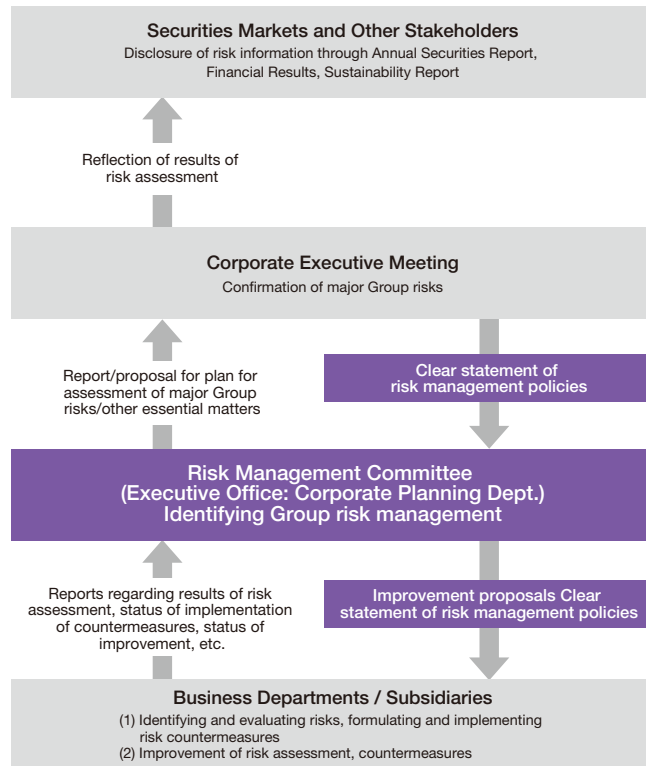
Risk Management System

Enterprise Risk Management System

Tokyo Gas has set up an enterprise risk management (ERM) system and identified major risks in its Risk Management Regulations.

The Risk Management Committee, established to advance our ERM, periodically checks on progress regarding the establishment and operational status of the ERM system, reports results to the Corporate Executive Meeting and obtains the necessary approvals. Under this framework, around 150 risk management promotion officers are deployed in the business departments of Tokyo Gas and its subsidiaries to promote ERM. Each year, we assess risks and the implementation and improvement status of countermeasures. This system facilitates the steady implementation of the ERM-PDCA cycle.

■ Enterprise Risk Management System



FY2020 Enterprise Risk (Risks of Businesses)

1. Risks associated with accidents, disasters, etc.

- 1) Gas resource procurement difficulties
- 2) Natural disasters
- 3) Accidents accompanying gas manufacture and supply, and supply impairments
- 4) Spread of highly pathogenic/communicable infectious diseases
- 5) Unforeseen, large-scale power outages
- 6) Problems in securing the safety of city gas and quality of gas appliances
- 7) Damage due to rumors caused by city gas accidents at other firms

2. Market fluctuation risk

- 1) Risk of changes in market prices and interest rates

3. Risks accompanying business execution

- 1) Risks related to existing businesses
 - (1) Decrease in demand due to intensified competition
 - (2) Changes in gas resource costs
 - (3) Changes in laws, regulations, institutions, and national or local energy policies
 - (4) Changes in gas sales due to climate change
 - (5) Reduction in demand due to changes in the business environment
 - (6) Interruption of telephone service at call centers
 - (7) Delay in the development of new technologies
- 2) Risks associated with the development of overseas businesses
- 3) Delayed cultivation of new markets
- 4) Inability to recover investments

4. Risks related to information management and system operation

- 1) Leakage of personal information
- 2) Shutdown or malfunction of IT systems
- 3) Cyber-attacks

5. Risks related to corporate social responsibility

- 1) Compliance violations
- 2) Conformance with new environmental regulations etc.
- 3) Insufficient CS or customer service
- 4) Insufficient response to human rights issues

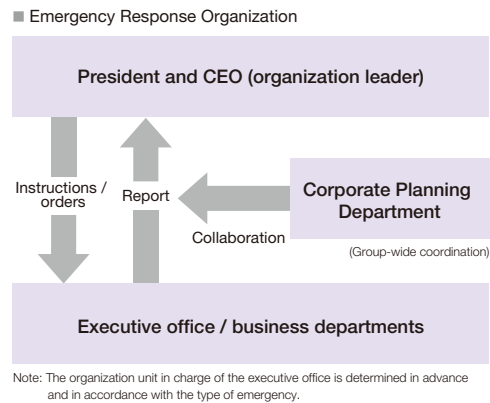


Governance

Crisis Management System

Since the Company provides vital public services, it has for many years also operated a crisis management system that serves as a response system in the event of an accident or other risk-related incidents. Specifically, we formulated the Emergency Response Regulations, with which the Emergency Response Organization will respond accordingly and immediately in the event of a crisis, including major natural disasters such as an earthquake, production or supply disruptions arising from major accidents at gas pipelines or LNG terminals, the spread of highly pathogenic/communicable infectious diseases, terrorism, failures in mission-critical IT systems, and compliance problems.

The Company periodically conducts training on major risk response measures. We have also formulated a Business Continuity Plan, which outlines how the Company will respond in the event of a major earthquake of the magnitude assumed by Japan's Cabinet Office, major accident disrupting gas supply, widespread power blackout, or the spread of highly pathogenic/communicable infectious diseases. This plan is in place to reinforce our risk management system.



Promoting Risk Management

Provision of Risk Management Training

The Tokyo Gas Group provides training programs to promote risk management.

In fiscal 2019, we held training for Risk Management Promotion Officers and newly appointed general managers and managers (newly appointed mid-level managers) in each department of the Company, and for subsidiaries so that they could appropriately perform necessary risk management in their respective positions and enhance their risk management capabilities.

Escalation Rules

To further enhance a corporate and organizational culture that encourages appropriate responses to managing risks, we established our clearly defined Escalation Rules, which require that information on any apparent major risk, such as accidents and disasters, be reported to the appropriate supervisory staff in a timely and appropriate manner.



ESG Data

Environmental Data

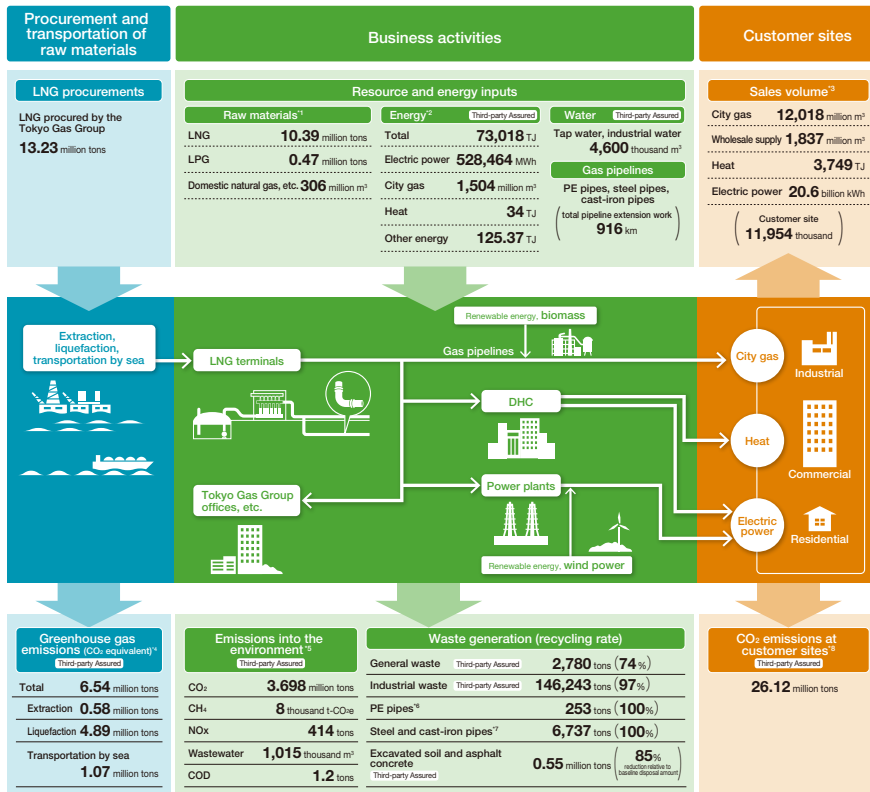
* The sum of individual environmental data may not be equal to the total due to the way figures are rounded.

The Tokyo Gas Group Business Activities and Material Balance

We monitor and manage impacts on the environment at every stage of our LNG value chain to reduce the impact on the environment.

■ Tokyo Gas Group Business Activities and Material Balance (FY2019)

Boundary: Tokyo Gas Co., Ltd. and 41 consolidated subsidiaries in Japan



¹⁾ For city gas production by the Tokyo Gas Group.
²⁾ Energy consumption by the Tokyo Gas Group excluding double-counting due to intra-group supply of heat and electricity.
³⁾ City gas: Volume of gas sales excluding supply to other gas utilities and sales for internal Group use.
 Wholesale supply: Volume of gas supplied to other gas utilities.
 Heat: Includes sales from LNG terminals as well as district heating and cooling centers and spot heat supply. Includes intra-group supply.
 Electric power: Volume of sales of all electric power, including power purchased for business use from other companies and the market as well as Group power stations.
⁴⁾ "City Gas Life Cycle Assessment (issued July 2020)," Japan Gas Association website.
 Production: 0.80; Liquefaction: 6.77; Transportation by sea: 1.48 g-CO₂/MJ, based on gross calorific value
⁵⁾ CO₂, CH₄, NO_x: Excludes double-counting due to intra-group supply.
 Volume of wastewater: Specified wastewater and domestic sewage.
^{6,7)} PE pipes, Steel and cast-iron pipes: Tokyo Gas Co., Ltd.
⁸⁾ Gas sales volume multiplied by emission intensity.

Use of Energy and Water/Emissions into the Atmosphere and Water System

Use of Energy and Water/Emissions into the Atmosphere and Water Systems

■ Feedstock and Sales Volume

Category		Unit	FY2015	FY2016	FY2017	FY2018	FY2019
City gas feedstock (Note 1)	Feedstock LNG	Thousand tons	11,411	11,583	11,407	11,083	10,388
	Feedstock LPG	Thousand tons	438	434	491	491	474
Production	City gas sales (Note 2)	Million m ³	15,263	15,571	15,380	15,022	13,855
	Heat sales (Note 3)	TJ	3,251	3,451	3,496	3,583	3,749
	Power Sales (Note 4)	Billion kWh	11.0	12.7	14.7	15.5	20.6

Note 1: For city gas production by the Tokyo Gas Group.
 Note 2: Volume of gas sales including supply to other gas utilities and excluding sales for internal Group use.
 Note 3: Includes sales volume from LNG terminals, in addition to district heating and cooling centers and spot heat supply. Also includes intra-group supply.
 Note 4: Volume of sales of all electric power, including power purchased for business use from other companies and the market as well as Group power stations.



