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TOHO GAS GROUP

Integrated Report 2019

Integrated Report

2019



TOHO GAS CO.,LTD.

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

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



Corporate Philosophy

Corporate Mission

We, together with our group companies, are dedicated to the creation of a rich and exciting life and the development of attractive and vital communities. by setting our greatest value on the trust placed in us.

Management Policy

- Think and act on a customer-first basis.
- Develop markets through foresight and technology.
- Foster human resources by focusing on competence and ambition.
- Pursue a flexible and vitalized organization.
- Broaden our vision and expand our line of business.

Employee Action Criteria

- Challenge and Innovation
- Sensitivity and Response
- Proficiency and Pride
- Activeness and Brightness
- Reliability and Honesty

Editorial Policy

Toho Gas Group has published an Integrated Report since FY2018 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 as well as corporate social responsibility (CSR) 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 (2018 version)

Published

August 2019
(Next edition: scheduled for August 2020)

Reporting Period

FY2018
(April 1, 2018–March 31, 2019)
Some activities covered took place in FY2019.

Reporting Scope

In principle, Toho Gas Co., Ltd., consolidated subsidiaries and equity-method affiliated companies (as of March 31, 2019) 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

CSR / Environment Dept. TEL +81-52-872-8445
Finance Dept. TEL +81-52-872-9341

Descriptions of Future Expectations

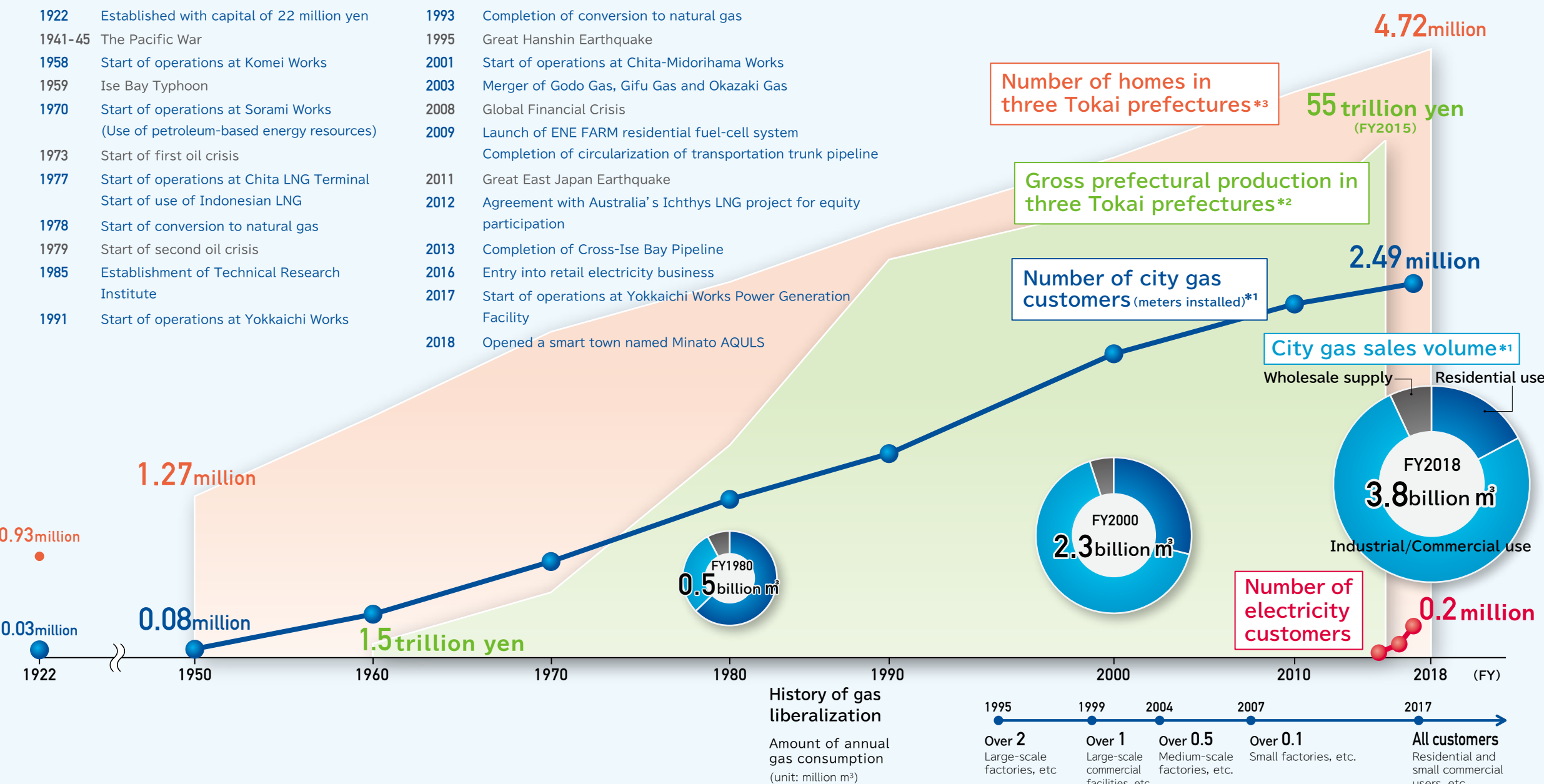
The statements in this report concerning future expectations are forecasts based on information currently available and may include potential risks and uncertainties. Be aware, therefore, that due to various factors, actual results may differ from forecasts contained in this report.

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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. Toho Gas Group has achieved the growth of the city gas business. In addition, the Group is working to expand the scope of business by taking initiatives such as entering into the retail electricity business in FY2016.



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.21 Efforts to Support Manufacturing in the Region
- P.27 Reinforcement and Development of Group 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.30 Technological Development for the Future
- P.33 Environment Report

Ties with Customers

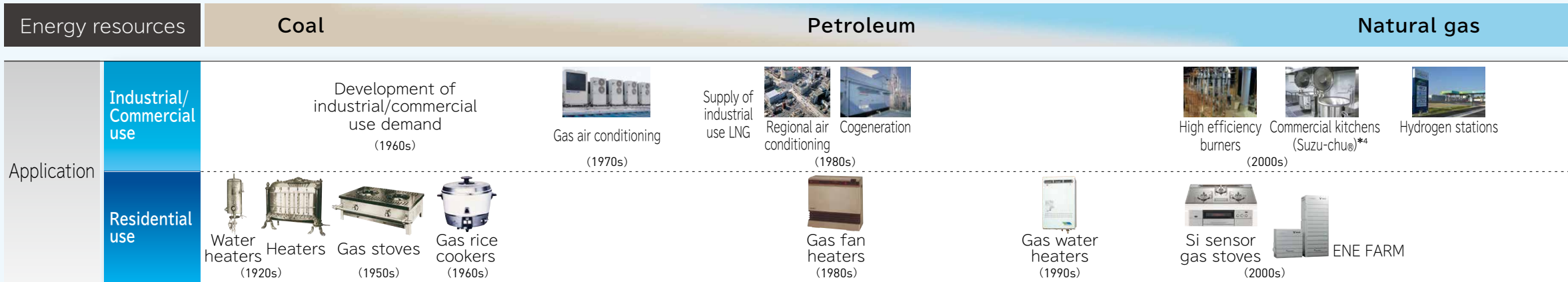
Our proximity to customers in various opportunities based on the relationships of trust that have been developed over almost 100 years

- P.19 Efforts to Support the Lives of People in the Region
- P.43 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 Community-Based Security and Service Systems
- P.24 Secure Stable Supply and Safety



*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.

Value Creation Process

| FY2019-FY2021 | Toho Gas Group Medium-Term Management Plan > P.13-14

Grow with Energy Go beyond Energy



INPUT (as of March 31, 2019)

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: **Yokkaichi Works**

City gas service area
54 cities, 20 towns and 1 village in three prefectures of the Tokai region

Human resources
Number of employees: **5,799**



Under the spirit of "Customer First," which has been cultivated since its foundation, the Toho Gas Group aims to support customers' lives and the manufacturing activities of companies operating in the region through energy supply, and to contribute to regional development and the creation of a low-carbon society.

OUTPUT (FY2018)

■ **City gas**
Sales volume: **3.84 billion m³**
Number of customers: **2.49 million**
*Number of gas meters installed

■ **LPG**
Sales volume: **451 thousand tons**
Number of customers: **500 thousand**
*Including subcontracted deliveries

■ **Electricity**
Sales volume: **0.58 billion kWh**
Number of customers: **200 thousand**

■ **Operating Cash Flow**: **32.6 billion yen**

■ **ROA**: **2.7%**

Safety > P.20-24

Local communities > P.43-44

Environment > P.33-42

OUTCOME

Value provided to stakeholders

Customers > P.19-28

! Safety and security
! Supporting lives and manufacturing

7 AFFORDABLE AND CLEAN ENERGY 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 11 SUSTAINABLE CITIES AND COMMUNITIES 13 CLIMATE ACTION

Local communities > P.33-44

! Contributing to the creation of a low-carbon society
! Social contribution activities

4 QUALITY EDUCATION 6 CLEAN WATER AND SANITATION 7 AFFORDABLE AND CLEAN ENERGY 8 DECENT WORK AND ECONOMIC GROWTH 11 SUSTAINABLE CITIES AND COMMUNITIES 12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION 15 LIFE ON LAND

Shareholders and investors > P.45-46

! Corporate value enhancement
! Stable return to shareholders

Partner companies > P.41-42

! Fair and unbiased transactions
! Collaboration with subcontractors

8 DECENT WORK AND ECONOMIC GROWTH 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Employees > P.47-50

! Respect human rights
! Pleasant working environment

5 GENDER EQUALITY 8 DECENT WORK AND ECONOMIC GROWTH

Sustainable Development Goals (SDGs)
The SDGs are 17 goals with 169 targets set to achieve a sustainable society.

> P.17



Expected Changes in the External Environment

Chances and risks associated with energy liberalization

Promotion of the further reduction of carbon emissions

Rapid advancement and social penetration of digital technology

Depopulation, aging and diversification of values

Message from the President

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

President
富成 義郎
Yoshiro Tominari

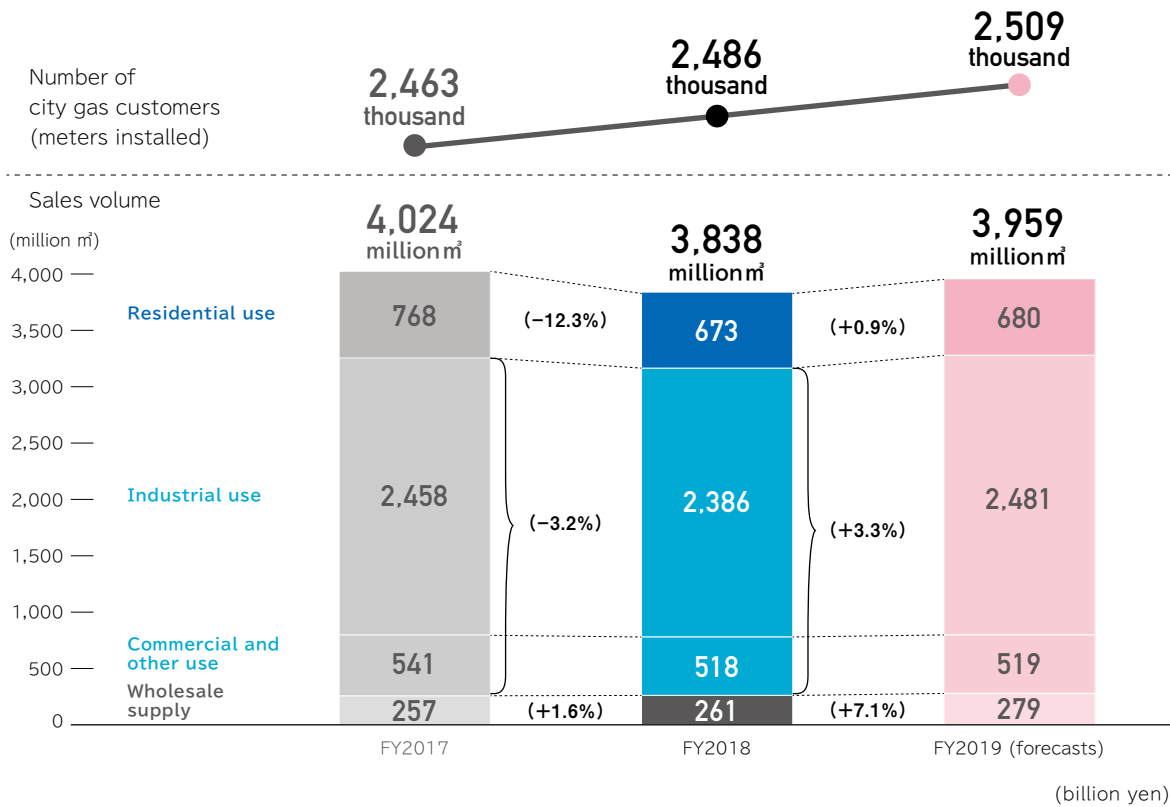
Assessment of FY2018 and Outlook for FY2019

In FY2018, sales volume for city gas decreased from the previous year's level due to factors such as high temperatures, customers' individual factors, and the impact of full liberalization of the gas market. We were able to secure profit in line with the revised plan announced in the financial results for the second quarter ended September 30, 2018, as we offset the negative impact of a decrease in sales volume and an increase in loss arising from the difference in period in which the fuel cost was posted by reducing fixed costs through improved efficiency and other means.

Regarding the previous Medium-Term Management Plan that ended in FY2018, sales volume fell below our targets in the management goals due to various environmental changes that occurred after the formulation of the plan.

However, we were able to generally achieve other management goals through the implementation of each action plan.

In FY2019, we will promote the development of new demand in the face of the increasingly challenging market competition, and plan to increase the gas sales volume by 121 million m³ year-on-year to 3,959 million m³. Regarding profit, we plan to secure a year-on-year increase in ordinary income to 24.0 billion yen assuming the crude oil price to be \$70/bbl. and the exchange rate of ¥110/dollar (forecasts as of the end of the 1st Quarter of FY2019). We will work to secure ordinary income in the mid-20.0 billion yen range for the first year of the new Medium-Term Management Plan and steadily implement measures towards achieving sustainable growth.



* Forecasts for FY2019 are based on the Consolidated Financial Results for the 1st Quarter of FY2019.

Business Environment Perceptions and Future Growth Strategy

The electricity market and the city gas market were fully liberalized starting from April 2016 and April 2017, respectively, and we will firmly respond to such changes in the market environment. We consider it to be important to undertake initiatives by getting back to the whole objective of market liberalization that it is “for the benefit of customers.” Based on the ensured safety and security and stable supply, we will pursue enhancing comprehensive strengths in price and service in order to keep being selected by customers as an increasingly intense competitive environment crosses the boundaries of areas and industries.

In the medium to long term, we expect to see moves towards decarbonization. There is no doubt that the highly efficient use of natural gas we are pursuing is an effective and practical measure to reduce carbon emissions. Looking further ahead, however, we need to take new measures, such as seeking a balance between natural gas and renewable energy. In addition, a rapid development of digital technologies will change the ways of living of people and manufacturing and may have a significant impact on their energy

use. Although the region where Toho Gas operates has a concentration of manufacturing, and thus has been experiencing an influx of people, it is expected to see a decrease in both population and the number of households in the future as demographic changes result from the declining birthrate and aging society.

In the meantime, such environmental changes inevitably produce new business opportunities. We are aware that we have many things that need to be done, such as enhancing services that meet customers’ needs in their daily lives, enhancing the renovation business to improve living environments, and reducing CO₂ emissions through proposing optimal energy use. We will adequately respond to the diverse needs of customers by combining our community-based service system with digital technologies.

With this vision in mind, Toho Gas announced a new Medium-Term Management Plan (FY2019–2021) that sets out our growth strategy for the next three years in November 2018, with the aim to firmly establish a foothold towards achieving sustainable growth.

First, we will continue to focus on efforts to increase the sales volume of the city gas business as our top-priority initiative. To this end, we will work to enhance the comprehensive strengths of the gas business, as mentioned earlier, and properly promote our strengths to customers. We will also expand our city gas service area and steadily develop potential demand.

Next, we will aim to enhance our role and presence as a “Total Energy Provider” in the region that provides a one-stop service for offering optimal proposals for the three energies—city gas, LPG and electricity—and providing added value through new energy-related services. Through these initiatives, we will endeavor to increase our chances of increasing our share in the market consisting of city gas, LPG and electricity.

Regarding cash flows generated stably mainly from the energy business, we will invest them in initiatives to reinforce and develop Group businesses as well as the development of new businesses, while considering the balance with return to shareholders, in order to expand our scope of business and revenue-earning basis. By

taking these initiatives, we will aim to boost our profit-earning capability from the current level of mid-20.0 billion yen range by approx. 10% over the next three years.

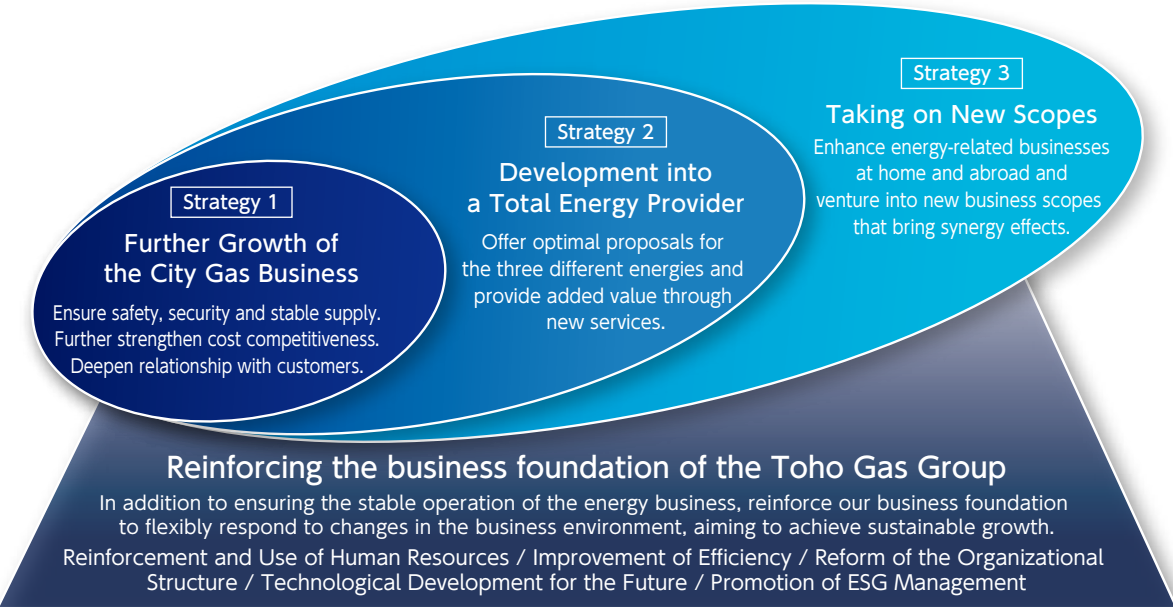
We also need to strengthen our business foundation that underpins these initiatives. To that end, we will cultivate human resources who can flexibly adapt to changes and contribute to the growth of the Group. On the organizational front, we will make preparations for the legal separation of gas pipeline divisions in FY2022 and review the organization with the aim of achieving our key strategies and strengthening the Group’s competitiveness. In addition, we will work to reduce fixed costs from the current level of the mid-110 billion yen range to around 110 billion yen to begin with.

