

# INTEGRATED REPORT 2018



## TOHO GAS CO.,LTD.

19-18, Sakurada-cho, Atsuta-ku, Nagoya 456-8511, Japan  
URL: <http://www.tohogas.co.jp/lang-n/en/corporate/>

The following considerations have been applied to reduce the environmental impact.





あした が す て き に !

Ashita GA Sutekini!

For a Wonderful Tomorrow!

Maintaining our enthusiasm.

To ensure safety and security in gas use.

Accelerating our efforts.

To open the way to a better future of energy.

To make a tomorrow more wonderful than today.

Gas is always at the heart.

## Editorial Policy

Toho Gas Group has decided to publish an Integrated Report from this fiscal year to replace its regular Annual Report and Environmental and Social Report.

We hope that the Integrated Report will enable all stakeholders to gain a deeper understanding of Toho Gas Group. For this reason, we have summarized our overall corporate strategy under the title of Value Creation Process, wherein we introduce our business activities and environmental, social and governance (ESG) initiatives which specifically link to the corporate strategy. We publish more details of IR information and environmental initiatives on the Toho Gas website to enable access to many stakeholders.

In an effort to make this report an effective tool for communication with stakeholders, we aim to develop it further as an integrated report while reflecting feedback from all of our stakeholders.

### | Reference Guidelines

GRI Standards  
International Integrated Reporting Council (IIRC) Framework  
ISO 26000  
Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation  
Environmental Reporting Guidelines (2012 version)

### | Published

August 2018  
(Next edition: scheduled for August 2019)

### | Reporting Period

FY2017  
(April 1, 2017–March 31, 2018)  
Some activities covered took place in FY2018.

### | Reporting Scope

In principle, Toho Gas Co., Ltd., consolidated subsidiaries and equity-method affiliated companies (as of March 31, 2018) are described as “Toho Gas Group.” In each report, we aim to indicate the specific organization involved in circumstances where overall Group information is not fully understood.

### | Departments in Charge of Preparation

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Finance Dept. TEL +81-52-872-9341

### | Descriptions of Future Expectations

The statements in this report concerning future expectations are forecasts based on information currently available and may include potential risks and uncertainties. Be aware, therefore, that due to various factors, actual results may differ from forecasts contained in this report.

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# History of Toho Gas Group

Over almost 100 years since its establishment in 1922, Toho Gas has been an energy company with strong roots in the local communities. In response to changes in the business environment, we have converted the energy resources used for city gas, expanded usage applications, and achieved growth and development together with the local communities.

- 1922

Established with capital of 22 million yen
- 1941-45

The Pacific War
- 1958

Start of operations at Komei Works
- 1959

Ise Bay Typhoon
- 1970

Start of operations at Sorami Works  
(Use of petroleum-based energy resources)
- 1973

Start of first oil crisis
- 1977

Start of operations at Chita LNG Terminal  
Start of use of Indonesian LNG
- 1978

Start of conversion to natural gas
- 1979

Start of second oil crisis
- 1985

Establishment of Technical Research Institute
- 1991

Start of operations at Yokkaichi Works
- 1993

Completion of conversion to natural gas
- 1995

Great Hanshin Earthquake
- 2001

Start of operations at Chita-Midorihamma Works
- 2003

Merger of Godo Gas, Gifu Gas and Okazaki Gas
- 2008

Global Financial Crisis
- 2009

Launch of ENE FARM residential fuel-cell system  
Completion of circularization of transportation trunk pipeline
- 2011

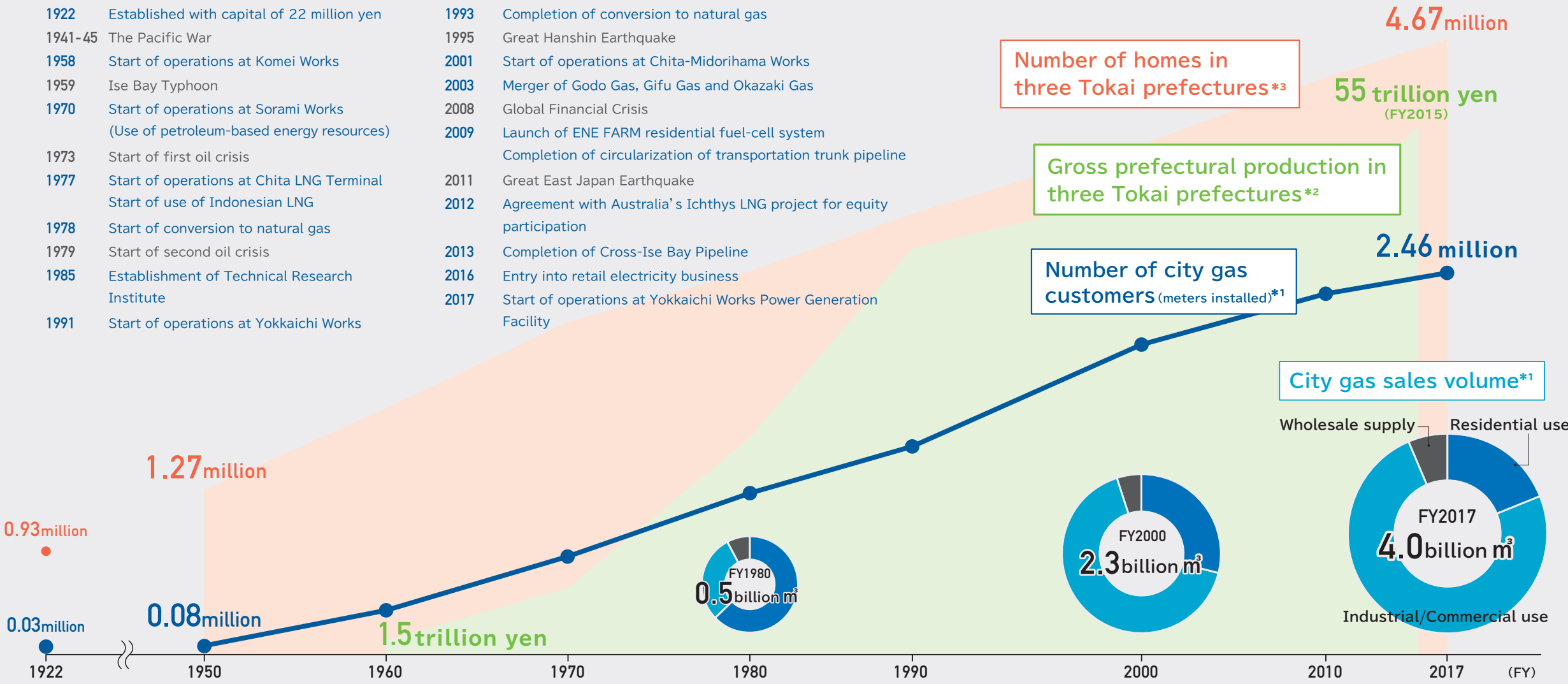
Great East Japan Earthquake
- 2012

Agreement with Australia's Ichthys LNG project for equity participation
- 2013

Completion of Cross-Ise Bay Pipeline
- 2016

Entry into retail electricity business
- 2017

Start of operations at Yokkaichi Works Power Generation Facility



Energy resources		Coal		Petroleum		Natural gas	
Application	Industrial/Commercial use	Development of industrial/commercial use demand (1960s)		Supply of industrial use LNG (1970s)		High efficiency burners (2000s)	
	Residential use	Gas air conditioning (1970s)		Regional air conditioning (1980s)		Commercial kitchens (Suzu-chu®)*4 (2000s)	
		Gas fan heaters (1980s)		Gas water heaters (1990s)		Si sensor gas stoves (2000s)	
		Water heaters (1920s)		Gas rice cookers (1960s)		ENE FARM	
		Heaters (1950s)					
		Gas stoves (1950s)					

\*1 The number of city gas customers (meters installed) and sales volume are based on non-consolidated before FY1990 and consolidated since FY2000.  
\*2 Source: Gross prefectural production in three Tokai prefectures: Annual Report on Prefectural Accounts (Cabinet Office)

\*3 Source: Number of homes in three Tokai prefectures: National Census (Ministry of Internal Affairs and Communications)  
\*4 Suzu-chu® is a registered trademark of Osaka Gas Co., Ltd.

## Strengths of Toho Gas Group

### Potential Growth of the Region

Manufacturing is a strength of the three Tokai prefectures, making a region with strong growth potential

- ▶ P.25 Industrial/Commercial Use
- ▶ P.27 Growth of Group Business, Development of New Businesses

### Excellent Products

Excellent environmental performance of natural gas, our core product, and technologies that enable high-degree application and efficient use of natural gas

- ▶ P.29 Technical Development to Realize a Low Carbon Society
- ▶ P.33 Environment Report

### Ties with Customers

Our proximity to customers in various opportunities based on the relationships of trust that have been developed over almost 100 years

- ▶ P.23 Expansion of Share in Total Energy Market
- ▶ P.41 Contribution to the Local Communities

### Foundational Security Systems

Security and safety which we have formed as the basis of gas business for years

- ▶ P.20 Promote Gas Safety and Disaster-prevention Measures
- ▶ P.21 Measures to Ensure the Safety and Security of Customers



# Value Creation Process

The Toho Gas Group will strive to create a new form of energy use that will open up the way to the future by focusing on the city gas business. In addition, the Group will contribute to the development of the Tokai Area through total support for comfortable living for customers in the region, and the manufacturing industries that lead the development of Japan.



[ Ideal form ] for the 100th Anniversary of Our Establishment

## Energy that opens the way to the future

— Delivering a higher and wider scope of value to customers —

Medium-term management plan [FY2014–2018]

- |                  |  |                  |  |                  |                                  |                  |                          |                  |                            |
|------------------|--|------------------|--|------------------|----------------------------------|------------------|--------------------------|------------------|----------------------------|
| <b>Action 01</b> | Provide a stable supply of energy at a competitive price | <b>Action 02</b> | Strengthen our relationship with customers | <b>Action 03</b> | Expand gas business service area | <b>Action 04</b> | Expand scope of business | <b>Action 05</b> | Ensure safety and security |
|------------------|--|------------------|--|------------------|----------------------------------|------------------|--------------------------|------------------|----------------------------|

### INPUT (as of March 31, 2018)

- Procurement of energy resources  
LNG procurement: **Approx. 3 million tons from 5 countries**
- Stable gas supply infrastructure  
City gas works: **3 works and a calorific value adjustment center**  
Pipeline length: **Approx. 30,000 km**  
LPG supply network: **Meiko LPG Terminal (secondary terminal)**  
**18 gas-filling and delivery bases**  
Power-generation facilities at Yokkaichi Works: **16,500 kW**
- City gas service area  
**54 cities, 20 towns and 1 village in three prefectures of the Tokai region**
- Human resources and “Genba-Ryoku”  
Number of employees: **5,892**



### OUTPUT (FY2017) > P.9-10

- City gas  
Sales volume: **4.02 billion m<sup>3</sup>**  
Number of customers: **2.46 million**  
\*Number of gas meters installed
- LPG  
Sales volume: **465 thousand tons**  
Number of customers: **490 thousand**  
\*Including subcontracted deliveries
- Electricity  
Number of customers: **87 thousand**
- Operating Cash Flow: **57.0 billion yen**
- ROA: **3.4%**

- |                     |                                |                          |
|---------------------|--------------------------------|--------------------------|
| Safety<br>> P.20-21 | Local communities<br>> P.41-42 | Environment<br>> P.33-40 |
|---------------------|--------------------------------|--------------------------|

## OUTCOME

Value provided to stakeholders

**Customers** > P.20-24

! Safety and security  
! Comfortable life

**Local communities** > P.33-42

! Supporting local industries  
! Social contribution activities

**Shareholders and investors** > P.43-44

! Corporate value enhancement  
! Stable return to shareholders

**Partner companies** > P.39-40

! Fair and unbiased transactions  
! Collaboration with subcontractors

**Employees** > P.45-48

! Respect human rights  
! Pleasant working environment

## Corporate Philosophy

Toho Gas, together with its group companies, contributes to the creation of satisfying and exciting life and the realization of an attractive and lively society by valuing the bonds of trust.



**Sustainable Development Goals (SDGs)**  
The SDGs are 17 goals with 169 targets set to achieve a sustainable society, adopted at the United Nations Sustainable Development Summit held at UN Headquarters in September 2015.



# Toho Gas Group Vision and Medium-term Management Plan

Toho Gas formulated “Toho Gas Group Vision” in March 2013 and described the ideal form of the Toho Gas Group for the 100th anniversary of its foundation (FY2022). In order for the Toho Gas Group to realize its vision and achieve sustainable growth at a turning point in the energy industry, in March 2014, Toho Gas drew up a new medium-term management plan covering five years from FY2014 to FY2018.

## Medium-term management plan [ FY2014-2018 ]

### Group vision

## Achievement of the vision [ FY2022 ]

### Concept



## Build a robust gas business

Build a robust gas business and continue to be trusted and chosen by customers in the face of fierce competition.

## Strive for further growth

Capture growing opportunities derived from changes in the business environment and develop a foundation for further growth.

### Action Plan

#### Action 01

Provide a stable supply of energy at a competitive price

Advance efforts to optimize our procurement portfolio by diversifying LNG suppliers and stably procure LNG at a reasonable price

Support diversification of procurement by reinforcing gas resource receiving facilities and enhancing flexibility of gas resource receiving operations to ensure stable supply of city gas

#### Action 02

Strengthen our relationship with customers

Promote optimal energy use to each individual customer by anticipating their needs

Provide high quality services that meet customer demands promptly and accurately

#### Action 03

Expand gas business service area

Reinforce and extend our gas pipeline network to expand our city gas service area

Expand our sales of LNG and LPG to provide the optimal energy to customers in a wider area

#### Action 04

Expand scope of business

Promote a comprehensive energy business that provides not only a system for the collective supply of energy but also solution proposal

Strengthen our scope of business mainly in the energy-related field to generate synergies with the gas business

#### Action 05

Ensure Safety and security

Promote soft and hard measures to resisit earthquake, tsunami, and seismic liquefaction

Conduct maintenance and replacement of production and supply facilities and implement comprehensive safety measures related to gas appliances

### Strengthen the business foundation for further growth

Realize growth cycle

Strengthen human resources and “Genba-Ryoku” (front-line capabilities)

Strengthen technical capabilities

Implement thorough CSR management

### Ideal form



## Towards energy that opens up the way to the future

—Delivering a higher and wider scope of value to customers—

### Four Challenges

#### Challenge 01

Ensure stable energy supply to customers in our expanding service area at a competitive price

#### Challenge 02

Promote optimal energy use to each individual customer

#### Challenge 03

Support development of communities which are in harmony with the local communities and resistant to disasters

#### Challenge 04

Ensure customers' safety and security in gas use

### Strengthening of management foundation

Improvement of R&D and engineering

Enhancement of human resources and “Genba-Ryoku” (front-line capabilities)

Strengthening of business structure

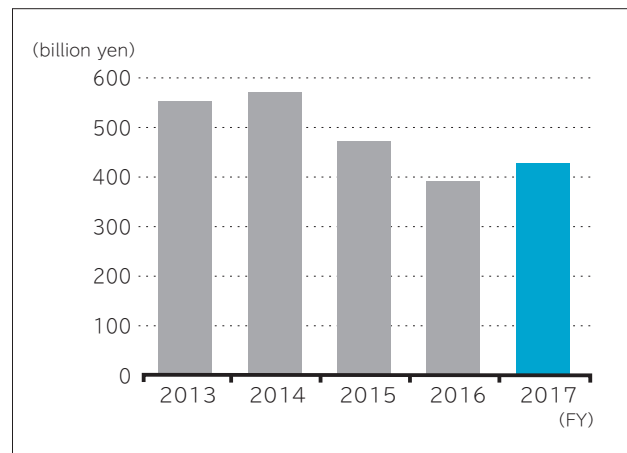
Implementing thorough CSR management

Demonstration of whole strengths of Toho Gas Group

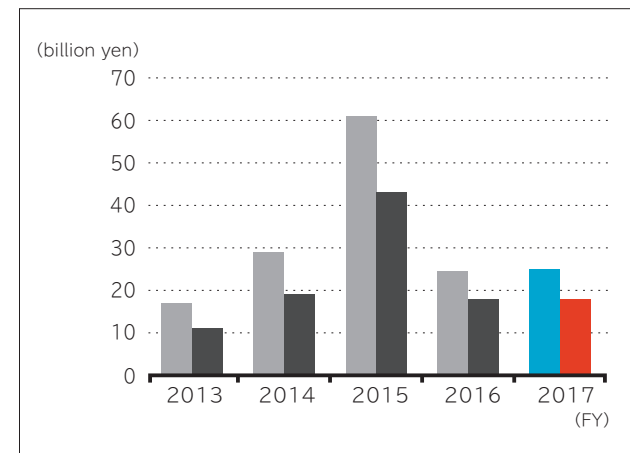


# Fundamental Data

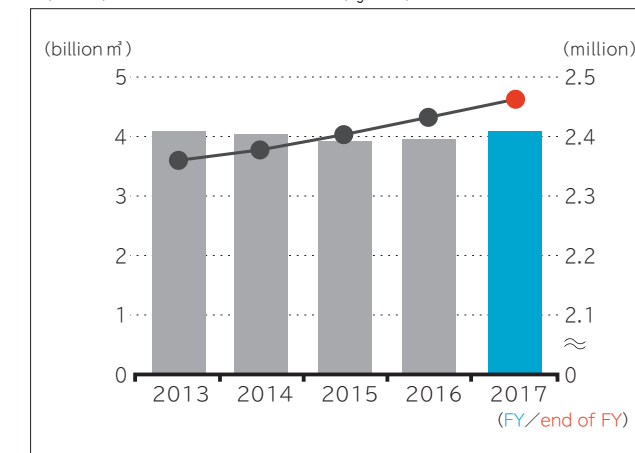
■ Sales **428.8 billion yen**



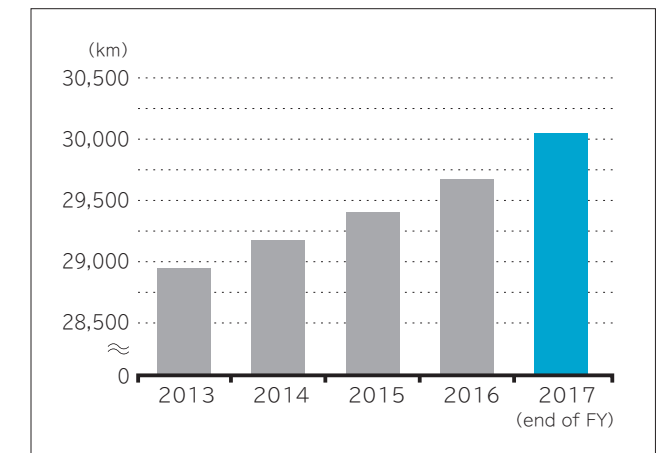
■ Ordinary income **25.2 billion yen** / ■ Net income **18.0 billion yen**



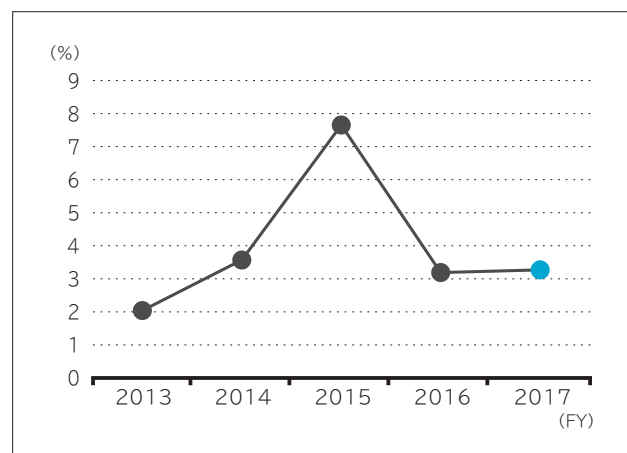
■ City gas sales volumes **4.02 billion m³** / ■ Number of city gas customers (Number of city gas meters installed) **2.46 million**



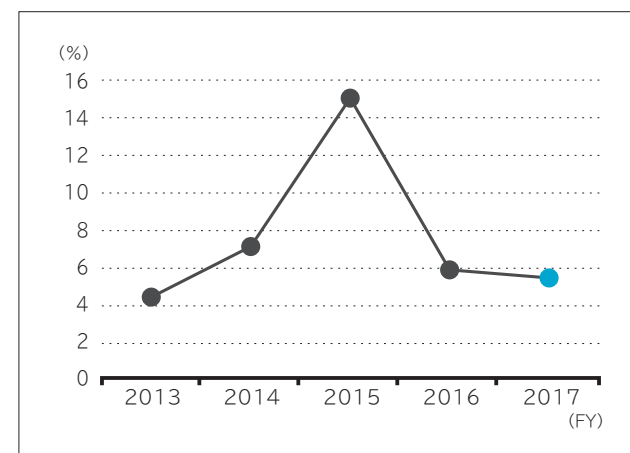
■ Total pipeline length **30,011 km**



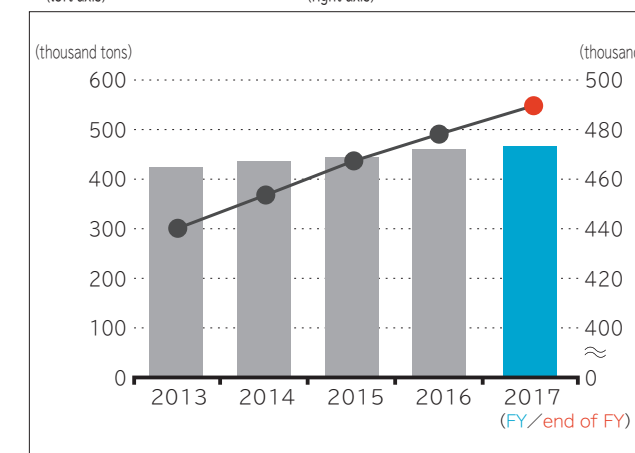
■ ROA (Return on asset) **3.4 %**



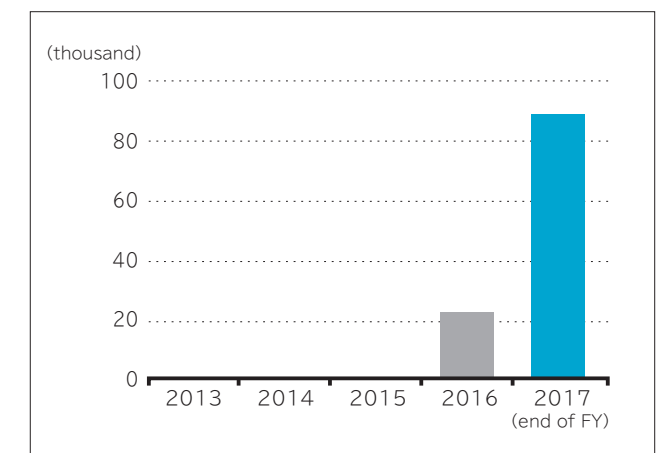
■ ROE (Return on equity) **5.7 %**



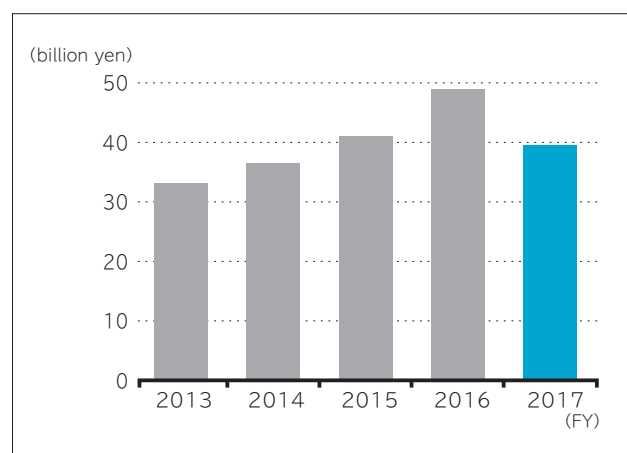
■ LPG sales volume **465 thousand tons** / ■ Number of LPG customers (Including subcontracted deliveries) **490 thousand**