ESG Data

■ Energy consumption^{*1,2} (Third-party Assured)

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Energy consumption ^(Note 1)	TJ	68,561	79,230	82,651	76,784	73,018
LNG terminals	TJ	3,998	4,169	4,291	4,106	3,815
District heating and cooling centers	TJ	4,167	4,316	4,037	4,173	5,916
Power plants	TJ	57,871	68,250	71,967	66,322	61,321
Tokyo Gas business offices, etc.	TJ	1,387	1,483	1,444	1,419	1,389
Other Group companies	TJ	1,460	1,362	1,368	1,279	1,193
Vehicles ^(Note 2)	TJ	—	—	—	—	117
(Tokyo Gas Co., Ltd.)	TJ	5,678	5,954	6,043	5,877	5,629
Electric power ^(Note 3)	MWh	615,419	626,729	607,725	651,068	528,464
LNG terminals	MWh	345,227	363,053	368,259	357,068	324,660
District heating and cooling centers	MWh	94,640	98,529	84,621	84,722	83,433
Power plants	MWh	11,407	9,775	10,700	93,486	9,311
Tokyo Gas business offices, etc.	MWh	52,372	51,526	49,786	49,629	45,336
Other Group companies	MWh	112,890	103,847	105,089	98,696	95,591
(Tokyo Gas Co., Ltd.)	MWh	402,357	419,502	422,776	416,928	380,112
City gas	Thousand m ³	1,447,012	1,691,380	1,775,849	1,628,350	1,503,916
LNG terminals	Thousand m ³	14,600	14,544	16,206	14,450	14,930
District heating and cooling centers	Thousand m ³	73,328	75,133	72,420	76,216	109,419
Power plants	Thousand m ³	1,341,099	1,582,434	1,668,543	1,519,617	1,360,735
Tokyo Gas business offices, etc.	Thousand m ³	15,969	18,209	17,697	17,082	17,965
Other Group companies	Thousand m ³	2,015	1,060	984	985	867
(Tokyo Gas Co., Ltd.)	Thousand m ³	35,990	38,347	39,676	37,035	38,814
Heat ^(Note 3)	TJ	48	71	55	36	34
District heating and cooling centers	TJ	198	232	211	119	119
Tokyo Gas business offices, etc.	TJ	88	93	95	96	96
Other Group companies	TJ	166	195	195	172	164
(Tokyo Gas Co., Ltd.)	TJ	96	102	104	105	105

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Other fuels	TJ	6	5	4	4	8
LNG terminals	TJ	1	1	1	0	0
Tokyo Gas business offices, etc.	TJ	1	1	1	1	4
Other Group companies	TJ	5	3	3	3	4
(Tokyo Gas Co., Ltd.)	TJ	1	2	1	1	5
Vehicles	TJ	—	—	—	—	117
(Tokyo Gas Co., Ltd.)	TJ	—	—	—	—	46
LNG cryogenic energy	Thousand tons	2,364	2,678	2,890	2,862	3,050
Cryogenic power generation	Thousand tons	724	785	787	616	775
Portion sent to subsidiaries and affiliates	Thousand tons	852	820	820	821	841
BOG treatment, etc.	Thousand tons	788	1,073	1,283	1,424	1,434

Note 1: Excludes double counting by intra-group supply of heat and electricity.

Note 2: Up through fiscal 2018 the figures for vehicles were included under "Tokyo Gas business offices, etc." and "Other Group companies." Starting with fiscal 2019, they are counted together as a separate item, "Vehicles."

Note 3: Excludes double counting by intra-group supply. Since fiscal 2018, the amount of heat accommodated was deducted for district heating and cooling centers.

■ Water Withdrawal (Third-party Assured)

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Tap water and industrial water	Thousand m ³	5,388	5,017	5,180	4,952	4,600
LNG terminals	Thousand m ³	1,457	1,138	1,125	1,045	981
District heating and cooling centers	Thousand m ³	1,459	1,552	1,507	1,780	1,716
Power plants	Thousand m ³	1,569	1,492	1,765	1,325	1,135
Tokyo Gas business offices, etc.	Thousand m ³	537	544	506	516	507
Other Group companies	Thousand m ³	366	290	276	286	261
(Tokyo Gas Co., Ltd.)	Thousand m ³	2,036	1,726	1,674	1,644	1,580
Seawater	Thousand m ³	773,963	781,879	784,651	738,529	686,350



ESG Data

■ Emissions into the Atmosphere Third-party Assured

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
CO ₂ *1, 2, 3 (Note 1)	Thousand tons of CO ₂	3,479	4,014	4,179	3,877	3,698
LNG terminals	Thousand tons of CO ₂	202	206	207	192	177
District heating and cooling centers	Thousand tons of CO ₂	211	217	201	205	294
Power plants	Thousand tons of CO ₂	2,938	3,466	3,654	3,370	3,120
Tokyo Gas business offices, etc.	Thousand tons of CO ₂	71	74	72	71	67
Other Group companies	Thousand tons of CO ₂	75	69	68	62	61
Vehicles (Note 2)	Thousand tons of CO ₂	—	—	—	—	8
(Tokyo Gas Co., Ltd.)	Thousand tons of CO ₂	288	296	294	280	266
CH ₄ *3, 4 (Note 3)	Thousand tons of CO ₂ equivalent	14	5	11	9	8
NOx	Tons	302	367	402	379	414
LNG terminals (Note 4)	Tons	11	13	13	12	12
District heating and cooling centers	Tons	52	51	54	54	96
Power plants	Tons	223	282	311	294	286
Tokyo Gas business offices, etc. (Note 4)	Tons	15	21	24	19	20
(Tokyo Gas Co., Ltd.)	Tons	28	35	38	32	33

Note 1: Excludes double counting by intra-group supply.

Note 2: Up through fiscal 2018 the figures for vehicles were included under "Tokyo Gas business offices, etc." and "Other Group companies." Starting with fiscal 2019, they are counted together as a separate item, "Vehicles."

Note 3: About 323 tons of CH₄ emissions

Note 4: Emissions from facilities that generate soot and smoke specified in the Air Pollution Control Act.

■ Greenhouse Gas Emissions (CO₂ equivalent) (SCOPE 1 + SCOPE 2) Third-party Assured

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
SCOPE1+SCOPE2	Thousand tons of CO ₂	3,494	4,020	4,189	3,886	3,706
SCOPE1	Thousand tons of CO ₂	3,186	3,712	3,902	3,588	3,467
SCOPE2	Thousand tons of CO ₂	308	308	287	297	239

■ Greenhouse Gas Emissions from Feedstock Procurement (SCOPE 3)

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019	
LNG procured	Million tons	13.87	14.25	14.24	13.95	13.23	
Greenhouse gas (CO ₂ equivalent) (Note 1)	Extraction	Million tons of CO ₂	0.58	0.60	0.60	0.59	0.58
	Liquefaction	Million tons of CO ₂	5.08	5.22	5.22	5.11	4.89
Third-party Assured	Transport by sea	Million tons of CO ₂	1.12	1.15	1.15	1.13	1.07

Note 1: Calculated based on greenhouse gas emission intensity throughout the lifecycle, from extraction of natural gas to processing and transportation, as analyzed by the LCA approach.

• FY2012–14 emission intensity

Extraction: 0.81; Liquefaction: 8.36; Transportation by sea: 1.97 g-CO₂/MJ, based on gross calorific value

Source: "Future Forecast for Life Cycle Greenhouse Gas Emissions of LNG and City Gas 13A" (Japan Society of Energy and Resources, presentation report 28 (2), March 2007)

• Emission intensity from FY2015

Extraction: 0.77; Liquefaction: 6.71; Transportation by sea: 1.48 g-CO₂/MJ, based on gross calorific value

Source: "Study of Life Cycle Greenhouse Gas Emissions of LNG and City Gas 13A" (Proceedings of the annual meeting of Japan Society of Energy and Resources 35, pp. 23–26, 2016)

• Emission intensity from FY2019

Extraction: 0.80; Liquefaction: 6.77; Transportation by sea: 1.48 g-CO₂/MJ, based on gross calorific value

Source: "City Gas Life Cycle Assessment (issued July 2020)," Japan Gas Association website.

■ CO₂ Emissions and Emissions Reduction at Customer Sites (SCOPE 3) Third-party Assured

Category	Unit	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Total amount	Million tons of CO ₂	26.94	27.09	27.67	29.36	28.96	29.43	29.60	28.92	26.12
Amount of reduction relative to FY2011	Million tons of CO ₂	Baseline	0.87	1.52	3.29	3.43	3.94	4.04	4.52	3.70

■ Energy Consumption and CO₂ Emissions Associated with Cargo Transportation (Tokyo Gas Co., Ltd.) (SCOPE 3) Third-party Assured

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Transportation amount	Million tons -km	98	86	83	93	82
Energy consumption (crude oil equivalent)	kL	3,354	3,165	3,055	3,237	2,985
Energy intensity	kL/Million tons-km	34	37	37	35	36
CO ₂ emissions	tons-CO ₂	8,810	8,267	7,993	8,520	7,836



ESG Data

■ Water Discharge Third-party Assured

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Wastewater	Thousand m ³	1,091	1,090	1,069	988	1,015
LNG terminals (Note 1)	Thousand m ³	287	291	242	221	300
District heating and cooling centers	Thousand m ³	330	354	330	362	387
Power plants	Thousand m ³	474	445	498	405	328
(Tokyo Gas Co., Ltd.)	Thousand m ³	296	300	258	254	335
COD	Tons	1.6	1.4	1.4	1.2	1.2
LNG terminals	Tons	1.2	1.0	0.9	0.9	1.0
Power plants	Tons	0.5	0.4	0.4	0.3	0.2
(Tokyo Gas Co., Ltd.)	Tons	1.2	1.0	0.9	0.9	1.0

Note 1: Data are for wastewater discharges from wastewater treatment facilities and sewage discharges.

Conversion Factor, etc.

■ CO₂ Emission Factor

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
City gas (Tokyo Gas 13A) (Note 1)	kg-CO ₂ /m ³			2.21		
Purchased electricity (average of all power sources) (Note 2)	kg-CO ₂ /kWh	Emission factors of electric power companies, released in accordance with the ministerial ordinance for the Act on the Rational Use of Energy				
Heat (Note 3)	Steam (excluding industrial use), hot water, cold water			0.057		
	Industrial steam			0.060		
Other fuels (Note 3)	Heavy oil A			2.71		
	Diesel			2.58		
	Kerosene			2.49		
	Gasoline			2.32		
	LPG			3.00		

Note 1: Calculated based on the typical composition of city gas (type 13A) supplied by the Tokyo Gas (15°C, gauge pressure of 2 kPa).

Note 2: The basic emission factors were used until fiscal 2017 and adjusted emission factors are used since fiscal 2018.

Note 3: Calculated using the unit calorific value released in accordance with the ministerial ordinance stipulated by the Act on Promotion of Global Warming Countermeasures, and multiplying this amount by the emission factor per unit calorific value and by 44/12.

■ Unit Calorific Value

Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
City gas (Tokyo Gas 13A) (Note 1)	MJ/m ³ N			45.00		
Purchased electricity ⁵ (Note 2)	Daytime electricity			9.97		
	Nighttime electricity			9.28		
	Other than general electricity utilities			9.76		
Heat (Note 2)	Steam (excluding industrial use), hot water, cold water			1.36		
	Industrial steam			1.02		
Other fuels (Note 2)	Heavy oil A			39.1		
	Diesel			37.7		
	Kerosene			36.7		
	Gasoline			34.6		
	LPG			50.8		
Crude oil equivalent coefficient (Note 2)	kL/GJ			0.0258		

Note 1: City gas calorific value of Tokyo Gas (0°C, 1 atmospheric pressure)

Note 2: Act on the Rational Use of Energy (the Energy Efficiency Act)

*1 Through FY2018, regarding district heating and cooling centers selling electric power using gas cogeneration systems, the data of energy used for power generation is posted under "Power plants" and the data of energy used for the production of heat is posted under "District heating and cooling centers". From FY2019, the data on all energy used at the above-stated district heating and cooling centers is posted under "District heating and cooling centers". "Tokyo Gas business offices, etc." lists the Company's non-consolidated energy use, less the amounts for LNG terminals and District heating and cooling centers. "Other Group companies" lists the data for other Group companies, less the amounts for district heating and cooling centers and power plants.