In brief, we will expand our business scope with an eye to the future, while working to steadily grow the energy business focusing on the city gas business with the aim of enhancing values delivered to customers in the region and shareholders. Our strategy is to steadily and solidly implement these initiatives, which we believe are the best way to achieve sustainable growth.



Overview of the Medium-Term Management Plan

Grow with Energy—Go beyond Energy



Approach to Cash Flow Allocation

Our approach to cash flow allocation is to emphasize making a balanced investment into various issues, such as sustainable growth, return to shareholders, improving asset efficiency, and maintaining a sound financial foundation.

In the newly formulated Medium-Term Management Plan, we have set a management goal of creating a total of 160 billion yen or more in cash flow over three years. We will make investments into the city gas business, our core business, with the aim of reinforcing the business foundation and achieving further growth and accelerating investment into growth businesses to expand our business scope.

Specifically, our domestic investments will be focused on business areas and fields in which we can make the most of our strengths in resources and expertise that we have cultivated through our business operations thus far and in which we can expect synergy effects with the core business.

Regarding overseas businesses, we will invest in projects that are limited risk and deliver stable, albeit modest, returns, with the aim of reinforcing the stability of profit. Rather than setting amounts for investment and making investments themselves objectives, we will work to make investments in carefully selected feasible and quality projects.

Our fundamental approach to returns to shareholders is to provide stable dividends and flexibly implement the purchase and retirement of treasury stock. Returns to shareholders are implemented not as an appropriation of profit for a single fiscal year, but from the medium- to long-term perspective. Taking an average of the results for approximately the past 10 years, we have paid out around 40–50% of net income in dividends and purchase and retirement of treasury stock combined. Going forward, we will maintain a similar stance on returns to shareholders.

■Creation of cash flow

· Create operating cash flow by implementing three key strategies stated in the Medium-Term Management Plan.

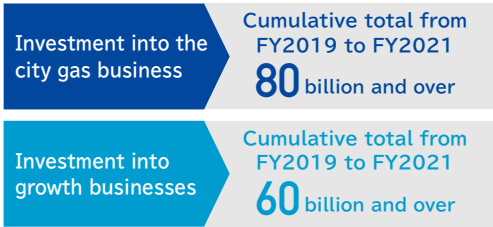
Cumulative total from FY2019 to FY2021
160 billion and over

■Maintenance and improvement of ROA

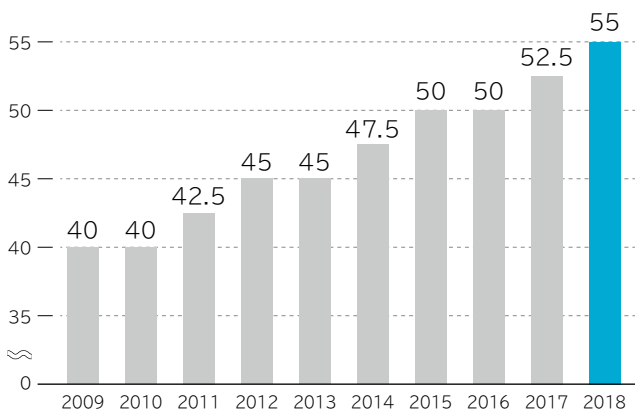
Average from FY2019 to FY2021
3% and over

■Cash flow allocation

- Accelerate investment into growth businesses as well as the city gas business based on the assumption of maintaining a sound financial foundation.
- Ensure stable dividends and implement share buy-backs depending on the situation.



Annual dividend per share* (yen)



*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

Preparedness for Natural Disasters and Reinforcement of Resilience

Our supply area faces the risk of the possible occurrence of a Nankai Trough Mega Earthquake. With the awareness that ensuring the stable supply and safety and security is the overriding mission of an energy company, we have implemented various anti-earthquake measures. These have comprised both measures at normal times, such as measures for facilities to minimize damage, and disaster response aimed to take appropriate responses and facilitate early recovery in the event of an actual disaster.

To minimize damage to facilities, we are promoting the implementation of anti-earthquake and anti-flooding measures for gas production and supply facilities, as well as the installation of emergency shutoff systems to prevent the spread of secondary damage and reduce gas supply suspension areas. As disaster response, we systematically carry out disaster drills and established a system for emergency liaison with local governments, etc. We dispatched relief support teams to the Great Hanshin Earthquake (in 1995) and the Great East Japan Earthquake (in 2011) and other large-scale disasters, and helped with disaster recovery efforts. As an infrastructure developer, such experiences obtained from assisting with disaster-recovery efforts have also added to our strengths.

In FY2018, natural disasters, such as earthquakes and torrential downpours occurred successively in various parts of Japan. Of these, the Hokkaido Eastern Iburi Earthquake that occurred in September caused blackouts across Hokkaido resulting from a major suspension of electric power supply. With a growing renewed awareness of the importance of stable energy supply driven by this disaster, distributed power systems are being more highly evaluated.

A smart energy supply system is being established at Minato AQUUS, a smart town under development by Toho Gas. This system, which focuses on gas cogeneration, combines renewable energy and large storage batteries (NAS) to enable a continued supply of energy even in times of disaster.

Matsusaka Shin-denryoku, established jointly with Matsusaka City and other organizations, undertakes initiatives to realize locally produced energy for local consumption in Matsusaka City. We will continue to work on the development of distributed generation systems that realize both reduced CO₂ emissions for society during normal times and reinforced power supply in times of disaster, thereby contributing to strengthening the resilience of local communities.

Initiatives for ESG

Toho Gas operates its business with more than 30,000 km of gas pipelines that it owns in the three Tokai prefectures. For a company deeply rooted in the region, growth of the region means growth of the company. None of our business activities would be possible without bonds of trust with customers and local communities.

From that perspective, our initiatives for ESG are the essence of our business activities. In fact, we have endeavored to realize a society in harmony with the environment (E) and a contribution to local communities (S) based on ensuring the transparency and fairness of corporate management, appropriateness of operation of the internal control system, and the thorough enforcement of corporate governance (G).

In 2022, Toho Gas will celebrate the 100th anniversary of its foundation. Our long-history is founded on customers' high evaluations of our

initiatives thus far to support customers' lives and the manufacturing activities of companies operating in the region through energy supply while also contributing to regional development and the creation of a low-carbon society. We believe our constant efforts in these initiatives will lead to the achievement of the targets set out in the SDGs adopted by the United Nations.

We have recently seen moves to require companies to integrate climate change considerations into management from an ultra-long-term perspective. We will sincerely address such issues as an energy company, and continue to carry out management to fulfill the trust of customers, local communities, and our stakeholders including shareholders, investors and employees.

We truly appreciate your continued support and understanding.

Toho Gas Group Medium-Term Management Plan

Grow with Energy—Go beyond Energy

In November 2018, the Toho Gas Group formulated a new Medium-term Management Plan (FY2019-FY2021). By implementing our three key strategies while reinforcing our business foundation, we will further strengthen our position as an energy company that is trusted by customers and has strong roots in local communities. We will also further expand our business scope to achieve sustainable growth.

Strategy 1 Further Growth of the City Gas Business

Ensure safety, security and stable supply. Further strengthen cost competitiveness. Deepen relationship with customers.

1 Efforts to Support the Lives of People in the Region

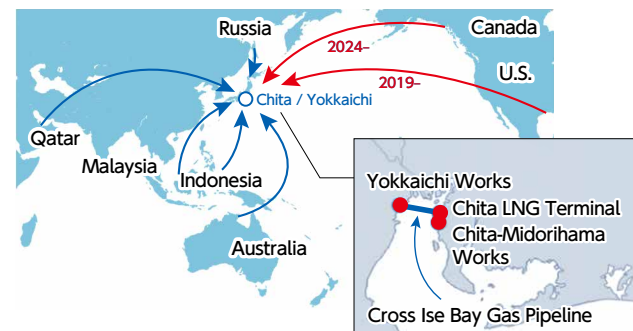
- Propose comfortable and ecological life
- Provide a wide range of life support services
- Region's best security and service system

2 Efforts to Support Manufacturing in the Region

- Expand use of city gas (New demand development from FY2019 to FY2021: 250 million m³)
- Provide optimal energy solution services

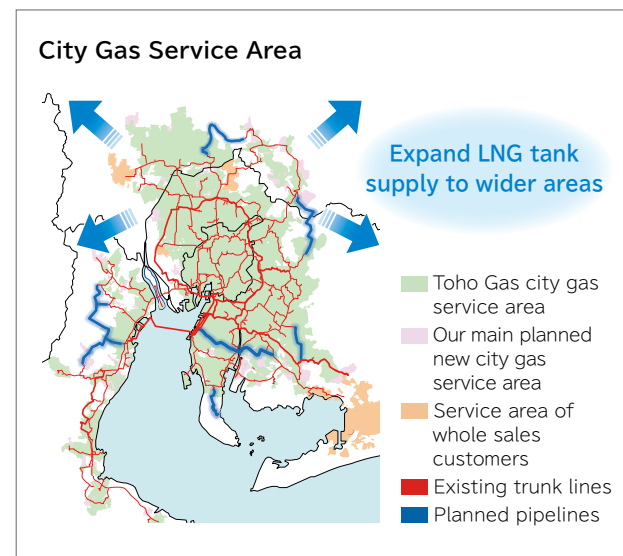
3 Stable Energy Procurement at a Reasonable Price

- Diversification of LNG procurement (Procurement areas, Price indexes, Contract types)
- Flexible operation of LNG receiving bases



4 Expansion of Natural Gas Service Areas

- Expansion of city gas service areas
- Expand LNG tank supply to wider areas



5 Secure Stable Supply and Safety

- Advance security measures
- Advance disaster control measures

Reinforcing the Business Foundation of the Toho Gas Group

In addition to ensuring the stable operation of the energy business, reinforce our business foundation to flexibly respond to changes in the business environment, aiming to achieve sustainable growth.

- Reinforcement and Use of Human Resources** (Development of human resources who will support the growth of Toho Gas Group, promotion of diversity, and realization of a flexible workstyle)
- Improvement of Efficiency** (Curbing and streamlining of fixed costs through the enhancement of productivity, etc. by developing new technologies and actively using digital technology)
- Reform of the Organizational Structure** (Transforming into an optimal organizational structure from the perspective of responding to changes in the business environment, establishing a slim and robust structure, and enhancing profitability)
- Technological Development for the Future** (Promotion of technology development for new markets and regions, in addition to technology for gas appliances)
- Promotion of ESG Management** (Realization of an environmentally harmonious society, contribution to society, reinforcement of corporate governance)

Strategy 2 Development into a Total Energy Provider

Offer optimal proposals for the three different energies and provide added value through new services.

1 Development into a Total Energy Provider

- Development into a Total Energy Provider that provides a one-stop service for offering optimal proposals for the three energies—city gas, LPG and electricity—and providing added value through new energy-related services

2 Strengthening of the LPG Business

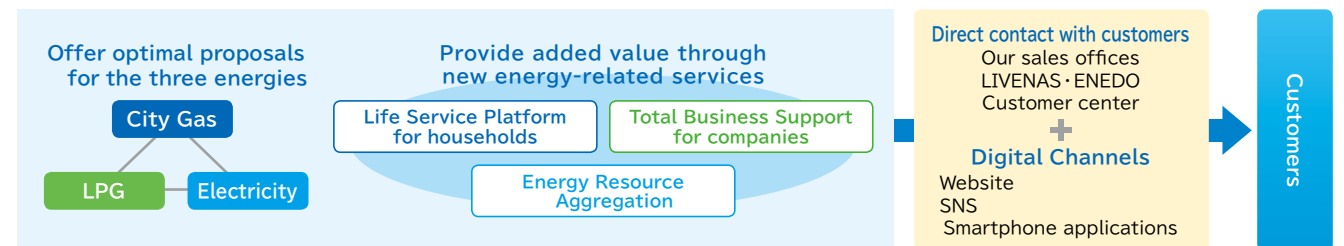
- Business deployment to wider areas
- Reinforce and expand our business foundation

3 Expansion of the Electricity Business

- Expansion of the electricity sales (Target number of electricity customers at the end of FY2021: 300 thousand customers)
- Stable and flexible electricity procurement at reasonable prices
- Increase the introduction of distributed energy resources (renewable energy, gas cogeneration)

4 Provision of Added Value through New Services

- Providing added value as well as energy supply



Strategy 3 Taking on New Scopes

Enhance energy-related businesses at home and abroad and venture into new business scopes that bring synergy effects.

1 Reinforcement and Development of Group Businesses

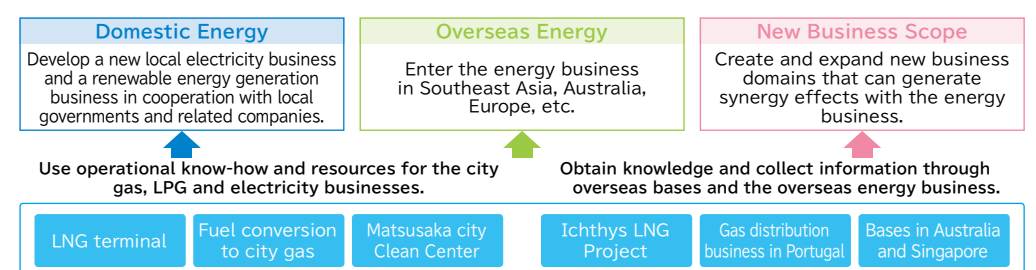
- Strengthen comprehensive utility services
- Strengthen renovation business
- Promote the expansion of outside sales of production and supply technologies
- Use of our owned properties

〈Development of "Minato AQUUS"〉
Continue to promote consideration for the redevelopment of the western part of the site (second phase of development)



2 Development of New Businesses

- Promote the development of new businesses, using our owned resources and know-how



Management Goals

		FY2018	FY2021
Natural Gas	Number of customers ^{*1}	2.49 million	2.55 million
	Sales volume ^{*2}	3.84 billion m ³	4.10 billion m ³
LPG	Number of customers ^{*3}	500 thousand	510 thousand
	Sales volume	451 thousand tons	490 thousand tons
Electricity	Number of customers	200 thousand	300 thousand
	Sales volume	0.58 billion kWh	1.00 billion kWh

^{*1} Number of meters installed ^{*2} Including LNG sales volume
^{*3} Including the number of customers based on commissioned business for delivery

[Cumulative total from FY2019 to FY2021]

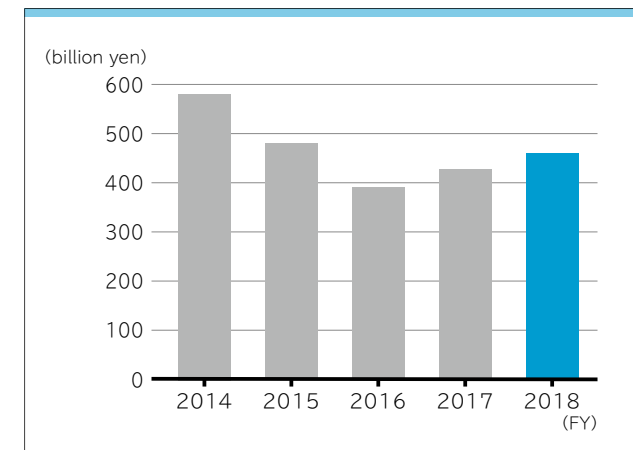
- Creation of cash flow 160 billion and over
- Cash flow allocation
 - Investment into the city gas business 80 billion and over
 - Investment into growth businesses 60 billion and over
- Ensure stable dividends and implement share buy-backs depending on the situation.

[Average from FY2019 to FY2021]

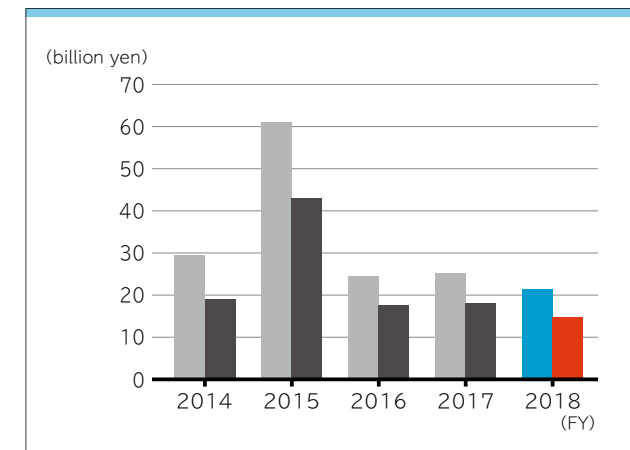
- ROA 3% and over

Fundamental Data

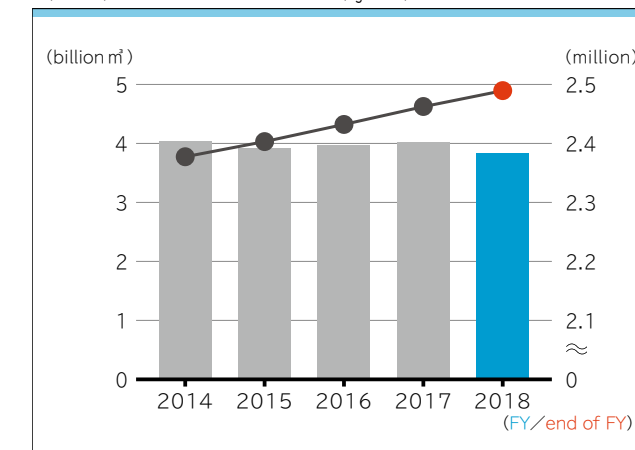
■ Sales **461.1 billion yen**



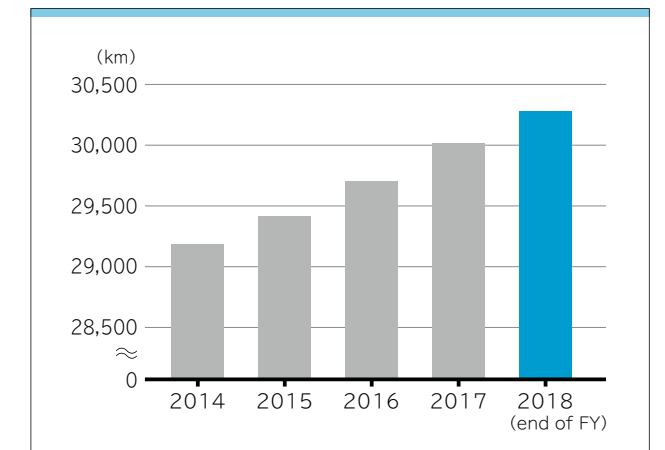
■ Ordinary income **21.4 billion yen** / ■ Net income **14.8 billion yen**