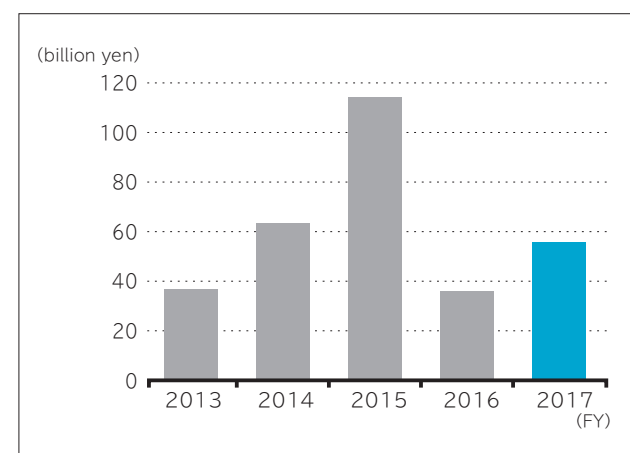
■ Number of Electricity customers **87 thousand**



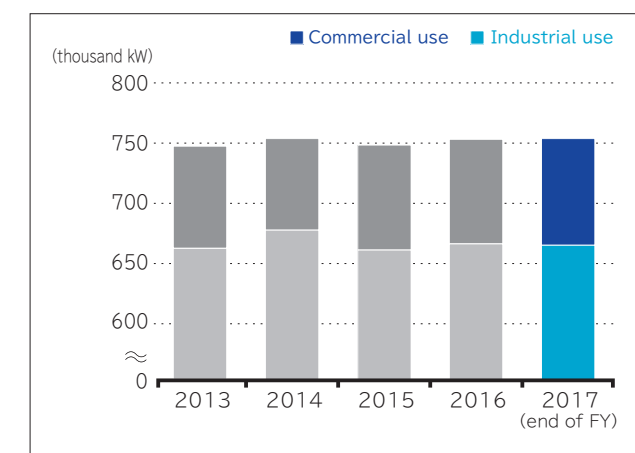
■ Capital expenditure **39.6 billion yen**



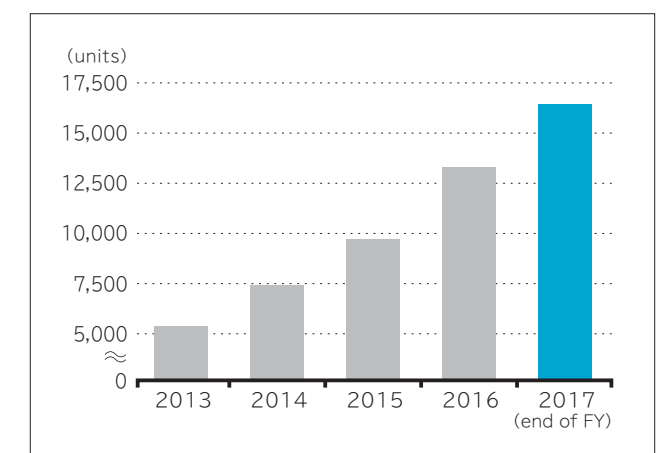
■ Operating cash flow **57.0 billion yen**



■ Amount of gas cogeneration system installed (non-consolidated) **755 thousand kW**



■ ENE FARM cumulative unit sales (non-consolidated) **16,766 units**





# Interview with President

Toho Gas will support customers' lives and manufacturing activities, and develop sustainably together with local communities.



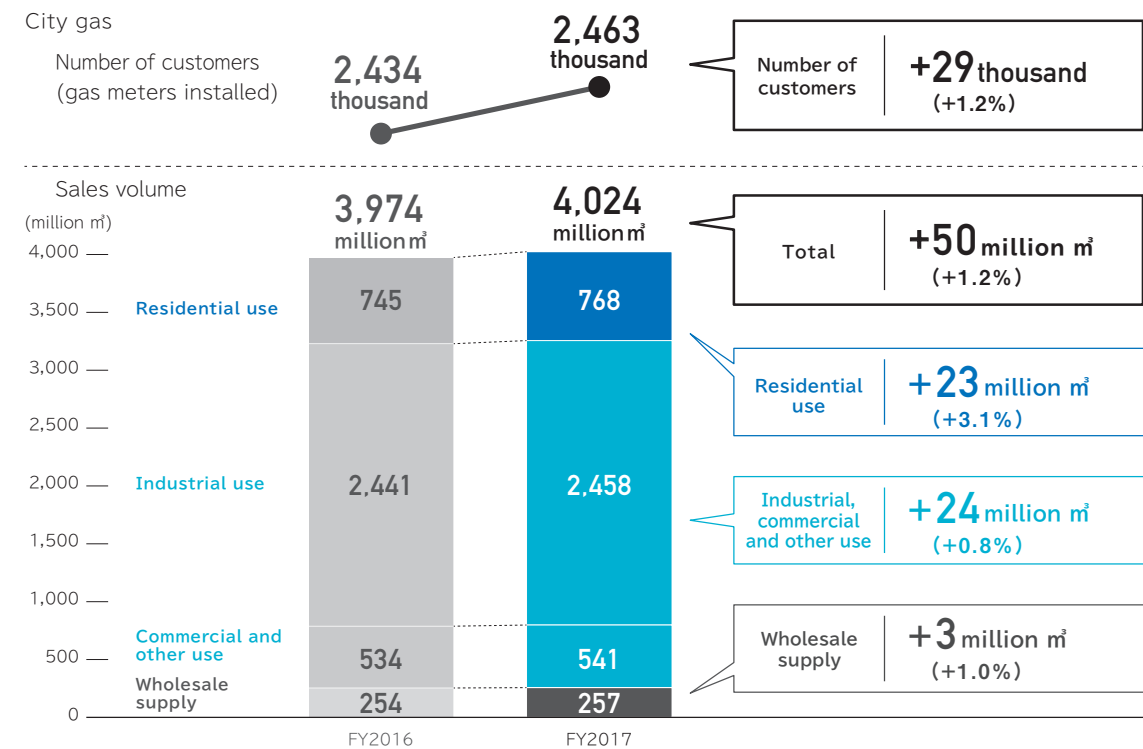
Q1

What is your assessment of FY2017?

A

In FY2017, through promotion of demand development, we steadily increased both the number of customers and sales volume for city gas despite the impact of full liberalization of the gas market. Consequently, we were able to secure increased year-on-year net sales and profit as planned. Thanks to our customers' high evaluation for our efforts to ensure safety and security for gas supply and ability to make proposals that suit customer needs, I believe we were able to deliver satisfactory results in the first year of liberalization.

FY2018, the second year of liberalization, is also the final year of our current medium-term management plan. We will strive to achieve our goals set out in the plan by appropriately responding to fierce competition and the diversification of customer needs. With a view to changes in the management environment going forward, we are positioning this year as an important year for making a strong start to the Group's next stage of growth.



	FY2016	FY2017	Difference	Difference (rate)
Net sales	390.4	428.8	+38.4	+9.8%
Cost of sales	230.4	271.6	+41.1	+17.9%
Selling, general and administrative expenses	136.7	133.1	-3.5	-2.6%
Ordinary income	24.4	25.2	+0.7	+2.9%
Net income attributable to owners of the parent	17.7	18.0	+0.2	+1.5%



Q2 What is the situation of gas and electricity full liberalization and your strategy to handle it?

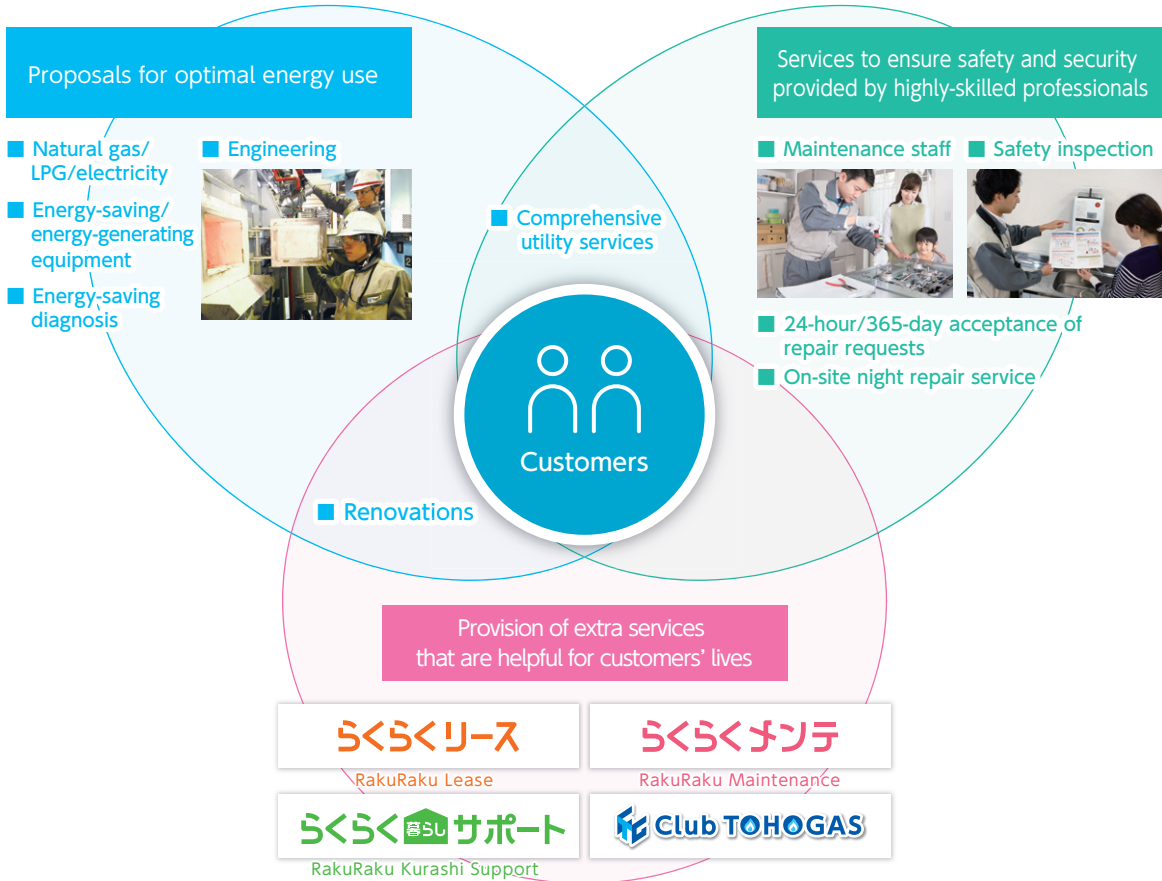
**A** With the start of full liberalization for gas and electricity, in addition to the existing competition with other fuel providers, the competition environment surrounding Toho Gas Group has changed dramatically. In these circumstances, approximately 120,000 customers have switched to other companies during the first year of full liberalization of gas market, and we recognize this fact very seriously.

Meanwhile, we have received applications from a total of around 600,000 customers as of the end of FY2017 for the new gas tariff and services that we launched with the liberalization. Furthermore, the electricity business, which we launched from April 2016, has gained about 90,000 customers, and was able to reach the five year target of 100,000 kW (equivalent to 80,000 homes) ahead of schedule. We are very grateful that there are so many who selected our company, and we believe that our measures are working well.

We will continue to provide higher total values for our customers by enhancing comprehensive

strengths with deeper relations with customers and stronger competitiveness, in addition to ensured safety and security and stable supply, which are the foundation of gas business.

Our strength is “proximity to customers,” with some 180 service outlets in our service areas and approximately 3,000 highly-skilled professionals available to promptly respond to any problems. We believe that the key to remaining the choice of customers in the era of liberalization is to continue living up to their trust and expectation by making proposals for optimal energy use, including LPG and electricity, and providing extra services that are helpful for customers’ lives while leveraging this strength. We believe that flexible and bold reforms are necessary to achieve further growth going forward. Therefore, we will pursue thorough streamlining, utilization of diverse human resources, and reforms of awareness and organization, using the changes to the competitive environment as an impetus.



Q3 What is your assessment and progress of the medium-term management plan?

**A** We achieved our five year natural gas customer target one year ahead of schedule, in FY2017, by promoting new demand development. The growth in sales volume is behind our plans, which is due to changes in the circumstances exceeding our assumptions at the time of developing our plans, in addition to the effects of liberalization. These include a reduction in operating rates and relocation, and consolidation of plants at customers, as well as progress of energy saving, despite our active efforts for promoting demand development.

We have achieved our targets both for the number of customers and sales volume for LPG, and we believe that we have succeeded in further enhancing our presence in the region.

Regarding the financial targets, although we have had some variation in results from one fiscal year to another, we believe that we have made progress that is close to our plans through the course of the entire period. Operating cash flow,

for example, totaled 57 billion yen in FY2017 and a cumulative total of 270 billion yen in the four years from FY2014. This means that we have exceeded our amount initially forecast for the five year planning period (260 billion yen). We have used the cash created for investment into further growth and to return to shareholders.

FY2018 is the final year of our current medium-term management plan, and we plan to lay down our next medium-term management plan by the end of the fiscal year. In the new plan, we will draw up a vision of the path that the Group should take, with a focus on further strengthening our city gas business, expanding our share of the total energy market, including LPG and electricity, and promoting the growth of the Group’s businesses, including new businesses, with an eye on achieving sustainable growth while contributing to regional development.

Management Targets

		FY2013		FY2017		Medium-term management plan targets	
		FY2018		FY2013-18 average growth rate			
Number of customers	Natural gas*1	2.36 million	2.46 million	2.46 million	+0.8%		
	LPG*2	440 thousand	490 thousand	480 thousand	+1.8%		
Sales volume	Natural gas*3	4.0 billion m <sup>3</sup>	4.1 billion m <sup>3</sup>	4.5 billion m <sup>3</sup>	+2.2%		
	LPG	420 thousand tons	465 thousand tons	470 thousand tons	+2.3%		

\*1 Number of gas meters installed \*2 Includes subcontracted deliveries  
\*3 Includes LNG sales

	Average for previous medium-term management plan (FY2009-13)	FY2017	Medium-term management plan targets FY2018
Operating cash flow	48.2 billion yen	57.0 billion yen (271.5 billion yen) *1	58.0 billion yen (260.0 billion yen) *2
D/E ratio	0.7	0.3	1.0 or less
ROA	2.1%	3.4%	Approx. 3%

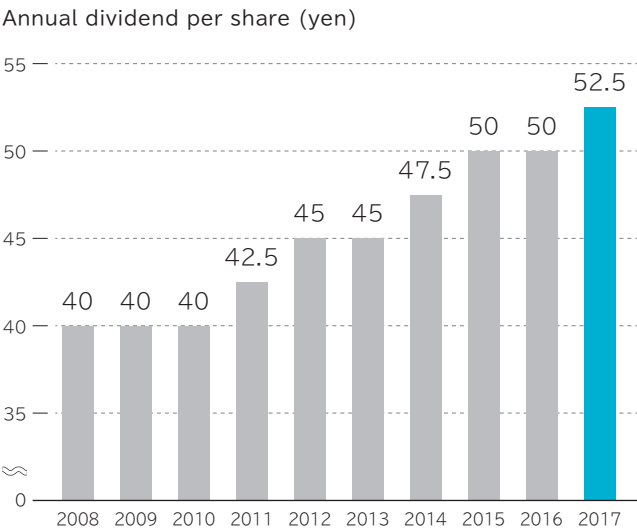
\*1 Cumulative total FY2014 - 17 \*2 Cumulative total FY2014 - 18



Q4 What is your approach to investment and return to shareholders?

**A** We are engaging in investments to promote the diffusion of natural gas and ensure its safety and security and stable supply. We are also promoting growth investment for expansion of our business fields not only in Japan but also overseas if there is any good opportunity that is financially manageable for us, taking into account our financial position.

Regarding return to shareholders, our basis is stable dividends, implementing share buy-backs depending on the situation. We increased our dividend for FY2017 for the first time in three years by 2.5 yen per share from the year-end dividend. This is based on our projections that we will be able to secure a certain level of profit in FY2018, following on from FY2017. We will continue to strive to achieve steady earnings growth in the era of liberalization.



\*Toho Gas consolidated its shares at the ratio of 5 shares to 1 share of common stock effective October 1, 2017. Accordingly, dividend per share reflects the impact of the said consolidation of shares.

Share buy-backs (million yen)

Period	Purchase value
Feb.-May 2001	2,499
Nov. 2001-Mar. 2002	2,999
Nov. 2002-Jun. 2003	5,581
Aug. 2003	344
Nov. 2003-Jun. 2004	4,150
Dec. 2004-Mar. 2005	2,507
Feb.-Jun. 2006	1,746
Feb. 2007	2,668
Feb.-Mar. 2008	2,784
Dec. 2009-Mar. 2010	2,996
Mar.-Jun. 2011	2,751
May-Jun. 2015	2,999
May-Jun. 2016	2,381
Mar. 2017	2,199
May-Jul. 2017	2,994
Total	41,607

Q5 What is your future growth strategy?

**A** The three prefectures in the Tokai region where Toho Gas operates have a concentration of manufacturing industries, and the region is expected to continue to offer potential demand, thanks to redevelopment projects in the Nagoya Station and Sakae areas and the scheduled launch of the Linear Chuo Shinkansen maglev line. As a company based in the Tokai region, Toho Gas will strive to meet the energy demands in that region as well as various needs of customers, including reducing carbon emissions, through the expanded use of environmentally-friendly natural gas and provision of energy-saving and energy-generating technologies.

The Toho Gas Group will strive to achieve steady growth in the city gas business based on our principles of being committed to supporting the lives of our customers and manufacturing activities as we grow together with the region, and expanding our share of the total energy market including LPG and electricity. In addition, we will work to strengthen the Group's businesses, including new businesses, with an eye on expanding our scope of business and revenue-earning sources.

Q5-1 What specific measures do you have?

**A** There is much potential demand for liquid fuel and other energy in our service area. We believe that making efforts to expand demand by promoting conversion to natural gas and stimulate the spread of cogeneration and GHP systems, while extending our gas pipeline network to expand our service area will drive the growth of our city gas business. In addition to taking these initiatives, we will work to establish a more robust business structure by stepping up our efforts to ensure the safety and security of services for gas equipment and appliances, promoting disaster-prevention measures to protect against disasters, such as a possible Nankai Trough earthquake, and boosting our competitiveness through the promotion of resource procurement diversification and operational efficiency improvement.

We will endeavor to expand our share of the total energy market by proposing the optimal use of energy, including LPG and electricity, to meet customer needs, as well as energy-saving diagnosis and solutions, and providing services including RakuRaku Kurashi Support (a service aimed at making customers' lives comfortable). To this end, we are working to strengthen our gas-filling and distribution network for our LPG business and to secure stable and reasonably-priced electricity source in our electricity business.

To strengthen our Group's business, we will strive to expand existing Group businesses, such as the renovation and the comprehensive utility businesses, and leverage the expertise of the Group in our efforts to roll out new businesses, centering on energy and related businesses. We plan to revitalize the region through initiatives that embody our new model for energy supply and usage in the region, including the development of an environmentally-friendly smart town named Minato AQUUS, and establishment of Matsusaka Shin-denryoku, working in unity with the administrative authorities and promoting locally produced energy for local consumption, and hydrogen stations.

For overseas, we have advanced our gas distribution business in Portugal and are participating in the Ichthys LNG Project in Australia. In the future, we will continue to explore new business opportunities by assessing projects from the perspective of benefits derived to our businesses and leveraging our expertise.

Q5-2 What are your initiatives for ESG?

**A** Our initiatives for ESG are the essence of our business activities. For many years now, we have endeavored to realize a society in harmony with the environment (E) through the supply and high-degree application of natural gas. Also, to support these efforts, we have bolstered communication with stakeholders including customers, local communities, shareholders, investors, and employees (S), and strengthened corporate governance (G).

Recently, interest in the sustainability of companies among all stakeholders has grown, with the adoption of Sustainable Development Goals (SDGs) by the United Nations, and global expansion of ESG investment. In this context, we will appropriately respond to new issues related to each of Environmental, Social and Governance criteria by taking measures, such as promoting the further reduction of carbon emissions and work-style reforms and accommodating revisions to the Corporate Governance Code, with an eye to managing operations of the Group to gain the trust and support of our stakeholders.

We believe that it is important to more clearly communicate the approach and initiatives of Toho Gas Group for improving our corporate value, including providing ESG and other non-financial information for our stakeholders. Consequently, we decided to upgrade the Environmental and Social Report and newly publish the Integrated Report. We hope that this report will be a useful tool for communication with all stakeholders, enabling them to gain a deeper understanding of Toho Gas Group, and we also welcome their feedback.