*2 Some variance in the data listed under different categories may exist since the data has been processed to properly assess the changes in energy usage intensity for each business activity (such as by reflecting the amounts commissioned by other companies at LNG terminals).

*3 The values are calculated based on the adjusted emission factors since FY2018.

*4 CH₄ (methane) emissions were converted to CO₂ emissions by multiplying by the global warming potential of 25, as stipulated in the Act on Promotion of Global Warming Countermeasures.

*5 For the crude oil equivalent of electricity usage under "District heating and cooling centers" and "Tokyo Gas business offices, etc.," the amounts purchased from power utility companies were all calculated using daytime electricity factors.



ESG Data

Waste

Industrial Waste Third-party Assured

	Category	Unit	FY2015	FY2016	FY2017 ³	FY2018 ³	FY2019
Industrial waste ^{1, 2}	Generation	Tons	149,317	144,230	161,344	144,827	146,243
	Amount recycled	Tons	142,629	140,373	156,810	140,015	141,204
	Landfill	Tons	2,433	1,312	2,001	2,490	1,702
	Recycling rate	%	96	97	97	97	97
	Landfill rate	%	1.6	0.9	1.2	1.7	1.2
Production plants ¹	Generation	Tons	1,291	809	617	678	689
	Amount recycled	Tons	851	476	354	405	167
	Landfill	Tons	18	2	4	8	2
	Recycling rate	%	66	59	57	60	24
Tokyo Gas Co., Ltd.	Generation	Tons	4,462	4,449	5,950	4,767	4,924
	Amount recycled	Tons	3,629	3,701	4,638	3,607	3,464
	Landfill	Tons	431	389	981	575	508
	Recycling rate	%	81	83	78	76	70
	Landfill rate	%	10	9	16	12	10

*1 Data for "Production plants" include that from business offices that produce city gas and other products, district heating and cooling centers, and power plants.

*2 Including construction work for customers of our subcontractors, subsidiaries and affiliates.

*3 Due to several errors in the data of operational organizations included in the figures, the figures for FY2017 and FY2018 have been reviewed and corrected as needed.

General Waste Third-party Assured

	Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
General Waste	Generation	Tons	3,143	2,931	2,818	2,990	2,780
	Amount recycled	Tons	2,441	2,224	2,090	2,333	2,060
	Recycling rate	%	78	76	74	78	74
Tokyo Gas Co., Ltd.	Generation	Tons	1,016	1,045	1,010	998	1,001
	Amount recycled	Tons	870	850	806	811	799
	Recycling rate	%	86	81	80	81	80

Amount of Copy Paper Purchased Third-party Assured

	Category	Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Copy paper	Amount purchased	Million	134	129	121	115	102
	Tokyo Gas Co., Ltd. Amount purchased	Million	63	64	59	53	45



ESG Data

By-products from Gas Pipeline Construction

Category		Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Gas pipe (Note 1)	Amount recovered	Tons	235	260	283	299	253
	PE pipe						
	Amount recycled	Tons	235	260	283	299	253
	Recycling rate	%	100	100	100	100	100
	Steel and cast-iron pipe						
	Amount recovered and recycled	Tons	5,003	6,126	6,605	6,582	6,737
	Recycling rate	%	100	100	100	100	100
Gas pipeline extension work		km	1,121	1,026	1,038	967	916
Estimated excavated amount		Million tons	4.49	3.88	4.03	3.61	3.55
Excavated soil (Note 2)	Reduction (by shallower laying of pipes in narrow trenches and non-open-cut method)	Million tons	1.32	1.35	1.28	1.26	1.28
	Reuse (generated soil)	Million tons	0.84	0.62	0.61	0.55	0.51
	Recycle (improved soil, regeneration treatment)	Million tons	1.33	1.27	1.27	1.27	1.21
	Total reduction amount	Million tons	3.49	3.24	3.16	3.09	3.00
	Rate of reduction amount (comparison to estimated excavated amount)	%	78	83	79	85	85
	Residual soil (actual amount)	Million tons	1.0	0.64	0.86	0.53	0.55
Rate of residual soil (comparison to estimated excavated amount)		%	22	17	21	15	15
Gas pipeline extension work		km	1,020	973	1,003	934	882
Estimated excavated amount		Million tons	4.25	3.75	3.94	3.53	3.46
Tokyo Gas Co., Ltd. (Note 2)	Reduction (by shallower laying of pipes in narrow trenches and non-open-cut method)	Million tons	1.25	1.31	1.24	1.23	1.24
	Reuse (generated soil)	Million tons	0.79	0.61	0.61	0.55	0.51
	Recycle (improved soil, regeneration treatment)	Million tons	1.31	1.26	1.25	1.24	1.18
	Total reduction amount	Million tons	3.35	3.18	3.10	3.02	2.93
	Rate of reduction amount (comparison to estimated excavated amount)	%	79	85	78	85	84
	Residual soil (actual amount)	Million tons	0.90	0.57	0.85	0.51	0.54
Rate of residual soil (comparison to estimated excavated amount)		%	21	15	22	15	16

Note 1: Tokyo Gas Co., Ltd.

Note 2: Data for excavated soil and asphalt concrete.

Recovery of Used Gas Appliances from Customers

Category		Unit	FY2015	FY2016	FY2017	FY2018	FY2019
Waste, etc. (Note 1)	Amount recovered						
	Used gas appliance, etc.	Tons	3,861	3,715	3,445	3,288	3,467
	Other	Tons	5,075	4,581	4,695	4,103	3,592
Total		Tons	8,936	8,296	8,140	7,391	7,058

Note 1: Excludes waste from specified kinds of home appliances.

■ Breakdown (FY2019)

Category	Amount recovered (tons)	Amount recycled (tons)	Final disposal (tons)	Recycling rate (%)	Final disposal rate (%)
Used gas appliances and scrap metal	3,466.8	3,466.8	0	100	0
Waste plastics	516.8	443.7	73.2	85.8	14.2
Polystyrene foam	13.3	13.3	0	100	0
Cardboard boxes	584.5	584.5	0	100	0
Debris	267.8	249.1	18.7	93	7
Concrete and tile scraps	170.2	78.3	91.9	46	54
Other	2,052.3	1,860.8	191.5	90.7	9.3
Total	7,058.4	6,683.1	375.3	94.7	5.3

ESG Data

Assessment of CO₂ Emissions Reduction due to Reductions in Purchased Electricity

Amount of Thermal Power Generation Varies According to Electricity Usage

In Japan, the electricity supplied by electric utilities is generated primarily by thermal power, nuclear power and hydroelectric power plants.

Nuclear power plants operate at full capacity except when undergoing a routine inspection, while the annual power output of hydroelectric power plants is determined by the amount of rainfall. The electricity supply is adjusted by operations at thermal power plants.

Therefore, in terms of total annual output, it is most likely to be thermal power generation that is cut when electricity use is reduced through energy-saving measures.



▶ The Greenhouse Gas Protocol (Guidelines for Quantifying GHG Reductions from Grid- Connected Electricity Projects) [Web](#)



ESG Data

Social Data

Overview of Employees

■ Number of Full-time Employees by Gender ^{*1, 2, 3} Third-party Assured

		Unit	FY2017	FY2018	FY2019
Male	Non-consolidated	Persons (%)	6,392 (85.0)	6,334 (84.5)	6,311 (84.0)
	Consolidated		11,418 (83.4)	11,300 (82.8)	11,332 (81.4)
Female	Non-consolidated	Persons (%)	1,126 (15.0)	1,158 (15.5)	1,202 (16.0)
	Consolidated		2,271 (16.6)	2,350 (17.2) ^{*4}	2,581 (18.6)
Total	Non-consolidated		7,518	7,492	7,513
	Consolidated		13,689	13,650 ^{*4}	13,913

*1 Data are as of the end of March of each fiscal year.

*2 Non-consolidated data exclude personnel on loan to Tokyo Gas from other organizations and include personnel on loan from Tokyo Gas to other organizations (registered personnel).

*3 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

*4 Data for number of employees were revised.

■ Breakdown of Employees by Age and Gender ^{*1, 2, 3}

Age		Unit	Male	Female	Total
Under 30	Non-consolidated	Persons (%)	1,762 (27.9)	345 (28.7)	2,107 (28.0)
	Consolidated		2,656 (23.4)	682 (26.4)	3,338 (24.0)
From 30 to 39	Non-consolidated	Persons (%)	962 (15.2)	173 (14.4)	1,135 (15.1)
	Consolidated		2,040 (18.0)	489 (18.9)	2,529 (18.2)
From 40 to 49	Non-consolidated	Persons (%)	1,548 (24.5)	373 (31.0)	1,921 (25.6)
	Consolidated		3,203 (28.3)	805 (31.2)	4,008 (28.8)
From 50 to 59	Non-consolidated	Persons (%)	2,014 (31.9)	310 (25.8)	2,324 (30.9)
	Consolidated		3,354 (29.6)	598 (23.2)	3,952 (28.4)
60 and over	Non-consolidated	Persons (%)	25 (0.4)	1 (0.1)	26 (0.3)
	Consolidated		79 (0.7)	7 (0.3)	86 (0.6)
Total	Non-consolidated	Persons (%)	6,311	1,202	7,513
	Consolidated		11,332	2,581	13,913

*1 Data are as of the end of March 2020.

*2 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*3 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations

■ Average Age by Gender ^{*1, 2, 3} Third-party Assured

		Unit	FY2017	FY2018	FY2019
Male	Non-consolidated	Age	40.7	40.8	41.1
	Consolidated		41.2	41.2	40.9
Female	Non-consolidated	Age	40.6	40.5	40.5
	Consolidated		40.0	40.1	40.1
Total	Non-consolidated	Age	40.7	40.8	41.0
	Consolidated		41.0	41.0	40.8

*1 Data are as of the end of March of each fiscal year.

*2 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*3 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

■ Average Length of Employment by Gender ^{*1, 2, 3} Third-party Assured

		Unit	FY2017	FY2018	FY2019
Male	Non-consolidated	Years	19.3	19.5	19.7
	Consolidated		16.7	17.0	16.8
Female	Non-consolidated	Years	19.3	18.5	18.5
	Consolidated		14.8	14.4 ^{*4}	14.2
Total	Non-consolidated	Years	19.3	19.3	19.5
	Consolidated		16.4	16.5	16.3

*1 Data are as of the end of March of each fiscal year.

*2 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*3 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

*4 Data was revised.

■ Number of Managers ^{*1, 2, 3, 4} Third-party Assured

		Unit	FY2018	FY2019	FY2020
Male	Non-consolidated	Persons (%)	2,734 (92.4)	2,687 (92.0)	2,646 (91.3)
	Consolidated		—	—	3,358 (91.1)
Female	Non-consolidated	Persons (%)	226 (7.6)	233 (8.0)	251 (8.7)
	Consolidated		—	—	327 (8.9)
Total	Non-consolidated	Persons (%)	2,960	2,920	2,897
	Consolidated		—	—	3,685

*1 Data are as of April 1 of each fiscal year.