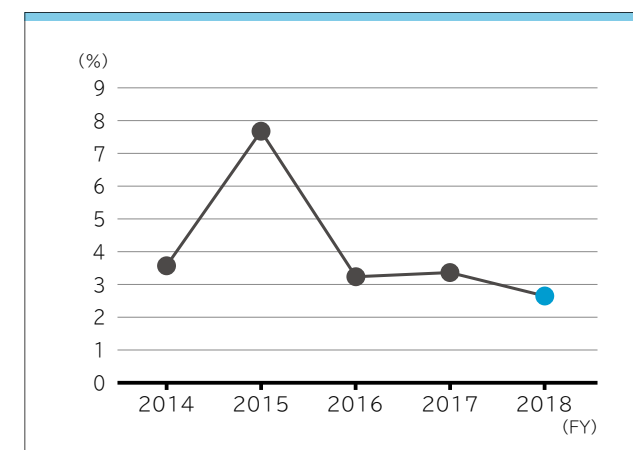
■ City gas sales volume **384 billion m³** / ■ Number of city gas customers (Number of city gas meters installed) **2.49 million**



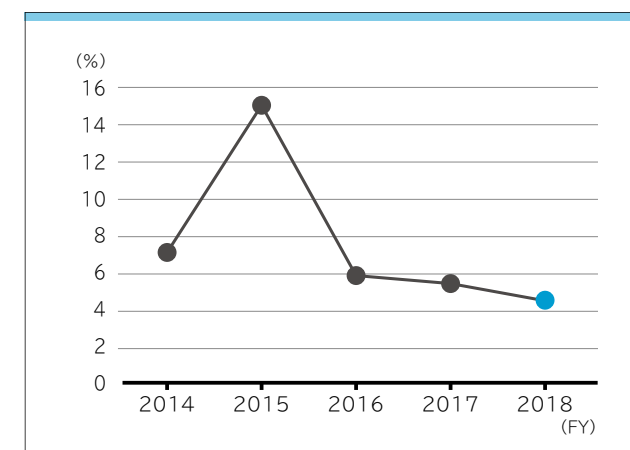
■ Total pipeline length **30,274 km**



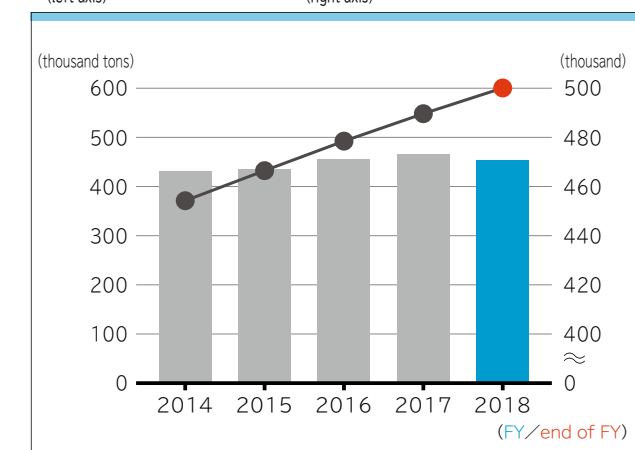
■ ROA (Return on asset) **2.7%**



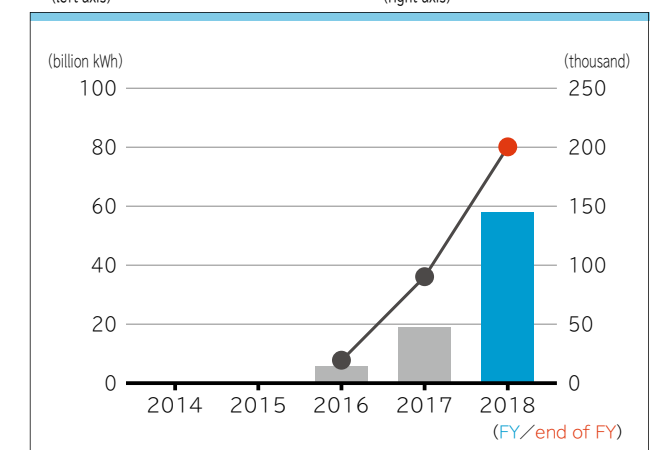
■ ROE (Return on equity) **4.5%**



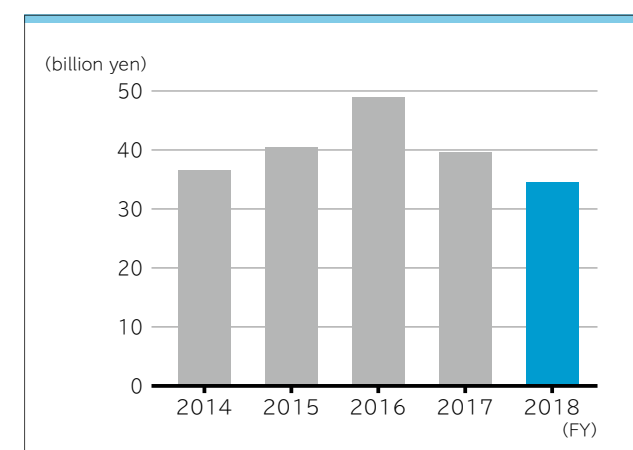
■ LPG sales volume **451 thousand tons** / ■ Number of LPG customers (Including subcontracted deliveries) **500 thousand**



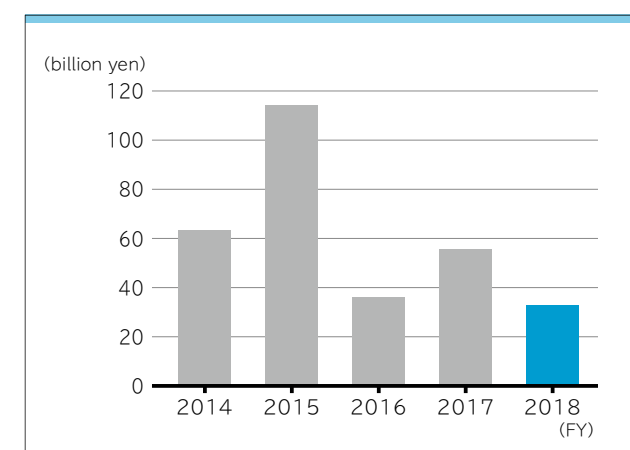
■ Electricity sales volume **0.58 billion kWh** / ■ Number of electricity customers **200 thousand**



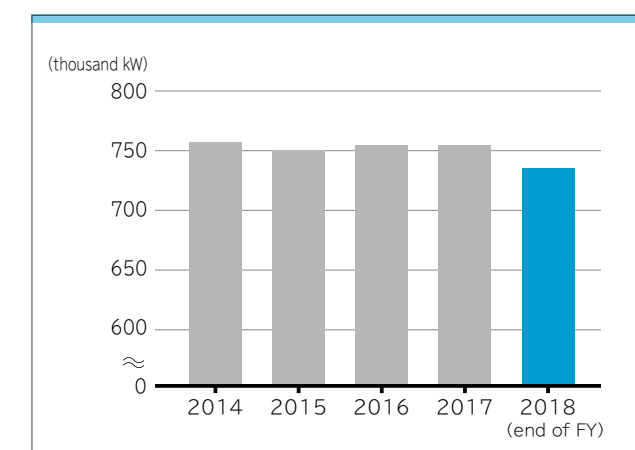
■ Capital expenditure **34.6 billion yen**



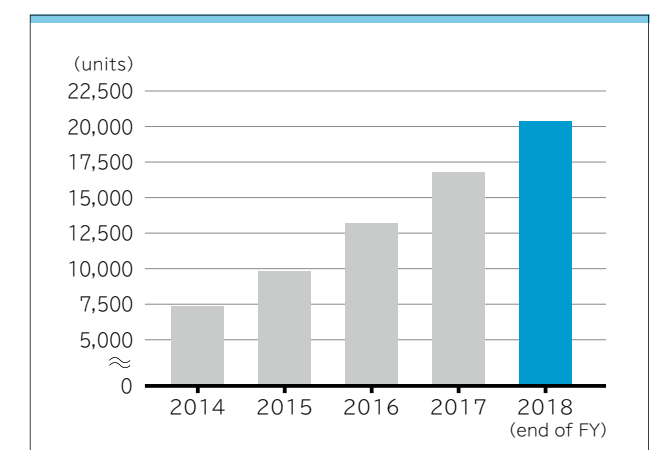
■ Operating cash flow **32.6 billion yen**



■ Amount of gas cogeneration system installed (non-consolidated) **735 thousand kW**



■ ENE FARM cumulative unit sales (non-consolidated) **20,334 units**



Toho Gas Group Initiatives



Contributing to Sustainable Development Goals (SDGs)

The 2030 Agenda for Sustainable Development was adopted at the UN Sustainable Development Summit held in September 2015.

The 2030 Agenda sets out Sustainable Development Goals (SDGs) consisting of 17 goals and 169 targets as an action plan for humanity, the planet, and prosperity. The Toho Gas Group has been undertaking initiatives to resolve social issues through its business activities, and will continue to contribute to the achievement of SDGs.



Fundamental Stance

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

Primary Measures

1 Further Growth of the City Gas Business

Efforts to Support the Lives of People in the Region	P.19
Efforts to Support Manufacturing in the Region	P.21
Stable Energy Procurement at a Reasonable Price	P.22
Expansion of Natural Gas Service Areas	P.23
Secure Stable Supply and Safety	P.24

2 Development into a Total Energy Provider

Provision of Added Value Through New Services	P.25
Strengthening of the LPG Business	P.25
Expansion of the Electricity Business	P.26

3 Taking on New Scopes

Reinforcement and Development of Group Businesses	P.27
Development of New Businesses	P.27

Reinforcing the Business Foundation of the Toho Gas Group

Reinforcement and Use of Human Resources	P.29
Improvement of Efficiency	P.29
Reform of the Organizational Structure	P.29
Technological Development for the Future	P.30

Further Growth of the City Gas Business

We aim to further strengthen cost competitiveness and deepen relationships with our customers, while solidifying the basis of our gas business, which consists of ensuring safety, security and stable supply, in order to continue to achieve growth in the city gas business.

Efforts to Support the Lives of People in the Region

As a partner for customers in the overall living-related services, we make proposals for comfortable and environment friendly living and provide a wide range of services suited to customers' lifestyles while also strengthening the region's best security and service system, which is one of our strengths.

Propose comfortable and ecological life

We are promoting initiatives such as sales expansion of ENE FARM residential fuel cell system with the aim of popularizing the use of smart houses and zero energy houses (ZEHs).

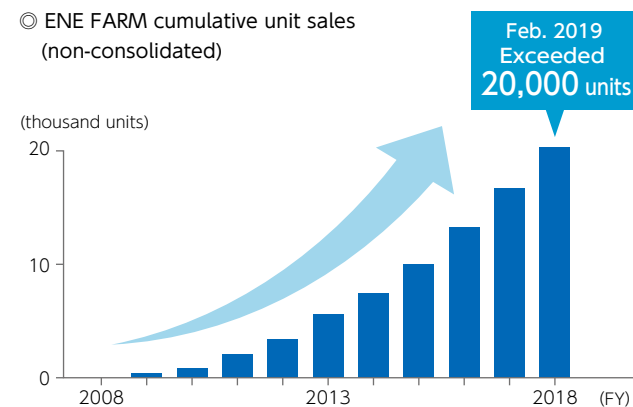
ENE FARM is a residential gas cogeneration system that generates electricity for household use through a chemical reaction between hydrogen extracted from city gas and other fuels and oxygen in the air. The heat generated as a byproduct of this process is also effectively used for hot water supply.

ENE FARM was launched in 2009, and has since been adopted

by many housing manufacturers and household customers for detached houses, housing complexes, newly-built houses and renovated houses alike. Cumulative unit sales for ENE FARM exceeded 20,000 units at the end of February 2019.

Some ENE FARM models are able to continue generating power during power outages. A new model launched in April 2019 can supply electric power of up to 500W even during power outages and total energy efficiency has been improved to 97%.

© ENE FARM cumulative unit sales (non-consolidated)



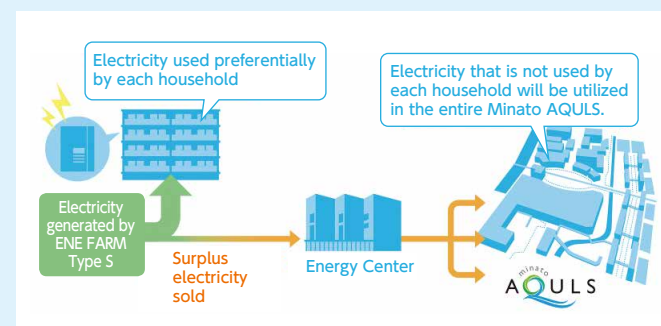
ENE FARM residential fuel-cell system

TOPICS

Effective utilization of household generated electricity by the entire community

In Park Homes LaLa Nagoya Minato AQUUS (Mitsui Fudosan Residential Co., Ltd.), which is under construction in Minato AQUUS P28, all the 265 housing units will have the ENE FARM type S high power generation efficiency model installed.

Electricity generated by ENE FARM installed in each housing unit is used preferentially by each household, and surplus electricity purchased by Toho Gas will be used effectively by the entire community.



Provide a wide range of life support services

We have enhanced our living-related service menu, such as "RakuRaku Kurashi Support," "RakuRaku Maintenance," and "RakuRaku Lease."

We are also expanding our living-related businesses, such as the renovation business, through concerted efforts among Toho Gas, its group companies, and ENEDO service shops.

In March 2019, we expanded our special discount services for "RakuRaku Kurashi Support" members.

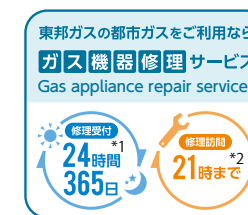
We will continue to provide a wide range of services tailored to the various lifestyles of customers.

らくらくサポ-ト RakuRaku Kurashi Support	Monthly charge of 300 yen (tax inclusive)* for the following services 1. "Kinkyu-Kaketsuke Service" (emergency out-call service) 2. Gas stove cleaning and water heater inspection 3. Premium discount services
らくらくメンテ RakuRaku Maintenance	Water heater and built-in stove maintenance • 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)
らくらくリース RakuRaku Lease	A lease system for a reasonable use of various gas equipment • 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
saGAS!	"RakuRaku Lease" application website • Easy online application to lease gas equipment

*As of August 2019

Community-based security and service systems

In addition to security service systems supported by approximately 3,000 staff members at 180 locations and 24-hour/365-day repair services, we launched the Living Safety Inspection service that checks gas equipment and plumbing fixtures at home free of charge in October 2018 to offer high quality services including a service to fix problems with appliances. Toho Gas will continue to support customers' safe and comfortable living.



*1 Acceptance of repair requests only (on-site repair service is not included)

*2 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 (in Japanese).

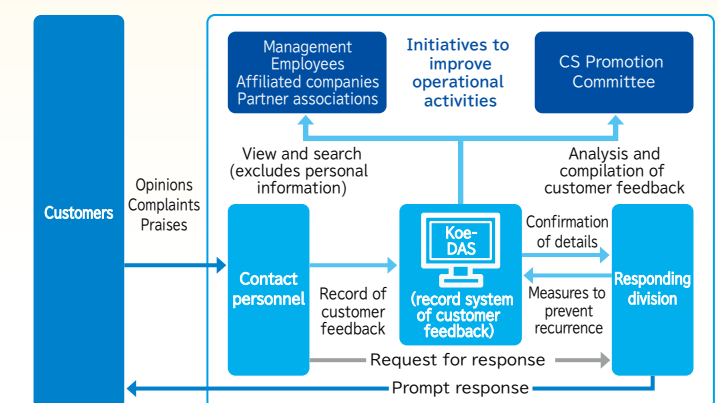
Improvement in CS* *Customer Satisfaction

Based upon our management 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 FY2018, we received 10,713 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	2014	2015	2016	2017	2018
Gas subscription	36.9	37.2	37.6	38.1	38.0
Repair	39.3	39.8	40.0	40.1	40.1
Regular safety inspections	36.4	36.6	37.0	37.1	37.3

Efforts to Support Manufacturing in the Region

In addition to promoting fuel conversion aimed at further popularizing the use of city gas and area use of energy, we will work to enhance customer services, such as the provision of optimal energy solution services for customers in order to continue to support manufacturing and other businesses in the region.

Expand use of city gas

In the industrial use field, we will promote the proposal for distributed energy systems, such as high efficiency cogeneration systems, and fuel conversion by utilizing our proprietary combustion technology, etc. In the commercial use field, we will facilitate the introduction of distributed energy systems and gas air conditioning systems in school buildings and medical and welfare facilities, as well as the use of city gas in the field of cookery in order to pursue energy conservation, CO₂ reduction, and cost saving through the use of city gas. We will also promote efforts for effective use of energy in the entire region, utilizing urban redevelopment projects as opportunities.



Provide optimal energy solution services

We make proposals for solutions designed to achieve the optimal operation of facilities utilizing remote monitoring systems and preventive maintenance using data analytics.

We also provide security and inspection services and the leasing of facilities with maintenance as well as creating new

services related to electric power systems, water treatment systems and other systems.

In addition, we are making proposals for energy-efficient gas cogeneration systems and gas air-conditioning systems that will contribute to the BCP of customers.

TOPICS

● “Pro Chubu OISIS” experience-oriented commercial kitchen showroom

In September 2018, we established 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.



プロ厨房 オイシス
OISIS

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

Gas cogeneration and gas air-conditioning systems contribute to electric peak shaving and load leveling. Some models are able to continue supplying power even in the event of a power outage, thereby helping the BCP of customers.

[Gas cogeneration]

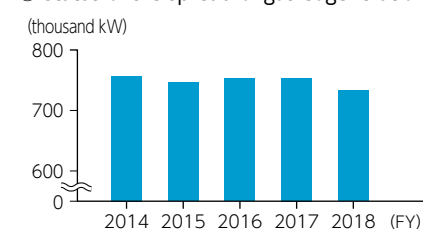
Gas cogeneration is a distributed generation system that generates electricity in the location where electricity will be used. Because there is no transmission loss and waste heat can be used effectively, the total energy efficiency is as high as 70 to 90%. This has a significant impact on power and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

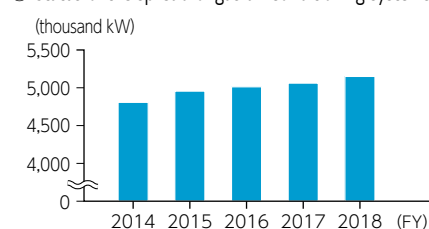


Gas cogeneration system with a BOS* function

◎ Status of the spread of gas cogeneration



◎ Status of the spread of gas air-conditioning systems



*Blackout start: A function to start up engine and supply electricity without using an external power supply source

Stable Energy Procurement at a Reasonable Price

We will further diversify procurement areas, price indexes, and contract types to ensure stable LNG procurement at reasonable prices, and work to improve flexibility in procurement systems, including LNG receiving facilities.