# Toho Gas Group Initiatives



## Fundamental Stance

Strengthening energy and other related businesses as a locally-oriented energy company

## Primary Measures

### 1 Building a Robust City Gas Business

Expand Gas Supply Foundation	P.19
Promote Gas Safety and Disaster-prevention Measures	P.20
Measures to Ensure the Safety and Security of Customers	P.21
Strengthen Competitiveness	P.22

### 2 Expansion of Share in Total Energy Market

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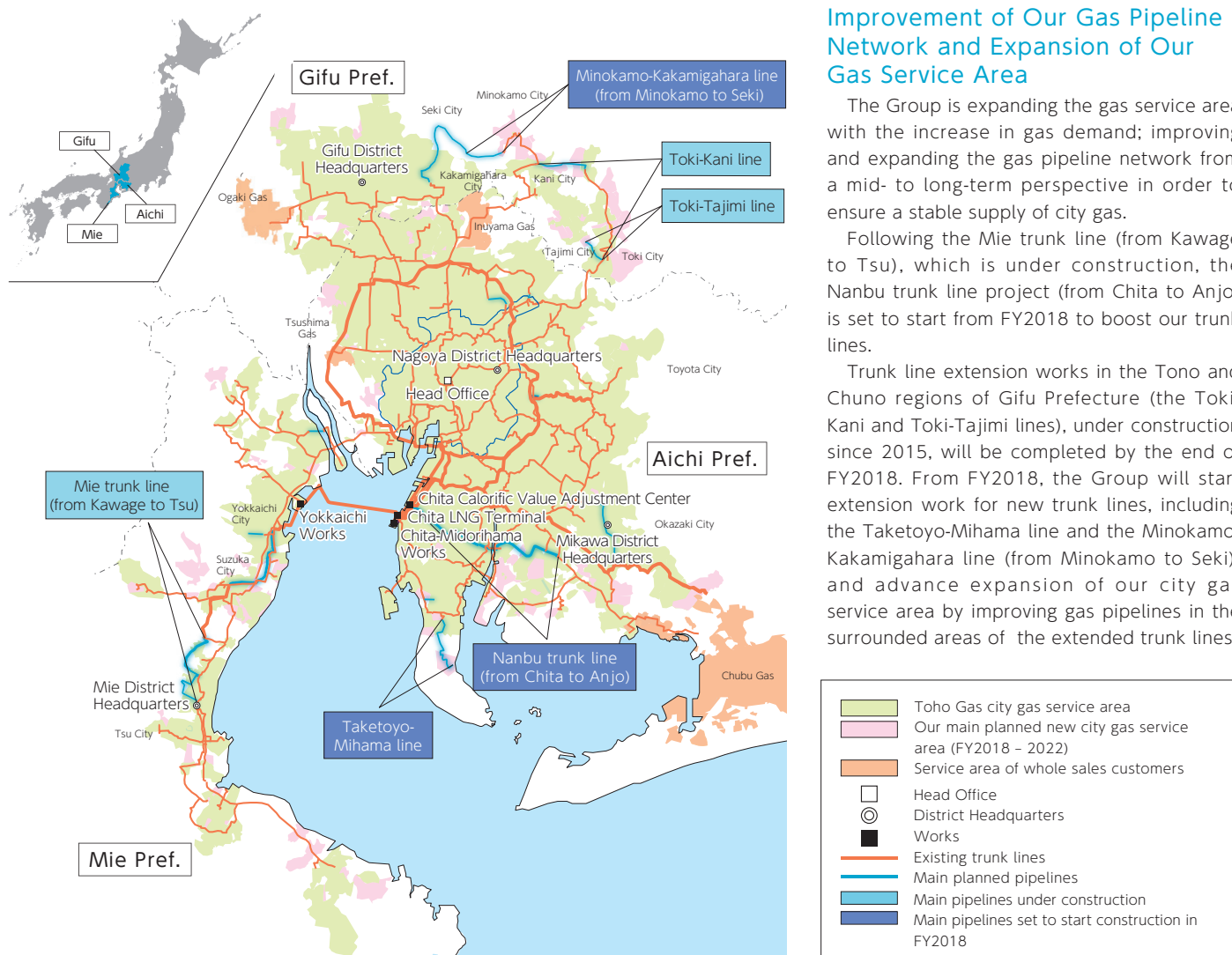


# Building a Robust City Gas Business

We will endeavor to strengthen the foundation of the gas supply, and implement gas safety and disaster-management measures to promote the use of natural gas. Furthermore, we will strive to ensure the safety and security of our customers and reinforce the Group's competitiveness to strengthen our city gas business.

## Expand Gas Supply Foundation

The Group has built approximately 30,000 km of pipeline. It is promoting improvement of the gas pipeline network and expansion of the gas service area to enhance the stable gas supply and gas-transportation capabilities.



## Improvement of Our Gas Pipeline Network and Expansion of Our Gas Service Area

The Group is expanding the gas service area with the increase in gas demand; improving and expanding the gas pipeline network from a mid- to long-term perspective in order to ensure a stable supply of city gas.

Following the Mie trunk line (from Kawage to Tsu), which is under construction, the Nanbu trunk line project (from Chita to Anjo) is set to start from FY2018 to boost our trunk lines.

Trunk line extension works in the Tono and Chuno regions of Gifu Prefecture (the Toki-Kani and Toki-Tajimi lines), under construction since 2015, will be completed by the end of FY2018. From FY2018, the Group will start extension work for new trunk lines, including the Taketoyo-Mihama line and the Minokamo-Kakamigahara line (from Minokamo to Seki), and advance expansion of our city gas service area by improving gas pipelines in the surrounded areas of the extended trunk lines.

## Promote Gas Safety and Disaster-prevention Measures

We will ensure the safety and security of customers by promoting hard and soft measures, such as daily safety inspection, sound safety measures for facilities, and by developing and strengthening emergency security and disaster-management systems.

### Efforts at Normal Times

#### [ Safety Measures for Gas Facilities ]

We perform leak tests in accordance with the Gas Business Act, as well as inspection and preventive maintenance by conducting regular trunk line patrols to ensure the safety of gas facilities.

We replace old gas pipes with quake resistant and anti-corrosive gas piping materials, such as polyethylene pipes, in accordance with our plan.

We have implemented anti-earthquake and anti-tsunami measures for important facilities to prevent damage in the event of megaquakes which could occur along the Nankai Trough.



PE pipe installation

#### [ Emergency Security System ]

We have an emergency security system in place for prompt response for customers who report a gas leak any time in 24-hour, 365-day.



Emergency vehicles

### Disaster Response

#### [ Emergency Response ]

In a major earthquake, we predict pipeline network damage based on data from seismometers we have installed at about 220 locations and gas pipeline network pressure and flow volume data, whereby we decide upon gas supply suspension or continuation. In areas hit severely by earthquakes, we divide the gas pipeline network into blocks and promptly stop gas supply remotely to prevent secondary damage. We have divided the gas pipeline network into smaller 79 blocks as of April 2018 to minimize gas supply stoppage and inconvenience to customers.



Head Office buildings (West Building and North Building) that serve as an anti-disaster center

#### [ Recovery System ]

We conduct comprehensive disaster drills to reinforce practical response capabilities, raise awareness, and transfer skills, to be able to restore gas supply as soon as possible to areas where it is suspended in the occurrence of an earthquake. We have also established a recovery system, incorporating cooperation and mutual assistance with city gas utilities nationwide, and a system for emergency liaison with relevant organizations.



Comprehensive disaster drills

### TOPICS

#### Conclusion of disaster mutual assistance agreement

Toho Gas concluded a disaster mutual assistance agreement with Nagoya City Water and Sewerage Bureau in February 2018 and Ground Self-Defense Force 10th Division in March 2018, to prepare for the occurrence of a disaster, such as a large-scale earthquake. This is the first conclusion of disaster mutual assistance agreements between a city gas utility, public water supplier and Ground Self-Defense Force.

The Company will further strengthen cooperation with relevant organizations and enhance response capabilities for disasters.



Signing ceremony with Ground Self-Defense Force 10th Division



## Measures to Ensure the Safety and Security of Customers

Our call center service handles customer requests, such as for gas appliance repairs, any time in 24 hours a day, 365 days a year, and we further ensure the safety and security of our customers at some 180 service outlets in our service areas with approximately 3,000 highly skilled gas professionals\* deployed in these areas. \*Staff engaged in gas appliance safety services

### Inspections and Measures for Gas Equipment Safety

#### [ Inspection and Examination in Accordance with the Gas Business Act ]

In accordance with the Gas Business Act, we conduct gas leakage test and conformity inspection of gas appliances and air supply and exhaust equipment installed at customers' homes when they start using our gas service or at ongoing safety inspections every four years.

#### [ Voluntary Safety Activities ]

To ensure the safe use of gas for customers, Toho Gas Group conducts voluntary safety activities including:

1. Measuring exhaust gas of small-size water heaters (CO concentration)
2. Replacing deteriorated rubber tubes
3. Attaching plugs to gas valves to prevent accidental opening



Makasete anshin

ガスプロ 東邦ガス

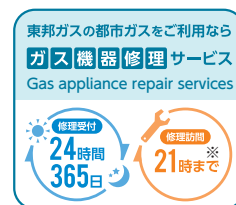
Gasu no pro, Toho GAS

(Highly skilled and reliable professionals)

#### [ Repair of Gas Appliances ]

We accept gas appliance repair services, any time in 24 hours a day, 365 days a year, through online or our customer center. We have extended on-site repair services from until 7:00 p.m. (5:00 p.m. on Sundays and holidays) to until 9:00 p.m. since October 2017, in order to expand the customer service.

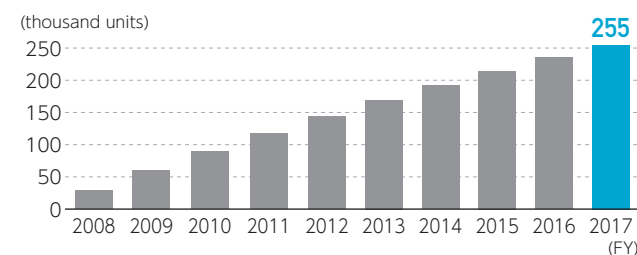
\*Gas appliance repair services from 7:00 p.m. to 9:00 p.m. are available to our gas customers for residential gas appliances. For details, please see our website. (Japanese only)



#### [ Promotion of the Use of Safe Gas Appliances and Equipment ]

We recommend replacing gas appliances with safer gas appliances equipped with incomplete combustion preventers and safer kitchen stoves equipped with Sisensors for each burner. We also recommend installation of ventilation alarms in commercial kitchens.

#### ■ Cumulative unit sales of Si sensor gas kitchen stoves



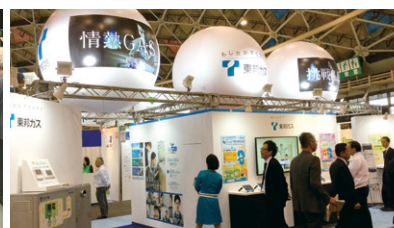
### Awareness of Safe Use of Gas

We provide customers with information for safe use of gas utilizing opportunities such as participating Gas Exhibition, MESSE NAGOYA\*, local disaster-prevention events, distributing safety promotion leaflets when reading gas meters or inspecting gas appliances, and through the media.

\*Cross-industry social events hosted by the Nagoya Chamber of Commerce & Industry



Midori ward Disaster-Prevention Festival



MESSE NAGOYA 2017

#### TOPICS

#### Broadcast of a new TV commercial series

We have launched a new TV commercial series featuring Masa Yamamoto, a former professional baseball pitcher of Chunichi Dragons, and Shoko Aida, a TV celebrity since March 2018.

The catchphrase of the commercials, "Our professional staff ensure your safety! Gas-strike! Toho Gas," expresses that customers can use gas safely at a reasonable price, as well as promotes our tailor-made services to each customer.

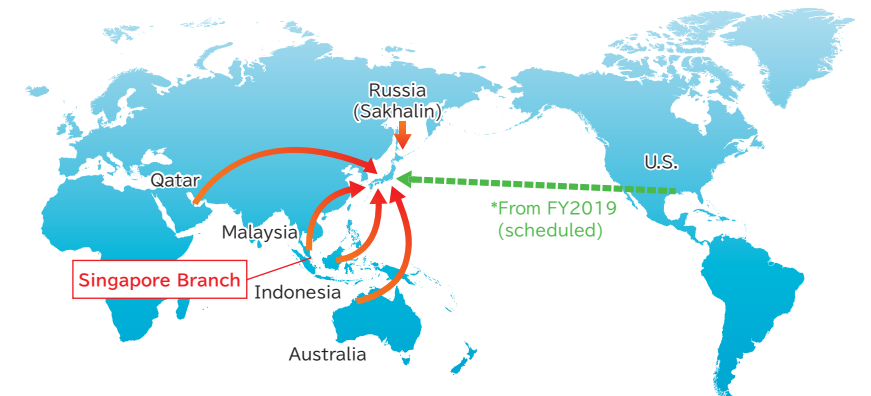


## Strengthen Competitiveness

We ensure stable energy procurement at a reasonable price and work to achieve more efficient business operations. We bolster technical development that contributes to energy savings and reduction of CO<sub>2</sub> emissions.

### Stable Energy Procurement at a Reasonable Price

To ensure stable energy procurement at a reasonable price, we are striving to diversify contract types, price indexes and procurement source areas using information from our Singapore branch. We will also enhance flexibility of LNG receiving by promoting the integrated operation of LNG terminals in the Yokkaichi and Chita areas through effective use of gas facilities, including the Ise Bay pipeline and No.3 Tank of Chita-Midoriham Works.



Procurement areas	Price indexes	Contract types
<b>5 countries</b> [Indonesia, Australia, Malaysia, Qatar and Russia] <b>6 countries</b> [ U.S. added from FY2019 ]	<b>Linked to crude oil prices</b> <b>Linked to crude oil prices and U.S. natural gas prices</b> [ From April 2017: Portfolio supply agreement with Petronas LNG Limited ]	<b>Mainly long-term contracts</b> <b>Raise the ratio of short-term contracts and spot procurement</b>

#### TOPICS

#### Accepted the first LNG carrier under the portfolio supply agreement with Petronas LNG Limited

In April 2017, we accepted the first LNG carrier under our first portfolio supply agreement (whereby a seller supplies a buyer with LNG from its multiple supply sources and shipping bases) at Chita LNG Terminal.

\*The seller is Petronas LNG Limited and the contract duration is 10-year period

### Further Enhancement of Management Efficiency

We will promote more efficient management in all fields, for example, trenchless digging for cost reduction in pipeline construction and digital technology to enhance productivity.



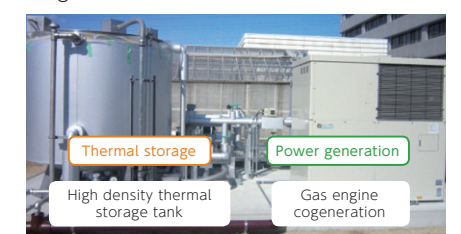
Virtual reality (VR) for checking kitchen temperature distribution

### Reinforcement of Technical Development for Energy Savings and Reduction of CO<sub>2</sub> Emission

We will promote technical development for energy savings and reduction of CO<sub>2</sub> emission, increasing energy efficiency of gas equipment and facilities, enhancing diagnostics for energy savings and development of a system for optimal energy use.

#### [ Development of Thermal Storage Technology That Improves Overall Gas Cogeneration Efficiency ]

We have developed a unique heat storage material that accumulates heat in the exhaust heat temperature zone in gas cogeneration as an important elemental technology for effective use of heat. We are conducting feasibility evaluation of thermal storage materials to facilitate practical application of high density thermal storage tanks.



Thermal storage material feasibility evaluation



# Expansion of Share in Total Energy Market

While we continue to tackle development of city gas demand, we are expanding integrated sales activities including in LPG and electricity, whereby we expect that more customers will choose energy supplied by Toho Gas Group, and we will expand our share in the total energy market.

## City Gas Business

As gas retailing undergoes full liberalization, we support both living and manufacturing in the region by realizing energy usage and offering services that meet the special needs of customers.

### Residential Use

We are offering new gas rate plans and various services that meet customer needs, in order to further deepen our relationships with customers. In addition, we will cultivate new demand by proposing optimal energy usage suited to customers' lifestyles and gas equipment, including ENE FARM, to realize comfortable living for our customers.

#### New gas tariff plans

In April 2017, we launched a new tariff plan "Gas-Teki Toku Toku Tariff" (optional supply provisions). The plan is for a two year contract which any customer using any gas equipment can apply for (with no penalty for ending the contract), and is more affordable than a regular supply agreement (general tariff).

In addition, we offer a points program, through the "Club TOHOGAS" website where members can use their points towards payment of their gas charges (excluding regular supply agreement/general tariff) or electricity charges\*.

Gas equipment used	Tariff plan
No conditions (available to anyone)	<b>NEW</b> "Gas-Teki Toku Toku Tariff" (optional supply provisions)
Eco-Jozu	<b>Eco-Jozu* Tariff</b> * high efficient water heater
Cooking, hot water and heating	<b>Attaka Toku Toku Tariff</b> ● Type one ("Eco-Jozu Plan") ● Type two ("Standard Plan")
Gas hot water floor heating	<b>Yuka-Dan Toku Toku Tariff</b> ● Type one ("Eco-Jozu Plan") ● Type two ("Standard Plan")
ENE FARM	<b>ENE FARM Tariff</b>

\*Our points programs are available for customers who have made a contract with Toho Gas and registered the customer number.  
\*Some contracts (eg. industrial/commercial use) may not be subject to our points programs.

#### Expansion of useful services

To complement gas supply, we are developing services that are useful in the lives of our customers, such as "Raku Raku Maintenance" (gas equipment maintenance service), "Raku Raku Kurashi Support" (service aimed at making customers' lives comfortable), and "Raku Raku Lease."

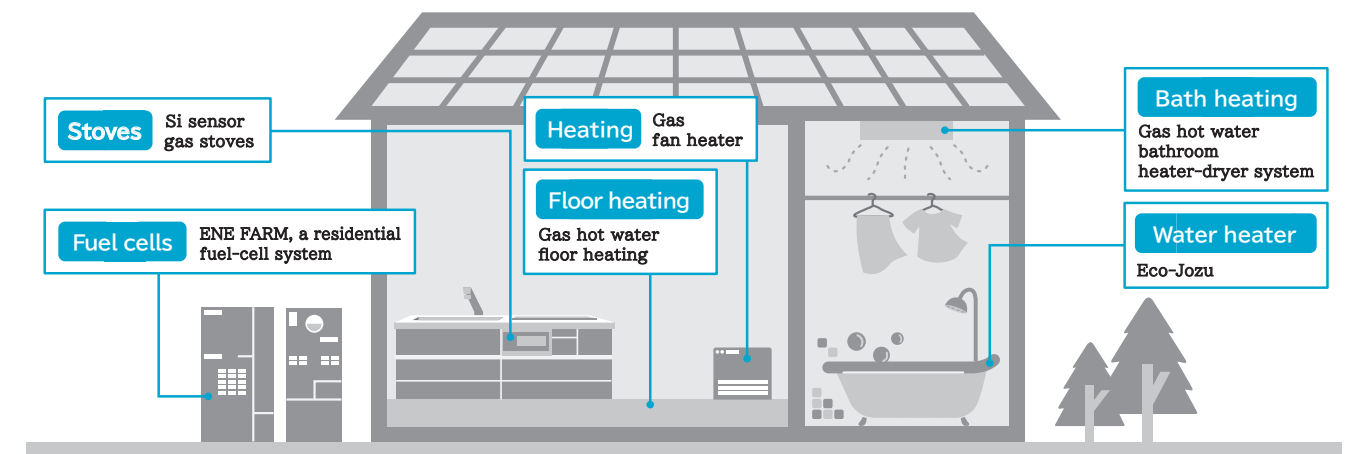
In March 2018, we enhanced the "Kinkyu-Kaketsuke Service" (emergency out-call service) of Raku Raku Kurashi Support" by adding electrical equipment, air-conditioning and stove exhaust hood assistance to the existing service provided for home wet areas, window panes and entrance key problems (no change to service tariffs).

We will continue to offer and expand quality services that are useful in our customers' lives so as to continue to be chosen by them.

<b>らくらくメンテナンス</b> RakuRaku Maintenance	<b>Water heater and built-in stove maintenance</b> • Free repairs available for a small additional monthly charge (for water heater up to 10 years old; for built-in stove up to 8 years old)
<b>らくらくサポート</b> RakuRaku Kurashi Support	<b>Monthly charge of 300 yen (tax inclusive) for the following services</b> 1. "Kinkyu-Kaketsuke Service" (emergency out-call service) 2. Gas stove cleaning and water heater inspection 3. Premium discount services
<b>らくらくリース</b> RakuRaku Lease	<b>A lease system for a reasonable use of various gas equipment</b> • A lease tariff including standard installation fees, allowing for easy monthly payments • No additional repair fees in case of breakdown • Replacement/upgrade to latest model
<b>saGAS!</b>	<b>"RakuRaku Lease" application website</b> • Easy online application to lease gas equipment

### [ Advanced Gas Equipment ]

We offer a variety of gas equipment to realize more comfortable living for customers, including ENE FARM, a residential fuel-cell system (see next topic), attractive and highly functional Si sensor stoves, floor heating for gently warming entire rooms, and bathroom heater-dryer systems for more comfortable bath-time.



### [ ENE FARM type S Residential Fuel-cell System ]

Fuel cells use advanced clean technology to generate electricity through a chemical reaction between hydrogen extracted from city gas and oxygen in the surrounding air. One such fuel cell, ENE FARM type S, generates electricity using ceramic.

It boasts high power generation efficiency, and continuous 24-hour-a-day power generation based on home electricity usage. Heat generated in power generation is used effectively to preheat water for the water heater. It burns gas to further heat the preheated water for hot water supply and hot water bathing, etc.

By the end of March 2018, the cumulative sales of ENE FARM units exceeded 16,000.



Aisin Seiki ENE FARM type S FY2018 model Noritz standard model heater and water heater for ENE FARM

### Improvement in CS\*

\*Customer Satisfaction

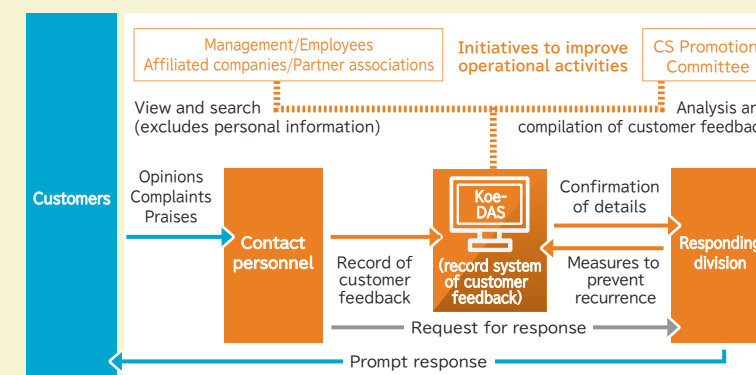
Based upon our policy of "Customer First," Toho Gas Group has a CS Promotion Committee with members including officers and department heads, where we decide upon basic policy for CS activities. Based upon this, the CS Governing Board and CS organizations within each division, together with affiliated companies, ENEDO, gas engineering companies and others, work together to improve work quality and service.

Customer feedback gained through contact with various customers is used to create a valuable management resource

database. In FY2017, we received 10,569 pieces of feedback including opinions, complaints and praise. We share these with related divisions for the purpose of prompt response and operational improvements.