*2 Employees in supervisory positions, or employees of equivalent status.

*3 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*4 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.



ESG Data

■ Hiring of New Graduates^{1, 2, 3}

	Unit	Breakdown of FY2018 Hires		Breakdown of FY2019 Hires		Breakdown of FY2020 Hires	
		Male	Female	Male	Female	Male	Female
Undergraduate and Graduate ⁴	Non-consolidated	125	61	162	62	158	60
	Consolidated	217	127	271 ^{*5}	144 ^{*5}	269	131
High School	Non-consolidated	18	2	0	0	0	0
	Consolidated	62	11	34	7	27	6
Total	Non-consolidated	143	63	162	62	158	60
	Consolidated	279	138	305 ^{*5}	151 ^{*5}	296	137

*1 Data are as of April 1 of each fiscal year.

*2 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*3 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

*4 Including technical college and junior college graduates.

*5 Data were revised.

■ Hiring of Mid-Career Personnel^{1, 2, 3}

	Unit	May 2017 to April 2018	April 2018 to March 2019	April 2019 to March 2020
Male	Non-consolidated	12	15	17
	Consolidated	234	195 ^{*4}	221
Female	Non-consolidated	1	0	1
	Consolidated	66	76 ^{*4}	206
Total	Non-consolidated	13	15	18
	Consolidated	300	271 ^{*4}	427

*1 Data includes contract employees who became regular employees.

*2 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*3 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

*4 Data were revised.

■ Number of Employees with Disabilities^{1, 2, 3} Third-party Assured

	Unit	March 2018	March 2019	March 2020
Number of employees with disabilities	Persons	150	167	171
Percentage of total employees	%	2.10	2.44	2.58

*1 Data are for regular and contract employees at Tokyo Gas Co., Ltd.

*2 Figures are as of the first day of the month shown for each fiscal year.

*3 Figure was 172 people, or 2.55% of the workforce, as of June 2020.

■ Number of Users of Childcare/Nursing Care Leave Programs^{1, 2}

Programs	Item	Unit	FY2017		FY2018		FY2019	
			Male	Female	Male	Female	Male	Female
Childcare leave	Number of users	Persons	5	45	5	70	12	72
			—	—	—	—	19	152
Nursing care leave	Number of users	Persons	0	1	2	0	2	2
			—	—	—	—	5	7

*1 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*2 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

■ Major Programs and Number of Users^{1, 2}

Programs	Outline	Item	Unit	FY2017		FY2018		FY2019	
				Male	Female	Male	Female	Male	Female
Childcare leave	Until the end of April immediately following the child's 3rd birthday (employees are allowed to change the scheduled date of reinstatement if they are unable to enroll their child in a nursery school)	Number of users	Persons	5	45	5	70	12	72
		Percentage returning to work ³	%	100	92	100	100	100	100
Shorter hours for Childcare	During pregnancy and until the child completes the 6th grade	Number of users	Persons	3	214	9	220	12	220
Nursing care leave	Up to 3 years for one care receiver within the second degree of kinship	Number of users	Persons	0	1	2	0	2	2
Shorter hours for nursing care	Applicable to a relative within the second degree of kinship for up to 5 years per care receiver	Number of users	Persons	0	2	0	3	1	5
Leave to accompany partner	For employees accompanying a spouse posted overseas	Number of users	Persons	3		4		2	
Community service leave	Granted special leave (paid) for up to 5 days within 1 year	Cumulative number of users	Persons	58		61		37	
Sabbatical system	For employees who reach the ages of 30, 35, 40 and 50 Granted commemorative gifts and special leave (paid)	Number of users	Persons	673		509		519	

*1 Data are for Tokyo Gas Co., Ltd.

*2 Items in bold are company programs that go beyond regulatory requirements.

*3 Percentage of employees who completed childcare leaves each fiscal year and those returned to work at the company.



ESG Data

■ State of Reemployment after Mandatory Retirement ^{*1}

	Unit	FY2017	FY2018	FY2019
Total number of retired employees ^{*2}	Persons	273	172	130
	Tokyo Gas	203 (74.4)	103 (59.9)	70 (53.8)
Number of reemployed ^{*3}	Subsidiaries	46 (16.8)	52 (30.2)	45 (34.6)
	Total	249 (91.2)	155 (90.1)	115 (88.5)

*1 Data are for Tokyo Gas Co., Ltd.

*2 Number of employees who left the company at the mandatory retirement age of 60.

*3 Number of people hired as "career employees" (contract employees rehired after reaching mandatory retirement age).

■ Number of Employees Leaving the Company ^{*1, 2, 3}

	Unit	FY2017	FY2018	FY2019
Male (Percentage of employees leaving the company)	Non-consolidated	29 (0.43)	47 (0.72)	67 (1.03)
	Consolidated	203 (-)	216 (1.88)	264 (2.30)
Female (Percentage of employees leaving the company)	Non-consolidated	9 (0.79)	8 (0.68)	12 (0.98)
	Consolidated	113 (-)	90 (3.75) ^{*4}	96 (3.65)
Total (Percentage of employees leaving the company)	Non-consolidated	38 (0.49)	55 (0.71)	79 (1.03)
	Consolidated	316 (-)	306 (2.20) ^{*4}	360 (2.55)

*1 Non-consolidated data are for Tokyo Gas employees (registered personnel).

*2 Consolidated data exclude personnel on loan to Tokyo Gas and its subsidiaries from other organizations and include personnel on loan from Tokyo Gas and its subsidiaries to other organizations.

*3 The percentage of people leaving the company is calculated as follows: number of regular employees leaving for personal reasons (as of March 31 of each fiscal year)/number of regular employees (as of April 1 of each fiscal year).

*4 Data were revised.

■ Number of Temporary and Contract Employees ^{*1, 2}

	Unit	FY 2018	FY 2019	FY 2020
Contract employees		1,670	1,495	1,304
	Male	1,131	950	774
	Female	539	545	530
Temporary employees	Persons	558	589	615
Total		2,228	2,084	1,919

*1 Data are for Tokyo Gas Co., Ltd.

*2 Data are as of April 1 of each fiscal year.

■ Average Overtime Hours ^{*1}

	Unit	FY2017	FY2018	FY2019
Average monthly overtime hours	Hours/person	15.9	15.6	15.9

*1 Data are for Tokyo Gas Co., Ltd.

■ Days of Paid Leave Taken per Year ^{*1}

	Unit	FY2017	FY2018	FY2019
Days of paid leave taken per year	Days/person	15.1	15.4	15.8

*1 Data are for Tokyo Gas Co., Ltd.

■ Number of Employees with Right to Collective Bargaining (Employees Excluding Management) ^{*1, 2}

	Unit	FY2017	FY2018	FY2019
Number of employees	Persons	6,937	6,906	6,919

*1 Data are for Tokyo Gas Co., Ltd.

*2 Data are as of the end of March of each fiscal year.

■ Average Annual Training Hours ^{*1, 2}

	Unit	FY2017	FY2018	FY2019
Average annual training hours	Hours/person	13.5	12.0	11.4

*1 Data are for Tokyo Gas Co., Ltd.

*2 Data on training provided by the Personnel Department (excludes training provided independently by other departments).

Implementation of Occupational Safety and Health Education Programs

■ Implementation of Occupational Safety and Health Education Programs ^{*1}

	Unit	FY2017	FY2018	FY2019
Level-specific training on safety and health and on safety planning	New employee training	252	206	224
	Safety and health training for new managers	243	245	241
Statutory foreman training		151	146	182
Statutory training for safety administrators at the time of appointment ^{*2}	Persons	36	40	36
Hygiene supervisor training		74	94	90
Traffic safety and driving training (for new drivers, persons involved in accidents and others)		789	747	694
Safe driving with attendant instructors utilizing drive recorders		798	853	833
Seminars on promoting health		2,731	1,452	1,452

*1 Data are for Tokyo Gas Co., Ltd.

*2 Data are the results of the Tokyo Gas Group.



ESG Data

Overview of Accidents and Injuries

■ Change in Number of Work-related Injuries, Number of Traffic Accidents, Rate of Lost Work-time Injuries, and Severity Rate *1

	Unit	FY2017	FY2018	FY2019
Work-related injuries *2	Cases	38	36	34
Traffic accidents		134	142	117
Rate of lost work-time injuries *3, 5	Third-party Assured	0.36	0.62	0.31
Severity rate *4, 5, 6		0.002	0.005	0.001

*1 Data are for regular and contract employees of Tokyo Gas.

*2 Includes accidents not resulting in lost worktime.

*3 Rate of people taking work leave per 1 million total actual working hours.

*4 Number of workdays lost as a result of accidents/injuries per 1,000 total actual working hours.

*5 Includes injuries due to non-commuting traffic accidents caused by others.

*6 Lost workdays are counted based on standards placed by the Japanese Ministry of Health, Labour and Welfare.



ESG Data

Governance Data

Board of Directors, Advisory Committee, Audit & Supervisory Board, and Corporate Executive Meeting

■ Membership of the Board of Directors, Advisory Committee, Audit & Supervisory Board, and Corporate Executive Meeting ^{*1,2}

		Unit	As of the end of June 2018	As of the end of June 2019	As of the end of June 2020
Board of Directors	Directors		8 (1)	9 (2)	9 (2)
	External		3 (1)	4 (2)	4 (2)
	Outside directors		2	2	2
Advisory Committee	Outside Audit & Supervisory Board members		1	1	1
	Director, Chairman of the Board		1	1	1
	Director, President	Persons (Number of female members)	1	1	1
Audit & Supervisory Board	Audit & Supervisory Board members		5	5	5
	External		3 (1)	3 (1)	3 (1)
	President and CEO ^{*3}		1	1	1
Corporate Executive Meeting	Executive Vice Presidents ^{*3}		2	2	2
	Senior Managing Executive Officer		2	2	3
	Managing Executive Officer		6 (1)	7 (1)	7 (1)

*1 Data shown are for Tokyo Gas Co., Ltd.

*2 External directors and external Audit & Supervisory Board members are independent officers.

*3 Post is held concurrently by three representative directors.

Training and Consultation on Human Rights and Compliance

■ Participants in Training on Human Rights and Compliance ^{*1}

Overview		Unit	FY2017	FY2018	FY2019
Level-specific training	Training upon entering the company, during the third year, and during qualification promotions (two levels)		1,527	1,291	1,311
Workplace workshops	Training at the individual workplace level led by compliance promoters	Number of persons	15,543	15,825	21,088
Training programs and follow-up for human rights promotion leaders	First-time leader training (6 months) and follow-up training		353	344	354
Planning-type training	Human rights study sessions		350	285	300

*1 Data shown are for the Tokyo Gas Group.

■ Number of Cases Handled by Consultation Desks ^{*1}

Consultation Topics	Unit	FY2017	FY2018	FY2019
Interpersonal relations and harassment		58	51	35
Benefits and working hours		35	20	14
Internal regulations	Number of cases	7	11	11
Laws, regulations, and other matters		4	16	4
Total		104	98	64

*1 Data shown are for the Tokyo Gas Group.