Diversification of LNG procurement

[Procurement areas]

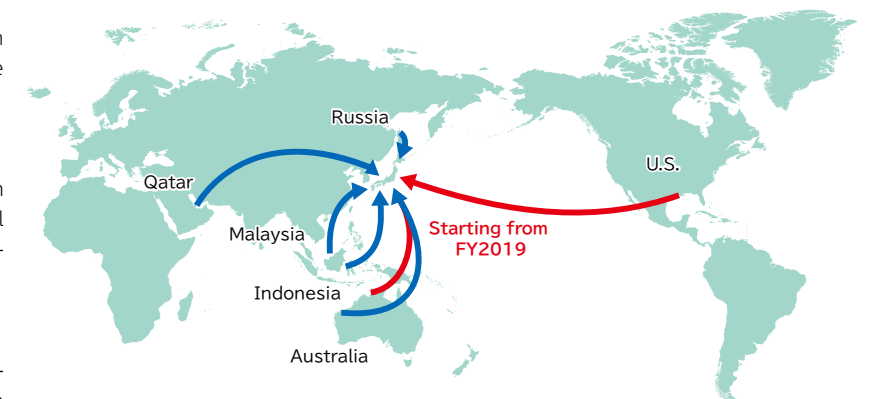
We will start procurement of LNG through the Ichthys LNG Project in Australia and the Cameron LNG Project in the US from FY2019.

[Price indexes]

We will establish a procurement system in which price indexes for crude oil and for natural gas in Western countries are combined in a well-balanced manner.

[Contract types]

We will work to effectively use spot and short-term procurement and improve flexibility in trading volume.



LNG procurement areas: Five countries ⇒ Six countries

TOPICS

● Ichthys LNG project in Australia starts LNG shipment

The Ichthys LNG project, in which Toho Gas has acquired part of interests through Toho Gas Australia Pty Ltd., its wholly-owned subsidiary, started shipment of LNG in October 2018.

This project, carried out mainly by Japanese companies including Toho Gas, works to liquefy and ship natural gas and other fuels produced from gas fields in western Australia. It is a large project that is expected to remain operational over a period of 40 years.



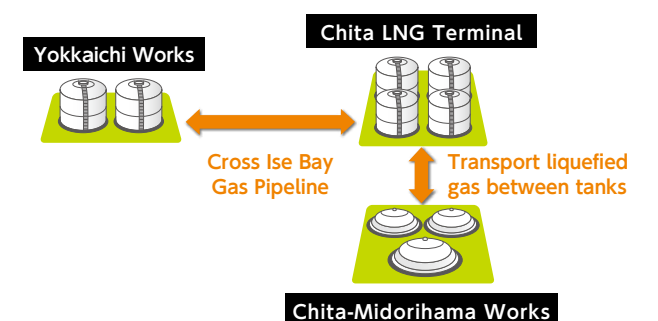
● Newly-built carrier to transport LNG produced at the Cameron Project in the U.S.

Diamond Gas Sakura, created to transport LNG, etc. to Toho Gas and Tohoku Electric Power Co., Inc., is owned jointly by Toho LNG Shipping Co., Ltd., our wholly-owned subsidiary, Mitsubishi Corporation, Nippon Yusen Kabushiki Kaisha, and Tohoku Electric Power Co., Inc.



Flexible operation of LNG receiving bases

We will utilize infrastructure that we have developed, including Cross-Ise Bay Pipeline, and operate tanks at three LNG terminals in an integrated manner, in order to provide stable and efficient LNG receiving service.



Expansion of Natural Gas Service Areas

We will expand city gas service areas by reinforcing our city gas transportation network and extending gas pipelines, ensuring the neutrality and transparency of the gas pipeline network business. In addition, we will expand LNG supply using tank trucks to wider areas to further spread and expand the use of natural gas.

Expansion of city gas service areas

Toho Gas has built approximately 30,000 km of pipeline.

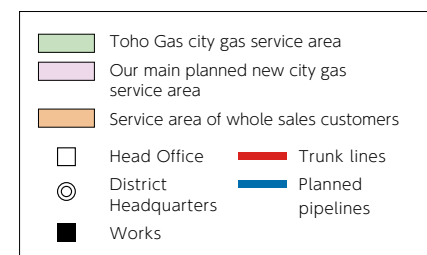
The Group is expanding the gas service area with the increase in gas demand; improving and expanding the gas pipeline network from a mid- to long-term perspective in order to ensure a stable supply of city gas.

Following the completion of Mie trunk line (from Kawage to Tsu) in FY2018, the Nanbu trunk line project (from Chita to Anjo) is underway to boost trunk lines.

The trunk line expansion works in the Tono and Chuno regions of Gifu Prefecture (the Toki-Kani and Toki-Tajimi lines), which we started to undertake in FY2015, have been completed. Toho Gas will proceed with construction of planned pipelines, 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 areas surrounding the extended trunk lines.



Construction of Mie trunk line



Expand LNG tank supply to wider areas

We are cultivating demand in the three Tokai prefectures and surrounding areas by expanding LNG supply using tank trucks.



LNG tank trucks

Secure Stable Supply and Safety

To ensure the stable supply of gas, safety and security, which is the mission of an energy company, we will steadily advance security measures for production and supply facilities and disaster control measures.

Advance security measures

We are working to further reduce risk, repairing very aging facilities and preventing gas pipe damage caused by other construction work, and strengthen emergency security systems.

[Measures against aging]

We are advancing the replacement and repair of plant pipework, electrical equipment, control equipment, etc. and replacement of aging pipes, including white gas pipes.



Replacement of a very aging production facility

[Strengthening the security system]

We are working to establish a robust emergency security system in association with the expansion of gas supply areas and strengthen measures to suppress damage to gas pipes caused by other construction work.



Emergency security center

Advance disaster control measures

We take measures to protect facilities from earthquakes, windstorms and floods, to prevent secondary disasters, and to recover quickly from disasters, in terms of hard and soft infrastructure.

[Measures to protect facilities from disasters]

We have completed measures to protect our core facilities involved in production and gas supply from earthquakes and tsunamis. We will continue to take further measures against earthquakes, including increasing the ratio of earthquake-proof pipes and strengthening shore protection for gas receiving bases, and implement measures to protect facilities from windstorms and floods.



PE pipe installation

[Measures to prevent secondary disasters]

We will balance the continuance of medium-pressure gas supply through the introduction of a low-pressure gas shutoff system while minimizing the number of gas outages.

We will improve the remote gas shutoff system in medium-pressure A pipeline in areas expected to be affected by tsunamis and inundation.



Low-pressure gas shutoff system installation work

[Measures to recover quickly from disasters]

We are conducting disaster drills based on a scenario in which a huge Nankai Trough earthquake occurs.

We are reinforcing cooperation with local governments, the Self-Defense Forces, and other gas companies. In addition, we will review BCPs against windstorms and floods.



The Group's comprehensive disaster drills



Joint disaster drills with the Self-Defense Forces

TOPICS

Conclusion of disaster mutual assistance agreement with Central Nippon Expressway

With the aim of conducting prompt recovery activities in disaster-stricken areas in time of disaster, Toho Gas concluded a disaster mutual assistance agreement with Central Nippon Expressway Co., Ltd. in April 2019, which is the first conclusion of disaster mutual assistance agreement between an expressway operator and a city gas utility in Japan.

Based on this agreement, we will collaborate smoothly during disasters and also conduct drills assuming a disaster scenario to encourage prompt recovery after damage caused to roads and city gas supply during disasters in order to contribute to local communities.



TOPICS

Awarded a DBJ BCM rating

Toho Gas received DBJ BCM Rated Loan from Development Bank of Japan in March 2018, and we were evaluated as a company with "outstanding initiatives in business continuity management."

Under this rating program, the Development Bank of Japan evaluates companies' initiatives in disaster prevention and business continuity management. Toho Gas received the highest-rank rating.



Development into a Total Energy Provider

We aim to become a Total Energy Provider that provides a one-stop service for offering optimal proposals for the three energies—city gas, LPG and electricity—and providing added value through new energy-related services.

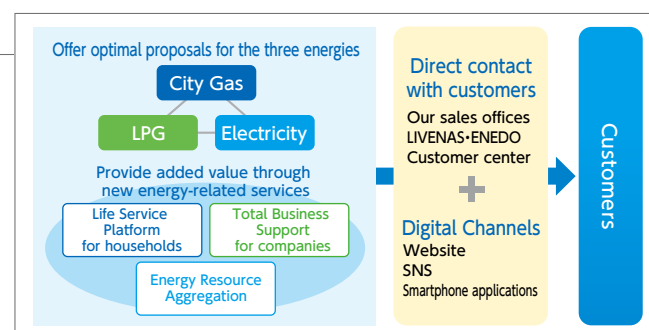
Provision of Added Value Through New Services

We will work to provide added value through new services and further improve digital channels with the aim of developing into a Total Energy Provider.

Provision of added value through new services

We are developing a life service platform for providing a wide range of services, such as home security service and children monitoring service, and we plan to start provision of services based on this platform in the second half of FY2019.

We will also promote initiatives for the procurement of energy resources from household customers and corporate customers, etc. as well as electricity sales by utilizing virtual power plant (VPP), etc.



Enhancement of digital channels

We will use opportunities to directly contact customers, which is one of the strengths of the Toho Gas Group, and work to enhance the point of contact with customers through the use

of digital channels. From April 2019, we started to disseminate information and handle inquiries via LINE.

Strengthening of the LPG Business

We will work to increase the number of customers and sales volume by expanding the business activity areas from the core area of the three Tokai prefectures, and reinforce our business foundation.

Business deployment to wider areas

While we have achieved steady growth mainly in our core area of the three Tokai prefectures, we will expand our business activity areas to the Hokuriku area, Shiga area, Shizuoka area, and Nagano area to achieve further growth.

Reinforce and expand our business foundation

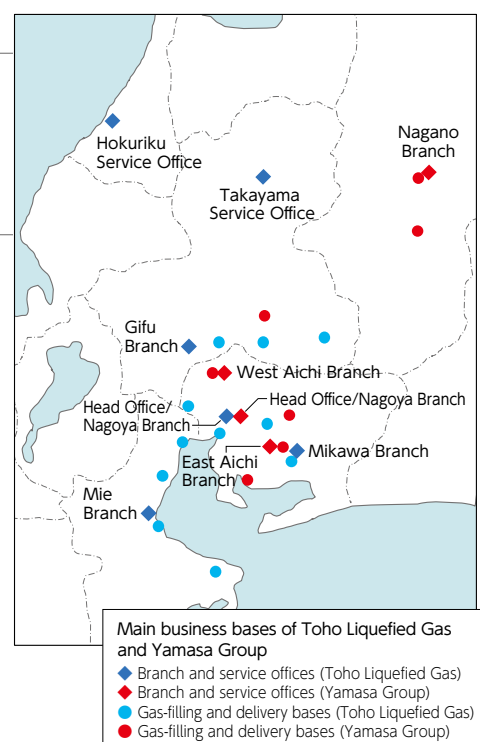
We are working to strengthen filling and delivery networks by increasing the shipping capacity by tank trucks at LPG bases and cooperating with other companies, and widen involvement in LPG distribution.

TOPICS

Promotion of demand expansion through unified efforts with the Yamasa Group

In April 2019, Toho Gas Group included the Yamasa Group, a company mainly engaged in the LPG business in Aichi, Gifu and Nagano, as a subsidiary.

We will promote the further expansion of demand by using the business bases of both Toho Liquefied Gas Co., Ltd. and the Yamasa Group.



Expansion of the Electricity Business

We will strengthen measures for electricity sales and promote diversification to achieve low-cost and stable electricity procurement.

We will also increase the introduction of distributed energy sources in order to reduce carbon emissions.

Expansion of the electricity sales

We will work to enhance services, such as price menu and point service, and expand sales channels to increase the number of customers. We will also take measures in collaboration with other companies, including rolling out sales promotional campaigns jointly with non-energy service providers.

◎ Number of electricity customers P16 Fundamental Data

[Starting Points Program Linked with Gas Rates]

We started a points program for customers with both gas and electricity service contracts to automatically collect points in accordance with their total gas and electricity charges (starting from gas and electricity charges for July 2019).

Stable and flexible electricity procurement at reasonable prices

We will work to diversify procurement sources by procuring electricity from Yokkaichi Power Plant, renewable energy power sources, power producers, and electric power exchanges. By combining multiple power sources, we aim to achieve low-cost and stable procurement.

In addition, we will reinforce our management system, including implementation of system revamp to accommodate an increase in the number of customers.

Expansion of the introduction of renewable energy

[Securing renewable energy power sources]

In April 2019, we started operating a photovoltaic power station with an installed capacity of 1MW in Taketoyo-cho, Chita-gun, as an initiative to secure power sources and reduce carbon emissions. We will continue to promote consideration towards the development of renewable energy power sources through measures such as constructing mega solar power plants.

[Investment in renewable energy funds]

As part of initiatives to reduce carbon emissions, we have invested in multiple funds that invest in renewable energy projects.

[Purchase service for surplus electricity generated by photovoltaic power systems after the FIT purchase period ends]

We established a surplus electricity purchase service targeting photovoltaic power generation systems, for which the purchase period under the FIT^{*1} scheme has ended, and we started accepting applications for this service from May 2019 (the electricity purchase service is scheduled to be launched from November 2019).

Regarding the electricity purchase price, a set price scheme for gas and electricity offering a discount will be available for customers who have contracts for both gas^{*2} and electricity services of the Toho Gas Group, in addition to the standard scheme.

As an energy company with strong roots in local communities, Toho Gas will strive to concentrate surplus electricity generated from photovoltaic power generation systems that is purchased from customers and put it into effective use, in order to expand the introduction of renewable energy and reduce carbon emissions.

^{*1} Feed-in Tariff (FIT) is a scheme to purchase renewable energy at a fixed price and for a fixed period set by the government. In the case of residential photovoltaic power generation systems that a low-pressure systems with less than 10kW in the facility capacity, the purchase period is 10 years. The FIT scheme purchase period will expire from November 2019 onward.

^{*2} Includes customers with contracts for LP gas with the Toho Liquefied Gas Group (Toho Liquefied Gas Co., Ltd., Toei Co., Ltd., and Waseda Gas Co., Ltd.)



Electrical character
"Ambear"



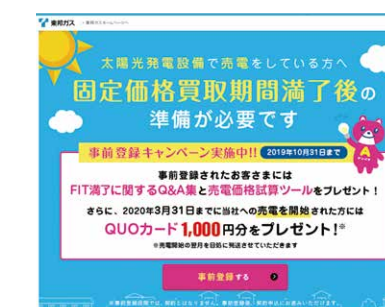
Yokkaichi Power Plant



Reinforcement of the supply demand management system



Photovoltaic power station in Taketoyo-cho



Pre-registration screen on the Toho Gas website (in Japanese)

Taking on New Scopes

We will work to enhance energy-related businesses at home and abroad and venture into new business scopes with synergy effects, in order to expand our revenue-earning sources.



Reinforcement and Development of Group Businesses

Toho Gas will pursue the steady expansion of our Group businesses with a focus on four fields: the comprehensive utility service business, the renovation business, the expansion of outside sales of production and supply technologies, and the use of our owned properties.

Strengthen comprehensive utility services

We will provide a one-stop service ranging from design, construction and execution to maintenance and management of energy generation facilities, including air-conditioning systems in school buildings, cogeneration, and hydrogen stations. In terms of efforts to introduce air-conditioning systems in school buildings, we plan to set up air-conditioning systems in elementary and junior high schools in Ichinomiya City in FY2018 and in Okazaki City, Toyota City and Yokkaichi City in FY2019.

Strengthen renovation business

We are responding to a wide range of customer needs as a business partner involved in living-related businesses in the region.

[Enhancement of product lineup]

We will enhance our product lineup, including the original kitchen unit designed by cooking expert Harumi Kurihara, and expand the service domain from services provided for home wet areas, such as kitchens and bathrooms, to building extensions and remodeling, and the improvement of outer walls and roofs.

[Approach for a broader customer base]

We will work to expand sales to customers of LPG and strengthen cooperation with the renovation business operated by the Yamasa Group.

Promote the expansion of outside sales of production and supply technologies

We are enhancing sales of the stream method and the protective material for PE pipes for medium pressure, which are our proprietary conduit technology, and BOG (boil off gas) reliquefaction equipment, which received the Energy Conservation Grand Prize. We are also working to improve our engineering ability and to enhance our Toho Gas Engineering personnel to expand opportunities for external sales accompanying such improvement.



BOG reliquefaction equipment

Use of our owned properties

We are promoting the use of our owned properties and old factory sites.

[Development of rental apartment business]

We will build rental apartments on the old industrial/commercial use showroom site in Mizuho-ku, Nagoya City (to be completed by the end of FY2019).



Completion image

[Development of "Minato AQUUS"] P28

Development of New Businesses

We will expand energy-related businesses at home and abroad, and actively engage in developing new businesses that can generate synergy effects with the energy business, using resources and know-how that we have accumulated through our business operations.

Domestic / overseas energy

In Japan, we will promote business development in cooperation with local governments and related companies to realize new local electricity businesses and the like following Matsusaka Shin-denryoku, a power supply company. Outside Japan, we will promote entering into the use of energy and LNG terminal businesses, and other businesses, in which we can fully leverage our technologies and expertise on conduits.

New business scope

We will actively work on the development of new businesses that can generate synergy effects with energy businesses within and outside Japan.

We will explore new business opportunities through participation in Japan Energy Challenge, a joint program with startup companies, and investments into venture capital funds and similar.

Development of Minato AQUUS

A smart town named "Minato AQUUS" opened in Minato Ward, Nagoya City, in September 2018. The Urban Development Promotion Council, established in time for the opening of Minato AQUUS, works to promote the revitalization of Minato AQUUS and local communities and the development of communities that are safe, secure and resistant to disasters through the maintenance and management of safe and comfortable public space, creation of liveliness and deployment of disaster- and crime-prevention activities, etc. in cooperation with local communities and governments.

We will continue to advance the second phase of construction at Minato AQUUS, and contribute to sustainable development throughout the whole region.

Advanced Energy System

We will supply electricity, heat, and gas all at once from the Energy Center, located in the center of Minato AQUUS. We will develop a smart energy network to achieve an energy conserving and economically efficient energy system.