Also, we conduct a "Customer Satisfaction Survey" when customers subscribe to gas, have gas equipment repaired, or have our regular safety inspections. The results are reported to the relevant divisions, which leads to improvements for gaining better CS.

#### Flow of customer feedback



#### Customer satisfaction survey total satisfaction level trend (maximum 50 points)

FY	2013	2014	2015	2016	2017
Gas subscription	36.7	36.9	37.2	37.6	38.1
Repair	38.9	39.3	39.8	40.0	40.1
Regular safety inspections	36.1	36.4	36.6	37.0	37.1



## Industrial/Commercial Use

This region has a concentration of world-class manufacturing industries. Toho Gas is promoting fuel conversion to city gas from other fuels, and introducing energy-efficient gas air-conditioning systems and cogeneration systems, in efforts to cultivate new demand in the gas business. In addition, we are realizing optimal energy usage for customers through electricity and LNG sales, energy saving consultation, and comprehensive utility service businesses.

### [ Fuel Conversion to City Gas ]

By converting the fuel for industrial furnaces and boilers from heavy oil to city gas, it is possible to conserve energy, reduce CO<sub>2</sub> emissions, and save labor and space.



### [ High Efficiency Gas Air Conditioning ]

GHP, an air conditioning system with low energy consumption and peak-cut control effect released more than 30 years ago, has been adopted by various business-use facilities, such as medical institutions and schools.

In addition to improving energy saving performance of GHP, we have added a new model that can keep running air conditioning in the event of a power outage to our product lines. In this manner, we are continuously making efforts to meet the customer needs.



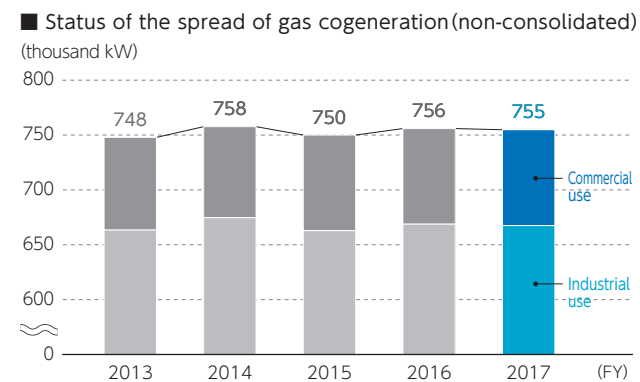
GHP Xair II external unit

### [ Gas Cogeneration ]

Gas cogeneration is a distributed generation system that generates electricity in the location where electricity will be used. Because there is no transmission loss and waste heat can be used effectively, the total energy efficiency is as high as 70 to 90%. This has a significant impact on power and energy conservation.

In addition, some models are able to continue supplying power even in the event of a power outage, thereby helping to improve power security.

\*Source: Natural Gas Cogeneration Equipment Data 2018 (published by Nihon Kogyo Shuppan)



### [ Comprehensive Utility Service Business ]

The comprehensive utility service business utilizes the engineering capabilities of Toho Gas Group to provide a one-stop customer service for gas and peripheral equipment, from design and construction to operation and maintenance management. It can reduce customer capital requirements, the burden of equipment procurement and energy management, and also reduce costs, and conserve energy.

## TOPICS

### Establishment of "Pro Chubu OISIS" experience-oriented commercial kitchen showroom

In September 2018, we will establish an experience-oriented commercial kitchen showroom, "Pro Chubu OISIS," at Minato AQUUS [P28], which will be the largest such facility in the Tokai region. The showroom is aimed at professionals who work in commercial kitchens, including chefs and nutritionists who work in restaurants, hospitals, hotels, schools, staff cafeterias. We promote the appeal of gas kitchens that can meet the needs of each customer, by realizing a safe and comfortable kitchen environment.

Displays include Suzu-chu® and safety equipment. By experiencing the functions of the actual equipment, users can confirm the comfort and safety of gas kitchens, together with the cooking performance and economy.



Suzu-chu® is a trademark of Osaka Gas Co., Ltd.

## LPG Business

Toho Gas Group operates LPG business, centered on Toho Liquefied Gas Co., Ltd., with approximately 490 thousand customers with a wide range of uses including household, industrial and for taxis.

In November 2017, Toho Liquefied Gas's Meiko LPG Terminal, one of the largest secondary terminals in Japan, reached a milestone cumulative six million tons of gas received since the base was established in 1987.

In the future, we will propose appropriate energy for customers and high efficiency gas equipment and facilities suited to customer needs, in conjunction with city gas sales activities, cultivating demand in the three Tokai prefectures and beyond.

In order to ensure handling of increased demand, we are striving to boost the seismic resistance and capacity of our bases and filling stations and further expand our filling and distribution network, one of the region's largest.



Meiko LPG Terminal and distribution vehicles



Transport ship approaching Meiko LPG Terminal

## Electricity Business

We will leverage all contact opportunities with customers, which are the strength of Toho Gas, promoting optimized proposals combining electricity, city gas, LPG and various services, aiming to achieve our target of 140,000 customers by the end of FY2018.

We established the Power Business Promotion Dept., responsible for centralized power procurement, and supply/demand management, utilizing the power generation facility at Yokkaichi Works, which began operation in October 2017, and conducting wholesale transactions and market procurement with a wide range of operators to achieve low-cost, stable power procurement.



TV Commercial



Yokkaichi Works Power generation facility





# Growth of Group Business, Including New Businesses

We will strengthen the existing businesses of Group companies in cooperation with the energy business. In addition, we will develop new businesses leveraging the Group's expertise.

## ■ Growth of Group Business, Development of New Businesses

We will promote efforts for the growth of Group business including renovation in the residential field, comprehensive utility services in the industrial and commercial field, and expanding sales of our company's production and supply related technologies.

We established a Business Development Department to strengthen development of new business, and aim to create business centered on safe and secure services, support for regional revitalization and advanced use of energy.



### TOPICS

#### Establishment of retail energy operator in Matsusaka City — First new regional electric company funded by local government in three Tokai prefectures —

In November 2017, we established Matsusaka Shin-denryoku jointly with Matsusaka City, Daisan Bank, Ltd. and Mie Shinkin Bank to undertake energy retailing in Matsusaka City. The company will supply electricity to public facilities in Matsusaka City, mainly by using power generated at city waste disposal facilities.

Through this business, we will contribute to the realization of locally produced energy for local consumption in Matsusaka City in an effort towards regional revitalization.



## ■ Developing Smart Towns

A smart town named "Minato AQULS" is under development in Minato Ward, Nagoya City, and is scheduled to open in September 2018. We will create a space for the smart town with a lively and refreshing atmosphere and a harmonious landscape where people can feel close to the canal and nature and enjoy walking in the town.

As a model area for the total energy business, we adopted an advanced energy system and achieved the highest-level energy efficiency in Japan, creating a smart town with both low carbon emission and disaster management, which enables lifeline functions of the town to be sustained even in the event of a disaster. We will cooperate with surrounding areas to contribute to revitalizing the region and enhancing the local disaster management.



Areas surrounded by solid lines: Phase I Development  
Areas surrounded by dashed lines: Phase II Development



\*1 Primary contractor: Mitsui Fudosan Co., Ltd. \*2 Primary contractor: Mitsui Fudosan Residential Co., Ltd.

### [ Advanced Energy System ]

The smart energy system located at the Energy Center, centered on gas cogeneration, combines externally purchased wood biomass electricity, large storage batteries (NAS), photovoltaic power generation, and utilizes canal water heat. In redevelopment of the city, we will build the first electricity, heat and information network CEMS\* in the Chubu region, and optimize energy for the entire area.

Through this system, we forecast a 40% saving in energy and 60% reduction in CO<sub>2</sub> emissions compared with 1990 levels.

\*CEMS (Community Energy Management System): a system for centralized energy management for a community

### Message of the Project Manager

We have undertaken a development project for the Minato AQULS, a new smart town, enriched with abundant water and greenery and equipped with advanced energy systems, under the concept of "nurturing a town that connects people, the environment, and the community."

Toho Gas Group positions Minato AQULS as a model district for the comprehensive energy business and realize the lowest-carbon community in Nagoya. We will also contribute to creating an environmentally sustainable society and fostering regional development by building a community with a lively and refreshing atmosphere that is resistant to disasters.



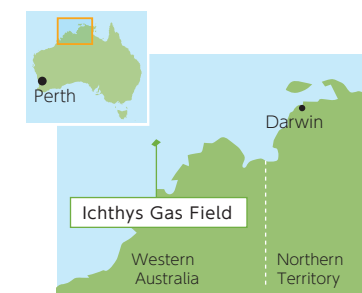
Kaoru Imaeda, Komei Development Group Manager, Site Development Dept.

## ■ Exploring Overseas Business Opportunities

In addition to expanding our domestic businesses, we will strive to seek overseas business opportunities that follow our participation in the Ichthys LNG Project in Australia (production launch scheduled for 2018) and the gas distribution business in Portugal.

### [ Ichthys LNG Project ]

We are expanding our upstream businesses with the aim of tapping into new revenue earning opportunities, as well as stabilizing LNG procurement and strengthening information-gathering capabilities. Toho Gas has acquired a 0.42 % equity interest in the Ichthys LNG Project, involving refining and liquefying natural gas produced from the Ichthys gas and condensate field offshore Western Australia.



Detail



# Reinforcement of Business Foundation

## ■ Technical Development to Realize a Low Carbon Society

As a local energy operator, we will contribute to a realization of a low carbon society by reducing the environmental load of our customers and promoting the diffusion of hydrogen-related technologies, including building more hydrogen stations.

P.33-40 Environment Report



## ■ Strengthen Human Resources and “Genba-Ryoku” (Front-line Capabilities)

We will strengthen human resources and “Genba-Ryoku” by ensuring transfer of skills from experienced employees to young employees and securing and cultivating diverse human resources toward expansion of our scope of business. We will also strive to enhance a work environment where employees will find their work fulfilling.

P. 41-48 Social Report



### Efforts to Promote Hydrogen-related Technologies

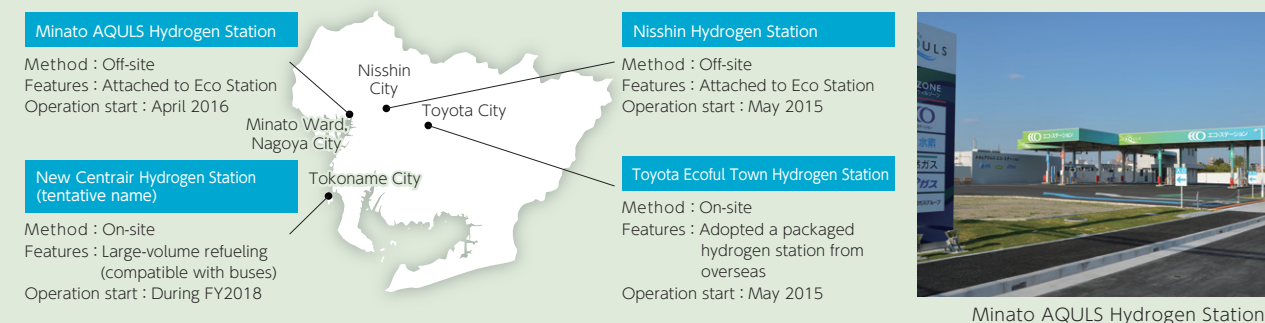
#### [ Building Hydrogen Stations ]

We promote construction of hydrogen stations to help the popularization of fuel cell vehicles (FCV). Following the hydrogen stations established in Nisshin City and Toyota City in Aichi Prefecture in 2015, we started operation of Minato AQUUS Hydrogen Station\*<sup>1</sup> in Minato Ward, Nagoya City in April 2016. We are also constructing the New Centrair Hydrogen Station (tentative name), our fourth commercial hydrogen station, scheduled for completion in FY2018\*<sup>2</sup>. The new hydrogen station will have a supply capacity that conforms to the standards for fuel cell buses, and was the first application accepted under the Ministry of Economy, Trade and Industry subsidy system.

\*1: Attached to Minato AQUUS Eco Station together with natural gas/LPG stand.

\*2: Scheduled for construction at the site of an existing demonstration hydrogen station built in FY2006.

#### ■ Our commercial hydrogen stations



#### TOPICS

#### Established Japan H<sub>2</sub> Mobility, LLC

In February 2018, Japan H<sub>2</sub> Mobility, LLC (JHyM) was established by 10 companies, including automobile manufacturers such as Toyota Motor Corporation, infrastructure developers such as JXTG Nippon Oil & Energy Corporation and financial investors, for the full-scale development of hydrogen stations.

Through “All-Japan” collaboration, JHyM will work to enhance convenience for FCV users by building strategic hydrogen stations and through efficient operation of stations, to create a virtuous cycle of FCV and hydrogen stations whereby the increase in FCVs will lead to financial viability of the hydrogen station business and further construction of stations.

### Holding Skill Competition

The Group holds a skill competition every year to enhance safety services and skill levels and to share skills across the Group. In FY2017, the sales division held a competition on equipment repair and regular safety inspection, the distribution division held a competition on pressure regulator\* maintenance, and the production division held emergency drills at Works and disaster-prevention activities with chemical fire engines.

\*Pressure regulator: Regulates gas pressure at an optimal level for customers



## ■ Improve Corporate Governance

The Toho Gas Group aims to enhance its corporate governance by managing business risks and implementing measures to strengthen internal control, including strict observation of compliance to remain a corporate group which is trusted by stakeholders including customers, local communities, shareholders and investors.

P. 49-54 Governance Report



### Develop Structures to Enhance Corporate Planning Functions and Governance

In April 2017, we restructured the Corporate Planning Dept., Corporate Research Dept., Affiliated Business Dept. and Compliance Dept. to establish the Corporate Planning Dept., Corporate Research Dept. and Internal Control Dept. to strengthen corporate strategy formulation functions and corporate governance, including internal control and compliance, for the entire Group.



# Initiatives for ESG



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## 2 Social Report

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## 3 Governance Report

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Board of Directors and Audit & Supervisory Board Members	P.53

### Perpetuating the Okamoto Spirit

The first president of Toho Gas, Sakura Okamoto, believed in a management philosophy that “Customers, shareholders, employees form a trinity, and the coexistence and coprosperity of such stakeholders in the company is indispensable.” We strive in the practical application of this. Furthermore, we apply this way of thinking in our approach to service in social and public aspects, advocating promotion of community welfare, and integration with the local communities.

Okamoto was a manager who thought constantly about the company as a social public institution, and we continue to pass on his spirit, which forms part of the company’s DNA.



Sakura Okamoto, the first President  
(Term of office: 1922–1935)



# Management of Environmental

## Basic Concept

Toho Gas Group established the environmental management system by setting its Environmental Action Principles and Environmental Action Guidelines, to help the realization of an environmentally harmonious society. We set environmental action goals for the entire Group and each company and conduct various activities to achieve the goals.

## Environmental Action Principles

The Environmental Action Principles (established in 1993) is comprised of the Basic Policy and Principles.

Environmental Action Principles	Basic Policy		Toho Gas and its Group companies recognize the importance of preserving the environment on regional and global basis. By giving priority to supplying clean energy, the Group will do its utmost to create an environmentally harmonious society through all its business activities.
	Principles	Principle 1	The Group will contribute to reducing the impacts of its business activities on the environment related to customers.
		Principle 2	The Group will reduce the impacts of its business activities on the overall environment.
		Principle 3	The Group will contribute to environmental preservation in collaboration with local communities and the global community.
		Principle 4	The Group will step up research and development regarding environmental preservation technologies.

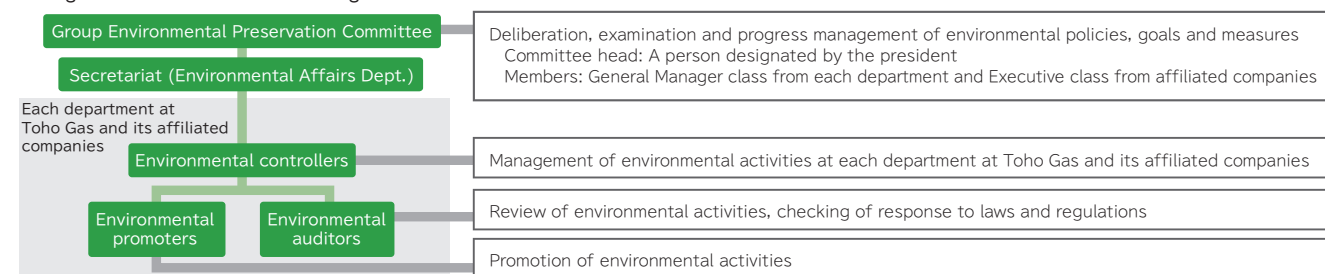
Our Environmental Action Guidelines (established in 2011) summarizes the concept and direction of key environmental activities that the Group is engaged in. The details of the Environmental Action Guidelines are published on the our website.

## Organizational Structure for Management of Environmental Preservation

We have set up the Group Environmental Preservation Committee, consisting of Toho Gas and its major affiliated companies. The committee aims to reduce impacts of Group activities on the environment and promote the Group's compliance with laws and regulations related to environmental preservation. Specifically, the committee is designed to formulate the Group's basic policy on environmental preservation activities while setting goals regarding such activities. It is also intended to discuss and study measures aimed at achieving these goals, and manage implementation of the measures.

We deploy staff to handle environmental affairs at each department of Toho Gas and its affiliated companies. "Environmental promoters" are tasked with undertaking specific environmental activities. "Environmental auditors" are in charge of reviewing what has been achieved through environmental preservation activities and checking if these activities are consistent with relevant regulations. "Environmental controllers" are assigned to control the activities of the "environmental promoters" and "environmental auditors." The deployment of these environmental experts is meant to get the PDCA cycle (plan, do, check, act) running smoothly.

### Organizational Structure for Management of Environmental Preservation



## Environmental Management System (EMS) Certification

Toho Gas Group is working proactively to acquire EMS certification to enhance its environmental management. We have obtained the ISO 14001 certification, an international standard, and affiliated companies have obtained Eco Action 21 certification from Japan's Ministry of the Environment. In addition, we have also gained environmental certification from the local authorities, such as Ecological Enterprise Certification from Nagoya City.

Types	Certified companies (offices)
ISO 14001* <sup>1</sup>	Toho Gas (Chita-Midorihamma Works, Chita LNG Terminal, Chita Calorific Value Adjustment Center, Yokkaichi Works)
Eco Action 21* <sup>2</sup>	Mizushima Gas Co., Ltd., Toho Real Estate Co., Ltd., Toho Gas Engineering Co., Ltd., Toho Gas Techno Co., Ltd., Chita Tansan Co., Ltd.
Certification programs of municipalities* <sup>3</sup>	Toho Gas (headquarters, Hoshigaoka Sales Office, Kita Sales Office, Nakamura Sales Office, Kasadera Sales Office, Seto Sales Office, Kasugai Sales Office)

\*1 An international standard for continuous reduction of environmental load and improvement of environmental management

\*2 Certification and registration system to recognize effective and efficient environmental efforts in a wide range of businesses

\*3 Environmental certification systems promoted independently by local governments

# Preservation

## Environmental Action Goals (FY2014-2018) and Progress on Their Implementation

Toho Gas Group has set goals for reduction of environmental burden in its business activities and for customers and works to promote various initiatives to achieve these goals.

Field	Company	Goal (FY 2014-18 average yearly goal)	2009 base	2014-18 goal	2014-17 result	Progress
Global Warming Countermeasures* <sup>1</sup>	Toho Gas	CO <sub>2</sub> emissions per unit production regarding city gas business (factories, offices, etc.) (g-CO <sub>2</sub> /m <sup>3</sup> N gas sales volume)	16.5	-10%	-9%(15.0)	△
	Toho Gas	CO <sub>2</sub> emissions per unit production regarding heat-supply business(5 major service areas) (kg-CO <sub>2</sub> /GJ heat and electricity sales volume)	86.8	-2%	-9%(79.0)	✓
	Toho Gas Group	Reduction in average per-square meter of CO <sub>2</sub> emissions per unit production for a certain period compared with CO <sub>2</sub> emissions for the base year. (kg-CO <sub>2</sub> /m <sup>2</sup> )	93.6	-6%	-16%(78.4)	✓
Resource Recycling	Toho Gas	Reduction in average paper use (measured in number of sheets) for a certain period. (million sheets)	39	-5%	-11%(34.8)	✓
		Recycling of asphalt and concrete slabs generated after gas pipeline construction.	100%	100%	100%	✓
		Reduction in use of natural mountain sand and detritus in gas pipeline construction compared with use under conventional engineering methods.	-	15% or lower	10%	✓
		Recycling of used gas pipelines that are usually scrapped after gas pipeline construction (cast-iron pipes, steel pipes and polyethylene pipes) are recycled.	100%	100%	100%	✓
	Toho Gas Group	Continuation of zero emission (3% or lower final disposal rate) at city gas plants.	Continuation	Continuation	Continuation	✓
Green Procurement	Toho Gas	Recycling of paper waste at all Group company offices.	-	100%	Approx.100%	✓
Environmental Effects Index* <sup>2</sup>	Toho Gas	Average rate of green procurement of office supplies in a certain period (Percentage rate of procurement from BIZNET in value terms)	-	90% or more	83%	×
		Reduction in CO <sub>2</sub> emissions on the customer side through efforts to diffuse natural gas use (total emissions in a certain period)	-	0.4million tons- CO <sub>2</sub>	0.26million tons- CO <sub>2</sub>	△

\*1 The emissions factor for purchased electricity is pegged at 0.474 kg-CO<sub>2</sub>/kWh (Chubu Electric Power), a figure recorded in the base year, to calculate the effects of efforts to reduce CO<sub>2</sub> emissions.

\*2 The CO<sub>2</sub> emissions factor for "marginal" power sources (factor for thermal power generation) is pegged at the originally targeted 0.69 kg-CO<sub>2</sub>/kWh to calculate the effects of efforts to reduce CO<sub>2</sub> emissions through the cutting of electricity purchases.

## Compliance with Environmental Laws and Regulations

The main environmental laws and regulations related to the Group are described below. In FY2017, we continued to respond to them appropriately. We will continue to promote education concerning environmental laws and regulations and implement self environmental audits to ensure compliance.

Classification	Main environmental laws and regulations
General	Basic Environment Act
Global Warming Countermeasures	Act on the Rational Use of Energy, Building Energy Efficiency Act, Act on Promotion of Global Warming Countermeasures, Act on Rational Use and Proper Management of Fluorocarbons, Act on the Protection of the Ozone Layer
Resource Recycling	Basic Act on Establishing a Sound Material-Cycle Society, Waste Management and Public Cleansing Act, PCB Special Measures, Act on the Promotion of Effective Utilization of Resources, Construction Material Recycling Act, Electrical Appliance Recycling Act, Containers and Packaging Recycling Act, Food Recycling Act, Small Electrical Appliance Recycling Act, Act on Recycling, etc. of End-of-Life Vehicles
Pollution Prevention	Air Pollution Control Act, Water Pollution Prevention Act, Noise Regulation Act, Vibration Regulation Act, Soil Contamination Countermeasures Act, Mercury Pollution Control Act, Law concerning Pollutant Release and Transfer Register (PRTR), Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., Offensive Odor Control Act, Land Subsidence-related Law

employees to raise awareness and knowledge of environmental laws and regulations and to bolster our response capabilities.