Third-Party Independent Assurance Report

Third-Party Independent Assurance Report

The social and environmental performance indicators (data on human resources and the environment)* provided in Tokyo Gas Group Sustainability Report on this PDF have been thirdparty assured by KPMG AZSA Sustainability Co., Ltd. (a member of the KPMG Japan group) to enhance their credibility.

We will work to further raise the standard of our Sustainability activities in the future, taking account of the issues pointed out in the course of the third-party assurance process and the reader feedback received via our website and other channels.

* Third-party assured content is indicated by a box next to the subject title.

■ Independent Assurance Report on Tokyo Gas Group Sustainability Report



Independent Assurance Report

To the Representative Director and President of Tokyo Gas Co., Ltd.

We were engaged by Tokyo Gas Co., Ltd. (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with "Third-party Assured" (the "Indicators") for the period from April 1, 2019 to March 31, 2020 included in its Tokyo Gas Group Sustainability Report 2020 (the "Report") for the fiscal year ended March 31, 2020.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Making inquiries and reviewing materials including documented evidence of the Company's Hitachi LNG Terminal selected on the basis of a risk analysis, as alternative procedures to a site visit.
- Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
October 26, 2020



Key ESG Ratings

Inclusion in Environment, Social and Governance (ESG) Indices

The Tokyo Gas Group has been included in the following ESG indices (as of July 31, 2020).

FTSE4Good Index Series

A series of stock indices developed by FTSE Russell, a subsidiary of the London Stock Exchange Group. These indices assess corporate sustainability based on environmental, social, and governance performance. They are used by investors as key benchmarks for selecting companies for investment.

▶ FTSE4Good Index Series [Web](#)



FTSE4Good

FTSE Blossom Japan Index

The FTSE Blossom Japan Index provides investors with a means of identifying Japanese companies that meet high environmental, social, and governance standards, and it is constructed so that the industry weights align with the Japanese equity market. In July 2017, the Government Pension Investment Fund of Japan (GPIF), the world's largest institutional investor, began investing tracking this index.

▶ FTSE Blossom Japan Index [Web](#)



FTSE Blossom
Japan

MSCI ESG Leaders Indexes

Tokyo Gas has been included in the following stock indices of companies with superior environmental, social, and governance performance developed by Morgan Stanley Capital Investment (MSCI) of the U.S.

MSCI ESG Leaders Indexes

These are representative stock indices of companies with outstanding environmental, social, and governance performance on a global scale.

2020 MSCI ESG Leaders
Indexes Constituent

MSCI Japan ESG Select Leaders Index**1

This index comprises companies with relatively high ratings in their industries for environmental, social, and governance performance selected from a parent index of the top 700 stocks by market capitalization in the MSCI Japan IMI index of Japanese securities.

2020 CONSTITUENT MSCI JAPAN
ESG SELECT LEADERS INDEX

MSCI Japan Empowering Women Index (WIN) **1

This index comprises companies in each industry with high scores on gender diversity selected from a parent index of the top 500 stocks by market capitalization in the MSCI Japan IMI index of Japanese securities.

2020 CONSTITUENT MSCI JAPAN
EMPOWERING WOMEN INDEX (WIN)

**1 GPIF began investing tracking the MSCI Japan ESG Select Leaders Index and the MSCI Japan Empowering Women Index from July 2017.

Note: MSCI ESG Indexes

THE INCLUSION OF Tokyo 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 Tokyo Gas Co., Ltd. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

S&P Japan 500 ESG

Stock index developed by S&P Dow Jones Indices of the U.S. which comprises securities selected from the S&P Japan 500 index of Japanese securities based on ESG criteria.



Key ESG Ratings

STOXX Global ESG Leaders Index

This index is provided by STOXX of Switzerland, a subsidiary of Deutsche Börse AG. It comprises companies selected for their outstanding performance on the environment, society, and governance based on the results of research by Sustainability, a Dutch SRI research and analysis firm.



ETHIBEL Sustainability Index (EXCELLENCE Global)

This index is compiled by Forum ETHIBEL, a Belgian NPO which promotes SRI. It comprises companies that exhibit strong environmental, social, and governance performance.



ETHIBEL Investment Register (EXCELLENCE)

ETHIBEL Investment Register (EXCELLENCE) is an investment universe which comprises companies that exhibit strong performance in terms of corporate social responsibility.



SOMPO Sustainability Index

This Index is based on the results of corporate research on environmental, social, and governance performance conducted by Sompo Risk Management Inc. and IntegreX Inc. This index is managed by Sompo Asset Management Co., Ltd.



External Sustainability Ratings

The Tokyo Gas Group has received the following ratings from third-party rating bodies.

2019 CDP

CDP Climate Change: A-
CDP Water: A (on an eight-grade scale from A to D-)

CDP is a U.K.-based NPO that collaborates with institutional investors to operate an international framework asking companies to disclose information on their strategies for climate change and water risk, including concrete data. Scores based on corporate initiatives are published globally and serve as an important index of corporate environmental efforts.



13th Toyo Keizai CSR Ranking

51st out of 1,593 companies (Score: 541.7 out of 600)

This is a survey conducted by Toyo Keizai Inc. with the goal of identifying companies that are trusted by a wide range of stakeholders for their CSR and financial performance. It covers Japanese enterprises, which are assessed on the four CSR areas of human resources, the environment, corporate governance, and social responsibility, together with financial aspects.

2020 Health & Productivity Stock Selection Program

2020 Certified Health and Productivity Management Organization Recognition Program (Large Enterprise Category) White 500

Under the Health & Productivity Stock Selection Program, the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) select enterprises listed on the TSE strategically engaged in particularly outstanding efforts for employees' health management from a business perspective. "Certified Health & Productivity Management Organization" is an award granted by METI and Nippon Kenko Kaigi to large enterprises and to SMEs that conduct particularly outstanding health management based on efforts addressing regional health issues and Nippon Kenko Kaigi's health promotion efforts.



Nadeshiko Brands

Nadeshiko Brands are companies jointly selected by METI and TSE for their efforts to actively advance the employment of women, including the arrangement of working environments that facilitate retention of female talent. Companies are selected in each industry from among those listed on the First Section of the TSE.



Key ESG Ratings

Other Awards and Recognition

Major Awards and Recognitions in FY2019

Recognitions for Products and Services

37th Information Technology Award 2019 IT Encouragement Prize

Awarded by Japan Institute of Information Technology

Recipient Tokyo Gas Co., Ltd.

This award is given to companies and organizations achieving results in business innovation through the sophisticated application of IT. Tokyo Gas was recognized for contributing to innovation by reforming working processes in the gas pipeline business through the application of digital technologies.

FY2019 Good Design Award (Torisetsu + Home [Smartphone Apps and Web Service])

Awarded by Japan Institute of Design Promotion

Recipient Tokyo Gas Co., Ltd. and TRYGLE Co., Ltd.

The Good Design award is a global design award conducted with the participation of many domestic and foreign companies and organizations which use design to enrich people's lives and address social issues. Tokyo Gas was recognized for the convenience and environmental contribution of our "Torisetsu + Home" service which provides residential gas appliance user's manuals to consumers via smartphones apps and the Internet.

FY2019 Energy Conservation Grand Prize

Energy Conservation Center Chairman's Prize (Product and Business Model Category)

Awarded by The Energy Conservation Center, Japan

Recipient Tokyo Gas Group

The Energy Conservation Grand Prize awards recognize business operators and workplaces with superior energy conservation efforts that serve as models for others, as well as products and business models that excel in conserving energy. The Tokyo Gas Group was recognized for our energy management service driven by the "Helionet Advance" high-efficiency automated operation system, which uses remote control for refined equipment operation which is difficult to do manually, and for facilitating further energy conservation in energy equipment installed at customer facilities.

FY2019 Japan Gas Association Technology

Grand Prizes, Technology Award, and Technology Encouragement Award)

Awarded by Japan Gas Association

Recipient Tokyo Gas Group

These prizes are awarded each year for original and revolutionary technologies with strong potential which greatly contributed to developing the gas business. The Tokyo Gas Group received one technology grand prize, two technology prizes, and one technology encouragement prize.

Recognition of Merit

FY2019 Awards for Distinguished Contribution to Gas Safety Kanto Tohoku Industrial Safety and Inspection Department Director's Award

Awarded by Ministry of Economy, Trade and Industry

Recipient Tokyo Gas Group

Gas Construction Work Service Outlet Category 1 establishment

Individual Category 13 individuals

These awards are presented to boost the motivation of persons involved with gas safety and to promote public understanding of ensuring gas safety. The Tokyo Gas Group was recognized for our distinguished service in ensuring gas safety.

FY2019 Awards for Distinguished Contribution to Gas Safety

Economy, Trade and Industry Minister's Award

Awarded by Ministry of Economy, Trade and Industry

Recipient Tokyo Gas Group

Gas Construction Work Service Outlet Category 1 establishment

Individual Category 2 individuals

These awards, the highest in their field, are presented to boost the motivation of persons involved with gas safety and to promote public understanding of gas safety. The Tokyo Gas Group was recognized for our distinguished service in ensuring gas safety.

Eighth Kawasaki City Smart Lifestyle Awards Encouragement Prize (Committee Chair Special Prize)

Awarded by Kawasaki City

Recipient Tokyo Gas Kawasaki Branch Office

With the aim of contributing to global warming countermeasures, this prize is awarded for superior initiatives that contribute to electricity conservation, energy conservation, and other CO₂ emissions reduction by citizens and business operators. The Tokyo Gas Group was recognized for the inclusion of the eco-cooking approach in all the cooking classes at Tokyo Gas Kitchen Land Kawasaki, and for broadly spreading efforts toward a diet that gives consideration to the environment.

Metropolitan Police Department Superintendent General Letter of Appreciation (Superior Place of Business Award)

Awarded by Metropolitan Police Department

Recipient Tokyo Gas Pipeline Network Division, West Pipeline Regional Office

This award is given to recognize organizations for outstanding cooperation and efforts with the police in important police matters. It was awarded this time in recognition of long-standing traffic safety activities.



Key ESG Ratings

FY2019 Award to Commend Leading Companies Where Women Shine Minister of State (for Gender Equality) Award

Awarded by Gender Equality Bureau of the Cabinet Office

Recipient Tokyo Gas Co., Ltd.

To promote the preparation of a workplace environment where women can be successful, this award commends enterprises with policies, initiatives, and results in the employment of women to serve as officers and managers, and with outstanding achievements in the related information disclosure. Tokyo Gas was recognized for its high ratio of women in management positions compared with other companies in the industry, systematic educational opportunities for the professional development of women, and replete systems for leaves of absence and working while raising children which go beyond those required by law.

Tokyo Prefecture “Smooth Biz” Promotion Awards (Special Award: Area Coordination Prize)

Awarded by Tokyo Metropolitan Government

Recipient Tokyo Gas Co., Ltd., East Japan Railway Company

These awards are presented for the promotion of work-style reforms and higher distribution efficiencies on the occasion of realizing the smooth administration of the 2020 Tokyo Olympics. Tokyo Gas was recognized for collaborating with the local community and nearby companies to ease train passenger congestion as part of the “TDM Project around Hamamatsucho Station” calling for the cooperation of nearby companies and customers who use Hamamatsucho Station in implementing “Smooth Biz” (telework, flexible working hours, etc.).