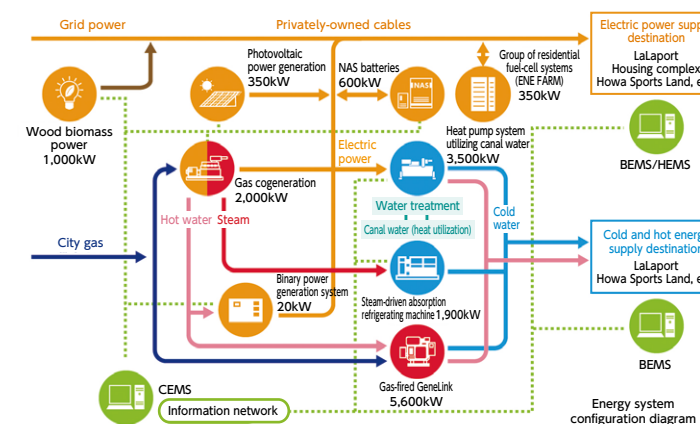
●Environmentally-Friendly Electricity Supply System

We will cover approx. 50% of electricity demand in the area with electricity generated through gas cogeneration, photovoltaic power generation and externally purchased wood biomass power, and supply electricity to each facility through privately-owned cables. In addition, we will introduce NAS batteries, which are large-capacity energy storage systems, and store surplus electricity at night for utilization as electricity peak-cut control during daytime to reduce carbon emissions.

●Energy Management Using CEMS

We will construct CEMS (Community Energy Management System), the first electricity, heat, and information network to achieve urban development in the Chubu region and enable unified efforts between the demand side and the supply side towards energy saving and carbon emission reduction. We will optimally control energy consumption by utilizing the power generation and demand forecast based on weather information and past data through cooperation with energy management systems (BEMS and HEMS)* installed at each facility in the service area. In addition, we will make efforts to visualize the status of energy consumption and power generation, and request electricity users to conserve electricity use, when necessary.

* BEMS (Building Energy Management System) manages energy consumption in commercial and sports facilities, and HEMS (Home Energy Management System) manages energy consumption in housing complexes.



Highest-level Energy Efficiency in Japan (compared to 1990)

Energy saving rate **40%** CO₂ reduction rate **60%**

Recognized as the first "Low Carbon Emission Model District" by Nagoya City

Selected for various subsidies

- Regional "low carbon emission, resource circulation, and natural symbiosis" creation initiative projects (The Ministry of the Environment)
- Self-sustaining and distributed low carbon energy society creation promotion projects
- Sustainable buildings and construction initiative projects (CO₂ emission reduction initiative projects (The Ministry of Land, Infrastructure, Transport and Tourism))

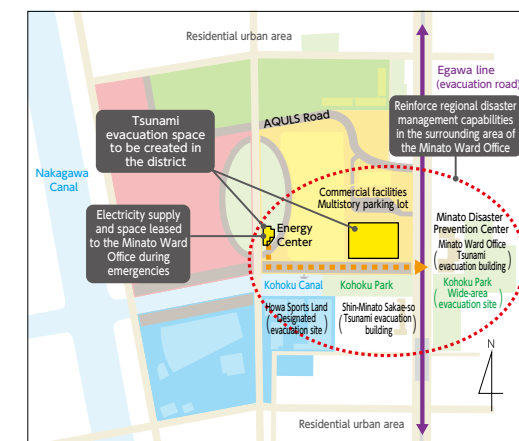
Initiatives for Local Disaster Management

●Disaster Control Measures in the Service Area and Through Regional Cooperation

We are ensuring earthquake resistance for each facility and taking measures against the seismic liquefaction of lifeline infrastructure, such as privately owned cables and heat conduit, in order to get prepared for the occurrence of a large-scale earthquake. To prepare for a tsunami, the Energy Center and LaLaport have obtained certification as tsunami evacuation buildings with capacities for approx. 9,000 persons.

●Ensuring Continued Energy Supply during Disasters

By securing energy networks based on distributed power sources, highly earthquake resistant gas pipelines, and cooling water (canal water and well water), we will enable the continuous operation of plants and continue supplying energy to each facility even during disasters. In addition, we will contribute to strengthening the disaster prevention functions of local communities by supplying emergency electricity to adjacent Minato Ward Office buildings.



Reinforcing the Business Foundation of the Toho Gas Group

In addition to ensuring the stable operation of the energy business, we will reinforce our business foundation to flexibly respond to changes in the business environment, aiming to achieve sustainable growth.

Reinforcement and Use of Human Resources

We will strengthen the human resources management system, including the staff employment, education and rotation systems, and develop human resources who adequately respond to changes in the external environment and support the growth of the Toho Gas Group. To make the most of human resources, we promote diversity and work to enable a flexible workstyle.

P47~50 Human Resource Management

Improvement of Efficiency

We will work to increase productivity in all operations and to curb and streamline fixed costs, including capital investment costs, operational costs, and labor costs, by developing new technologies and actively using digital technology.

Use of new and digital technologies

We will utilize smart glasses and wearable cameras in the repair of gas appliances and on-site management for pipeline construction sites. The use of these new and digital technologies is expected to improve the efficiency of worksites by enabling remote monitoring and the provision of instructions to worksites. We will verify such effects going forward.



Business process re-engineering (BPR)

We will promote fundamental improvement of efficiency in operations through actions such as reviewing business flows and implementing RPA (Robotic Process Automation) across the entire Group.

Reform of the Organizational Structure

We will work to shift to an optimal organizational structure to speedily implement three key strategies stated in the Medium-Term Management Plan and steadily reinforce our Group's business foundation.

Strengthen competitiveness

We restructured our organization in April 2019 from the perspective of prompt and flexible responses to changes in the business environment, establishment of a slim and robust structure and strengthening of earning power.

[Use of digital technologies]

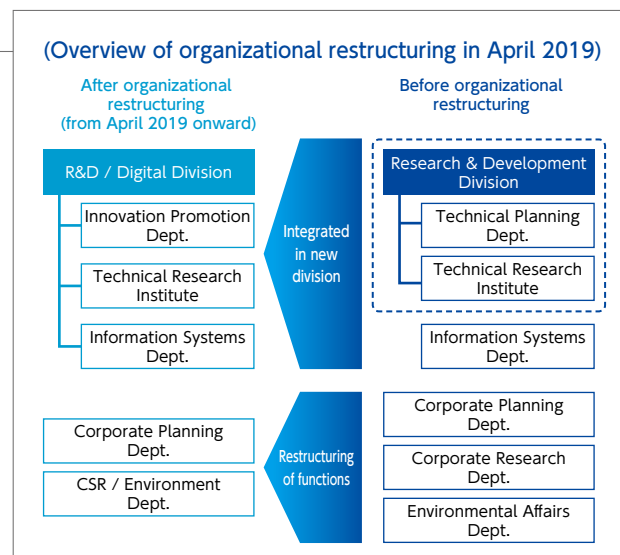
We integrated the Research & Development Division and Information Systems Dept. to establish the R&D / Digital Division towards the formulation of a digital technology utilization strategy and service development, and created the Innovation Promotion Dept. in the R&D / Digital Division.

[Enhancement planning and CSR-related functions]

We reorganized the planning and CSR-related functions and established the corporate Planning Dept. and CSR / Environment Dept. to enable the swift formulation of management strategy and the promotion of ESG management.

Actions for legal separation of gas pipeline divisions

We will consider and make steady preparations for the legal separation of gas pipeline divisions, which should be completed by FY2022, eyeing the possibility of converting the said divisions into an in-house company in April 2020.



Technological Development for the Future

We will continue to make efforts to develop technologies for gas equipment that contributes to saving energy and further reducing carbon emissions, and promote technological development to help us to enter new markets and areas by utilizing digital technologies and taking initiatives with our eyes on goals including achieving a hydrogen-based society.

Expansion of energy services through the use of digital technology

Aiming to develop into a Total Energy Provider, we will work to develop and demonstrate new energy systems that combine energy creation and storage equipment with control systems that utilize technology such as IoT and big data.

[Energy service demonstration]

In March 2019, Toho Gas and Aisin Seiki Co., Ltd. participated in the Toyota City Virtual Power Plant (VPP) project, organized by Toyota City Low-carbon Society Verification Project Promotion

Committee, and started conducting demonstration work. In this project, we will conduct a verification experiment on the remote control of ENE FARM and other equipment in a unified manner like a single power plant, using digital technologies aiming to utilize energy supply adjustment capabilities.

In January 2019, we invested in DIGITAL GRID Corporation, which holds blockchain technology. We will start a demonstration test with the aim of realizing new energy services, such as electric power transactions, using the said technology.

Initiatives with our eyes set on energy distribution and a hydrogen-based society

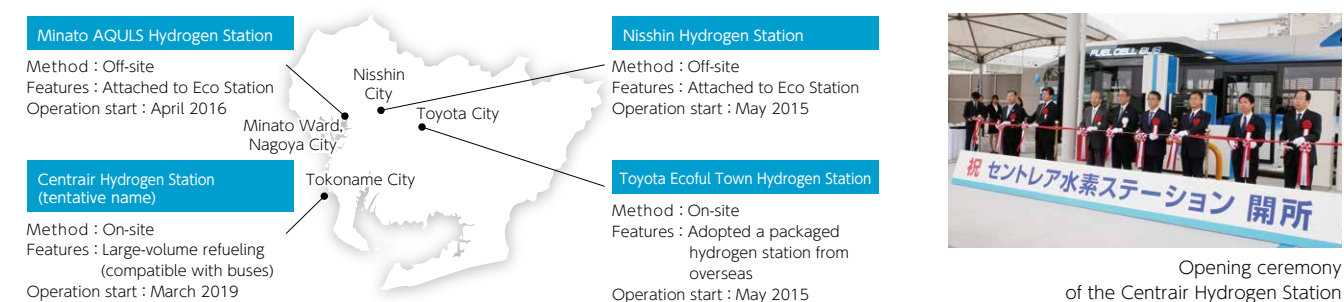
Low carbon emissions have become a global trend, with hydrogen placed as one of the main energy sources. In order to meet the growing attention to low carbon emissions with use of hydrogen, we will work on the building of hydrogen supply infrastructure and development of technologies for hydrogen use.

capacity that conforms to the standards for fuel cell buses, and was the first application accepted under the Ministry of Economy, Trade and Industry and Aichi prefecture fuel cell bus subsidy system.

In addition, we are planning to construct our fifth hydrogen station in Toyota City, with completion targeted by the end of 2020. We will continue to contribute to spreading the use of fuel cell powered vehicles and realizing a hydrogen-based society through the development and operation of hydrogen stations.

[Building of hydrogen supply infrastructure]

In March 2019, we opened the Centrair Hydrogen Station, our fourth hydrogen station. This hydrogen station has a supply



[Development of hydrogen use technologies]

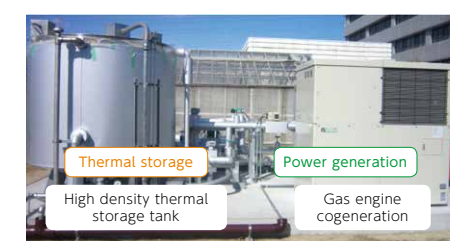
We will advance the development and accumulation of technologies assuming the use of hydrogen as a fuel for industrial furnace burners and the like at plants and similar facilities.

Development to contribute to developing new business scope

We will promote development aiming for the provision of a wide range of products and services that go beyond energy-related products and services.

[High density thermal storage material]

We have uniquely developed a thermal storage material that provides thermal storage density approx. 10-fold greater than that of water, with an eye to the utilization of unused exhaust heat from gas cogeneration, etc. In addition to using this material for exhaust heat use, we are working to expand its use to a wide range of applications.



Thermal storage material feasibility evaluation

Initiatives for ESG



1 Environment Report

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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 Group 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.

Environmental Action Guidelines

Our Environmental Action Guidelines (established in 2011), which set out the concept and content of key environmental activities that the Group is engaged in, comprise six categories.

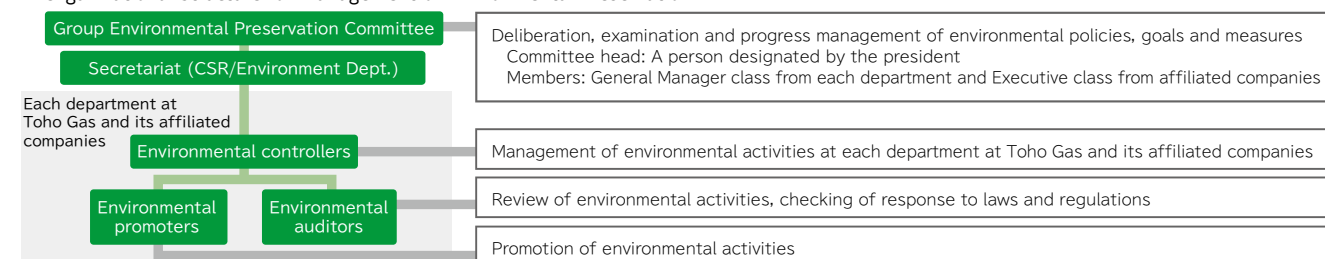
Global Warming Countermeasures	The Group will reduce customer CO ₂ emissions and promote effective and realistic global warming countermeasures through the expansion, highly-efficient use, and high-degree application of clean energy sources, such as environmentally-friendly natural gas, and the utilization of renewable energy.
	The Group will work to reduce CO ₂ emissions in its business activities through continuous improvement of its operational activities.
Resource Recycling	The Group will promote the effective use of resources in each stage of business activities and reduce, reuse and recycle waste to minimize external emissions.
Biodiversity Conservation	The Group recognizes the importance of biodiversity and will work to grasp and analyze the impact of business activities on biodiversity as well as promoting biodiversity-friendly activities.
Environmental Social Contribution	The Group will conduct environment-related social contribution activities by participating in environmental activities/projects in collaboration with local communities and the global community.
Technology Development	The Group will promote technology development that contributes to reducing our environmental impact, such as the highly-efficient and high-degree application of city gas/LPG gas.
Environmental Management	Recognizing the impact of its business activities on the overall environment, the Group will rigorously enforce environmental management, and develop human resources who are environmentally conscious and can act on their own initiative.

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



Preservation

Environmental Action Goals (FY2014-2018) and Results

Toho Gas Group has set goals for the reduction of environmental burden in its business activities and for customers. It is working to promote initiatives to achieve these goals. FY2018 marks the final year of the Environmental Action Goals and the status of achievement of each goal is summarized in the table below.

We will include unachieved goals in the new Environmental Action Goals (FY2019-2021) and continue working on these goals.

Field	Company	Goal (FY 2014-18 average yearly goal)	2009 base	2014-18 goal	2014-18 result	Progress
Global Warming Countermeasures*1	Toho Gas	CO ₂ emissions per unit production regarding city gas business (factories, offices, etc.) (g-CO ₂ /m ³ N gas sales volume)	16.5	-10%	-8%(15.2)	
	Toho Gas	CO ₂ emissions per unit production regarding heat-supply business(5 major service areas) (kg-CO ₂ /GJ heat and electricity sales volume)	86.8	-2%	-9%(78.9)	✓
Resource Recycling	Toho Gas Group	Reduction in average per-square meter of CO ₂ emissions per unit production for a certain period compared with CO ₂ emissions for the base year. (kg-CO ₂ /m ²)	93.6	-6%	-17%(78.1)	✓
	Toho Gas	Reduction in average paper use (measured in number of sheets) for a certain period. (million sheets)	39	-5%	-10%(35.1)	✓
		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%	✓
Green Procurement	Toho Gas Group	Continuation of zero emission (3% or lower final disposal rate) at city gas plants.	Continuation	Continuation	Continuation	✓
	Toho Gas	Recycling of paper waste at all Group company offices.	-	100%	Approx.100%	✓
Environmental Effects Index**2	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	82%	
Environmental Effects Index**2	Toho Gas	Reduction in CO ₂ emissions on the customer side through efforts to diffuse natural gas use (total emissions in a certain period)	-	0.4million tons-CO ₂	0.33million tons-CO ₂	

*1 The emissions factor for purchased electricity is pegged at 0.474 kg-CO₂/kWh (Chubu Electric Power), a figure recorded in the base year, to calculate the effects of efforts to reduce CO₂ emissions.

*2 The CO₂ emissions factor for "marginal" power sources (factor for thermal power generation) is pegged at the originally targeted 0.69 kg-CO₂/kWh to calculate the effects of efforts to reduce CO₂ emissions through the cutting of electricity purchases.

New Environmental Action Goals (FY2019-2021)

Our new Environmental Action Goals were developed by expanding the existing ones based on the Medium-Term Management Plan (FY2019-2021).

Global Warming Countermeasures	CO ₂ reduction goal related to customers		600 thousand tons-CO ₂ *3
	CO ₂ emissions reduction in business activities	CO ₂ emission basic unit of city gas plants	11.5 tons-CO ₂ /million Nm ³ or less (gas sales volume)
		CO ₂ emission basic unit of the Energy Center	75.1 tons-CO ₂ /thousand GJ or less (heat and electricity sales volume)
		CO ₂ emission basic unit of offices	79.8 tons-CO ₂ /thousand m ² or less (total floor area)
	Initiatives to reduce CO ₂ emissions in the electricity business		
Resource Recycling	Zero emission at city gas plants		Continuation (1% or lower final disposal rate)
	Recycling of waste generated after gas pipeline construction		Recycling rate of 99% or more
	Reduction in use of natural mountain sand and detritus in gas pipeline construction compared with use under conventional engineering methods.		15% or lower
	Recycling of general waste		Recycling rate of 80% or more
Biodiversity Conservation	Promoting "3R" (reduce, reuse and recycle) through green procurement and the recycling of used gas equipment		
Technology Development	Promoting biodiversity conservation through business activities, etc.		
Collaboration with Local Communities	Promoting technology development for reducing CO ₂ emissions and improving efficiency		
Promoting initiatives such as environment social contribution activities and environmental education for the next generation in collaboration with local communities			

*3 Cumulative value of FY2019-2021

Note 1: Unspecified values are average values of FY2019-2021.

Note 2: The CO₂ emission factor for purchased electricity is pegged at 0.474 kg-CO₂/kWh (Chubu Electric Power), a figure recorded in the base year (FY2009).

Note 3: The effects of efforts to reduce CO₂ emissions through private power generation are calculated using the CO₂ emission factor (the emission factor for thermal power source) for marginal power source in the base year (FY2009) of 0.69 kg-CO₂/kWh.

Compliance with Environmental Laws and Regulations

The main environmental laws and regulations related to the Group are described below. In FY2018, 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

Handling of Harmful Chemical Substances

We are appropriately handling harmful chemical substances, such as PCB waste and asbestos, in accordance with laws and regulations.

PCB Waste

After investigating the use of PCB-containing equipment, we systematically dispose of used equipment. We also regularly replace and dispose of equipment in use, such as stabilizers for lighting.

Asbestos

We are conducting an investigation of the status of use of asbestos-containing building materials at the Toho Gas Group's plants and offices and will take appropriate actions as necessary.

Responses to Water Issues

The Toho Gas Group uses water resources for various uses, such as gasification of LNG, and is aware of the importance of the effective utilization of water.

We grasp the amount of water used generally in offices and industrial water, and works to conserve water usage. We also manage the quality of water discharged in accordance with laws and regulations and ordinances of local governments.

For seawater used as a heat source for gasification of LNG at city gas plants, we design manufacturing facilities to ensure the temperature difference between water intake and water discharge falls within a certain range with the aim of reducing our impact on ecosystems.

Green Procurement Guidelines

In order to reduce our environmental load and conserve biodiversity, Toho Gas has established the Green Procurement Guidelines for gas pipeline materials, construction work, and office supplies, and is conducting green procurement together with its Group companies.