## Self Environmental Audits

Toho Gas Group has conducted self environmental audits since FY1994. We conduct annual audits at workplaces of Toho Gas and affiliated companies whose operations relate to environmental laws and regulations. We use a duplicate audit system of primary audits at workplaces of Toho Gas and its affiliated companies that are related to environmental laws and regulations, and secondary audits at each department and company.

### Implementation of self environmental audits

Implementation period	Jul. 2017-Sep. 2017
Audit target	Workplaces of Toho Gas and affiliated companies whose operations relate to environmental laws and regulations
Environmental auditors	Persons appointed at each department or affiliated companies

Classification	Points checked at time of audit
Waste Management and Public Cleansing Act	State of waste storage, outsourcing agreement and details of outsourcer permission for collection, transportation and processing of waste, state of on-site checks, manifest delivery and storage, regular reporting, etc.
Act on Rational Use and Proper Management of Fluorocarbons	Regular inspection of GHP and other fluorocarbon-based equipment, simplified inspection and record storage
Other environmental laws and regulations	Regular inspection, regular reporting, notification of equipment installation or replacement, etc.

## Education Concerning Environmental Laws and Regulations

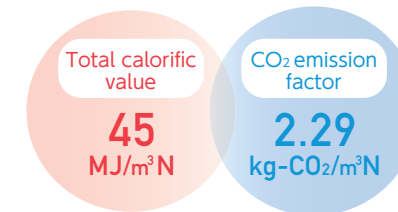
We conduct environmental law training seminars and e-learning courses tailored to different levels of managers and



## Environmental Load in the Natural Gas Value Chain

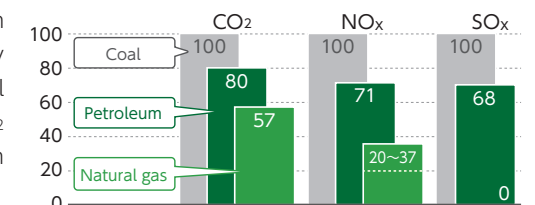
Toho Gas Group strives to recognize and reduce the environmental burden generated through its business activities and in the value chain, including energy resource procurement sources, and city gas customers.

### Characteristic of City Gas



### Environmentally Friendly Energy

Natural gas is an environmentally-friendly energy, even among fossil fuels, that generates less CO₂ and NOx during combustion and does not emit SOx.



Sources: Regarding CO₂: Report of Research into Demonstration of Atmospheric Impact Technology for Assessment of Thermal Power Plants (March 1990), The Institute of Applied Energy; Regarding NOx and SOx: Natural Gas Prospects (1986), IEA

Value chain	Procurement	Production and supply of city gas	Offices, etc.	Customers
	<p>We strive to improve efficiency through natural gas power generation and exhaust heat recovery in the exploitation and liquefaction stages; concurrent use of natural gas to fuel LNG carriers; and appropriate management of ballast water*2[P40].</p> <p>Natural gas exploitation, Liquefaction facilities, LNG carrier transport</p>	<p>Our city gas plants strive to reduce CO₂ emissions by thorough energy-saving, and is promoting resource recycling from production through to supply of city gas.</p> <p>City gas plants, Gas holders, Production facilities, LNG tanks, City gas pipelines</p>	<p>Toho Gas Group is promoting energy conservation and resource recycling at business offices. The Group also provides District heating and cooling [P38], helping reduction of CO₂ emissions, by combined production and supply of hot and cold water and steam.</p> <p>Offices, District heating and cooling, Energy centers, Customers</p>	<p>Toho Gas Group is promoting conversion from other fuel to natural gas and the spread of high-efficiency gas equipment and systems, such as cogeneration systems, to assist in reducing customer CO₂ emissions.</p> <p>Customers, Condominiums, Factories</p>
Environmental load	<ul style="list-style-type: none"> <li>CO₂ emissions in the natural gas exploitation and liquefaction stages</li> <li>CO₂ emissions from operation of LNG carriers</li> <li>Impact of ballast water on the ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>CO₂ emissions in the city gas production and supply stages</li> <li>Waste generation from gas pipeline construction</li> <li>Use of water resources and environmental load on water</li> </ul>	<ul style="list-style-type: none"> <li>CO₂ emissions from office energy use</li> <li>Waste generated from offices</li> <li>CO₂ emissions from operation of district heating and cooling</li> </ul>	<ul style="list-style-type: none"> <li>Customer CO₂ emissions from city gas use</li> <li>Disposal of used gas equipment</li> </ul>
Environmental load*1 (numerical data)	<p><b>Input of energy resources</b></p> <p><b>Toho Gas</b></p> <ul style="list-style-type: none"> <li>Resources for city gas</li> <li>LNG: 3,050 thousand tons</li> <li>LPG: 100 thousand tons</li> </ul> <p><b>Affiliated companies</b></p> <ul style="list-style-type: none"> <li>Resources for city gas*3</li> <li>LNG: 57 thousand tons</li> <li>Resources for LPG*4</li> <li>LPG: 250 thousand tons</li> </ul>	<p><b>Resources and energy*6</b></p> <p><b>Toho Gas</b></p> <ul style="list-style-type: none"> <li>Purchased electricity: 128,890 thousand kWh</li> <li>City gas consumption: 16,490 thousand m³N</li> <li>Vehicular fuel: 30 thousand GJ</li> </ul> <p><b>Affiliated companies</b></p> <ul style="list-style-type: none"> <li>Resources and energy*6</li> <li>Purchased electricity: 19,820 thousand kWh</li> <li>City gas consumption: 604 thousand m³N</li> <li>Vehicular fuel: 80 thousand GJ</li> </ul>	<p><b>Toho Gas</b></p> <ul style="list-style-type: none"> <li>Water for irrigation: 1,130 thousand m³</li> <li>Cast-iron pipes and steel pipes: 2,778 tons</li> <li>Soil and pavement materials: 540 thousand tons</li> <li>Polyethylene pipes: 1,206 tons</li> </ul> <p><b>Affiliated companies</b></p> <ul style="list-style-type: none"> <li>Water for irrigation: 150 thousand m³</li> </ul>	<p><b>Toho Gas</b></p> <p><b>Energy sales volume</b></p> <ul style="list-style-type: none"> <li>City gas sales volume: 3,710 million m³</li> <li>Gas sales volume to other gas utilities: 250 million m³</li> <li>Heat sales volume: 350 thousand GJ</li> </ul> <p><b>Affiliated companies</b></p> <p><b>Energy sales volume</b></p> <ul style="list-style-type: none"> <li>City gas sales volume: 60 million m³</li> <li>LPG sales volume*4: 250 thousand tons</li> </ul>
	<p><b>Toho Gas</b></p> <p><b>Emission into air *5</b></p> <p>Greenhouse gas (CO₂ equivalent)</p> <ul style="list-style-type: none"> <li>Exploitation: 130 thousand tons-CO₂</li> <li>Liquefaction: 1,120 thousand tons-CO₂</li> <li>Sea transport: 250 thousand tons-CO₂</li> </ul>	<p><b>Toho Gas</b></p> <p><b>Emission into air and water</b></p> <ul style="list-style-type: none"> <li>CO₂ emissions: 128 thousand tons-CO₂</li> <li>NOx emissions: 23 tons</li> <li>COD*7 load: 0.2 tons</li> </ul> <p><b>Affiliated companies</b></p> <p><b>Emission into air</b></p> <ul style="list-style-type: none"> <li>CO₂ emissions: 20 thousand tons-CO₂</li> </ul>	<p><b>Toho Gas</b></p> <p><b>External emissions*8</b></p> <ul style="list-style-type: none"> <li>Industrial waste: 50 tons</li> <li>General waste: 100 tons</li> <li>Excavated soil: 130 thousand tons</li> </ul> <p><b>Affiliated companies</b></p> <p><b>External emissions*8</b></p> <ul style="list-style-type: none"> <li>Industrial waste: 1,086 tons</li> </ul>	<p><b>Toho Gas</b></p> <p><b>Emission into air</b></p> <p>City gas supply</p> <ul style="list-style-type: none"> <li>CO₂ emissions: 8,670 thousand tons-CO₂</li> <li>CO₂ reduction: 50 thousand tons-CO₂</li> </ul> <p><b>Affiliated companies</b></p> <p><b>Emission into air</b></p> <p>City gas supply</p> <ul style="list-style-type: none"> <li>CO₂ emissions: 130 thousand tons-CO₂</li> </ul> <p>LPG supply</p> <ul style="list-style-type: none"> <li>CO₂ emissions: 760 thousand tons-CO₂</li> </ul>

\*1 Detailed data, annual changes, and affiliated companies included are described in the Environment Data online. \*2 Sea water to provide stability for a vessel

\*3 Excluding a part of purchased gas (LPG) \*4 Excluding LPG sales volume to other LPG utilities \*5 Calculated based on "LNG and city gas 13A life-cycle greenhouse gas emission calculation" from the 35th Annual Meeting of the Japan Society of Energy and Resources (June 2016) (gross calorific value basis)

\*6 City gas consumption includes resources for city gas. Cast-iron pipes and steel pipes are consumption by gas construction companies (polyethylene pipes and soil and pavement materials includes consumption by the Company) \*7 Chemical Oxygen Demand \*8 Volume of industrial waste indicates final disposal volume. Amount of excavated soil indicates external emissions from pipeline construction in our service areas.



# Global Warming Countermeasures

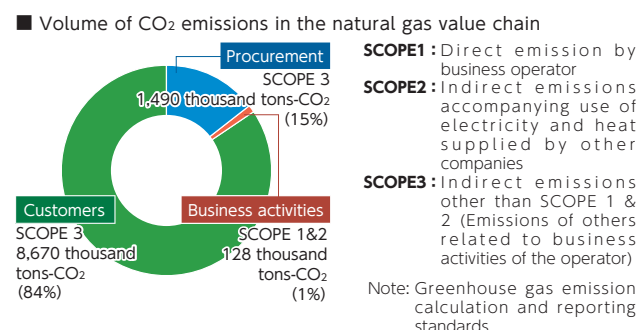
## Basic Concept

As an energy business operator, Toho Gas Group is implementing countermeasures against global warming, taking into consideration the natural gas value chain. We are implementing various specific measures, including the establishment of targets for reduction of the CO<sub>2</sub> emission basic unit in our business operations, and targets for the reduction of CO<sub>2</sub> emissions by customers.

## Global Warming Countermeasures in the Natural Gas Value Chain

In the natural gas value chain [P35], CO<sub>2</sub> is emitted at each stage, such as energy resource procurement and customers who use city gas, in addition to business activities such as city gas production and supply.

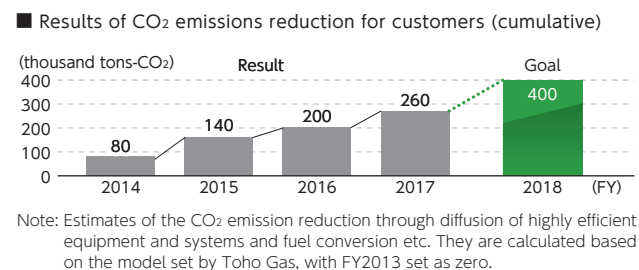
Because customers represent a large proportion of CO<sub>2</sub> emission, this is an area our company is focused on controlling. Furthermore, we strive to be aware of the degree of CO<sub>2</sub> emission in resources procurement. In our business activities, we are working to reduce CO<sub>2</sub> emissions through efficient operation of our city gas plants.



## Initiatives with Customers

We have set goals [P34] for the reduction of CO<sub>2</sub> emissions at customers as an environmental impact indicator, and undertake various initiatives to achieve this. Consequently, actual reduction of CO<sub>2</sub> emissions in FY2017 was 260 thousand tons-CO<sub>2</sub> (total value in the period from FY2014).

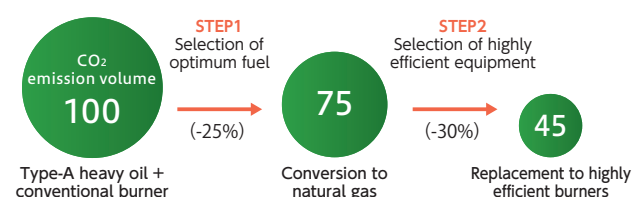
CO<sub>2</sub> emissions from customers by using city gas were 8,670 thousand tons-CO<sub>2</sub>.



## Conversion to Natural Gas

We are contributing to the reduction of CO<sub>2</sub> emissions by customers through fuel conversion [P25], whereby we switch fuel from petroleum to natural gas. In addition to fuel conversion, the introduction of equipment including high-performance burners has resulted in further reduction of CO<sub>2</sub> emissions by customers.

■ Examples of CO<sub>2</sub> emission reduction through conversion to natural gas and highly efficient usage



Source: Produced from materials of the Study Group on Gas Business in a Low Carbon Society (Ministry of Economy, Trade and Industry)

## Diffusion of Efficient Gas Equipment and Systems

We promote the diffusion of highly energy-efficient equipment and systems, which leads to reduction of CO<sub>2</sub> emissions by customers. These include the home fuel cell system ENE FARM [P24] for residential use; and gas cogeneration and GHP Xair II [P25] gas air conditioning, for industrial/commercial use.

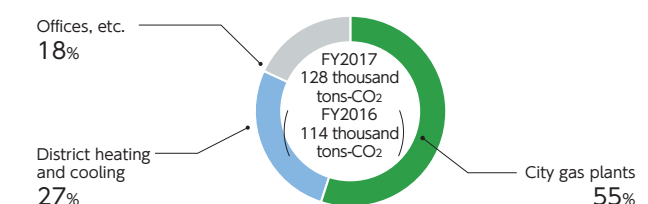


## Initiatives in Business Activities

Toho Gas Group strives to reduce CO<sub>2</sub> emissions in its business activities. Our CO<sub>2</sub> emissions in FY2017 increased by 14 thousand tons from FY2016 to 128 thousand tons because of expansion of our business area and increase of our gas sales volume. Meanwhile, through various initiatives including energy conservation measures at city gas plants, we reduced the city gas business CO<sub>2</sub> emission basic unit of city gas business under our Environmental Action Goals [P34] by 9% compared to the base year.

Note: CO<sub>2</sub> emission per unit = CO<sub>2</sub> emissions / city gas business gas sales volume

■ CO<sub>2</sub> emissions from business activities (non-consolidated) [P34]



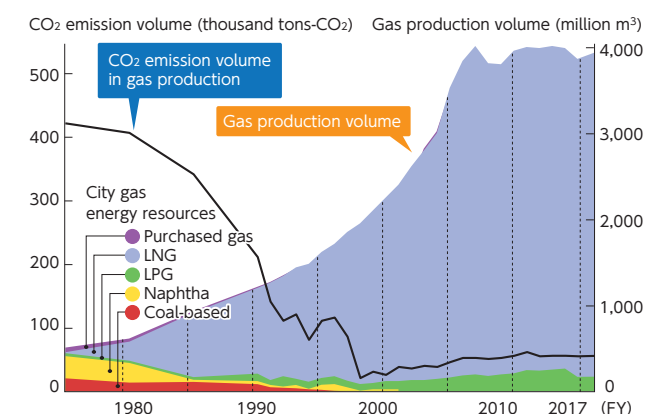
## Initiatives at City Gas Plants

CO<sub>2</sub> emissions at city gas plants have been significantly reduced by switching energy resources from coal to petroleum and to LNG. Moreover, we strive to reduce CO<sub>2</sub> emissions through energy conservation in operations, such as through strict implementation of energy management standards.

In addition, we are focusing on facility and technical measures, including development and introduction of reliquefaction equipment for efficient processing of BOG (boil-off gas) occurring in LNG tanks, and the use of LNG cryogenic energy.

In the commencement of our electricity business, we are working to reduce CO<sub>2</sub> emissions through the introduction of highly efficient gas cogeneration as power generation equipment [P26].

■ Transition of city gas energy resources and CO<sub>2</sub> emissions in gas production



## Initiatives in District Heating and Cooling

Toho Gas Group is introducing district heating and cooling which provide water heating and air conditioning for multiple

buildings within a certain area, contributing to the reduction of customer CO<sub>2</sub> emissions.

We are also striving to reduce CO<sub>2</sub> emissions by improving the operation of district heating and cooling and updating to energy-efficient equipment, as well as heat exchange through networking between the areas south and east of Nagoya Station.

■ List of district heating and cooling facilities

Toho Gas service areas

Nagoya City	● Imaike	● Sakae 3-chome north
	● Nagoya Station south	● Sakae 3-chome
	● Chiyoda	● Higashisakura
	● Johoku	● Ikeshita
Komaki City	● Minato AQUUS	
	● Komaki Station west	

Toho Gas subsidiary service areas

Nagoya City	● JR Tokai Nagoya Station area	● Nagoya Station east
	● Quality Life 21 Johoku	● Sasashima Live 24
	● JR Tokai Nagoya Station north	
	● Chubu Centrair International Airport Island	

## Initiatives at Offices

Toho Gas Group strives to reduce CO<sub>2</sub> emissions with energy saving measures at offices.

We are promoting initiatives in various fields, including the introduction of highly efficient gas air conditioning, LED lighting and low-emission vehicles.

In an effort to encourage energy-saving behavior by employees, we have introduced Energy Saving-scope, whereby it is possible to see office gas and electricity use at all times, an Eco-point system, which allocates points to environmental activities of individuals and which funds social contribution activities.

## Receipt of the Energy Conservation Grand Prize from the Minister of Economy, Trade and Industry

Toho Gas has introduced BOG reliquefaction equipment at Chita-Midorihamma Works, in collaboration with JFE Engineering Corporation. Recognition of the 42% energy consumption reduction achieved in comparison with conventional BOG processing method led to receipt of the Energy Conservation Grand Prize\*<sup>1</sup> for FY2017 from the Minister of Economy, Trade and Industry.\*<sup>2</sup>



\*<sup>1</sup> Sponsored by the Energy Conservation Center, Japan  
\*<sup>2</sup> Energy conservation division

BOG reliquefaction equipment acknowledged for its energy efficiency



## Basic Concept

Toho Gas Group is striving to realize a recycling-oriented society. The Group is promoting initiatives, taking into consideration the natural gas value chain, such as "3 Rs" (reduce, reuse and recycle) at customers and with collaboration with gas equipment manufacturers, as well as in our business activities.

## Initiatives in Business Activities

We are striving to implement the "3 Rs": reduce, reuse and recycle, in handling soil and waste resulting from construction work, as shown in the table below.

### ■ Main waste materials generated in business activities

Plants and offices	Industrial waste: sludge, waste plastic, scrap metal General waste: waste paper, combustible waste
Gas pipeline constructions	Soil from construction: debris removed from excavated soil Valuable materials: cast iron pipe and steel pipes Industrial waste: waste plastic (polyethylene pipe), debris (asphalt, concrete lumps)

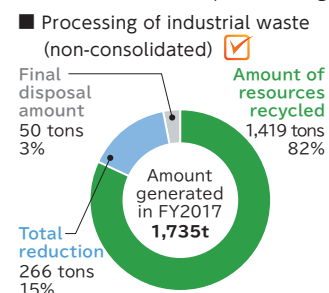
Note: Most waste from pipeline construction is generated by construction companies

## Initiatives at Plants and Offices

Both industrial and general wastes are generated at Toho Gas Group plants and offices. As a result of efforts to reduce the weight of industrial waste materials and to recycle more, the final amount of Toho Gas waste disposed in FY2017 totaled 3% of the volume generated. At city gas plants, we set a goal of zero emissions [P34], which we have achieved for nine consecutive years since FY2009.

We recycled 82% of general waste materials by collecting waste paper that accounts for the majority of waste generated.

As a result of appropriate implementation of water saving and quality control waste water, the amount of water used in FY2017 was 1,128 thousand m<sup>3</sup> and the COD load was 0.2 tons.



## Initiatives with Customers

Toho Gas Group has organized a system to collect used gas equipment and packaging materials from customers, facilitating efficient resource recycling. In FY2017, this resulted in collection of 915 tons of used equipment and 36 tons of packing material. Results for recycling of resources subject to the Containers and Packaging Recycling Act were 3.8 tons of plastic containers and packaging and 0.9 tons of paper.

We also recovered refrigerant fluorocarbons generated during maintenance and renewal of commercial air conditioning equipment. In FY2017, all of the fluorocarbons were recovered from the target equipment and processed appropriately (1,482 units, 18 tons of fluorocarbons recovered).

## Initiatives in Pipeline Construction

Pipeline construction generates excavated soil, asphalt and concrete lumps. In an effort to suppress these, we have introduced shallow-layer pipe installation, the trenchless pipe installation method\*1, the pipe rehabilitation repair construction installation\*2 and promotion of use of temporary filling material\*3 in construction requiring re-excavation. In FY2017, we reduced the amount of waste generated by 27% compared with conventional construction methods.

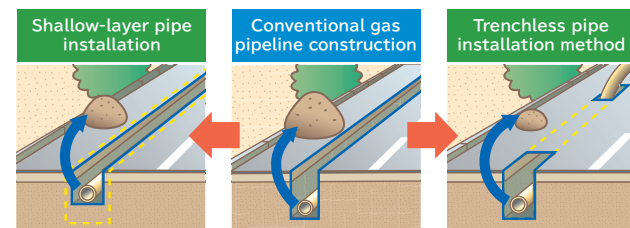
By striving to recycle excavated soil, asphalt and concrete lumps, we have reduced the amount of excavated soil externally disposed of by 75%, the amount of sand and natural quarried stone used by 91% compared with conventional methods, and almost all asphalt and concrete was recycled.

Almost all used gas pipes were recycled in FY2017 and 87% of used gas meters were reused through maintenance, such as parts replacements, and inspection.



Trenchless pipe installation method

- \*1 Construction method of drilling at both ends of the construction area and pulling the gas pipe underground
- \*2 Construction method for repairing and renewing gas pipe from the inside
- \*3 Polystyrene blocks used as temporary backfill



## Initiatives with Manufacturers

We are working with manufacturers on environmentally-friendly designs for gas equipment to develop and spread environmentally aware gas equipment that allows for easier disassembly and sorting for recycling.

### Initiatives for environmentally-friendly designs

- Easier disassembly and sorting for recycling
- More compact equipment
- Parts standardization
- Lighter equipment

## Basic Concept

Toho Gas Group actively promotes initiatives for the conservation of biodiversity with an awareness of the value chain, including countermeasures against global warming, promotion of resource recycling, support for nature conservation activities abroad, creation of biotopes and activities in collaboration with local communities.