Third Tokyo Bay Environment Revitalization Awards (Waterfront Vitalization and Environment Research Foundation [WAVE] President's Award)

Awarded by Waterfront Vitalization and Environment Research Foundation (WAVE)

Recipient Tokyo Gas Co., Ltd.

These awards recognize citizens' groups and private-sector organizations engaged in public awareness activities, regional revitalization, and the development of youth pertaining to the environment of Tokyo Bay. The Tokyo Gas Group was recognized for contributing to the environmental preservation and revival of Tokyo Bay by reviving beds of common eelgrass (*Zostera marina*) as part of our Mori Sato Umi Tsunagu (Connecting Forests, Villages and Ocean) Project^{*1} and for contributing to environmental education activities for children regarding “links connecting the ocean and our daily lives.”

^{*1} The Tokyo Gas Group's environmental and social contribution activities including assistance, voluntary activities, and donations for the preservation of forests, villages, and the ocean are aimed at contributing to the prevention of global warming, the preservation of biodiversity, and sustainable urban development and lifestyles with “connecting” as the key word.

Recognition for Advertising

68th Nikkei Advertising Awards Trading, Energy and Public Services Category: Excellence Prize

Awarded by Nikkei Inc.

Recipient Tokyo Gas Co., Ltd.

These are among Japan's leading advertising awards. They recognize superior advertisements published in the newspaper Nihon Keizai Shimbun. Tokyo Gas was recognized for the “Tokyo Gas People – Working Steadily on the Frontlines” version of its company advertisement, which depicts the work of employees who support the safety and reliable supply of city gas.

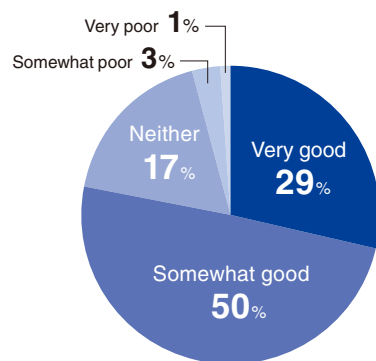


Questionnaire Results and Main Feedback

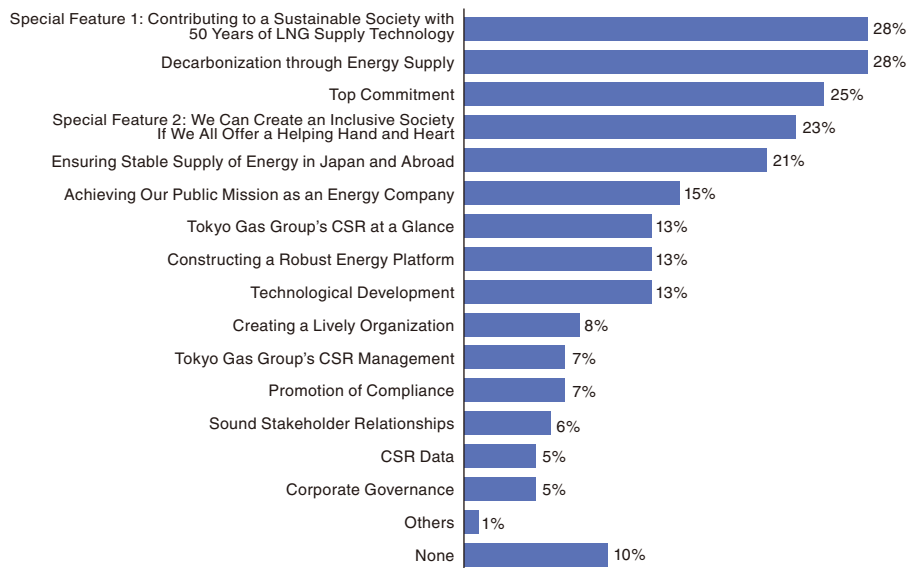
Tokyo Gas Group Sustainability Report 2019 Questionnaire Results

We have set up a system on our Sustainability Report website to solicit wide-ranging opinions from stakeholders, and we conduct questionnaires regarding our Group sustainability promotion initiatives. The opinions and other feedback received are shared with the concerned departments, and used to make improvements in daily business activities and reporting.

■ Assessment of the Sustainability Promotion Initiatives of the Tokyo Gas Group



■ Content of Interest (multiple responses allowed)



Main Feedback and Requests

Opinions regarding social initiatives

- I gained a new awareness of how Tokyo Gas is contributing to Japan's energy security.
- Because this is gas, after all, I expect initiatives for safety first.
- 2019 was a year when we felt the ferocity of natural disasters more than usual. I want the Tokyo Gas Group, which is conducting business that is highly compatible with Sustainable Development Goal 11 "sustainable cities and communities," to advance countermeasures for early recovery.
- I expect Tokyo Gas to make use of diverse personnel. I think that by having superior personnel actively participate, the company can manifest leadership and create innovation.

Opinions regarding environmental initiatives

- I think Tokyo Gas is carrying out wide-ranging environmental initiatives, but considering the recent increase in natural disasters and abnormal weather, I expect the company to do even more.
- I believe that the transition to renewable energy will advance from now, and in that regard, I am interested to know what types of businesses the Tokyo Gas Group will develop.
- I expect Tokyo Gas to develop as a Japanese energy company that contributes to resolving climate change and energy problems, and to the world.
- Safety is the most important issue, but the next most important issue is how to address environmental problems.

Opinions regarding the report

- The report is a bit difficult to read because in this html format it is necessary to click each time to switch pages.
- I would like the report to be presented in an easy-to-read pdf format.
- Because the report has so many pages and it took a lot of effort to read it all, it would be helpful if you could provide a summary version.

■ Questionnaire Outline

Survey period	December 10, 2019-January 30, 2020
Content surveyed	Tokyo Gas Group Sustainability Report 2019
Number of valid responses	240
Respondents	Registered CSR reviewers *1

*1 Individuals registered with DFF Inc., who have expressed interest in actively participating in questionnaires and research on CSR.



Standards Mapping Table

GRI Sustainability Reporting Standards Index

- Tokyo Gas Group Sustainability Report has been prepared in accordance with the GRI Standards: Core option.
- The data on the environment and human resources provided in Tokyo Gas Group Sustainability Report have been third-party assured.

■ GRI102: General Disclosures 2016

Disclosure		Disclosure Pages
1. Organizational profile		
102-1	Name of the organization	▶ Corporate Profile Web
102-2	Activities, brands, products, and services	▶ Corporate Profile Web
102-3	Location of headquarters	▶ Corporate Profile Web
102-4	Location of operations	▶ Locations Web
102-5	Ownership and legal form	▶ Corporate Profile Web
102-6	Markets served	▶ Building Relations with Stakeholders ▶ Corporate Profile Web ▶ INVESTORS' GUIDE [PDF: 7,859KB] P.6-13 (City Gas Business - Overseas Business) Web
102-7	Scale of the organization	▶ Corporate Profile Web ▶ INVESTORS' GUIDE [PDF: 7,859KB] P.6-13 (City Gas Business - Overseas Business) Web ▶ Tokyo Gas in Numbers Web
102-8	Information on employees and other workers	▶ Social Data
102-9	Supply chain	▶ Supply Chain Management
102-10	Significant changes to the organization and its supply chain	▶ A Public Notice (only in Japanese) Web
102-11	Precautionary Principle or approach	▶ Risk Management ▶ Management of Chemical Substances ▶ Environmental Risk Management ▶ Business Risk Web
102-12	External initiatives	Support for TCFD Recommendations and Information Disclosure
102-13	Membership of associations	UN Global Compact KEIDANREN (Japan Business Federation) The Japan Gas Association Keidanren Committee on Nature Conservation The Tokyo Chamber of Commerce and Industry (TCCI) DOYUKAI (Japan Association of Corporate Executives) The Japanese Para-Sports Association An Official Partner of the Olympic and Paralympic Games Tokyo 2020 in the Gas & Gas Utility Services category
2. Strategy		
102-14	Statement from senior decision-maker	▶ Top Commitment

Disclosure		Disclosure Pages
102-15	Key impacts, risks, and opportunities	▶ Top Commitment ▶ Striving toward Net-Zero CO ₂ ▶ The Tokyo Gas Group Business Activities and Material Balance ▶ Disclosure of Incidents that Affected Our Stakeholders Web ▶ Tokyo Gas in Numbers Web
3. Ethics and integrity		
102-16	Values, principles, standards, and norms of behavior	▶ The Tokyo Gas Group's Sustainability ▶ Mission Web ▶ Basic Approach to Respect for Human Rights ▶ Compliance ▶ Stakeholder Engagement
102-17	Mechanisms for advice and concerns about ethics	▶ Compliance ▶ Respect for Human Rights ▶ Purchasing Inquiries Web
4. Governance		
102-18	Governance structure	▶ Corporate Governance ▶ The Tokyo Gas Group's Sustainability ▶ Corporate Governance Report [PDF: 344KB] Web
102-19	Delegating authority	▶ Corporate Governance ▶ Sustainability Promotion Structure ▶ Structure to Promote Human Rights Awareness ▶ Continual Improvement to the Environmental Management System ▶ Customer Satisfaction Promotion Structure ▶ Compliance Promotion Structure ▶ Diversity – Basic Policy ▶ Structure for Promoting Industrial Safety and Health ▶ Cybersecurity Promotion System
102-20	Executive-level responsibility for economic, environmental, and social topics	▶ Corporate Governance ▶ Sustainability Promotion Structure ▶ Structure to Promote Human Rights Awareness ▶ Continual Improvement to the Environmental Management System ▶ Customer Satisfaction Promotion Structure ▶ Compliance Promotion Structure ▶ Structure for Promoting Industrial Safety and Health ▶ Cybersecurity Promotion System
102-21	Consulting stakeholders on economic, environmental, and social topics	▶ Corporate Governance ▶ Stakeholder Engagement ▶ Sustainability Promotion Structure ▶ Continual Improvement to the Environmental Management System ▶ Customer Satisfaction Promotion Structure ▶ Appropriate Information Disclosure ▶ Dialogue with Shareholders and Investors ▶ Compliance Promotion Structure ▶ Structure for Promoting Industrial Safety and Health ▶ Structure to Promote Human Rights Awareness ▶ Cybersecurity Promotion System