Main contents of Green Procurement Guidelines	Promotion of purchasing energy saving products, etc.
	Enhancement of "3R"(reduce, reuse and recycle)
	"Green delivery" with low-emission vehicles and eco-driving

Environmental Education

Toho Gas Group provides environmental education by target employees.

We hold environmental seminars on themes, such as environmental policies and social trends, for senior management. We also conduct environmental law training seminars and e-learning courses tailored to different levels of managers and employees to raise awareness and knowledge of environmental laws and regulations and to bolster our response capabilities.

In addition, we encourage employees to acquire environment-related certifications, such as Qualified Person for Energy Management and the Certification Test for Environmental Specialists (Eco Test).

Name	Target
Environmental training seminars	Senior management
Environmental law training seminars	Different levels of managers and employees
New employee training	New employees



Environmental law training seminar



Environmental training seminar

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. 2018–Sep. 2018
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.

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*1	Toho Gas (Chita-Midorihama Works, Chita LNG Terminal, Chita Calorific Value Adjustment Center, Yokkaichi Works)
Eco Action 21*2	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*3	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

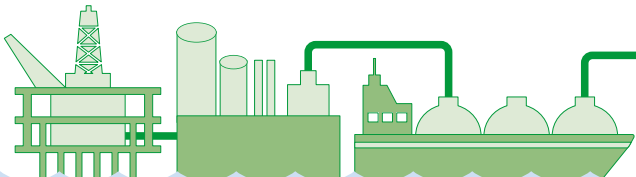
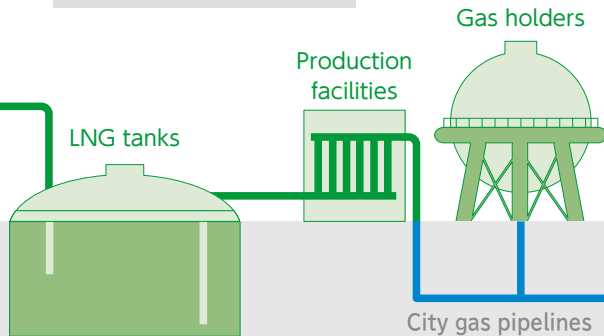
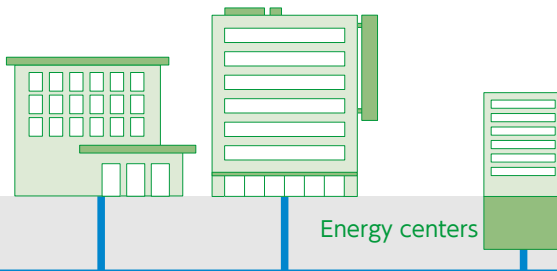
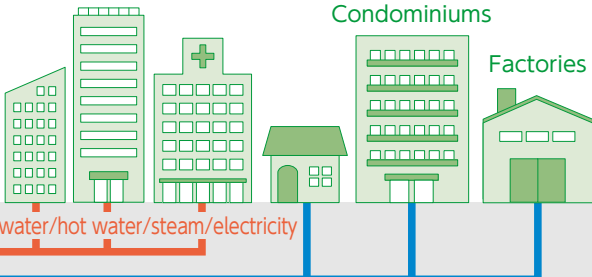
*3 Environmental certification systems promoted independently by local governments

Environmental Load in the Gas Business Value Chain

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

第三者保証

The following quantitative information is covered by third-party guarantee by Deloitte Tohmatsu Sustainability Co., Ltd.

Value chain (City gas business)	Procurement		Production and supply of city gas		Offices, etc.		Customers																			
	We strive to improve efficiency through natural gas power generation and exhaust heat recovery in the exploitation and liquefaction stages, and concurrently use natural gas as a fuel for LNG carriers in the transportation stage.		Our city gas plants strive to reduce CO ₂ emissions by thorough energy-saving, and is promoting resource recycling from production through to supply of city gas.		Toho Gas Group is promoting energy conservation and resource recycling at business offices. The Group also provides district heating and cooling P40 , helping reduction of CO ₂ emissions, by combined production and supply of hot and cold water and steam.		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 CO ₂ emissions.																			
	<div>Natural gas exploitation</div> <div>Liquefaction facilities</div> <div>LNG carrier transport</div>		<div>City gas plants</div> <div>Gas holders</div> <div>Production facilities</div> <div>LNG tanks</div> <div>City gas pipelines</div>		<div>Offices</div> <div>District heating and cooling</div> <div>Energy centers</div>		<div>Customers</div> <div>Condominiums</div> <div>Factories</div> <div>Cold water/hot water/steam/electricity</div>																			
																										
Environmental load	<ul style="list-style-type: none">Greenhouse gas emissions in the natural gas exploitation and liquefaction stages (CO₂ equivalent)Greenhouse gas emissions from operation of LNG carriers (CO₂ equivalent)		<ul style="list-style-type: none">CO₂ emissions in the city gas production and supply stagesWaste generation from gas pipeline constructionUse of water resources and environmental load on water		<ul style="list-style-type: none">CO₂ emissions from office energy useWaste generated from officesCO₂ emissions from operation of district heating and cooling		<ul style="list-style-type: none">Customer CO₂ emissions from city gas useDisposal of used gas equipment																			
Environmental load (numerical data)	Input of energy resources		Input of energy resources		Input of energy resources		Input of energy resources																			
	<div>Toho Gas</div> <div>Affiliated companies</div> <div>Resources for city gas</div> <div>LNG: 2,940 thousand tons</div> <div>LPG: 100 thousand tons</div> <div>Resources for city gas</div> <div>LNG: 45 thousand tons</div> <div>LPG: 0.6 thousand tons</div> <div>Resources for LPG</div> <div>LPG: 450 thousand tons</div>		<div>Toho Gas</div> <div>Affiliated companies</div> <div>Purchased electricity: 124,800 thousand kWh</div> <div>City gas consumption: 16,730 thousand m³N</div> <div>Vehicular fuel: 30 thousand GJ</div> <div>Purchased electricity: 20,190 thousand kWh</div> <div>City gas consumption: 590 thousand m³N</div> <div>Vehicular fuel: 80 thousand GJ</div>		<div>Toho Gas</div> <div>Affiliated companies</div> <div>Water for irrigation: 1,120 thousand m³</div> <div>Water for irrigation: 140 thousand m³</div>		<div>Toho Gas</div> <div>Affiliated companies</div> <div>Energy sales volume</div> <div>City gas sales volume: 3,780 million m³</div> <div>Heat sales volume: 390 thousand GJ</div> <div>Energy sales volume</div> <div>City gas sales volume: 60 million m³</div> <div>LPG sales volume: 450 thousand tons</div>																			
Environmental load (numerical data)	External emissions		External emissions		External emissions		External emissions																			
	<div>Toho Gas</div> <div>Affiliated companies</div> <div>Emission into air *1</div> <div>Resources for city gas</div> <div>Greenhouse gas (CO₂ equivalent): 1,440 thousand tons-CO₂</div> <div>Emission into air *1</div> <div>Resources for city gas</div> <div>Greenhouse gas (CO₂ equivalent): 20 thousand tons-CO₂</div> <div>Resources for LPG</div> <div>Greenhouse gas (CO₂ equivalent): 150 thousand tons-CO₂</div>		<div>Toho Gas</div> <div>Affiliated companies</div> <div>Emission into air and water</div> <div>CO₂ emissions*2: 127 thousand tons-CO₂</div> <div>NOx emissions*3: 32 tons</div> <div>COD*3 load: 0.2 tons</div> <div>Emission into air</div> <div>CO₂ emissions*2: 21 thousand tons-CO₂</div>		<table><thead><tr><th></th><th></th><th>Amount generated</th><th>Rate of reduction/recycling</th><th>Final disposal amount</th></tr></thead><tbody><tr><td rowspan="2">Toho Gas</td><td>General waste</td><td>521 tons</td><td>82%</td><td>94 tons</td></tr><tr><td>Industrial waste</td><td>1,353 tons</td><td>96%</td><td>49 tons</td></tr><tr><td>Affiliated companies</td><td>Industrial waste</td><td>35,638 tons</td><td>98%</td><td>790 tons</td></tr></tbody></table>				Amount generated	Rate of reduction/recycling	Final disposal amount	Toho Gas	General waste	521 tons	82%	94 tons	Industrial waste	1,353 tons	96%	49 tons	Affiliated companies	Industrial waste	35,638 tons	98%	790 tons	<div>Toho Gas</div> <div>Affiliated companies</div> <div>Emission into air</div> <div>City gas supply</div> <div>CO₂ emissions*2: 8,290 thousand tons-CO₂</div> <div>Emission into air</div> <div>City gas supply</div> <div>CO₂ emissions*2: 120 thousand tons-CO₂</div> <div>LPG supply</div> <div>CO₂ emissions*2: 1,350 thousand tons-CO₂</div>
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Note: Detailed data, annual changes, calculation standards, factors, etc. and affiliated companies included are described in the ESG Data online.

*1 Sources of CO₂ emission factor used for calculation
(City gas) 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)
(LP gas) Calculated based on "LNG and city gas 13A life-cycle greenhouse gas emission forecast" from the Journal of the 26th Annual Meeting of the Japan Society of Energy and Resources (Vol. 28-2, published in 2007) (gross calorific value basis)

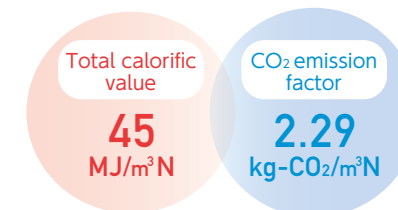
*2 CO₂ emission factor used for calculation (main emission factors)

	Amount generated	Rate of reduction/recycling	Final disposal amount
Toho Gas	General waste: 521 tons	82%	94 tons
	Industrial waste: 1,353 tons	96%	49 tons
Affiliated companies	Industrial waste: 35,638 tons	98%	790 tons

•City gas 2.29 tons-CO₂/thousand m³N
•LP gas 3.00 tons-CO₂/ton
•Electricity Value released by electric utilities operator in accordance with the ministerial ordinance under the Law Concerning the Promotion of the Measures to Cope with Global Warming (cf. the ESG Data online)

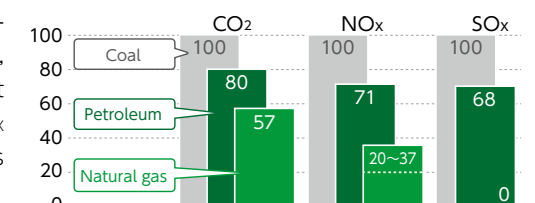
*3 COD emissions by city gas and heat manufacturing-related equipment

Characteristic of City Gas



Environmentally Friendly Energy

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



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 NO_x and SO_x: Natural Gas Prospects (1986), IEA

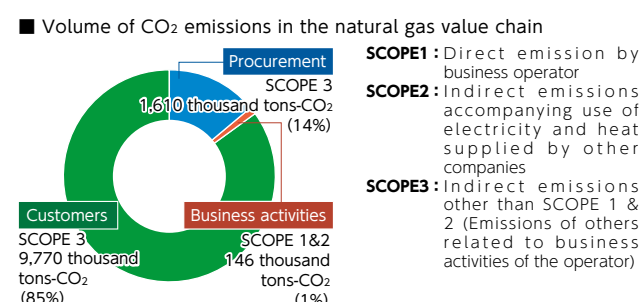
Basic Concept

As an energy business operator, Toho Gas Group is implementing countermeasures against global warming, taking into consideration the value chain. We are implementing various specific measures, including the establishment of targets for reduction of the CO₂ emission basic unit in our business operations, and targets for the reduction of CO₂ emissions by customers.

Global Warming Countermeasures in the Gas Business Value Chain

In the value chain [P37](#), CO₂ is emitted at each stage, such as energy resource procurement and customers who use city gas or LPG, in addition to business activities such as production and supply of city gas and LPG.

Because customers represent a large proportion of CO₂ emission, this is an area our Group is focused on controlling. Furthermore, we strive to be aware of the degree of CO₂ emission in resources procurement. In our business activities, we are working to reduce CO₂ emissions through efficient operation of our city gas plants.

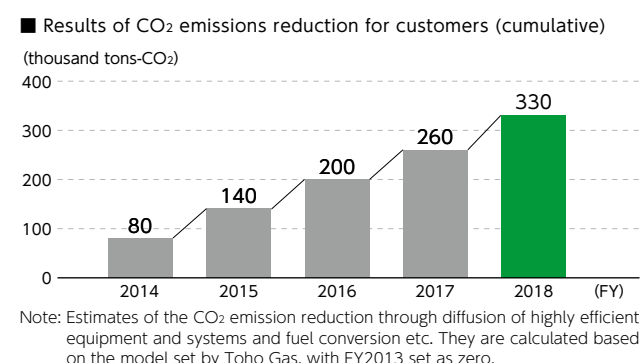


Initiatives with Customers

We have set goals for the reduction of CO₂ emissions at customers in the Environmental Action Goals [P34](#), and undertake various initiatives to achieve this. Consequently, actual reduction of CO₂ emissions in FY2018 was 330 thousand tons-CO₂ (total value in the period from FY2014).

CO₂ emissions from customers by using city gas were 8,290 thousand tons-CO₂.

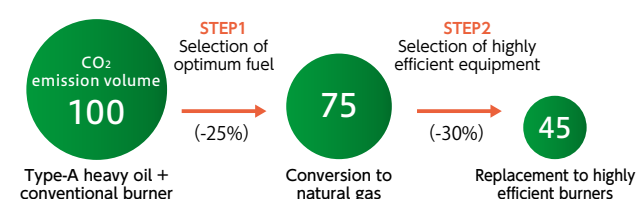
Toho Gas has set a goal of reducing cumulative total of CO₂ emissions at customers from FY2019–2021 by 600 thousand tons-CO₂ in the new Medium-Term Management Plan and the Environmental Action Goals, and is working hard to achieve this goal.



Conversion to Natural Gas

We are contributing to the reduction of CO₂ emissions by customers through fuel conversion, 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 CO₂ emissions by customers.

■ Examples of CO₂ 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

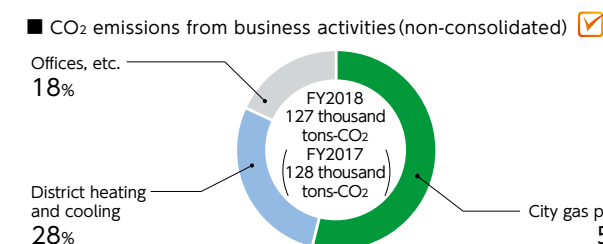
We promote the diffusion of highly energy-efficient equipment and systems, which leads to reduction of CO₂ emissions by customers. These include the home fuel cell system ENE FARM [P19](#) for residential use; and gas cogeneration and GHP [P21](#) gas air conditioning, for industrial/commercial use.



Initiatives in Business Activities

Toho Gas Group strives to reduce CO₂ emissions in its business activities. Our CO₂ emissions in FY2018 were 127 thousand tons. Meanwhile, through various initiatives including energy conservation measures at city gas plants, we reduced the city gas business CO₂ emission basic unit of city gas business under our Environmental Action Goals [P34](#) by 8% compared to the base year.

Note: CO₂ emission per unit = CO₂ emissions / city gas business gas sales volume



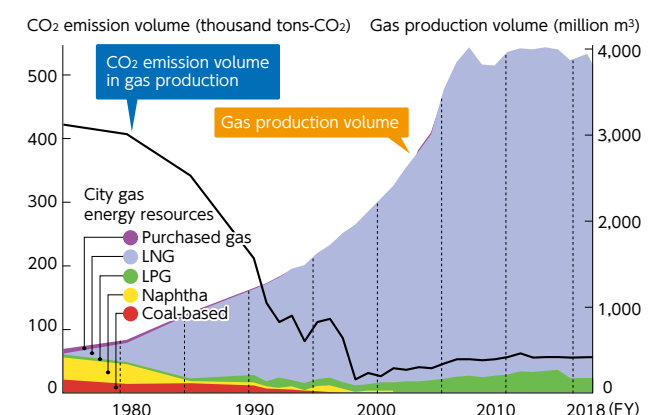
Initiatives at City Gas Plants

CO₂ 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 CO₂ 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.

We have introduced highly efficient gas cogeneration as power generation equipment [P26](#) for our electricity business, and are working to reduce CO₂ emissions.

■ Transition of city gas energy resources and CO₂ 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.

We are also striving to reduce CO₂ emissions by improving the

operation of district heating and cooling and replacing equipment with more energy-efficient equipment, including advanced energy systems installed at Minato AQUUS [P28](#), 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	● Imake	● Sakae 3-chome north
	● Nagoya Station south	● Sakae 3-chome
	● Chiyoda	● Higashisakura
	● Johoku	● Minato AQUUS
Komaki City	● 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	
Tokoname City	● Chubu Centrair International Airport Island	

Initiatives at Offices

Toho Gas Group strives to reduce CO₂ 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.

Carbon Offset Utilizing J-Credit Scheme

Toho Gas is working to reduce CO₂ emissions utilizing carbon offset under the J-Credit Scheme* for certifying GHG emissions reduction operated by the government to contribute to environment. We have offset a total of 600 tons of GHG emissions produced by the G7 Ise-Shima Summit in FY2016 and the Inter-City Baseball Tournament in FY2017–2018.

* A scheme whereby the government approves GHG emissions reduction and absorption as credits for reductions achieved by initiatives such as introducing energy saving equipment and forest operation.

Receiving the 2018 Minister of the Environment Award for Global Warming Prevention Activity

Toho Gas received this award due to being highly evaluated for achieving significant energy reduction with its "development and introduction of direct mixing BOG reliquefaction equipment at LNG receiving terminals," conducted jointly with JFE Engineering Corporation (a cumulative total reduction of electricity usage of 14.2% and CO₂ emissions of 7,716 tons in the entire offices over slightly less than two years).



Environment

Resource Recycling

[Initiatives for ESG]



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 “3R” (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 “3R”: 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)

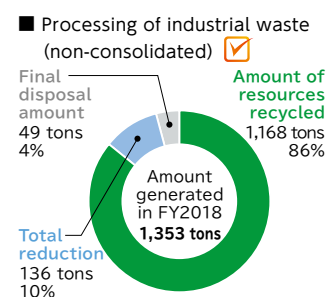
Note: Most waste from pipeline construction is generated by construction companies.

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 FY2018 totaled 4% of the volume generated. At city gas plants, we set a goal of zero emissions [P34](#), which we have achieved for ten 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 FY2018 was 1,117 thousand m³ 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 FY2018, this resulted in collection of 870 tons of used equipment and 36 tons of packing material. Results for recycling of resources subject to the Containers and Packaging Recycling Act were 4.6 tons of plastic containers and packaging and 1.2 tons of paper.