## Initiatives in Procurement

We undertake procurement based on the Green Procurement Guidelines and also implement LNG carrier ballast water management and nature conservation activities overseas.

## LNG Carrier Ballast Water Management

Ballast water is known to affect ecosystems and consequently we strive for its appropriate management in the Group's LNG carriers, including voluntarily exchange when visiting ports of countries without regulations. In the future, we intend to drive installation of water treatment equipment in order to comply with the Ballast Water Management Convention (effective from 2017).



LNG carrier

## Nature Conservation Activities Overseas

Since FY2014, Toho Gas Group has been a member of the Keidanren Committee on Nature Conservation.

The committee assists with the conservation activities of environmental NGOs in Indonesia and other countries around the world.

## Initiatives in Business Activities

In pipeline construction, we endeavor to preserve habitat by limiting the use of sand and natural gravel [P39]. We are also engaged in local ecosystem conservation through the establishment of biotopes.

## Biotope Establishment

In 2000, we established a 7,500 m<sup>2</sup> biotope at Chita-Midoriham Works and in 2010 we established 600 m<sup>2</sup> Biotope Place at the Gas Energy Exhibition Hall in an effort to conserve ecosystems such as rare local species and nurture endemic species. It also serves as a venue for education and other events.



Biotope at Chita-Midoriham Works

## Initiatives with Customers and Local Communities

Initiatives include expanding use of natural gas and highly efficient equipment and other global warming countermeasures [P37], recycling used gas equipment and other resources [P39], forest conservation activities in Toho Gas Forest, and involvement in biological diversity education programs for children.

## Forest Conservation Activities in Toho Gas Forest

In FY2016, we entered into an agreement with Odai-cho, Mie Prefecture and Mitake-cho, Gifu Prefecture to create forests at two sites, Toho Gas Forest Odai and Toho Gas Forest Mitake. At each activity site, Toho Gas Group employees and their families engage in forest conservation activities including tree planting, thinning and undergrowth clearing with cooperation from the local community.



Forest conservation activities in Toho Gas Forest

## Biodiversity Education

We make biodiversity learning opportunities for the next generations in cooperation with local municipalities. In cooperation with Nagoya City, Nagoya Open University of the Environment organizes a survey of living things in the region.

In addition, as for activities with Aichi Prefecture, we participate in Chita Peninsula Ecological Network Council in collaboration with universities, corporations and NGOs, holding nature experience programs, etc.



Survey of living things in the region



Setting up bird nest boxes in forest



## Contribution to the Local

## Basic Concept

The Toho Gas Group actively conducts next generation education activities and environmental and social contribution activities, and promotes culture and sports as a member of local communities.

## Energy and Environmental Education for the Next Generation

## Activities Supporting Education in Schools

Since FY2002, we have conducted special classes to teach elementary and junior high school students, who will lead the next generation, about energy, the environment and food.

In FY2017, we developed five programs, including "The global environment and natural gas" and "Highly nutritional homemade snacks." We held 201 classes, at 86 schools.



## Family Environmental Education

Since FY2005, we have held "Family environmental lectures" to teach the importance of energy and environmental conservation, which are registered in the Nagoya Open University of the Environment.

We held three lectures during FY2017, which were attended by approximately 60 children and parents.



## Food Education Activities

In cooperation with other gas operators, we conduct the Tokai regional competitions of a national family cooking contest which the "With-Gas Club"\*1 has held since FY2007 to promote food education. In FY2017, we received applications from 4,580 children and their parents.

At the Toho Gas cooking school, we hold "cooking classes for children and their parents" to coincide with seasonal events, "maternity cooking classes" and "PTA cooking classes" for parents of elementary and junior high school students. A total of 420 people took part.

In addition, the Company holds "Eco-cooking"\*2 classes,\* in collaboration with municipalities, universities, etc. in three Tokai prefectures, to promote environmentally-friendly dietary habits from FY1997. Approximately 20,000 people participated by FY2017.

\*1 With-Gas Club

A business consortium established by four groups involved in the living environment (housing-related; kitchen/bathroom manufacturers; gas equipment manufacturers; and city gas/LPG suppliers). It aims to facilitate cooperation to offer a better living environment and lifestyle to customers.

\*2 "Eco-cooking" is a registered trademark of Tokyo Gas Co., Ltd.



## Toho Gas Energy Exhibition Hall

Since opening in FY1985, Toho Gas Energy Exhibition Hall has welcomed many visitors, in particular, hosting study and club visits by elementary and junior high school students, as well as family visits. It features participatory and experiential exhibits for enjoyable learning on the theme of the global environment and energy. It also screens a film, "Chikyu (Earth) PM 5:47," about the global warming. This provides opportunities to learn the value of the environment more personally. Furthermore, we hold occasional large-scale environmental study events for families, and "eco classes" where children can learn about the environment through handicraft work.

The Exhibition Hall welcomed approximately 36,000 visitors during FY2017.



## Communities

## Contribution through Culture and Sport

## "Kokoro no Ki" ("Tree of the Heart") Book Review Contest

Since FY2001, we have held a book review contest for elementary and junior high school students, to encourage their enjoyment of reading and to think about the relationship between people and nature.

In FY2017, we received 4,261 entries, and presented 99 awards, including the "Most Moving Award."



## Toho Gas Youth Baseball Tournament

We have organized the youth baseball tournament together with Japan Boys League Inc. Aichi West Branch since FY1993 in order to invigorate regional sports and to contribute to healthy development of elementary and junior high school students.

In FY2017, 6 elementary and 29 junior high school teams participated in the fierce competition.



## "Ohwa Satoyama-no-Kai" Village-vicinity Mountain Conservation Activities

Since FY2008, Toho Gas Group employees and their families have taken part in conservation activities for Satoyama, sustainable human-influenced environments.

In FY2017, we conducted conservation activities in "Higashiyama-no-Mori" in Aichi Prefecture and "Chikurin Hiroba Park" in Gifu Prefecture, with 62 participants.



## "Osanpo de Ikimono Mikke" ("Discover Living Creatures While Walking")

Since FY2011, Toho Gas has collaborated in planning and operation for this environmental event, hosted by Aichi Prefecture and an NPO at Expo Memorial Park, on the theme of encountering nature.

During FY2017, approximately 500 elementary school children and parents took part.



## "Hana-ippai" ("Many Flowers") Project

Each year since FY2008, we have supported the arrangement of flower beds in Higashiyama Zoo and Botanical Gardens, in Nagoya City.

In FY2017, approximately 40 Toho Gas Group employees took part in volunteer activities planting flower seedlings and bulbs.



## Promotion of "Green Curtains"

Since FY2014, we have worked to promote the spread of "green curtains" that are helpful for energy savings using plants to reduce temperature rise in buildings.

In FY2017, we donated 1,000 bags containing seeds of "Juroku Sasage" (yard bean), a traditional plant of Aichi, and 1,540 goya (bitter melon) seedlings to Nagoya City, which were distributed to citizens at environmental events such as "Environment Day Nagoya."





# Enhancement of Communication

## Basic Concept

We strive to disclose corporate and financial information promptly and appropriately, and to actively engage in communication with shareholders and investors, in order to deepen their understanding of the business and management policy of Toho Gas Group, and to win their long-term support.

## Return to Shareholders

Our fundamental approach to a return to shareholders is to provide stable dividends. Meanwhile, we will also flexibly implement purchase and retirement of treasury stock.

Toho Gas Group works to build a robust city gas business, to expand our share of the total energy market, and to grow existing and new Group businesses. In addition, the Group promotes management efficiency and strives to increase operating cash flow. We will allocate this cash flow in a well-balanced manner, in investment for further growth, such as expansion of the gas service area and business areas fields, as well as for return to shareholders, while maintaining a firm and stable financial base.

Considering business results and other factors, the year-end dividend for the fiscal year ended March 31, 2018 was 27.5 yen per share, which was an increase of 2.5 yen per share, and 52.5 yen for the full year. Furthermore, we expect a year-end dividend of 55.0 yen for the full year ending March 31, 2019.

## Annual Shareholders Meeting

Toho Gas Group positions its Annual Shareholders Meeting as an important opportunity for communicating with all of our shareholders. At the meeting, we strive to deepen their understanding of our company by answering shareholders' questions frankly and clearly.

Also, each year, after the meeting, we hold a social gathering with shareholders where they can exchange opinions directly with our management team.

■ FY2017 Annual Shareholders Meeting (June 25, 2018)

Shareholders in attendance	675
Exercise of shareholder voting rights	83.3 %



A social gathering with shareholders

## Communication with Individual Investors

For individual investors, we hold company briefing seminars with facility tours, cooking classes and showroom tours.

As an energy company with strong roots in the local communities, we strive to create opportunities to deepen understanding in the company, by actively pursuing communication with local investors who use our energy, through joint tours and seminars with local companies, and exhibiting at IR\* events for individual investors. We also hold online seminars for individual investors and to work on communication with investors who reside outside of our service area.

We strive to disclose information in a timely and easy-to-understand manner via our company website, including financial information and notice of IR events.

\*IR: investor relations (public relations for shareholders and investors)



Event in collaboration with Kagome Co., Ltd.



IR Expo by the Nagoya Stock Exchange

Number of events held (number in collaboration with other local companies)	19 (4)
Event attendees	1,861

# with Shareholders and Investors

## Communication with Institutional Investors

We hold briefing sessions four times a year for institutional investors and securities analysts, focusing on financial results details. We also actively engage in communications, conducting meetings separately with about 100 companies a year in Japan and abroad.

Furthermore, in order to enhance understanding among overseas institutional investors about the business of Toho Gas Group, we endeavor to actively disclose information, through conference participation and by issuing Fact sheets (data book) and our Integrated Report.



Financial results briefings

Separate communications held with **232** companies (FY2017)

## Introduction of Shareholder Benefits Program

While the basis of our return to shareholders is stable dividends and flexible purchase and retirement of treasury stock, the Company has introduced a shareholder benefit program positioned to complement these.

Many of our individual shareholders live in the three prefectures of the Tokai region (Aichi, Gifu, and Mie). With the full liberalization of gas and electricity retailing, we are working to increase the number of customers who are shareholders. In an effort to gain their long-term loyalty, we decided to establish a scheme which customers can use for paying our gas and electricity charges. Furthermore, they may also choose to donate to charity organizations which promote forest maintenance in the three Tokai prefectures, based on our concept of growing with the local communities.

### [ Overview of the Shareholder Benefits Program ]

Shareholders are given shareholder benefit points for shares held for one year or more, according to the number of shares and how long they have held them. They may then select the benefit they wish to receive from the three options offered.

### ■ Shareholder benefit points chart (1 point is equivalent to 1 yen)

Number of shares held	Years held	
	From one up to three years	Held for three years or more
100-199 shares	500 points	750 points
200-299 shares	2,000 points	3,000 points
300-399 shares	3,000 points	4,500 points
400-499 shares	4,000 points	6,000 points
500 shares or more	5,000 points	7,500 points

### Offer A Exchange for “Gas-Teki Points”

Shareholders with gas or electricity contracts with our company can choose “Gas-Teki Points”\* equivalent to 1.3 times the shareholder benefit points. These can be used towards payment of gas and electricity tariffs.

\*“Gas-Teki Points” are points which can be collected using the contents of our “Club TOHOGAS” website service. (Japanese only)

### Offer B Exchange for foods and other goods in our Shareholder Benefits Catalog

(Examples of foods and other goods)



Yakiniku Black-haired wagyu beef for barbecue from Miyazaki Prefecture (3,000 points)



Air circulator (7,500 points)



The Green Fund



日本赤十字社  
Japanese Red Cross Society

### Offer C Charity donation



## Human Resource Management

## Basic Concept

Toho Gas Group's basic policies for personnel management are to ensure fair and unbiased evaluation and treatment, to ensure that each employee feels a sense of job satisfaction, enhances their abilities, and exercises them to their fullest potential. In accordance with these policies, we work to eliminate discrimination based on such matters as creeds or gender, and promote personnel policies based on the respect of the individual's personality. We strive to establish a workplace environment where employees can work with peace of mind, by enhancing support systems for work-life balance, and through initiatives for health and safety.

## Hiring and Development of Human Resources

## Fair and Unbiased Hiring

We aim to hire people with flexible thinking, unfettered by past examples, who demonstrate the ability to take on new challenges. We implement fair and unbiased hiring, making our recruitment information publicly available through the company website and via recruitment seminars.

## ■ Employee breakdown (non-consolidated)

	Men	Women
Employee numbers (people)	2,422	436
Average age (years old)	42.9	41.1
Average years of service (years)	19.8	18.8
Number of graduate recruits (people)	59	19
Number of mid-career recruits (people)	12	
Number of re-hires (people)	216	
Turnover rate (%)	1.22	

Note: As of the end of March 2018. Not including seconded employees.  
Number of graduate recruits starting April 2018, mid-career recruits for FY2017, turnover rate is the average for the past three years (2015 - 17).

## Human Resource Development

We recognize that human resources are the source of corporate development. On this basis, we conduct workplace training (OJT), collective training (OFF-JT), and self-development, which are linked to results and to developing skills of our employees, so that each of them can demonstrate their role and achieve results.

## ■ Structure of training system

	Young employees	Medium-ranked employees	Middle management
Collective training	Level-specific training, Role-based training (medium-ranked leaders, newly appointed chiefs, newly appointed managers)		
	Elective training (business skill enhancement, basic skills enhancement), Interactive training with other industries		—
	Career training for women, seminar on childcare leave and maternity leave		Diversity training for middle management
	Career training (ages 30, 40 and 50)		
Self-development	Acquisition of official certification		
	Distance education and external training		
	External study abroad, internal certification examination, etc.		—
OJT	On-the-Job training		

## Personnel Remuneration System

We utilize systems for "multi-tracking of role grades" and "goal management" in order to emphasize performance and results, leverage diverse human resources and to develop human resources who can act independently. We aim to realize remuneration with a sense of job satisfaction and tension by appropriately evaluating performance, results and processes, while also promoting individual growth through work.

## Transfer and Rotation

Each year, we provide opportunities for employees to talk with their supervisor about their career plan. We utilize self-assessment and supervisor feedback in transfer planning and career development. We aim to deploy the right people in the right place so that employees can feel motivation for work and a sense of job satisfaction.

## Promotion of Diversity

With an eye toward developing a work environment that fosters diversity among employees and enables employees to perform at their full potential, we are working to develop a company diversity promotion system, provide diversity education to target employees, and expand the scope of work. In addition, we are promoting the understanding and penetration of diversity across the organization by providing training and seminar, etc. designed to raise awareness amongst staff in managerial positions.

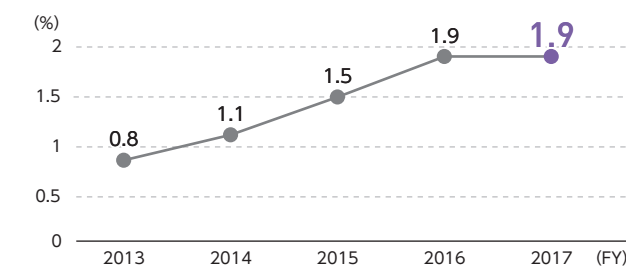
## Promotion of Women's Advancement

In order to promote advancement of women, we are promoting the creation of workplaces which boost women's motivation and where they can exercise their abilities.

In addition to career planning training for young and medium-ranked employees, we hold seminars on childcare leave and maternity leave and interviews six months prior to return to work, aiming to contribute to a balance between work and child-raising we also established a "Women's Advancement Support Site" on the company intranet where we introduce role models.

Furthermore, we actively promote employees regardless of gender, if we judge that they can demonstrate the abilities and role of their position as managers and other key positions. We aim to double the number of female managers from the level at the end of FY2014 by the end of FY2020.

## ■ Ratio of women in management positions (non-consolidated)



Women's Advancement Support Site

## Promotion of the Elderly

We have introduced a "Senior Expert System," targeting employees approaching retirement age, to reemploy those who are motivated to continue working. Many retirees remain active after reaching retirement ages, exercising the skills, expertise and experience they have cultivated over many years. In order to encourage the work motivation and ability to perform work roles of employees aged 50 years or older, we conduct career planning training for employees aged 50, and career interviews at the age of 55.



Career planning training

## Employment of People with Disabilities

We proactively hire people with disabilities in order to support their independence and social participation. As of April 2018, our employment rate of people with disabilities is 2.29%, which is above the statutory employment rate of 2.2%. They are engaged in various work in a number of workplaces. We will continue to strive to expand workplace and occupational options.

## ■ Trend of employment of people with disabilities (non-consolidated) (unit: %)

FY	2014	2015	2016	2017	2018
Toho Gas employment rate	2.02	2.18	2.13	2.12	2.29
Statutory employment rate	2.0	2.0	2.0	2.0	2.2

Note: each FY rate based on April 1



## Creating a Work-friendly Environment

### Promotion of Work-life Balance

#### [ Labor-related Compliance ]

We convene a labor-management committee for appropriate management of work hours and to review management methods and operations. Labor and management each established a contact point for discussing work hours to handle consultation and inquiries from individuals.

#### [ Initiatives to Boost Productivity ]

We have introduced a work time system to facilitate flexible work styles including a flextime system and discretionary labor system in terms of the intention of improving work efficiency and enhancing our employees' lives.

We also cooperate with the labor union to promote activities for work efficiency, to reform or abolish tasks and to review work.

#### [ Support for Compatibility of Work with Child Rearing or Nursing Care ]

In regards to support for child rearing and nursing care, we have introduced a "leave system" and "shorter working hours system." In addition, we hold seminars aimed at improving employees' attitude and knowledge regarding nursing care.

We have also introduced a "furlough system" where employees can accumulate expired annual leave which can be used in situations of long-term illness or injury, a "refresh leave system" and a special leave system for participation in volunteer activities. In addition, we have established a "Community Contribution Award System" to recognize employees who have performed community volunteer activities over many years.



Nursing care seminar

#### ■ Employees who newly begin child rearing or nursing care leave (non-consolidated) (Unit: people)

FY	2013	2014	2015	2016	2017
Child rearing leave	20	28	17	26	13
Child rearing shorter working hours	24	13	15	14	18
Nursing care leave	0	1	0	2	0
Nursing care shorter working hours	0	2	0	1	1

Toho Gas, as a company supporting child-rearing, obtained the "Kurumin" certification recognized by the Ministry of Health, Labour and Welfare in 2018.



"Kurumin" logo certified in 2018

### Workplace Communication

Each year, we host company tours for employees and their families. We aim to improve workplace communication and promote understanding of our business and operations through company facility tours and simulated experiences of operations.



Company tour

### Labor Relations Emphasizing Communication

We have adopted a union shop system where all employees except managers belong to the Toho Gas Labor Union. We emphasize communication with labor unions and regularly hold labor-management meetings and management consultations to facilitate mutual understanding to maintain healthy labor-management relations based on mutual trust.



Labor-management meeting

## Initiatives for Occupational Health and Safety

### Promotion of Health and Safety Activities

Twice a year, we hold a Central Safety and Health Committee meeting chaired by the president and conduct company-wide safety meetings each July.

In addition, we promote safety and health activities in compliance with the "Chemical Risk Assessment," which became mandatory from June 2016.

#### ■ Lost workday rate (non-consolidated)

FY	2013	2014	2015	2016	2017
Industry-wide average	1.58	1.66	1.61	1.63	1.66
Toho Gas	0.37	0.18	0.54	0.18	0.36

Lost workday rate: A safety indicator representing incidence of occupational accidents. Represents work stoppages caused by occupational accidents per 1,000,000 total work hours  
 Lost workday rate = (number of work stoppages) / (total work hours of workers) × 1,000,000

### Group-wide Health and Safety Activities

We aim to share health and safety activities with affiliated companies as well as collaboratively conduct occupational accident prevention education and mental health workshops. In addition, we organize a "Health and Safety Council" including partner companies and conduct joint patrols in an effort to prevent accidents throughout the Group.



Health and Safety Council meeting

### Aiming Towards Zero Accidents

We conduct a wide range of activities including dissemination of accident information, ensuring prevention of recurrence, and offering education. Notably, the driver certification system is effective in preventing traffic accidents by giving appropriate training to younger employees and others.

### Health Promotion Activities

#### [ Comprehensive Medical Checkups ]

In addition to medical examinations required by the Industrial Safety and Health Law, we conduct comprehensive medical checkups including stomach and dental checks and individual interviews to promote health from a younger age and the prevention of lifestyle-related diseases.



Comprehensive medical checkups

#### [ Efforts for Mental Health ]

We conduct mental health education during new employee training and new manager training. In addition, we check mental health at the time of the medical checkup and public health nurses conduct mental health consultations. We actively work with industry doctors and others to support reinstatement of employees on leave.

We have implemented annual stress checks since FY2016 as a primary prevention measure to ensure mental health.



## Basic Concept

The management philosophy of the Toho Gas Group is to attain steady growth and contribute to the development of local economies by strengthening the supply of natural gas, an environmentally-friendly energy source known to have supply stability, as its business pillar, while attaching importance to winning trust from customers, local communities, shareholders, investors, corporate clients and employees working for the Group. Under this philosophy, the Group will reinforce its corporate governance in order to remain a corporate group which is always trusted by its stakeholders.

You can view our Corporate Governance Report on our website (Japanese only).

## Corporate Governance Organization

### Board of Directors, Management Committee

Our Board of Directors comprises nine Directors, including two Outside Directors. The Board of Directors is convened every month in accordance with the rules stipulated for the Board, and makes important decisions relating to the Toho Gas Group while supervising the execution of duties by Directors and Executive Officers.

The Company has adopted the Executive Officer System to strengthen the function of executive operations and to clarify responsibilities. The Company has also established the Management Committee to deliberate on important management issues, including important policy measures for each division and department, in accordance with the basic policy adopted by the Board of Directors and to manage the progress of each policy measure periodically.

Various committees have been set up to deal with cross-sectional issues under the chairmanship of the President or other Directors. Each committee is tasked with grasping relevant issues and monitoring the progress of activities being undertaken in response to these issues, with the results of its meetings submitted to the Management Committee for deliberation.

### Outside Directors; Outside Audit and Supervisory Board Members

Outside Directors and Outside Audit and Supervisory Board Members are appointed for the purpose of strengthening the supervisory and auditing functions of the Company and ensuring the transparency and fairness of corporate management. Because the two Outside Directors and three Outside Audit and Supervisory Board Members have no special interest with the Company, it has been determined that no conflict of interest exists or will arise with shareholders. Consequently, the Company designated them "independent directors," as defined by securities exchanges.

It is judged that objectivity and neutrality in the supervision of corporate management are guaranteed through operation of supervising and auditing functions of the Company under the respective roles played by Outside Directors and Audit and Supervisory Board Members including Outside Members.