Standards Mapping Table

Disclosure		Disclosure Pages
102-22	Composition of the highest governance body and its committees	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Governance Data-Membership of the Board of Directors, Advisory Committee, Audit & Supervisory Board, and Corporate Executive Meeting
102-23	Nominating and selecting the highest governance body	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Corporate Governance Report [PDF:344KB] P.1 (1. Basic Views on Corporate Governance, Capital Structure, Corporate Attributes and Other Basic Information) Web
102-24	Nominating and selecting the highest governance body	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Corporate Governance Report [PDF:344KB] P.2 ((4) Policy, procedures and individual reasons for election of Directors and Audit & Supervisory Board Members and selection and dismissal of executives Web ▶ Independence Standards for Outside Officers [PDF:76KB] Web
102-25	Conflicts of interest	<ul style="list-style-type: none"> ▶ Corporate Governance
102-26	Role of highest governance body in setting purpose, values, and strategy	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Sustainability Promotion Structure ▶ Environmental Management Promotion System ▶ Continual Improvement to the Environmental Management System ▶ Customer Satisfaction Promotion Structure ▶ Compliance Promotion Structure ▶ Structure for Promoting Industrial Safety and Health ▶ Structure to Promote Human Rights Awareness
102-27	Collective knowledge of highest governance body	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Sustainability Promotion Structure ▶ CSR Initiatives
102-28	Evaluating the highest governance body's performance Corporate	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Sustainability Promotion Structure ▶ Continual Improvement to the Environmental Management System ▶ Environmental Management Promotion System ▶ Customer Satisfaction Promotion Structure ▶ Compliance ▶ Structure for Promoting Industrial Safety and Health ▶ Structure to Promote Human Rights Awareness ▶ Cybersecurity Promotion System
102-29	Identifying and managing economic, environmental, and social impacts	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Sustainability Promotion Structure ▶ Stakeholder Engagement – Basic Policy ▶ Customer Satisfaction Promotion Structure ▶ Environmental Management Promotion System ▶ Compliance ▶ Diversity – Basic Policy ▶ Structure for Promoting Industrial Safety and Health ▶ Structure to Promote Human Rights Awareness ▶ Cybersecurity Promotion System
102-30	Effectiveness of risk management processes	<ul style="list-style-type: none"> ▶ Corporate Governance
102-31	Review of economic, environmental, and social topics	-
102-32	Highest governance body's role in sustainability reporting	<ul style="list-style-type: none"> ▶ Sustainability Promotion Structure ▶ Specifying Materialities

Disclosure		Disclosure Pages
102-33	Communicating critical concerns	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Compliance
102-34	Nature and total number of critical concerns	-
102-35	Remuneration policies	<ul style="list-style-type: none"> ▶ Management Structure ▶ Directors Remuneration Relationship Web ▶ Corporate Governance Report [PDF:344KB] P.2 ((4) Policy, procedures and individual reasons for election of Directors and Audit & Supervisory Board Members and selection and dismissal of executives Web
102-36	Process for determining remuneration	<ul style="list-style-type: none"> ▶ Directors Remuneration Relationship Web ▶ Corporate Governance Report [PDF:344KB] P.2 ((4) Policy, procedures and individual reasons for election of Directors and Audit & Supervisory Board Members and selection and dismissal of executives Web
102-37	Stakeholders' involvement in remuneration	-
102-38	Annual total compensation ratio	-
102-39	Percentage increase in annual total compensation ratio	-
5. Stakeholder engagement		
102-40	List of stakeholder groups	<ul style="list-style-type: none"> ▶ Approach to Promoting Sustainability ▶ Stakeholder Engagement
102-41	Collective bargaining agreements	<ul style="list-style-type: none"> ▶ Building Positive Labor-Management Relations ▶ Social Data – Overview of Employees
102-42	Identifying and selecting stakeholders	<ul style="list-style-type: none"> ▶ Approach to Promoting Sustainability ▶ Specifying Materialities ▶ Stakeholder Engagement
102-43	Approach to stakeholder engagement	<ul style="list-style-type: none"> ▶ Approach to Promoting Sustainability ▶ Stakeholder Engagement
102-44	Key topics and concerns raised	<ul style="list-style-type: none"> ▶ Specifying Materialities ▶ Stakeholder Engagement ▶ Questionnaire Results and Main Feedback
6. Reporting practice		
102-45	Entities included in the consolidated financial statements	<ul style="list-style-type: none"> ▶ Major Group Companies Web
102-46	Defining report content and topic Boundaries	<ul style="list-style-type: none"> ▶ Specifying Materialities ▶ About This Report
102-47	List of material topics	<ul style="list-style-type: none"> ▶ Specifying Materialities
102-48	Restatements of information	Not applicable
102-49	Changes in reporting	Not applicable
102-50	Reporting period	<ul style="list-style-type: none"> ▶ About This Report
102-51	Date of most recent report	<ul style="list-style-type: none"> ▶ About This Report
102-52	Reporting cycle	<ul style="list-style-type: none"> ▶ About This Report
102-53	Contact point for questions regarding the report	<ul style="list-style-type: none"> ▶ Contact Us Web



Standards Mapping Table

Disclosure		Disclosure Pages
102-54	Claims of reporting in accordance with the GRI Standards	In accordance with the GRI Standards: Core option
102-55	GRI content index	GRI Content Index
102-56	External assurance	▶ Third-Party Independent Assurance Report

■ GRI103: Management Approach 2016

Disclosure		Disclosure Pages
103: Management Approach 2016		
103-1	Explanation of the material topic and its Boundary	▶ Specifying Materialities
103-2	The management approach and its components	▶ Management
103-3	Evaluation of the management approach	▶ Sustainability Promotion Structure



Standards Mapping Table

■ GRI200: Economic topics

Disclosure		Disclosure Pages
201: Economic Performance		
201-1	Direct economic value generated and distributed	-
201-2	Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"> ▶ Environmental Risk Management ▶ Support for Proposals of the Task Force on Climate-related Financial Disclosures (TCFD), and Our Disclosures ▶ Risk Management ▶ Business Risk Web
201-3	Defined benefit plan obligations and other retirement plans	-
201-4	Financial assistance received from government	-
202: Market Presence		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	-
202-2	Proportion of senior management hired from the local community	-
203: Indirect Economic Impacts		
203-1	Infrastructure investments and services supported Benefits	<ul style="list-style-type: none"> ▶ Production of City Gas ▶ Supply of City Gas ▶ Earthquake Disaster Countermeasures ▶ Development of the Electric Power Business ▶ Overseas Business ▶ Lifestyle Services ▶ Urban Development ▶ Contribution to Local Communities ▶ Initiatives for the Tokyo 2020 Games ▶ INVESTORS' GUIDE [PDF: 7,859KB] P.6-12 (City Gas Business - Overseas Business) Web
203-2	Significant indirect economic impacts	-
GRI-204: Procurement Practices		
204-1	Proportion of spending on local suppliers	-
GRI-205: Anti-corruption		
205-1	Operations assessed for risks related to corruption	▶ Compliance
205-2	Communication and training about anti-corruption policies and procedures	▶ Compliance
205-3	Confirmed incidents of corruption and actions taken	No incidents
GRI-206: Anti-competitive Behavior		
206-1	Legal actions for anticompetitive behavior, anti-trust, and monopoly practices	No legal actions

■ GRI300: Environmental topics

Disclosure		Disclosure Pages
GRI-301: Materials 2016		
301-1	Materials used by weight or volume	▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance
301-2	Recycled input materials used	▶ Promoting the 3Rs
301-3	Reclaimed products and their packaging materials	<ul style="list-style-type: none"> ▶ Promotion of a Circular Economy ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Waste
GRI-302: Energy 2016		
302-1	Energy consumption within the organization	<ul style="list-style-type: none"> ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
302-2	Energy consumption outside of the organization	<ul style="list-style-type: none"> ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
302-3	Energy intensity	<ul style="list-style-type: none"> ▶ FY2019 Targets and Results – Decarbonization through Energy Supply ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
302-4	Reduction of energy consumption	<ul style="list-style-type: none"> ▶ FY2019 Targets and Results – Decarbonization through Energy Supply ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
302-5	Reductions in energy requirements of products and services	<ul style="list-style-type: none"> ▶ Climate Change Actions Cutting Customer CO₂ Emissions Residential Sector Initiatives ▶ Climate Change Actions Cutting Customer CO₂ Emissions Commercial Sector Initiatives ▶ Climate Change Actions Cutting Customer CO₂ Emissions Best Practices of Smart Networks ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
GRI-303: Water and effluents 2018		
303-1	Interactions with water as a shared resource	▶ Managing Water Risks
303-2	Management of water discharge-related impacts	▶ Managing Water Risks
303-3	Water withdrawal	▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
303-4	Water discharge	▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
303-5	Water consumption	<ul style="list-style-type: none"> ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System ▶ Managing Water Risks
GRI-304: Biodiversity 2016		
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"> ▶ Efforts for Biodiversity Conservation ▶ Measures in Our LNG Value Chain ▶ Biodiversity Activities with Our Customers and Local Communities
304-2	Significant impacts of activities, products, and services on biodiversity	▶ Efforts for Biodiversity Conservation
304-3	Habitats protected or restored	<ul style="list-style-type: none"> ▶ Measures in Our LNG Value Chain ▶ Biodiversity Activities with Our Customers and Local Communities



Standards Mapping Table

Disclosure	Disclosure Pages
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	▶ Measures in Our LNG Value Chain
305: GRI-305: Emissions 2016	
305-1 Direct (Scope 1) GHG emissions	▶ Addressing Climate Change issues ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
305-2 Energy indirect (Scope 2) GHG emissions	▶ Addressing Climate Change issues ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
305-3 Other indirect (Scope 3) GHG emissions	▶ Addressing Climate Change issues ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
305-4 GHG emissions intensity	▶ FY2019 Targets and Results – Decarbonization through Energy Supply ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Conversion Factor, etc. ▶ Environmental Data – Assessment of CO ₂ Emissions Reduction due to Reductions in Purchased Electricity
305-5 Reduction of GHG emissions	▶ FY2019 Targets and Results – Decarbonization through Energy Supply ▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
305-6 Emissions of ozone-depleting substances (ODS)	▶ Management of Chemical Substances
305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
GRI-306: Effluents and Waste 2016	
306-1 Water discharge by quality and destination	▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Use of Energy and Water/Emissions into the Atmosphere and Water System
306-2 Waste by type and disposal method	▶ Environmental Data – The Tokyo Gas Group Business Activities and Material Balance ▶ Environmental Data – Waste ▶ Promotion of a Circular Economy
306-3 Significant spills	▶ Combating Soil Pollution
306-4 Transport of hazardous waste	▶ Management of Chemical Substances
306-5 Water bodies affected by water discharges and/or runoff	▶ Managing Water Risks ▶ Efforts for Biodiversity Conservation
GRI-307: Environmental Compliance 2016	
307-1 Non-compliance with environmental laws and regulations	No Incidents
GRI-308: Supplier Environmental Assessment 2016	
308-1 New suppliers that were screened using environmental criteria	–
308-2 Negative environmental impacts in the supply chain and actions taken	▶ Supply Chain Management

■ GRI400: Social topics

Disclosure	Disclosure Pages
GRI-401: Employment 2016	
401-1 New employee hires and employee turnover	▶ Social Data – Overview of Employees
401-2 Benefits provided to full-time employees that are not provided to temporary or parttime employees	▶ Diversity ▶ Social Data – Overview of Employees
401-3 Parental leave	▶ Social Data – Overview of Employees
GRI-402: Labor/Management Relations 2016	
402-1 Minimum notice periods regarding operational changes	–
GRI-403: Occupational Health and Safety 2018	
403-1 Occupational health and safety management system	▶ Industrial Safety and Health Initiatives
403-2 Hazard identification, risk assessment, and incident investigation	▶ Industrial Safety and Health Initiatives
403-3 Occupational health services	▶ Industrial Safety and Health Initiatives
403-4 Worker participation, consultation, and communication on occupational health and safety	▶ Industrial Safety and Health Initiatives ▶ Communications with Employees
403-5 Worker training on occupational health and safety	▶ Industrial Safety and Health Initiatives ▶ Social Data – Implementation of Occupational Safety and Health Education Programs
403-6 Promotion of worker health	▶ Industrial Safety and Health Initiatives
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	▶ Industrial Safety and Health Initiatives
403-8 Workers covered by an occupational health and safety management system	–
403-9 Work-related injuries	▶ Social Data – Overview of Accidents and Injuries
403-10 Work-related ill health	–
GRI-404: Training and Education 2016	
404-1 Average hours of training per year per employee	▶ Social Data – Overview of Employees
404-2 Programs for upgrading employee skills and transition assistance programs	▶ Human Resources Development ▶ Diversity
404-3 Percentage of employees receiving regular performance and career development reviews	–
GRI-405: Diversity and Equal Opportunity 2016	
405-1 Diversity of governance bodies and employees	▶ Social Data – Overview of Employees
405-2 Ratio of basic salary and remuneration of women to men	–
GRI-406: Non-discrimination 2016	
406-1 Incidents of discrimination and corrective actions taken	▶ Respect for Human Rights