We also recovered refrigerant fluorocarbons generated during maintenance and renewal of commercial air conditioning equipment. In FY2018, all of the fluorocarbons were recovered from the target equipment and processed appropriately (1,438 units, 17 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 method¹, the pipe rehabilitation repair construction installation² and promotion of use of temporary filling material³ in construction requiring re-excavation. In FY2018, we reduced the amount of waste generated by 28% compared with conventional construction methods.

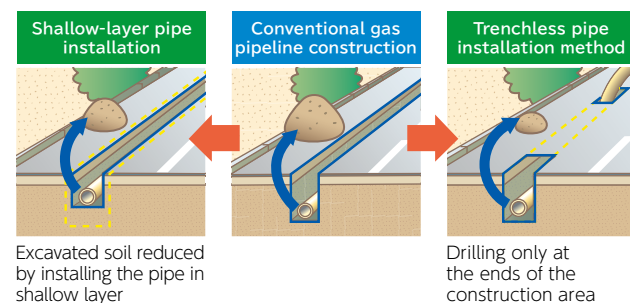
By striving to recycle excavated soil, asphalt and concrete lumps, we have reduced the amount of excavated soil externally disposed of by 76%, the amount of sand and natural quarried stone used by 90% compared with conventional methods, and almost all asphalt and concrete was recycled.

Almost all used gas pipes were recycled in FY2018 and 87% of used gas meters were used 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

Environment

Biodiversity Conservation

[Initiatives for ESG]



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 nature conservation activities overseas.

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 [P41](#). We are also engaged in local ecosystem conservation through the establishment of biotopes.

Biotope Establishment

In 2000, we established a 7,500 m² biotope at Chita-Midorihamma Works and in 2010 we established 600 m² 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-Midorihamma Works

Initiatives with Customers and Local Communities

Initiatives include expanding use of natural gas and highly efficient equipment and other global warming countermeasures [P39](#), recycling used gas equipment and other resources [P41](#), 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"

“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 FY2018, we conducted conservation activities in “Chikurin Hiroba Park” in Gifu Prefecture with 38 participants.



Bamboo forest thinning and weeding activities

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



Extermination activity for non-native tadpoles

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, sports, etc. 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 FY2018, we developed five programs, including "The global environment and natural gas" and "Highly nutritional homemade snacks." We held 181 classes, at 74 schools.

From FY2019, we have started engaging in collaborative activities with local groups and corporations, such as participating in the next-generation education project hosted by the Nagoya Chamber of Commerce and Industry and giving a visiting lecture.



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 FY2018, we received applications from 3,596 children and their parents.

At the Toho Gas cooking school, we hold "cooking classes for children and their parents" to coincide with seasonal events and "PTA cooking classes" for parents of elementary and junior high school students. A total of approximately 300 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 FY2018.

^{*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.



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 FY2018, which were attended by approximately 40 children and parents.



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 35,000 visitors during FY2018.



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 FY2018, we received 5,206 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 FY2018, 31 teams participated in the fierce competition.



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 FY2018, 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."



"Osampo de Ikimono Mikke" ("Discover Living Creatures While Walking")

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

During FY2018, approximately 400 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 FY2018, approximately 30 Toho Gas Group employees and their families took part in volunteer activities planting flower seedlings and bulbs.



Preventing Crime to Protect Children

From February 2019, Toho Gas, started to engage in child protection activities in collaboration with ENEDO service shops and construction companies.

In order to prevent children from becoming victims of crime, Toho Gas has designated approximately 200 bases including our sales offices as "Children's Refuge Center" to use them as a shelter for children in danger. In addition, approx. 2,200 vehicles of the Group bear a "Children's Crime Prevention Patrol Support Vehicle" sticker. In this manner, Toho Gas Group is contributing to the safety and security of people in local communities.



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 will work on "Further Growth of the City Gas Business," "Development into a Total Energy Provider," and "Taking on New Scopes," as well as promoting the reinforcement of the Group's business foundation in order to stably create operating cash flow. We will allocate this cash flow in a well-balanced manner, in investment into the city gas business and growth businesses, as well as for return to shareholders, while maintaining a firm and stable financial base.

We paid a year-end dividend of 55.0 yen per share for the full year ending March 31, 2019. Furthermore, we expect a year-end dividend of 55.0 yen per share for the full year ending March 31, 2020.

In addition to this, we decided at the end of July 2019 to purchase own stock with a maximum total purchase price of 3.0 billion yen.

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.

■ FY2018 Annual Shareholders Meeting (June 25, 2019)

Shareholders in attendance

568

Exercise of shareholder voting rights

85.7 %



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, through seminars and IR* events.

We are also actively engaging in online investor briefing to accommodate the diversification of investment styles and joint plant tours with other local companies with the aim of broadening our base of investors in local communities.

*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
(FY2018)

18

Event attendees

1,384

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 total in Japan and abroad.

Separate communications
held with a total of

272

companies (FY2018)



Financial results briefings

Enhancement of Information Disclosure

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. Furthermore, in order to enhance understanding among overseas institutional investors about the business of Toho Gas Group, we endeavor to disclose information by issuing English versions of Fact Sheets (Data Book) and our Integrated Report, etc.

Please also see the IR page of our website at the following URL.

<https://www.tohogas.co.jp/lang-n/en/corporate/>



Implementation of Shareholder Benefit Program

While the basis of our return to shareholders is stable dividends and flexible purchase and retirement of treasury stock, the Company is implementing 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 have established a scheme which customers can use for paying our gas and electricity charges. Furthermore, they may also choose to donate to charity activities including those 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 (in Japanese).

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

(Examples of foods)



Black-haired Japanese wagyu beef for barbecue (3,000 points)



Specially cultivated Uonuma Koshihikari rice 4 kg (5,000 points)

Offer C Charity donation



The Green Fund



Japanese Red Cross Society

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 unless otherwise noted)

	Men	Women
Employee numbers (people)	2,309	450
Employee numbers (people) (consolidated)	4,401	1,398
Average age (years old)	42.6	41.1
Average years of service (years)	18.4	18.3
Number of graduate recruits (people)	61	16
Number of mid-career recruits (people)	15	
Number of re-hires (people)	267	
Turnover rate (%)	1.37	

Note: As of the end of March 2019. Not including seconded employees.
Number of graduate recruits starting April 2019, mid-career recruits for FY2018, turnover rate is the average for the past three years (2016-18).

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. Toho Gas implements an employee idea solicitation program for new businesses with the aim of cultivating medium-ranked employees and young employees to enable transformation into an organization composed of individuals who take on challenges.

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, labor management administrators)		
	Elective training (business skill enhancement, basic skills enhancement), Interactive training with other industries*1		—
	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*2, internal certification examination, etc.		—
OJT	On-the-Job training		

*1 We provide training to develop employees' abilities through interpersonal exchanges with external members on the themes of leadership and innovation.

*2 We provide short-term study abroad programs for MBA programs and for improving foreign language skills.

Promotion of Diversity

With an eye towards 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.

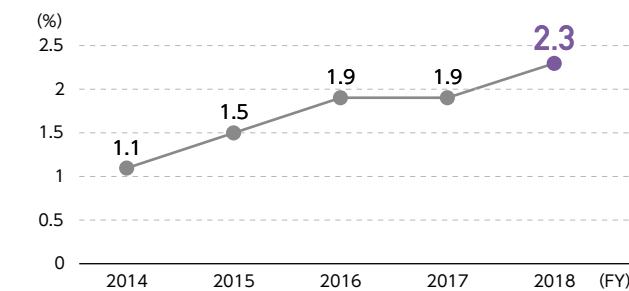
Promotion of Women's Advancement

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)



Training (women's advancement)

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 2019, our employment rate of people with disabilities is 2.25%, 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	2015	2016	2017	2018	2019
Toho Gas employment rate	2.18	2.13	2.12	2.29	2.25
Statutory employment rate	2.0	2.0	2.0	2.2	2.2

Note: Each FY rate based on April 1

Creating a Work-friendly Environment

Initiatives for Work Style Reform

[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 order to support child rearing and nursing care, we have introduced a "leave system" and "shorter working hours system." Starting from FY2018, we have newly introduced a "work-from-home system" targeting employees engaged in various types of care such as child rearing and nursing care, and a nursing care consultation service to support the return to work of employees who are engaged in 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.

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



Lunch-talk meeting of employees who are rearing children

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

FY	2014	2015	2016	2017	2018
Child rearing leave	28	17(1)	26(1)	13	19(1)
Child rearing shorter working hours	13	15	14	18	12
Nursing care leave	1(1)	0	2	0	1(1)
Nursing care shorter working hours	2(2)	0	1	1	1

*Male employees in brackets

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

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

Basic Principles of Occupational Health and Safety Activities

The Toho Gas Group operates the city gas business as its core business. It is only with the support of our employees that we are able to ensure safety and security, as well as a steady supply of city gas, to customers 24 hours a day, 365 days a year. It is also our employees who support work in front lines of disaster recovery in the event of a disaster. Therefore, ensuring the safety and health of our employees is the foundation for fulfilling our social responsibility as a corporation. Based on the principles, we work to prevent occupational accidents, traffic accidents, and diseases to ensure the safety and health of employees, and create a comfortable working environment.

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	2014	2015	2016	2017	2018
Industry-wide average	1.66	1.61	1.63	1.66	1.83
Toho Gas	0.18	0.54	0.18	0.36	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
 $\text{Lost workday rate} = (\text{number of work stoppages}) / (\text{total work hours of workers}) \times 1,000,000$



Safety and health meeting

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.

Certification as an Excellent Occupational Safety and Health Enterprise

Toho Gas was certified as an Excellent Occupational Safety and Health Enterprise by the Aichi Labour Bureau as a company actively taking measures to ensure the safety and health of employees while maintaining and improving a high level of safety and health.

The certification was awarded in recognition of our active efforts to comply with basic items, such as having no record of serious violations of occupational safety and health-related laws for the past three years, as well as for implementing initiatives in a wide range of fields, such as measures to maintain and improve employees' health, measures for mental health, measures for overwork, and safety management.



2018~21年度認定

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 (in Japanese).

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.

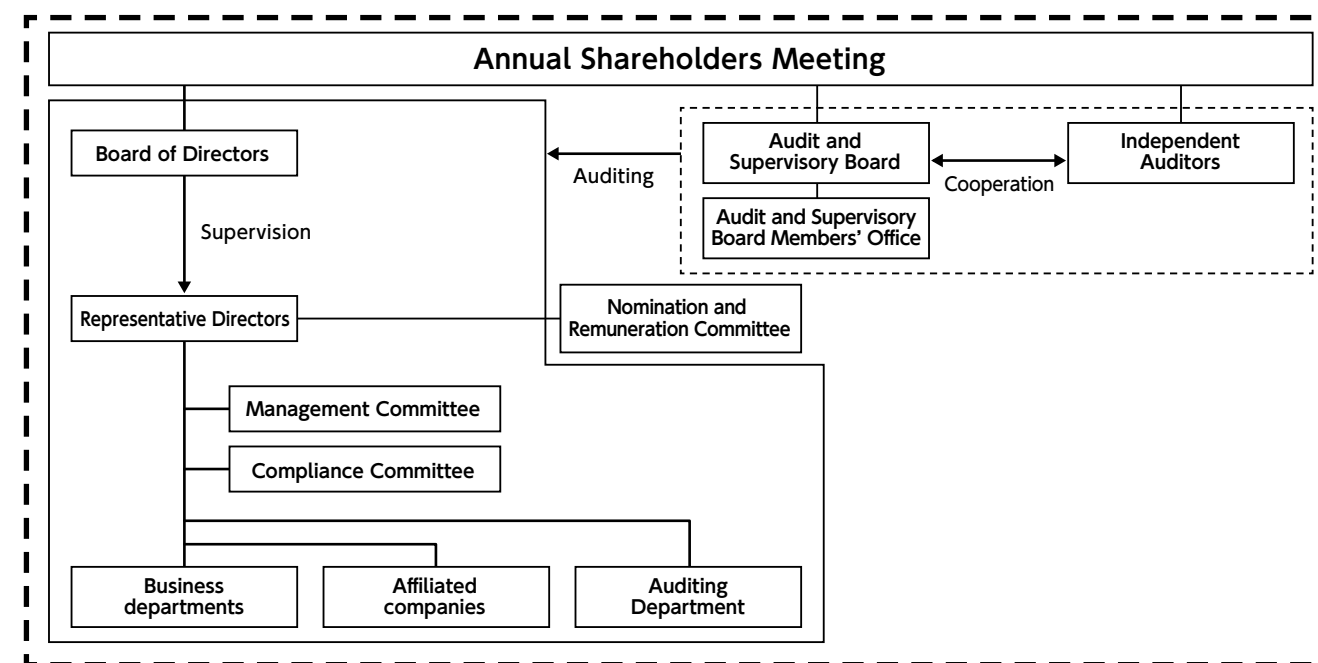
It is judged that objectivity and neutrality in the supervision of corporate management are guaranteed through operation of supervising and auditing functions of the Company under the respective roles played by Outside Directors and Audit and Supervisory Board Members including Outside Members.

	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.	12/12	12/12
	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.	12/12	12/12

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 (FY2018)	12
Number of Audit and Supervisory Board Meetings (FY2018)	12
Term of office of Directors	1 year

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 upon deliberation by the Nomination and Remuneration Committee, a majority of which consists 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 upon deliberation by the Nomination and Remuneration Committee, after determining the total amount to be paid by resolution at the Annual Shareholders Meeting.

Selection and Dismissal of Senior Management and Nomination of Candidates for Directors and Audit and Supervisory Board Members

Selection of senior management and nomination of candidates for Directors and Audit and Supervisory Board Members are determined by resolution of the Board of Directors upon deliberation by the Nomination and Remuneration Committee, a majority of which consists of Outside Directors, comprehensively taking into account abilities required for the positions, such as being able to take a wide view of and understand management and the ability to grasp essential issues and risks.

Dismissal of senior management is determined by resolution of the Board of Directors upon deliberation by the Nomination and Remuneration Committee in the event of circumstances that make it difficult to fulfill the required roles.

Governance

[Initiatives for ESG]

Internal Control

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 (in Japanese).

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 **P54**
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. Furthermore, we strive to strengthen our cooperation with affiliated companies and partner companies. **P24**

■ 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.

In order to strengthen our cyber security response capability, we established the Cyber Security Committee as a company-wide cyber security control organization, and discussed matters, such as response to incidents. In addition,

we established the Cyber Security Regulations, which stipulate risk management methods for the introduction and operation of cyber security response internal frameworks and systems.

Management of Affiliated Companies

Centered on the Internal Control Department, 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 FY2018, 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.

Governance

[Initiatives for ESG]

Compliance

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)

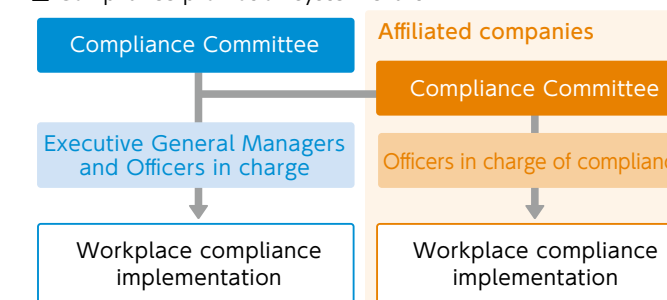
Toho Gas Group aims to be a corporate group that is always trusted by customers, shareholders, the local communities and business partners. We observe laws and regulations and the spirit of the law, respecting the good sense and ethics of society, undertaking sincere and fair corporate activities, whereby 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 Promotion 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 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 activities.

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

■ Compliance promotion system chart



Compliance 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.

We will swiftly conduct a factual investigation, etc. of matters consulted in accordance with the Regulations for Handling Compliance Consultations for the early detection and correction of problems. In addition, the above regulations set provisions, including those for protecting the confidentiality of whistleblowers and prohibiting the disadvantageous treatment of whistleblowers.

During FY2018 they handled 17 consultations.

Education and Enlightenment Activities

We held lectures for Officers and General Managers, Managers, and chiefs, lectures on the Antitrust Law and the Act against the Delay in Payment, etc. to Subcontractors, compliance awareness training for medium-ranked employees, 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, Senior 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
Jun.2019 Director, Senior Managing Executive Officer (current position)

Director, Managing Executive Officer

Nobuyuki Masuda

Apr.1986 Joined Toho Gas
Jun.2008 General Manager of Engineering Department
Oct.2009 General Manager of Production Planning Department
Jun.2014 General Manager of Distribution Planning & Management Department
Jun.2015 Executive Officer, General Manager of Distribution Planning & Management Department
Jun.2017 Executive Officer, Executive General Manager of Distribution Division
Jun.2018 Managing Executive Officer
Jun.2019 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

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
Jun.2019 Director, Senior Managing Executive Officer (current position)

Director, Senior 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
Jun.2019 Director, Senior Managing Executive Officer (current position)

Supervisory Board Members (as of June 30, 2019)

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
Director of Toho Gas (current position)
Jun.2019 Special Advisor of Nippon Yusen Kabushiki Kaisha (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.
Jun.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

Hiroaki Kato

Apr.1984 Joined Toho Gas
Nov.2011 General Manager of General Affairs Department
Jun.2013 General Manager of East Nagoya District Headquarters
Jun.2015 General Manager of Auditing Department
Jun.2019 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



Further Leaps Forward with an Eye on Energy Management and Enhanced Services

The Japan Research Institute,
Limited
Counselor

Eiichiro Adachi

I read this report focusing on the background behind Toho Gas Group's robust financial results for FY2018 and the details of its new Medium-Term Management Plan that started from FY2019. There is an increasing need for a global shift to a decarbonized society. In June, Japan announced that it would work ambitiously towards transforming into a decarbonized nation as early as possible in the latter half of the 21st century. To achieve the targeted social system, Toho Gas must eliminate inefficiencies specific to each type of business, such as the city gas business and the electricity business, and convert its business from a supply business into an energy management business. It is possible that customers' needs for reducing CO₂ emissions will

run counter to your growth scenario to pursue selling as much gas as possible in the future.

Hints for achieving a shift to a necessary business model are found in the following initiatives: (1) Promoting the widespread use of ENE FARM (page 19) and Gas Cogeneration (page 21), (2) Expansion of the electricity business (page 16) and introduction of renewable energy (Page 26), (3) Opening of Minato AQUUS and launch of CEMS (page 28), and (4) Initiatives aiming for a hydrogen-based society (page 30). Going forward, rather than implementing initiatives as merely symbolic examples, the Toho Gas Group must take swift action to extensively deploy such initiatives across departments.

Regarding the Environmental Action Goals (page 34), I understand that significant hurdles are being faced in achieving these goals. However, I suggest that the Company include the total emission reduction target, possibly a value that incorporates the customer CO₂ emission reduction amounts, at the time of formulation of the next Environmental Action Goals. Energy sources to produce city gas have changed from coal to petroleum and now to LNG. Toho Gas has successfully reduced CO₂ emissions significantly and, based on this accomplishment, I expect the Company to describe what kind of presence Toho Gas will have in the stage of decarbonization, i.e., the story of your value creation, in the next report.