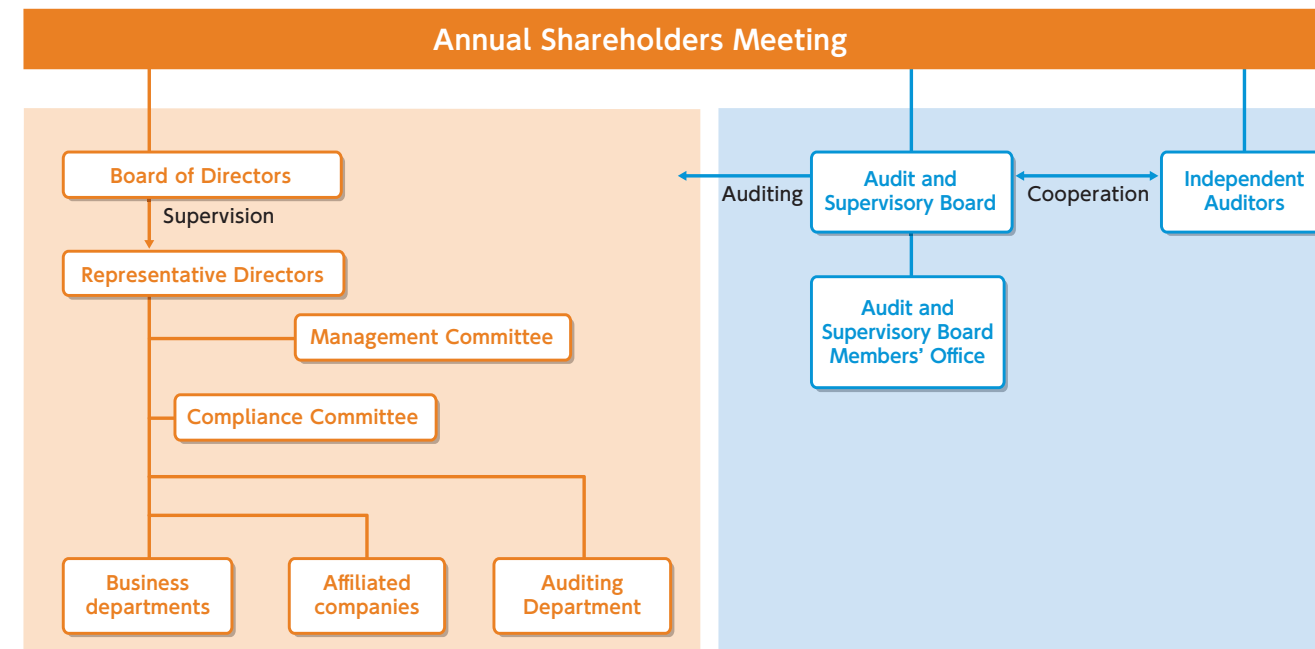
	Name	Reason for selection	Attendance	
			Board of Directors	Audit and Supervisory Board
Outside Directors	Koji Miyahara	We have determined that his abundant experience as a corporate manager provides him with strong insight to offer valuable opinions on management overall.	12/12	—
	Tetsuo Hattori	We have determined that his abundant experience as a corporate manager provides him with strong insight to offer valuable opinions on management overall.	12/12	—
Outside Audit and Supervisory Board Members	Michiyo Hamada	We have determined that her abundant experience as a corporate legal scholar and as a member of the Fair Trade Commission Committee provides her with strong insight to offer valuable opinions on management overall.	12/12	12/12
	Tamotsu Kokado	We have determined that his abundant experience as a corporate manager provides him with strong insight to offer valuable opinions on management overall.	10/12	11/12
	Norikazu Koyama	We have determined that his abundant experience in police administrative agencies provides him with strong insight to offer valuable opinions on management overall.	10/10*	10/10*

\*Audit and Supervisory Board Member Mr. Koyama has attended since his appointment in June 2017

### Audit and Supervisory Board

The Audit and Supervisory Board comprises five Audit and Supervisory Board Members, including three Outside Members. Each Audit and Supervisory Board Member monitors the execution of duties assigned to Directors by attending important meetings of the Company including meetings of the Board of Directors, reading important approval documents and visiting business offices. Each Audit and Supervisory Board Member also attends meetings of the Audit and Supervisory Board, convened on a monthly basis, for information sharing. The Company has set up the Audit and Supervisory Board Members' Office where full-time staff have been deployed to assist Members in the execution of their duties.

### Corporate Governance Organizational Chart



### Corporate Governance Organization

Number of Directors (Outside Directors)	9(2)
Number of Audit and Supervisory Board Members (Outside Members)	5(3)
Number of Board of Directors' meetings (FY2017)	12
Number of Audit and Supervisory Board Meetings (FY2017)	12
Term of office of Directors	1 year
Performance-based remuneration	Yes

### Evaluation of Effectiveness of Board of Directors

We survey all Directors and Audit and Supervisory Board Members for evaluation purposes, and report the evaluation results to the Board of Directors to ensure the effectiveness of the Board of Directors. We will continue making improvements based on opinions received from the survey and thereby endeavor to further improve its effectiveness.

### Director Remuneration

Director remuneration is based on their roles and responsibilities and on Company performance. It is set at an appropriate amount taking into consideration the remuneration level of employees and compensation levels at other companies.

Director remuneration consists of basic remuneration and bonuses. Basic remuneration is set by resolution of the Board of Directors, with the advice of Outside Officers, within the range of the remuneration determined at the Annual Shareholders Meeting. Bonuses are set by resolution of the Board of Directors, with the advice of Outside Officers, after determining the total amount to be paid by resolution at the Annual Shareholders Meeting.



### Establishment of Internal Control System

Toho Gas Group Board of Directors resolved to establish a system (internal control system) to ensure the appropriateness and effectiveness of business operations and based on this resolution, we strive to strengthen risk management and ensure thorough compliance. We review it as necessary based on changes in the business environment and other factors and confirm the status of its implementation at the Board of Directors Meeting each fiscal year. Details of the resolution and an outline of the status of its implementation over the past fiscal year are disclosed in our "Business Report" and can be viewed on our website (Japanese only).

#### Resolution of the Board of Directors on the Internal Control System

1. Board of Directors system for execution of duties (Conformity of Board of Directors execution of duties with laws and ordinances, and its effectiveness)
2. Risk management system
3. Compliance system [P52](#)
4. Affiliated companies business management system
5. Audit system

### Risk Management

#### Risk Management System

Based on Risk Management Rules, we have assigned a department to manage each risk and work systematically to reduce risks. Each fiscal year, the Management Committee reviews the status of the Group's risk management and reports to the Board of Directors.

The relevant committee promotes measures aimed at risk reduction for cross-divisional issues; also the progress and issues are discussed at the Management Committee, in an effort to ensure stable supply, safety and security. In addition, important management issues are also deliberated from the perspective of risk management and measures are strengthened or reformed based on the opinions of the Management Committee and Board of Directors.

In order to maintain the supply of city gas, which is an essential part of daily life, we have established a BCP and continuously implement drills in anticipation of a large-scale disaster [P20](#). Furthermore, we strive to strengthen our cooperation with affiliated companies and partner companies.

#### ■ Operation during emergencies

##### Occurrence of emergencies such as large scale earthquakes

Operations to maintain supply	Procurement of energy resources, gas production, supply adjustment, etc.
Emergency response operations (initial response)	Prevention of secondary disasters, emergency security operations (responding to leaks, repairs), etc.
Emergency response operations (recovery work)	Repair of pipelines, gas equipment safety checks, commencement of gas supply, etc.
Minimum maintenance of operations	Financing, settlement of accounts, system maintenance management, meter reading, transportation pipeline patrols, etc.

#### Management of Affiliated Companies

Centered on the Internal Control Department, established in FY2017, we support the development of internal control systems at affiliated companies, in an effort to strengthen internal control systems Group-wide.

We receive regular reports from major affiliated companies, based on our affiliated companies management regulations, regarding fiscal plans, settlement of account, operations, and status of activities related to internal control.

Affiliated companies make decisions and report important matters at the Board of Directors based on the rules of the Board of Directors at each company.

#### Response to the Financial Instruments and Exchange Act

In order to respond to the "System to Report Evaluation of Internal Controls over Financial Reports" under the Financial Instruments and Exchange Act, the relevant departments and affiliated companies conduct self-checks as to whether internal rules and check mechanisms are in place and operating appropriately. In addition, the Auditing Department, the organization charged with internal auditing, conducts evaluations and is itself audited by an external auditing company. In FY2017, we again confirmed through this process that internal control over the Group's financial reporting was effective and we submitted our internal control report to the Financial Services Agency.

#### Internal Auditing

Based on the audit plan, the Auditing Department audits Toho Gas and affiliated companies to ensure that operations are being conducted appropriately and efficiently. They promptly report audit results to the president and corporate auditors and provide advice.

### Basic Concept

For Toho Gas Group, compliance includes complying with laws and internal regulations, action based on good sense and ethics, and meeting the expectations of customers and society. By ensuring thorough implementation of the Corporate Code of Ethical Conduct and the Compliance Code of Conduct that embodies it, we hope that each employee will live up to the trust of customers and strive to contribute to development of the community.

#### Corporate Code of Ethical Conduct (extract)

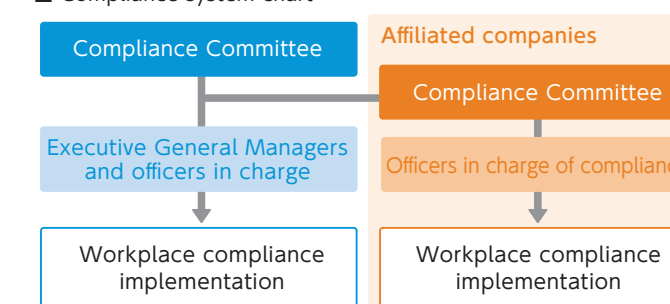
Toho Gas Group aims to be a corporate group that is always trusted by customers, shareholders, the local communities and business partners. We observe laws and regulations and the spirit of the law, respecting the good sense and ethics of society, undertaking sincere and fair corporate activities, whereby we contribute to the local communities. In addition, we promote timely and appropriate disclosure of information, actively communicate with concerned parties, coexistence and coprosperity.

### Compliance System

Toho Gas has a Compliance Committee which is chaired by the president comprising the Executive General Manager of each division, labor union representatives and others. Committee meetings are held twice a year in principle, deliberating compliance action plans and results. Each department's head is responsible for promoting compliance in each workplace, and the managers and office chiefs take responsibility for implementation of compliance activities.

Each affiliated company has appointed officers in charge of compliance, has established a Compliance Committee, and proactively promoting compliance.

#### ■ Compliance system chart



#### Consultation Service (Whistleblowing Hotline)

Toho Gas Group has established a compliance consultation service (internally and externally at a law firm), to provide consultation points regarding Group compliance. The service is available for Group employees (including dispatch staff) as well as ex-employees and business partners. During FY2017 they handled 24 consultations.

#### Education and Enlightenment Activities

We held antitrust law lectures and consumer law seminars for Group executives, compliance awareness training for chiefs, and labor management training for managers at affiliated companies.

We also hold compliance meetings at each workplace and issue "Compliance NEWS" regularly.



Compliance awareness training

#### Inspection and Survey Activities

We conduct inspections at all Group workplaces to ensure compliance with laws and internal regulations. We also conduct annual attitude surveys for all employees on compliance and the workplace environment, and reflect the results in our compliance action plan.

#### Protection of Personal Information

Based on the Act on the Protection of Personal Information and various guidelines, Toho Gas has established a personal information protection policy, personal information protection regulations and other internal regulations and manuals, implements safety control measures and endeavors to handle personal information appropriately.

Our personal information protection system consists of the Personal Information Protection Committee chaired by the Personal Information Protection Supervisor (an executive appointed by the president) comprising persons responsible for protection of each type of information (customer, shareholder, employee, etc.) The Committee deliberates the activity plan and results of personal information protection activities.

We regularly conduct self audits of the management situation at all Group workplaces and share information and issues warnings through the company intranet. We also strive to ensure the security of information systems by restricting access to personal information and preventing unauthorized access from the Internet.



# Board of Directors and Audit &

## Directors

Representative Director, Chairman

**Koichi Yasui**



Apr.1976 Joined Toho Gas  
Jun.2000 General Manager of Commercial Energy Sales Department  
Jun.2006 Executive Officer, General Manager of Commercial Energy Sales Department  
Jun.2008 Director, Managing Executive Officer, Deputy Executive General Manager of Gas Sales Division (Representative for Industrial & Commercial) and General Manager of Large Volume Sales Department  
Jun.2010 Director, Senior Managing Executive Officer, Deputy Executive General Manager of Gas Sales Division (Representative for Industrial & Commercial) and General Manager of Large Volume Sales Department  
Jun.2011 Director, Senior Managing Executive Officer, General Manager and Deputy Executive General Manager of Gas Sales Division (Representative for Industrial & Commercial) and General Manager of Large Volume Sales Department  
Jun.2012 Representative Director, President  
Jun.2016 Representative Director, Chairman (current position)

Representative Director, Executive Vice President

**Shinji Niwa**



Apr.1979 Joined Toho Gas  
Jun.2004 General Manager of Public Relations Department  
Jun.2008 General Manager of Finance Department  
Jun.2010 Executive Officer, General Manager of Finance Department  
Jun.2012 Managing Executive Officer, Executive General Manager of Residential Gas Sales Division  
Jun.2014 Director, Managing Executive Officer, Executive General Manager of Residential Gas Sales Division  
Jun.2015 Director, Senior Managing Executive Officer  
Jun.2016 Representative Director, Executive Vice President (current position)

Director, Managing Executive Officer

**Katsuhiko Ito**



Apr.1982 Joined Toho Gas  
Jun.2008 General Manager of Public Relations Department  
Jun.2010 General Manager of Corporate Planning Department  
Jun.2013 Executive Officer, General Manager of Corporate Planning Department  
Jun.2014 Executive Officer, Executive General Manager of Distribution Division  
Jun.2016 Director, Managing Executive Officer, General Manager of Distribution Division  
Jun.2017 Director, Managing Executive Officer (current position)

Director, Managing Executive Officer

**Mitsuhiro Kodama**



Apr.1982 Joined Toho Gas  
Apr.2007 General Manager of Gas Resources Department  
Jun.2013 Executive Officer, General Manager of Gas Resources Department  
Jun.2014 Executive Officer, General Manager of Corporate Planning Department  
Jun.2016 Managing Executive Officer  
Jun.2017 Director, Managing Executive Officer (current position)

Representative Director, President

**Yoshiro Tominari**



Apr.1981 Joined Toho Gas  
Jun.2003 General Manager of Production Planning Department  
Jun.2006 General Manager of Corporate Planning Department  
Jun.2009 Executive Officer, General Manager of Corporate Planning Department  
Jun.2010 Executive Officer, Executive General Manager of Research & Development Division  
Jun.2011 Managing Executive Officer, Executive General Manager of Production Division  
Jun.2012 Director, Managing Executive Officer, Executive General Manager of Production Division  
Jun.2013 Director, Managing Executive Officer  
Jun.2015 Director, Senior Managing Executive Officer  
Jun.2016 Representative Director, President (current position)

Director, Senior Managing Executive Officer

**Takayasu Hayashi**



Apr.1979 Joined Toho Gas  
Apr.2006 General Manager of Home Systems & Appliance Sales Department  
Jun.2007 General Manager of Residential Sales Channel Department  
Jun.2008 General Manager of Residential Sales Planning Department  
Jun.2009 General Manager of General Affairs Department  
Jun.2010 General Manager of Secretarial Department  
Jun.2012 Executive Officer, General Manager of Secretarial Department  
Jun.2014 Managing Executive Officer  
Jun.2015 Managing Executive Officer, Executive General Manager of Residential Gas Sales Division  
Jun.2016 Director, Managing Executive Officer, Executive General Manager of Residential Gas Sales Division  
Jun.2017 Director, Senior Managing Executive Officer (current position)

Director, Managing Executive Officer

**Shinichi Senda**



Apr.1982 Joined Toho Gas  
Jun.2006 General Manager of East Nagoya District Headquarters  
Jun.2009 General Manager of Residential Sales Planning Department  
Jun.2011 General Manager of Personnel Department  
Jun.2014 Executive Officer, General Manager of Gas Resources Department  
Jun.2017 Managing Executive Officer  
Jun.2018 Director, Managing Executive Officer (current position)

# Supervisory Board Members (as of June 30, 2018)

Outside Director

**Koji Miyahara**



Apr.2004 Representative Director, President, Corporate Officer of Nippon Yusen Kabushiki Kaisha  
Apr.2006 Representative Director, President, President Corporate Officer of Nippon Yusen Kabushiki Kaisha  
Apr.2009 Representative Director, Chairman, Chairman Corporate Officer of Nippon Yusen Kabushiki Kaisha  
Apr.2015 Director, Board Counselor of Nippon Yusen Kabushiki Kaisha  
Jun.2015 Board Counselor of Nippon Yusen Kabushiki Kaisha (current position)  
Director of Toho Gas (current position)

Outside Director

**Tetsuo Hattori**



Jun.2008 Representative Director and President of Kanto Auto Works, Ltd. (current Toyota Motor East Japan, Inc.)  
Jun.2012 Senior Advisor of Kanto Auto Works, Ltd. (current Toyota Motor East Japan, Inc.)  
Jul.2012 Senior Advisor of Toyota Motor East Japan, Inc.  
Jun.2015 Director of Toho Gas (current position)  
Jun.2016 Honorary Advisor of Toyota Motor East Japan, Inc.  
Mar.2018 Retired Honorary Advisor of Toyota Motor East Japan, Inc.

## Audit & Supervisory Board Members

Audit & Supervisory Board Member

**Osamu Nakamura**



Apr.1989 Joined Toho Gas  
Oct.2005 General Manager of Solution Engineering Department  
Jun.2009 Executive Officer, General Manager of Distribution Planning & Management Department  
Jun.2011 Director, Managing Executive Officer, Executive General Manager of Distribution Division  
Jun.2014 Director, Managing Executive Officer, Executive General Manager of Research & Development Division  
Jun.2015 Director, Senior Managing Executive Officer, Executive General Manager of Research & Development Division  
Jun.2016 Representative Director, Executive Vice President, Executive General Manager of Production Division  
Jun.2018 Audit & Supervisory Board Member (current position)

Audit & Supervisory Board Member

**Hiroshi Yamazaki**



Apr.1982 Joined Toho Gas  
Oct.2006 General Manager of Fundamental Research Department  
Oct.2009 General Manager of Auditing Department  
Jun.2013 Audit & Supervisory Board Member (current position)

Outside Audit & Supervisory Board Member

**Michiyo Hamada**



Apr.1985 Professor, Nagoya University School of Law  
Apr.1999 Professor, Graduate School of Law at Nagoya University  
Apr.2008 Dean, Nagoya University Law School  
Apr.2009 Professor Emeritus, Nagoya University (current position)  
Member of the Fair Trade Commission  
Mar.2014 Retired from the Commission  
Jun.2014 Audit & Supervisory Board Member of Toho Gas (current position)

Outside Audit & Supervisory Board Member

**Tamotsu Kokado**



Jun.2009 Representative Director, Deputy President of The Bank of Tokyo-Mitsubishi UFJ, Ltd. (current MUFG Bank, Ltd.)  
Jun.2012 Standing Advisor of The Bank of Tokyo-Mitsubishi UFJ, Ltd. (current MUFG Bank, Ltd.)  
Jun.2015 Advisor of The Bank of Tokyo-Mitsubishi UFJ, Ltd. (current MUFG Bank, Ltd.) (current position)  
Audit & Supervisory Board Member of Toho Gas (current position)

Outside Audit & Supervisory Board Member

**Norikazu Koyama**



Aug.2008 Chief, Aichi Prefectural Police Headquarters  
Jan.2010 Vice President of National Police Academy and Councilor of Commissioner General's Secretariat of National Police Agency (in charge of Criminal Affairs Bureau)  
Jan.2012 Director General of Chubu Regional Police Bureau  
Apr.2013 Director General of Kanto Regional Police Bureau  
Sep.2014 Councilor of Japan Police Personnel Cooperative  
Dec.2014 Senior Director of Japan Police Personnel Cooperative  
Jun.2017 Senior Director of Council for Public Policy (current position)  
Audit & Supervisory Board Member of Toho Gas (current position)



# External Opinion and Evaluation

## Expert Opinion



Possibilities offered through popularization of renewable energy supported by gas

The Japan Research Institute, Limited  
Counselor  
Eiichiro Adachi

This report has been newly published as an Integrated Report. I would like to commend the company highly on the creation of shared value including, approximately one year ahead of schedule, achievement of the FY2018 goals set in the current Medium-term Management Plan (P.14) and the steady, ongoing reduction of CO<sub>2</sub> emissions of customers (P.37). The company has also held a clear and persuasive vision for the expansion of share in total energy (P.23). The business model of unified development of gas and electricity will also certainly open a variety of possibilities. One such prospect is

the use of gas cogeneration to supplement the output fluctuation of renewable energy from solar and wind. The advanced energy system introduced at Minato AQUUS (P.28), and the establishment of Matsusaka Shin-denryoku (P.27) are noteworthy in this regard. I hope that the company will ensure that it remains firmly on-track in the utilization of gas to support the further popularization of renewable energy in Japan. Meanwhile, it is believed that the time has come for energy suppliers to provide guidance on the effective use of gas and electricity, in the same way as automobile manufacturers have done in their efforts to spread eco-friendly driving. Toho Gas Group has a characteristically high share on gas sales for industrial use by volume (P.12), and currently these customers are leading the way in promoting zero emissions. It is expected that the company can exercise a conspicuous presence in leading efforts to achieve the 2°C goal of the Paris Agreement. At the same time, climate change is already having an impact on our lives and lifestyles. I hope that the company will give consideration to appropriate perspectives on climate change in its safety and disaster measures.

## Evaluation by External Organizations

MSCI Japan ESG Select Leaders Index	Toho Gas has been selected for two consecutive years since 2016.
MSCI Japan Empowering Women Index (Select)	Toho Gas has been selected for two consecutive years since 2016.
SNAM Sustainability Index	Toho Gas has been selected for seven consecutive years since 2012.
CDP Japan 500 Climate Change Report 2017	Toho Gas earned a B-rank evaluation (third ranking among eight levels).
21st Environmental Management Survey 2018	Toho Gas earned fourth place in the electricity and gas industries.

## External Awards

Major awards received in FY2017 are as follows.