Standards Mapping Table

Disclosure		Disclosure Pages
GRI-407: Freedom of Association and Collective Bargaining 2016		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<ul style="list-style-type: none"> ▶ Communications with Our Suppliers ▶ Communications with Employees ▶ Respect for Human Rights ▶ Supply Chain Management
GRI-408: Child Labor 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	<ul style="list-style-type: none"> ▶ Respect for Human Rights ▶ Supply Chain Management
GRI-409: Forced or Compulsory Labor 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<ul style="list-style-type: none"> ▶ Respect for Human Rights ▶ Supply Chain Management
GRI-410: Security Practices 2016		
410-1	Security personnel trained in human rights policies or procedures	-
GRI-411: Rights of Indigenous Peoples 2016		
411-1	Incidents of violations involving rights of indigenous peoples	-
GRI-412: Human Rights Assessment 2016		
412-1	Operations that have been subject to human rights reviews or impact assessments	-
412-2	Employee training on human rights policies or procedures	▶ Respect for Human Rights
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	-
GRI-413: Local Communities 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	▶ Contribution to Local Communities
413-2	Operations with significant actual and potential negative impacts on local communities	<ul style="list-style-type: none"> ▶ Environmental Management ▶ Environmental Risk Management ▶ Promotion of Biodiversity Conservation
GRI-414: Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	-
414-2	Negative social impacts in the supply chain and actions taken	▶ Supply Chain Management
GRI-415: Public Policy 2016		
415-1	Political contributions	We do not make political contribution.
GRI-416: Customer Health and Safety 2016		
416-1	Assessment of the health and safety impacts of product and service categories Launch	<ul style="list-style-type: none"> ▶ Earthquake Disaster Countermeasures ▶ Ensuring Customer Safety ▶ Enhancing the Safety of Gas Appliances

Disclosure		Disclosure Pages
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	▶ Disclosure of Incidents that Affected Our Stakeholders Web
GRI-417: Marketing and Labeling 2016		
417-1	Requirements for product and service information and labeling	▶ Appropriate Information Disclosure
417-2	Incidents of non-compliance concerning product and service information and labeling	No Incidents
417-3	Incidents of non-compliance concerning marketing communications	No incidents
GRI-418: Customer Privacy 2016		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	▶ Disclosure of Incidents that Affected Our Stakeholders Web
GRI-419: Socioeconomic Compliance 2016		
419-1	Non-compliance with laws and regulations in the social and economic area	No violation of laws and regulations



Standards Mapping Table

Global Compact Content Index

The Ten Principles of UN Global Compact		Pages in 2020 Sustainability Report
Human Rights	Principle One: Businesses should support and respect the protection of internationally proclaimed human rights.	<ul style="list-style-type: none"> ▶ Diversity ▶ Work Style Reform ▶ Industrial Safety and Health Initiatives
	Principle Two: Businesses should make sure that they are not complicit in human rights abuses.	<ul style="list-style-type: none"> ▶ Respect for Human Rights ▶ Compliance ▶ Supply Chain Management
Labour	Principle Three: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	<ul style="list-style-type: none"> ▶ Human Resources Development
	Principle Four: Businesses should uphold the elimination of all forms of forced and compulsory labour.	<ul style="list-style-type: none"> ▶ Diversity ▶ Work Style Reform ▶ Industrial Safety and Health Initiatives
	Principle Five: Businesses should uphold the effective abolition of child labour.	<ul style="list-style-type: none"> ▶ Communications with Employees ▶ Respect for Human Rights ▶ Compliance ▶ Supply Chain Management
	Principle Six: Businesses should uphold the elimination of discrimination in respect of employment and occupation.	
Environment	Principle Seven: Businesses should support a precautionary approach to environmental challenges.	
	Principle Eight: Businesses should undertake initiatives to promote greater environmental responsibility.	<ul style="list-style-type: none"> ▶ Striving toward Net-Zero CO₂ ▶ Environment ▶ Contribution to Local Communities ▶ Supply Chain Management
Anti-Corruption	Principle Nine: Businesses should encourage the development and diffusion of environmentally friendly technologies.	
	Principle Ten: Businesses should work against corruption in all its forms, including extortion and bribery.	<ul style="list-style-type: none"> ▶ Compliance ▶ Supply Chain Management

ISO 26000 Content Index

Guidance on social responsibility core subjects	ISO26000 Issue	Pages in 2020 Sustainability Report
Organizational governance	Organizational governance	<ul style="list-style-type: none"> ▶ Corporate Governance ▶ Stakeholder Engagement
Human rights	Issue 1: Due diligence	
	Issue 2: Human rights risk situations	
	Issue 3: Avoidance of complicity	<ul style="list-style-type: none"> ▶ Diversity
	Issue 4: Resolving grievances	<ul style="list-style-type: none"> ▶ Work Style Reform ▶ Industrial Safety and Health Initiatives ▶ Respect for Human Rights ▶ Compliance ▶ Supply Chain Management
Labour practices	Issue 5: Discrimination and vulnerable groups	
	Issue 6: Civil and political rights	
	Issue 7: Economic, social and cultural rights	
	Issue 8: Fundamental principles and rights at work	
	Issue 1: Employment and employment relationships	<ul style="list-style-type: none"> ▶ Human Resources Development ▶ Diversity ▶ Work Style Reform ▶ Industrial Safety and Health Initiatives ▶ Communications with Employees ▶ Respect for Human Rights ▶ Compliance ▶ Supply Chain Management
The environment	Issue 2: Conditions of work and social protection	
	Issue 3: Social dialogue	
	Issue 4: Health and safety at work	
	Issue 5: Human development and training in the workplace	
Fair operating practices	Issue 1: Prevention of pollution	
	Issue 2: Sustainable resource use	<ul style="list-style-type: none"> ▶ Striving toward Net-Zero CO₂ ▶ Environment ▶ Contribution to Local Communities ▶ Supply Chain Management
	Issue 3: Climate change mitigation and adaptation	
	Issue 4: Protection of the environment, biodiversity and restoration of natural habitats	
	Issue 1: Anti-corruption	
Issue 2: Responsible political involvement		
Issue 3: Fair competition	<ul style="list-style-type: none"> ▶ Compliance ▶ Supply Chain Management 	
Issue 4: Promoting social responsibility in the value chain		
Issue 5: Respect for property rights		



Standards Mapping Table

	ISO26000	Pages in 2020 Sustainability Report
Guidance on social responsibility core subjects	Issue	
Consumer issues	Issue 1: Fair marketing, factual and unbiased information and fair contractual practices	<ul style="list-style-type: none"> ▶ Striving toward Net-Zero CO₂ ▶ Environment ▶ Earthquake Disaster Countermeasures ▶ Ensuring Customer Safety
	Issue 2: Protecting consumers' health and safety	<ul style="list-style-type: none"> ▶ Enhancing the Safety of Gas Appliances ▶ Efforts to Enhance Customer Satisfaction
	Issue 3: Sustainable consumption	<ul style="list-style-type: none"> ▶ Community-based Service Structure
	Issue 4: Consumer service, support, and complaint and dispute resolution	<ul style="list-style-type: none"> ▶ Contribution to Local Communities
	Issue 5: Consumer data protection and privacy	<ul style="list-style-type: none"> ▶ Compliance ▶ Cybersecurity Management
	Issue 6: Access to essential services	<ul style="list-style-type: none"> ▶ Protection of Personal Information
	Issue 7: Education and awareness	<ul style="list-style-type: none"> ▶ Appropriate Information Disclosure ▶ Disclosure of Incidents that Affected Our Stakeholders Web
Community involvement and development	Issue 1: Community involvement	<ul style="list-style-type: none"> ▶ Climate Change Actions Cutting Customer CO₂ Emissions Best Practices of Smart Networks ▶ Production of City Gas ▶ Supply of City Gas
	Issue 2: Education and culture	<ul style="list-style-type: none"> ▶ Earthquake Disaster Countermeasures
	Issue 3: Employment creation and skills development	<ul style="list-style-type: none"> ▶ Development of the Electric Power Business ▶ Overseas Business
	Issue 4: Technology development and access	<ul style="list-style-type: none"> ▶ Lifestyle Services ▶ Urban Development
	Issue 5: Wealth and income creation	<ul style="list-style-type: none"> ▶ Community-based Service Structure
	Issue 6: Health	<ul style="list-style-type: none"> ▶ Contribution to Local Communities
	Issue 7: Social investment	<ul style="list-style-type: none"> ▶ Human Resources Development ▶ Diversity ▶ Work Style Reform ▶ Industrial Safety and Health Initiatives



About This Report

About This Report

The Tokyo Gas Group boosts its social and financial value by resolving social issues through its business activities, and contributes to the sustainable development of society by realizing enduring corporate management.

We have defined a set of materialities—important sustainability issues—that are aligned with our management vision Compass 2030 and are founded on our commitment to constantly creating value for customers and leading the transition to net-zero CO₂ emissions. We strive to achieve the goals of those materialities through the PDCA cycle, and in so doing play our part in efforts to tackle climate change and other challenges faced by society.

This report presents our sustainability initiatives and the key actions we took in fiscal 2019 toward the goals of our materialities.

Period

This report contains material primarily from fiscal 2019 (April 1, 2019 to March 31, 2020), with some additional information from other fiscal years.

Scope

The information herein is mainly for Tokyo Gas Co., Ltd. and its subsidiaries, with some information on Tokyo Gas LIFEVAL and partner companies also included in certain sections. Environmental performance data for fiscal 2019 are for Tokyo Gas and its 41 consolidated subsidiaries in Japan.

Date of Publication

October 30, 2020 (previous: October 2019; next: October 2021 [tentative])

Referenced Guidelines

GRI Sustainability Reporting Standards

Japanese Standards Association, ISO 26000:2010

Ministry of the Environment of Japan, Environmental Reporting Guidelines 2018

The environmental and social performance data provided in this report have been third-party assured by KPMG AZSA Sustainability Co., Ltd. (a member of the KPMG Japan group) to enhance the credibility of the data.

Publication History

FY1994–2004	Published “Environmental Report.”
FY2005–2009	Expanded coverage to include CSR and changed title to “Tokyo Gas CSR Report.” Published on our website and in print.
From FY2009	Broadened scope to include subsidiaries and affiliates (published online only).
FY2010–2014	Issued “Tokyo Gas CSR and Corporate Profile” (in print).
From FY2015	Began issuing full edition of “Tokyo Gas Group CSR Report” on our website, and a digest in print.
From FY2017	Began publishing the online report for each fiscal year in the first half of the following fiscal year, with updates made as needed thereafter.
From FY2019	Discontinued print edition and began publishing both the full report and the digest online. Changed title to “Sustainability Report.”