Evaluation by External Organizations

MSCI Japan ESG Select Leaders Index	Toho Gas has been selected for three consecutive years since 2016.
MSCI Japan Empowering Women Index (Select)	Toho Gas has been selected for three consecutive years since 2016.
SNAM Sustainability Index	Toho Gas has been selected for eight consecutive years since 2012.
22nd Environmental Management Survey 2019	Toho Gas earned third place in the electricity and gas industries.

External Awards

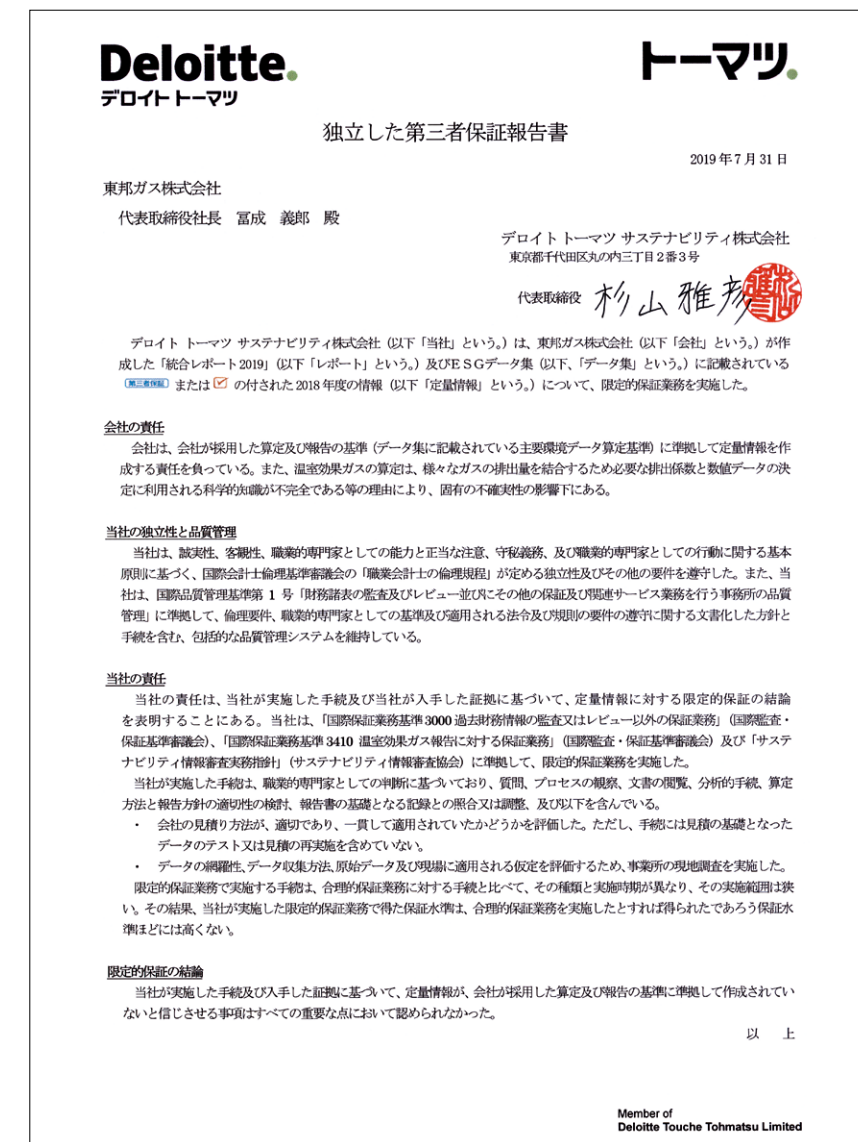
Major awards received in FY2018 are as follows.

Name	Main sponsor	Target	Joint award winner
New Energy Award Product and Service Category Minister of Economy, Trade and Industry Award	New Energy Foundation	Industrial/commercial use 3kW SOFC cogeneration that achieved best-in-industry power generation efficiency of 52%	KYOCERA Corporation, NORITZ Corporation, Tokyo Gas Co., Ltd., Osaka Gas Co., Ltd., SAIBU GAS Co., Ltd.
Energy Conservation Award Business Model Division Review Committee's Special Award	The Energy Conservation Center, Japan	Hybrid air conditioning system "Smart Multi"	Panasonic Corporation, Yanmar Energy System Co., Ltd., Aisin Seiki Co., Ltd., Daikin Industries, Ltd., Tokyo Gas Co., Ltd., Osaka Gas Co., Ltd.
Minister of the Environment Award for Global Warming Prevention Activity Advanced Implementation of Global Warming Mitigation Technologies Category	Ministry of the Environment	Development and introduction of direct mixing BOG reliquefaction equipment at LNG receiving terminals	JFE Engineering Corporation

Third Party Guarantee of Environmental Data

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



Guarantees from Independent Third Party



[Third Party Organization]

Deloitte Tohmatsu Sustainability Co.,
Ltd.

[Scope of Coverage]

This booklet and the ESG Data online have a  or  mark appended to indicate data guaranteed by an independent third party, including data on CO₂ emissions of FY2018 and energy consumption (purchased electric power usage, gas usage, other fuel usage), waste material volume, water usage amount, city gas sales volume, etc.

[Calculation Criteria for Major Environmental Data]

Major environmental data calculation standards are described in the ESG Data online.

Acquisition of Guarantees

We took on-site surveys on energy usage, waste volume, and water usage, as well as expanded scope of coverage starting with this year's report, including gas sales volume, energy resource procurement sources, and CO₂ emissions by customers, 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 work on the enhancement of data reliability and better disclosure of Toho Gas Group's environmental information.



Implementation of independent third party guarantee work

Financial Highlights (consolidated)

(FY)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Net sales (million yen)	474,559	411,524	436,825	482,360	518,305	560,462	580,984	479,870	390,433	428,868	461,199
Operating income (million yen)	10,888	17,819	23,906	17,503	12,621	15,751	28,760	60,725	23,188	23,984	17,831
Ordinary income (million yen)	11,368	17,351	24,334	18,164	13,382	17,053	29,516	61,132	24,490	25,208	21,485
Net income attributable to owners of the parent (million yen)	5,808	10,976	14,491	8,570	8,526	11,241	19,053	43,008	17,749	18,022	14,820
Net cash flow from operating activities (million yen)	50,876	77,279	53,929	32,163	40,261	37,809	62,320	114,923	37,264	57,047	32,615
Free cash flow (million yen)	2,367	33,289	20,085	(1,426)	1,903	4,792	24,480	72,727	(20,703)	13,702	(7,396)
Total assets (million yen)	516,129	506,724	495,626	492,889	504,461	509,760	543,286	555,217	532,931	541,087	550,599
Equity capital (million yen)	205,653	220,854	221,425	224,292	236,470	245,890	282,827	285,186	306,801	326,279	327,339
ROA (%)	1.1	2.1	2.9	1.7	1.7	2.2	3.6	7.8	3.3	3.4	2.7
ROE (%)	2.6	5.1	6.6	3.8	3.7	4.7	7.2	15.1	6.0	5.7	4.5
Total asset turnover (times)	0.92	0.81	0.88	0.98	1.03	1.10	1.07	0.86	0.73	0.79	0.84
Equity ratio (%)	39.8	43.6	44.7	45.5	46.9	48.2	52.1	51.4	57.6	60.3	59.5
Interest-bearing debt (million yen)	193,200	171,051	161,400	164,325	162,015	164,517	149,703	127,163	114,954	112,199	127,298
D/E ratio (times)	0.94	0.77	0.73	0.73	0.69	0.67	0.53	0.45	0.37	0.34	0.39
EPS (yen)	51.91	98.38	131.09	78.42	78.12	103.05	174.72	397.06	164.87	169.28	139.37
BPS (yen)	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	3,078.37
PER (times)	43.55	25.91	16.36	31.12	39.25	27.27	20.06	10.06	23.87	19.32	35.66
PBR (times)	1.23	1.28	1.07	1.19	1.41	1.25	1.35	1.52	1.37	1.07	1.61
Number of issued shares at the end of the term (excluding treasury stock)(thousand shares)	111,867	110,602	110,094	109,156	109,091	109,062	109,042	108,241	107,086	106,339	106,335
Dividend per share (yen)	40.0	40.0	40.0	42.5	45.0	45.0	47.5	50.0	50.0	52.5	55.0
Capital expenditures (million yen)	48,446	43,672	33,259	32,546	35,198	33,093	36,570	40,101	49,298	39,629	34,610
Depreciation and amortization (million yen)	40,629	61,157	40,573	40,272	36,901	35,780	33,950	32,987	35,482	35,973	36,075
Pipeline length (km)	27,496	27,796	28,073	28,373	28,709	28,970	29,203	29,431	29,722	30,007	30,274
Number of city gas customers (installed gas meters) (thousand)	2,280	2,295	2,307	2,322	2,345	2,364	2,387	2,409	2,434	2,463	2,486
City gas sales volume (million m ³)	3,765	3,711	4,001	4,035	4,045	4,073	4,031	3,908	3,974	4,024	3,838
Number of employees (persons)	5,506	5,643	5,654	5,668	5,662	5,813	5,817	5,818	5,860	5,892	5,799

* 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 issued 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 FY2017 (March 31, 2018)	End of FY2018 (March 31, 2019)
Assets		
Non-current assets		
Property, plant and equipment		
Production facilities	81,572	76,111
Distribution facilities	154,442	158,415
Service and maintenance facilities	26,263	27,588
Other facilities	35,356	45,677
Construction in progress	26,233	9,693
Total property, plant and equipment	323,868	317,486
Intangible assets		
Other	4,249	6,616
Total intangible assets	4,249	6,616
Investments and other assets		
Investment securities	92,020	83,492
Long-term loans receivable	5,701	6,732
Deferred tax assets	9,030	10,138
Other	7,143	8,852
Allowance for doubtful accounts	(83)	(64)
Total investments and other assets	113,812	109,152
Total non-current assets	441,930	433,255
Current assets		
Cash and deposits	17,955	19,338
Notes and accounts receivable-trade	48,874	57,833
Lease receivables and investment assets	9,825	11,159
Inventories	18,608	24,258
Other	4,122	4,958
Allowance for doubtful accounts	(227)	(204)
Total current assets	99,157	117,344
Total assets	541,087	550,599

million yen

	End of FY2017 (March 31, 2018)	End of FY2018 (March 31, 2019)
Liabilities		
Non-current liabilities		
Bonds payable	50,000	50,000
Long-term loans payable	29,942	43,440
Deferred tax liabilities	608	690
Provision for gas holder repairs	1,653	1,751
Provision for safety measures	18,211	17,105
Provision for gas appliance warranties	3,932	3,296
Net defined benefit liability	8,534	6,530
Other	8,870	9,460
Total non-current liabilities	121,753	132,275
Current liabilities		
Current portion of non-current liabilities	23,576	14,799
Notes and accounts payable-trade	20,284	20,009
Short-term loans payable	5,383	17,828
Income taxes payable	7,067	4,970
Other	36,742	33,377
Total current liabilities	93,054	90,984
Total liabilities	214,807	223,260
Net assets		
Shareholders' equity		
Capital stock	33,072	33,072
Capital surplus	8,387	8,387
Retained earnings	240,123	248,694
Treasury stock	(45)	(63)
Total shareholders' equity	281,537	290,091
Other comprehensive income		
Valuation difference on available-for-sale securities	42,111	35,177
Deferred gains or losses on hedges	(21)	599
Foreign currency translation adjustment	3,199	2,186
Remeasurement of defined benefit plans	(548)	(715)
Total other comprehensive income	44,742	37,248
Total net assets	326,279	327,339
Total liabilities and net assets	541,087	550,599

Consolidated Statements of Income

million yen

	FY2017 (April 1, 2017 to March 31, 2018)	FY2018 (April 1, 2018 to March 31, 2019)
Net sales	428,868	461,199
Cost of sales	271,686	315,324
Gross profit	157,182	145,874
Selling, general and administrative expenses	133,198	128,042
Operating income	23,984	17,831
Non-operating income		
Interest income	215	10
Dividend income	1,749	1,828
Rent income	701	681
Miscellaneous income	1,429	2,185
Total non-operating income	4,095	4,705
Non-operating expenses		
Interest expenses	821	672
Loss on bond retirement	1,462	—
Commission fee	174	156
Miscellaneous expenses	413	223
Total non-operating expenses	2,871	1,051
Ordinary income	25,208	21,485
Extraordinary income		
Gain on sales of investment securities	900	—
Total extraordinary income	900	—
Extraordinary loss		
Impairment loss	510	—
Loss on valuation of investment securities	—	421
Total extraordinary loss	510	421
Net income before income taxes	25,597	21,064
Income taxes-current	6,695	4,604
Income taxes-deferred	879	1,639
Total income taxes	7,574	6,244
Net income	18,022	14,820
Net income attributable to owners of the parent	18,022	14,820

Consolidated Statements of Comprehensive Income

million yen

	FY2017 (April 1, 2017 to March 31, 2018)	FY2018 (April 1, 2018 to March 31, 2019)
Net income	18,022	14,820
Other comprehensive income		
Valuation difference on available-for-sale securities	3,900	(6,951)
Deferred gains or losses on hedges	426	617
Foreign currency translation adjustment	(189)	(675)
Remeasurement of defined benefit plans	5,152	(167)
Share of other comprehensive income of entities accounted for using equity method	520	(316)
Total other comprehensive income	9,810	(7,493)
Comprehensive income	27,833	7,326
Comprehensive income attributable to:		
Owners of the parent	27,833	7,326
Non-controlling interests	—	—

Consolidated Statements of Cash Flows

million yen

	FY2017 (April 1, 2017 to March 31, 2018)	FY2018 (April 1, 2018 to March 31, 2019)
Cash flows from operating activities		
Net income before income taxes	25,597	21,064
Depreciation and amortization	35,973	36,075
Impairment loss	510	—
Gain on sales of investment securities	(900)	—
Loss on valuation of investment securities	—	421
Increase (decrease) in provision	901	(1,685)
Decrease (increase) in notes and accounts receivable-trade	(3,100)	(8,959)
Decrease (increase) in inventories	(1,292)	(5,649)
Increase (decrease) in notes and accounts payable-trade	(1,202)	(271)
Income taxes paid	(4,545)	(6,878)
Other	5,105	(1,500)
Net cash provided by (used in) operating activities	57,047	32,615
Cash flows from investment activities:		
Purchases of non-current assets	(39,629)	(34,610)
Proceeds from sales of non-current assets	196	290
Purchase of investment securities	(3,306)	(3,210)
Proceeds from sales of investment securities	1,232	520
Other	(1,837)	(3,001)
Net cash provided by (used in) investment activities	(43,345)	(40,011)
Cash flows from financing activities:		
Net increase (decrease) in short-term loans payable	(190)	12,445
Net increase (decrease) in commercial paper	2,000	(2,000)
Proceeds from long-term loans payable	10,060	18,045
Repayment of long-term loans payable	(4,265)	(13,671)
Proceeds from issuance of bonds	—	9,938
Redemption of bonds	(11,462)	(10,000)
Purchase of treasury stock	(3,021)	(17)
Cash dividends paid	(5,334)	(5,847)
Other	(27)	(57)
Net cash provided by (used in) financing activities	(12,240)	8,834
Effect of exchange rate change on cash and cash equivalents	(82)	(54)
Net increase (decrease) in cash and cash equivalents	1,379	1,383
Cash and cash equivalents at beginning of year	16,497	17,876
Cash and cash equivalents at end of year	17,876	19,260

Company Overview (as of March 31, 2019)

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	2,759 (5,799 on a consolidated basis)
Partner Companies	•101 ENEDO (gas equipment sales and service) shops •167 gas engineering companies

Stock Information

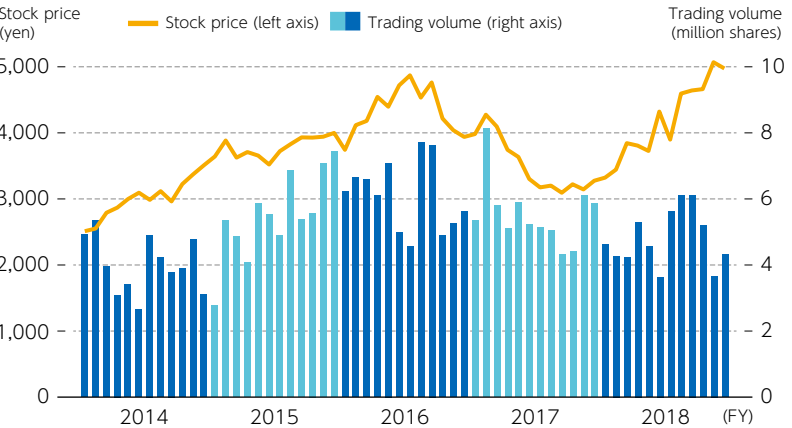
Securities code	9533
Fiscal Year	April 1 to March 31 of the following year
Annual Shareholders Meeting	June every year
Stock Exchange Listing	Tokyo Stock Exchange, Nagoya Stock Exchange
Administrator of Shareholders' Register and Special Account Management Institution	Mitsubishi UFJ Trust and Banking 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 treasury stock 16,000 shares)
Number of Shareholders	21,853

[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)	4,739	4.45
Japan Trustee Services Bank, Ltd. (Trust a/c)	3,536	3.32
Sumitomo Mitsui Banking Corp.	3,304	3.10
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	2,872	2.70
The Dai-ichi Life Insurance Co., Ltd.	2,582	2.42
Toho Gas Group Employees Shareholding Association	2,438	2.29
Japan Trustee Services Bank, Ltd. (Trust a/c 5)	1,943	1.82
Meiji Yasuda Life Insurance Co.	1,841	1.73
Toho Gas Kyoei Shareholding Association	1,514	1.42

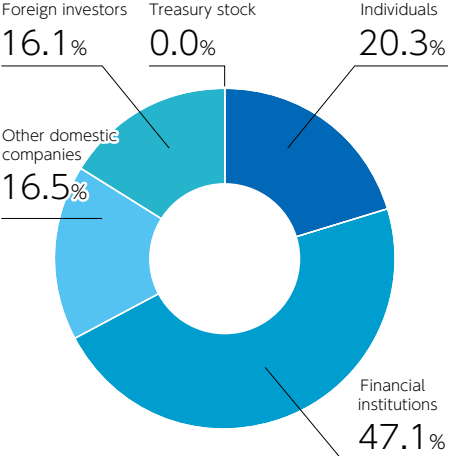
Note: Percentage of share ownership is calculated by the number of shares excluding treasury stock (16,000 shares).

[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-Midorihamma Works	Chita, Aichi
Chita Calorific Value Adjustment Center	Chita, Aichi
Yokkaichi Works	Yokkaichi, Mie
Singapore Branch	80 Robinson Road #10-01A Singapore 068898

● Toho Gas service area	■ Head Office
■ Service area of wholesale customers	■ Works
— Major Toho Gas pipelines	▲ District Headquarters

Major Affiliated Companies

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

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

Our Websites



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



Initiatives for CSR and Environment (in Japanese)
<https://www.tohogas.co.jp/approach/eco/>