Name	Main sponsor	Target	Joint award winner
Cogeneration Award 2017 Technology Development Division Chairman's Award	Advanced Cogeneration and Energy Utilization Center JAPAN	Achieved best-in-class power generation efficiency—Development of 3 kW-SOFC cogeneration system for industrial/commercial use	KYOCERA Corporation, NORITZ Corporation, Osaka Gas Co., Ltd., Tokyo Gas Co., Ltd., SAIBU GAS Co., Ltd.
Cogeneration Award 2017 Consumer Division Excellence Award	Advanced Cogeneration and Energy Utilization Center JAPAN	Multiplexing of heat sources and enhancement of energy conservation through cooperation between heat suppliers in the areas east and south of Nagoya Station	DHC Nagoya Co., Ltd.
Energy Conservation Award Energy Conservation Division Minister of Economy, Trade and Industry Award	Energy Conservation Center, Japan	Efforts for energy conservation through introduction of BOG direct reliquefaction equipment in Chita-Midorihamma Works	JFE Engineering Corporation

## Third Party Guarantee of Environmental Data

Toho Gas Group has received third party guarantees of environmental data. Since first acquiring third-party guarantees in FY2002, Toho Gas has worked to improve the reliability of environmental data, expanding the scope of coverage and the data included.

### Guarantees from Independent Third Party

独立した第三者保証報告書

2017年8月2日

東邦ガス株式会社  
代表取締役社長 富成 義郎 殿

デロイト トーマツ サステナビリティ株式会社  
東京都千代田区丸の内三丁目3番1号  
代表取締役 杉山 雅彦

デロイト トーマツ サステナビリティ株式会社（以下「当社」という。）は、東邦ガス株式会社（以下「会社」という。）が作成した「環境・社会報告書 2017」（以下、「報告書」という）及び報告書のデータ集（以下、「データ集」という。）に記載されている2016年度の環境定量情報（以下「環境定量情報」という。）について、限定的保証業務を実施した。

**会社の責任**  
会社は、会社が採用した算定及び報告の基準（データ集に記載されている主要環境データ算定基準）に準拠して環境定量情報を作成する責任を負っている。また、CO<sub>2</sub>排出量の算定は、排出係数と数値データの決定に利用される科学的知能が不完全である等の理由により、固有の不確実性の影響下にある。

**当社の独立性と品質管理**  
当社は、誠実性、客観性、職業的専門家としての能力と正当な注意、守秘義務、及び職業的専門家としての行動に関する基本原則に基づき、国際会計士倫理基準審議会の「職業会計士の倫理規範」が定める独立性及びその他の要件を遵守した。また、当社は、国際品質管理基準第1号「財務諸表の監査及びレビュー並びにその他の保証及び関連サービス業務を行う事務所の品質管理」に準拠して、倫理要件、職業的専門家としての基準及び適用される法令及び規則の遵守に関する文書化した方針と手続を含む、包括的な品質管理システムを維持している。

**当社の責任**  
当社の責任は、当社が実施した手続及び当社が入手した証拠に基づいて、環境定量情報に対する限定的保証の結論を表明することにある。当社は、「国際保証業務基準 3000 過去財務情報の監査又はレビュー以外の保証業務」（国際監査・保証基準審議会）、「国際保証業務基準 3410 温室効果ガス報告に対する保証業務」（国際監査・保証基準審議会）及び「サステナビリティ情報審査業務指針」（サステナビリティ情報審査協会）に準拠して、限定的保証業務を実施した。当社が実施した手続は、職業的専門家としての判断に基づいており、質問、プロセスの観察、文書の閲覧、分析の手続、算定方法と報告方針の適切性の検討、報告書の基礎となる記録又は調整、及び以下を含んでいる。  
・ 会社の見取り方法が、適切であり、一貫して適用されていたかどうかを評価した。ただし、手続には見様の基礎となったデータのテスト又は見様の再実施を含めていない。  
・ データの信頼性、データ収集方法、原始データ及び現場に適用される仮定を評価するため、事業所の現地調査を実施した。限定的保証業務で実施する手続は、合理的保証業務に対する手続と比べて、その種類と実施時期が異なり、その実施範囲は狭い。その結果、当社が実施した限定的保証業務で得た保証水準は、合理的保証業務を実施したとすれば得られたであろう保証水準ほどには高くない。

**限定的保証の結論**  
当社が実施した手続及び入手した証拠に基づいて、環境定量情報が、会社が採用した算定及び報告の基準に準拠して作成されていないと信じる事象はすべての重要な点において認められなかった。

以 上

Member of  
Deloitte Touche Tohmatsu Limited

[ Third Party Organization ]  
Deloitte Tohmatsu Sustainability Co., Ltd.

[ Scope of Coverage ]  
This booklet and the included environmental data has a mark appended to indicate data guaranteed by an independent third party, including data on CO<sub>2</sub> emissions of FY2017 and energy consumption (purchased electric power usage, gas usage, other fuel usage), waste material volume and water usage amount.

[ Calculation Criteria for Major Environmental Data ]  
Major environmental data calculation standards are described in the Environmental Data online.

### Acquisition of Guarantees

We took on-site surveys on energy usage, waste volume, and water usage at major business sites including city gas plants, district heating and cooling facilities, our headquarters, and at affiliated companies with significant environmental loads. In the future, we will continue to improve our systems to further enhance data reliability.



Implementation of independent third party guarantee work



## Financial Highlights (consolidated)

											(FY)
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Net sales (million yen)	441,144	474,559	411,524	436,825	482,360	518,305	560,462	580,984	479,870	390,433	428,868
Operating income (million yen)	18,597	10,888	17,819	23,906	17,503	12,621	15,751	28,760	60,725	23,188	23,984
Ordinary income (million yen)	19,517	11,368	17,351	24,334	18,164	13,382	17,053	29,516	61,132	24,490	25,208
Net income attributable to owners of the parent (million yen)	12,129	5,808	10,976	14,491	8,570	8,526	11,241	19,053	43,008	17,749	18,022
Net cash flow from operating activities (million yen)	48,956	50,876	77,279	53,929	32,163	40,261	37,809	62,320	114,923	37,264	57,047
Free cash flow (million yen)	7,485	2,367	33,289	20,085	(1,426)	1,903	4,792	24,480	72,727	(20,703)	13,702
Total assets (million yen)	546,507	516,129	506,724	495,626	492,889	504,461	509,760	543,286	555,217	532,931	541,252
Equity capital (million yen)	238,304	205,653	220,854	221,425	224,292	236,470	245,890	282,827	285,186	306,801	326,279
ROA (%)	2.2	1.1	2.1	2.9	1.7	1.7	2.2	3.6	7.8	3.3	3.4
ROE (%)	5.0	2.6	5.1	6.6	3.8	3.7	4.7	7.2	15.1	6.0	5.7
Total asset turnover (times)	0.81	0.92	0.81	0.88	0.98	1.03	1.10	1.07	0.86	0.73	0.79
Equity ratio (%)	43.6	39.8	43.6	44.7	45.5	46.9	48.2	52.1	51.4	57.6	60.3
Interest-bearing debt (million yen)	187,323	193,200	171,051	161,400	164,325	162,015	164,517	149,703	127,163	114,954	112,199
D/E ratio (times)	0.79	0.94	0.77	0.73	0.73	0.69	0.67	0.53	0.45	0.37	0.34
EPS (yen)	107.53	51.91	98.38	131.09	78.42	78.12	103.05	174.72	397.06	164.87	169.28
BPS (yen)	2,128.94	1,838.36	1,996.84	2,011.23	2,054.78	2,167.63	2,254.58	2,593.74	2,634.72	2,865.00	3,068.29
PER (times)	22.32	43.55	25.91	16.36	31.12	39.25	27.27	20.06	10.06	23.87	19.32
PBR (times)	1.13	1.23	1.28	1.07	1.19	1.41	1.25	1.35	1.52	1.37	1.07
Number of issued shares at the end of the term (excluding treasury stock) (thousand shares)	111,935	111,867	110,602	110,094	109,156	109,091	109,062	109,042	108,241	107,086	106,339
Dividend per share (yen)	37.5	40.0	40.0	40.0	42.5	45.0	45.0	47.5	50.0	50.0	52.5
Capital expenditures (million yen)	41,081	48,446	43,672	33,259	32,546	35,198	33,093	36,570	40,101	49,298	39,629
Depreciation and amortization (million yen)	38,895	40,629	61,157	40,573	40,272	36,901	35,780	33,950	32,987	35,482	35,973
Pipeline length (km)	26,793	27,496	27,796	28,073	28,373	28,709	28,970	29,203	29,431	29,722	30,011
Number of city gas customers (installed gas meters) (thousand)	2,242	2,280	2,295	2,307	2,322	2,345	2,364	2,387	2,409	2,434	2,463
City gas sales volume (million m <sup>3</sup> )	4,034	3,765	3,711	4,001	4,035	4,045	4,073	4,031	3,908	3,974	4,024
Number of employees (persons)	4,711	5,506	5,643	5,654	5,668	5,662	5,813	5,817	5,818	5,860	5,892

\* The financial figures described in this section are rounded down to the nearest million yen.

Toho Gas consolidated its shares at the ratio of 5 shares to 1 share of common stock effective October 1, 2017. Accordingly, the dividend per share and the number of issues shares reflect the impact of the said consolidation of shares.

\* Although unaudited, financial figures in this section are based on our certified securities reports.

ROA = Net income attributable to owners of the parent / Total assets  
(average during the term) ×100

ROE = Net income attributable to owners of the parent / Equity capital  
(average during the term) ×100

Total asset turnover rate = Net sales / Total assets (end of the term)

Equity ratio = Equity capital / Total assets (end of the term) ×100

D/E ratio = Interest-bearing debt outstanding / Equity capital (end of the term)

EPS = Net income attributable to owners of the parent related to common shares  
/ Average number of common shares during the term

BPS = Total net assets at the end of the term related to common shares /  
Number of issued common shares at the end of the term

PER= Stock price at the end of the term / Net income per share

PBR = Stock price at the end of the term / Net assets per share



## Consolidated Balance Sheets

million yen

	End of FY2016 (March 31, 2017)	End of FY2017 (March 31, 2018)
<b>Assets</b>		
Non-current assets		
Property, plant and equipment		
Production facilities	83,518	81,572
Distribution facilities	154,272	154,442
Service and maintenance facilities	26,845	26,263
Other facilities	31,784	35,356
Construction in progress	28,895	26,233
Total property, plant and equipment	<b>325,316</b>	<b>323,868</b>
Intangible assets		
Other	4,805	4,249
Total intangible assets	<b>4,805</b>	<b>4,249</b>
Investments and other assets		
Investment securities	82,706	92,020
Long-term loans receivable	5,060	5,701
Deferred tax assets	10,878	6,112
Other	6,059	7,143
Allowance for doubtful accounts	(80)	(83)
Total investments and other assets	<b>104,624</b>	<b>110,894</b>
Total non-current assets	<b>434,747</b>	<b>439,012</b>
Current assets		
Cash and deposits	16,575	17,955
Notes and accounts receivable-trade	45,773	48,874
Lease receivables and investment assets	8,567	9,825
Inventories	17,316	18,608
Deferred tax assets	3,221	3,082
Other	6,946	4,122
Allowance for doubtful accounts	(217)	(227)
Total current assets	<b>98,183</b>	<b>102,240</b>
<b>Total assets</b>	<b>532,931</b>	<b>541,252</b>

million yen

	End of FY2016 (March 31, 2017)	End of FY2017 (March 31, 2018)
<b>Liabilities</b>		
Non-current liabilities		
Bonds payable	70,000	50,000
Long-term loans payable	35,240	29,942
Deferred tax liabilities	953	773
Provision for gas holder repairs	1,518	1,653
Provision for safety measures	17,309	18,211
Provision for gas appliance warranties	4,081	3,932
Net defined benefit liability	15,945	8,534
Other	8,078	8,870
Total non-current liabilities	<b>153,127</b>	<b>121,918</b>
Current liabilities		
Current portion of non-current liabilities	2,807	23,576
Notes and accounts payable-trade	21,487	20,284
Short-term loans payable	5,573	5,383
Income taxes payable	4,732	7,067
Other	38,401	36,742
Total current liabilities	<b>73,002</b>	<b>93,054</b>
<b>Total liabilities</b>	<b>226,129</b>	<b>214,973</b>
<b>Net assets</b>		
Shareholders' equity		
Capital stock	33,072	33,072
Capital surplus	8,387	8,387
Retained earnings	232,641	240,123
Treasury stock	(2,232)	(45)
Total shareholders' equity	<b>271,869</b>	<b>281,537</b>
Other comprehensive income		
Valuation difference on available-for-sale securities	38,213	42,111
Deferred gains or losses on hedges	(443)	(21)
Foreign currency translation adjustment	2,867	3,199
Remeasurement of defined benefit plans	(5,705)	(548)
Total other comprehensive income	<b>34,931</b>	<b>44,742</b>
<b>Total net assets</b>	<b>306,801</b>	<b>326,279</b>
<b>Total liabilities and net assets</b>	<b>532,931</b>	<b>541,252</b>



## Consolidated Statements of Income

million yen

	FY2016 (April 1, 2016 to March 31, 2017)	FY2017 (April 1, 2017 to March 31, 2018)
Net sales	390,433	428,868
Cost of sales	230,490	271,686
Gross profit	159,942	157,182
Selling, general and administrative expenses	136,753	133,198
Operating income	23,188	23,984
Non-operating income		
Interest income	153	215
Dividend income	1,483	1,749
Rent income	708	701
Miscellaneous income	1,128	1,429
Total non-operating income	3,473	4,095
Non-operating expenses		
Interest expenses	1,010	821
Loss on bond retirement	674	1,462
Miscellaneous expenses	487	587
Total non-operating expenses	2,172	2,871
Ordinary income	24,490	25,208
Extraordinary income		
Gain on sales of investment securities	—	900
Total extraordinary income	—	900
Extraordinary loss		
Impairment loss	—	510
Total extraordinary loss	—	510
Net income before income taxes	24,490	25,597
Income taxes-current	6,745	6,695
Income taxes-deferred	(4)	879
Total income taxes	6,740	7,574
Net income	17,749	18,022
Net income attributable to owners of the parent	17,749	18,022

## Consolidated Statements of Comprehensive Income

million yen

	FY2016 (April 1, 2016 to March 31, 2017)	FY2017 (April 1, 2017 to March 31, 2018)
Net income	17,749	18,022
Other comprehensive income		
Valuation difference on available-for-sale securities	5,733	3,900
Deferred gains or losses on hedges	3,769	426
Foreign currency translation adjustment	(436)	(189)
Remeasurement of defined benefit plans	4,550	5,152
Share of other comprehensive income of entities accounted for using equity method	260	520
Total other comprehensive income	13,876	9,810
Comprehensive income	31,626	27,833
Comprehensive income attributable to:		
Owners of the parent	31,626	27,833
Non-controlling interests	—	—

## Consolidated Statements of Cash Flows

million yen

	FY2016 (April 1, 2016 to March 31, 2017)	FY2017 (April 1, 2017 to March 31, 2018)
Cash flows from operating activities		
Net income before income taxes	24,490	25,597
Depreciation and amortization	35,482	35,973
Impairment loss	—	510
Gain on sales of investment securities	—	(900)
Increase (decrease) in provision	(864)	901
Decrease (increase) in notes and accounts receivable-trade	1,892	(3,100)
Decrease (increase) in inventories	(3,059)	(1,292)
Increase (decrease) in notes and accounts payable-trade	4,892	(1,202)
Income taxes paid	(17,464)	(4,545)
Other	(8,104)	5,105
Net cash provided by (used in) operating activities	37,264	57,047
Cash flows from investment activities:		
Purchases of non-current assets	(49,298)	(39,629)
Proceeds from sales of non-current assets	11	196
Purchase of investment securities	(5,840)	(3,306)
Proceeds from sales of investment securities	185	1,232
Other	(3,026)	(1,837)
Net cash provided by (used in) investment activities	(57,967)	(43,345)
Cash flows from financing activities:		
Net increase (decrease) in short-term loans payable	(1,500)	(190)
Net increase (decrease) in commercial paper	—	2,000
Proceeds from long-term loans payable	15,605	10,060
Repayment of long-term loans payable	(16,716)	(4,265)
Proceeds from issuance of bonds	9,939	—
Redemption of bonds	(20,672)	(11,462)
Purchase of treasury stock	(4,614)	(3,021)
Cash dividends paid	(5,396)	(5,334)
Other	393	(27)
Net cash provided by (used in) financing activities	(22,962)	(12,240)
Effect of exchange rate change on cash and cash equivalents	(151)	(82)
Net increase (decrease) in cash and cash equivalents	(43,817)	1,379
Cash and cash equivalents at beginning of year	60,314	16,497
Cash and cash equivalents at end of year	16,497	17,876



Company Overview (as of March 31, 2018)

Corporate Name	TOHO GAS CO., LTD.
Date of Foundation	June 26, 1922
Head Office	19-18, Sakurada-cho, Atsuta-ku, Nagoya, Aichi 456-8511, Japan
Representative Director	President Yoshiro Tominari
Main Businesses	•Gas business •Heat supply business •Electricity business •Production, transportation and sale of high-pressure gases including LNG and LPG •Sale of gas equipment and facilities, and gas piping installation

Capital	33,072 million yen
City gas supply areas	54 cities, 20 towns and 1 village in Aichi, Gifu and Mie Prefectures
Number of employees	2,858 (5,892 on a consolidated basis)
Partner Companies	•102 ENEDO (gas equipment sales and service) shops •171 gas works companies

Stock Information

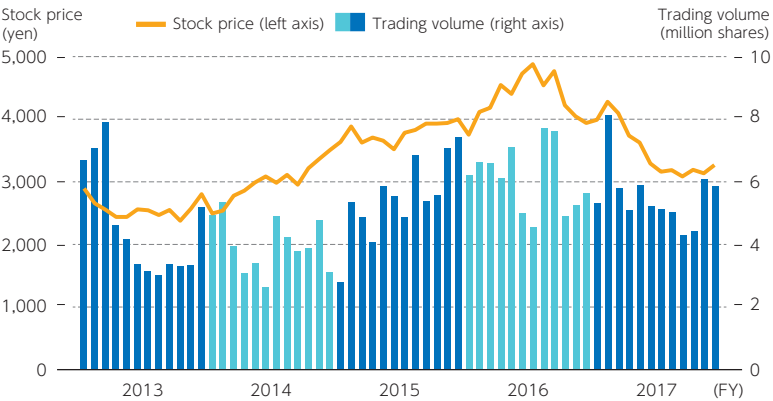
Securities code	9533
Fiscal Year	April 1 to March 31 of the following year
Annual Shareholders Meeting	June every year
Stock Exchange Listing	Tokyo Stock Exchange, Nagoya Stock Exchange
Administrator of Shareholders' Register and Special Account Management Institution	Mitsubishi UFJ Trust and Banking Corporation
Contact	Corporate Agency Division, Mitsubishi UFJ Trust and Banking Corporation, 1-1 Nikko-cho, Fuchu, Tokyo, Japan.
Number of Shares per Unit	100 shares
Number of Shares Authorized to be Issued	160,000 thousand shares
Number of Issued Shares	106,351 thousand shares (including 12 thousand shares)
Number of Shareholders	24,246

[ Major Shareholders ]

Name of Shareholder	Number of Shares Held (thousand)	Percentage of Share Ownership (%)
Nippon Life Insurance Co.	5,854	5.50
The Master Trust Bank of Japan, Ltd. (Trust a/c)	4,093	3.84
Japan Trustee Services Bank, Ltd. (Trust a/c)	3,599	3.38
Sumitomo Mitsui Banking Corp.	3,304	3.10
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	2,872	2.70
Toho Gas Group Employees Shareholding Association	2,625	2.46
The Dai-ichi Life Insurance Co., Ltd.	2,582	2.42
Japan Trustee Services Bank, Ltd. (Trust a/c 5)	1,892	1.77
Meiji Yasuda Life Insurance Co.	1,841	1.73
Toho Gas Kyoei Shareholding Association	1,611	1.51

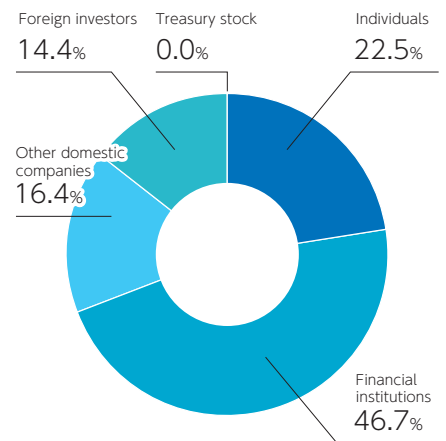
Note: Percentage of share ownership is calculated by the number of shares excluding treasury stock (12,002 shares).

[ Trends in Stock Price and Trading Volume ]



\*We consolidated common shares at a ratio of five shares to one share on October 1, 2017. Accordingly, the stock price and trading volume figures reflect the impact of the consolidation of shares.

[ Composition of Shareholders ]

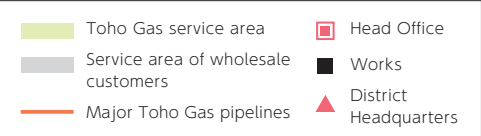


Overview of Major Pipeline Network and Natural Gas Service Area



[ Major Business Sites ]

Name	Location
Head Office	Atsuta-ku, Nagoya
Technical Research Institute	Tokai, Aichi
Nagoya District Headquarters	Chikusa-ku, Nagoya
Mikawa District Headquarters	Okazaki, Aichi
Gifu District Headquarters	Gifu, Gifu
Mie District Headquarters	Tsu, Mie
Chita LNG Terminal	Chita, Aichi
Chita-Midorihama Works	Chita, Aichi
Chita Calorific Value Adjustment Center	Chita, Aichi
Yokkaichi Works	Yokkaichi, Mie
Singapore Branch	80 Robinson Road #10-01A Singapore 068898

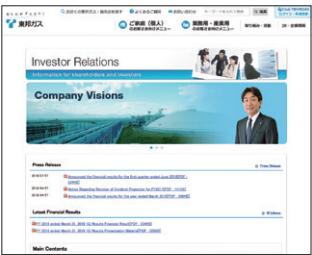


Major Affiliated Companies

Toho Liquefied Gas Co., Ltd.	Toho Gas Techno Co., Ltd.	Toho Gas Information System Co., Ltd.
Mizushima Gas Co., Ltd.	Toho Gas Engineering Co., Ltd.	Toho Service Co., Ltd.
Toho Gas Safety Life Co., Ltd.	Toho Gas Living Co., Ltd.	Toho Gas Australia Pty. Ltd.
Toho Gas Customer Service Co., Ltd.	Toho Real Estate Co., Ltd.	

Note: The number of consolidated subsidiaries, including the above major affiliated companies is 22.

Our Websites



Investor Relations  
<http://www.tohogas.co.jp/lang-n/en/corporate/>



Initiatives for Environment (Japanese only)  
<http://www.tohogas.co.jp/approach/eco/>

