

TOHO GAS GRO

בורפמים מרפה אפליסור ע



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



Integrated Report

2 0 2 0

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



# Editorial Policy

Toho Gas Group has published an Integrated Report since FY2018 to replace its regular Annual Report and Environmental and Social

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 along with efforts toward ESG and the like 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.

#### I Reporting Period

FY2019(April 1, 2019-March 31, 2020) Some activities covered took place in FY2020.

## I Reporting Scope

In principle, Toho Gas Co., Ltd., consolidated subsidiaries and equity-method affiliated companies (as of March 31, 2020) 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.

# I 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.

# I Departments in Charge of Preparation

CSR / Environment Dept. TEL +81-52-872-9252 Finance Dept. TEL +81-52-872-9341

# I Reference Guidelines

**GRI Standards** 

International Integrated Reporting Council (IIRC) Framework

Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation Environmental Reporting Guidelines (2018 version) Task Force on Climate-related Financial Disclosures (TCFD) Opinions

#### I Published

(Next edition: scheduled for August 2021)

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Story of Value Creation
History of Toho Gas Group  Value Creation Process
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Environment Report
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Biodiversity Conservation
Social Poport

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Board of Directors and Audit & Supervisory Board Members

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#### Company Overview

Efforts to Support Manufacturing and Other Business in the Region

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

Environment Report

P37

Technological Development for the Future

P29

#### **Ties with Customers**

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

Efforts to Support the Lives of People in the Region

Contribution to the Local Communities

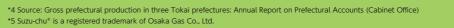
# **Foundational Security Systems**

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

Community-Based Security and Service Systems

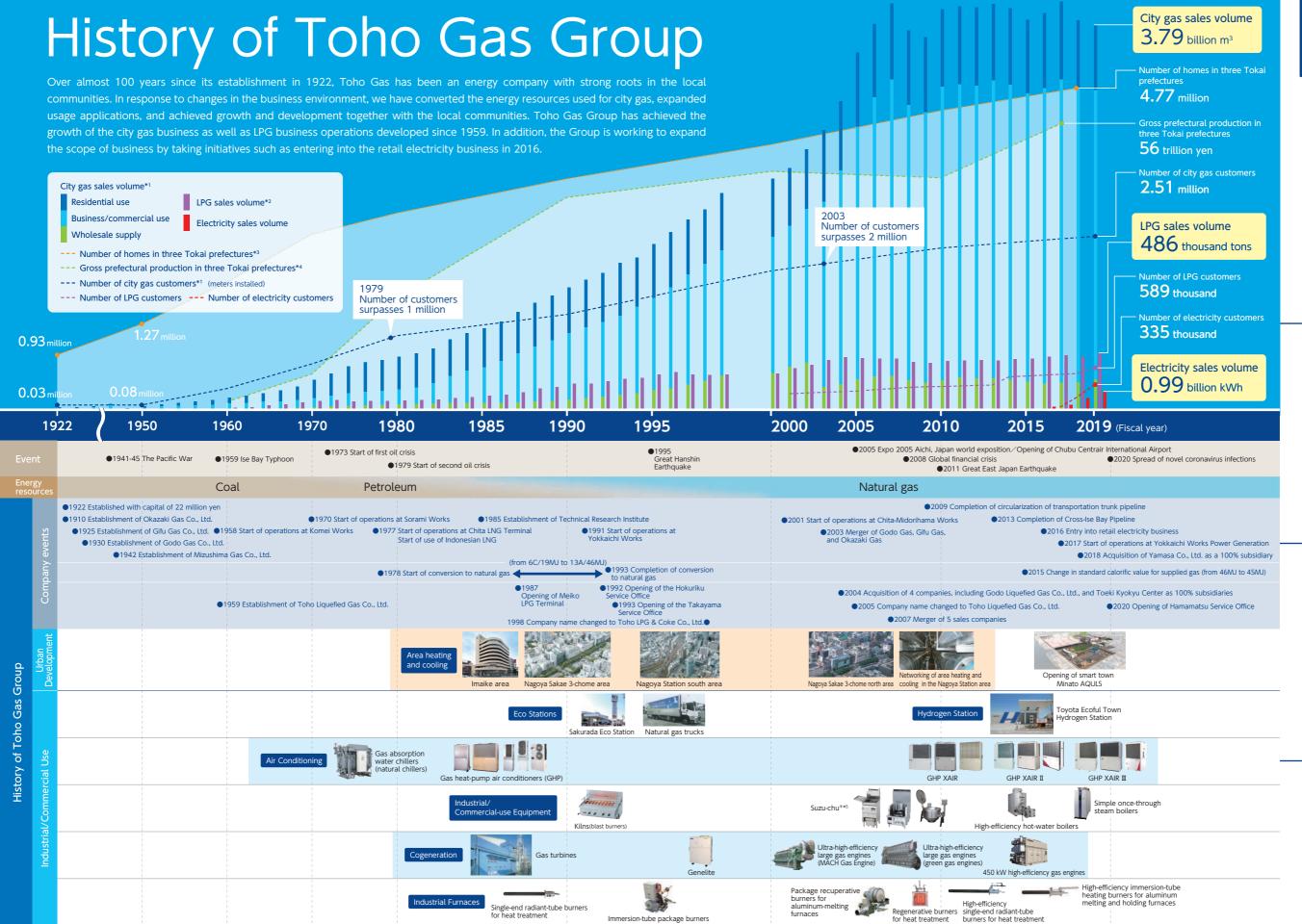
P18

Secure Stable Supply and Safety



ENE FARM

Eco-JOES



- \*2 LPG sales volume through FY2000 is based on non-consolidates figures from Toho Liquefied Gas Co., Ltd. \*3 Source: Number of homes in three Tokai prefectures: National Census (Ministry of Internal Affairs and Communications)

# Value Creation Process

Toho Gas Group Medium-Term Management Plan P15-16

# Grow with Energy — Go beyond Energy

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.

Strategy1

Further Growth of the City Gas Business Strategy2

Development into a Total Energy Provider Strategy3

Taking on **New Scopes** 

Reinforcing the business foundation of the Toho Gas Group

Procurement of energy resources

Approx. 3 million tons procurement: from 6 countries

Stable gas supply infrastructure

**3** works and a calorific value adjustment center

Pipeline length: Approx. 30.000 km

LPG supply network:

Meiko LPG Terminal (secondary terminal)

**25** gas-filling and delivery bases

Power-generation Yokkaichi Works – solar power plants (5 locations)

Chances and risks

associated with energy

liberalization

City gas service area

**54** cities, **21** towns and **1** village in three prefectures of the Tokai region

Human resources

Number of employees: 6.198



# City gas business



Procurement of energy resources Production





Group businesses and new businesses

Corporate governance P55 - 56

# OUTPUT P63-64

City gas

LPG

**3.79** billion m

486 thousand tons

Electricity **0.99** billion kWh

Operating Cash Flow 68.3 billion yen

Safety

P18、P21 - 22

ROA 2.9%

**2.51** million

589 thousand

335 thousand

Number of customers
\*Including subcontracted deliveries

Local communities

P47 - 48

Environment

P37 - 46

# **Expected Changes in the External Environment**

Promotion of the further reduction of carbon emissions

Rapid advancement and social penetration of digital technology

Depopulation, aging and diversification of values

# OUTCOME

Value provided to stakeholders

Customers P17 - 26

Safety and security I Supporting lives and manufacturing









## Local communities P37 - 48

I Contributing to the creation of a low-carbon society

Social contribution activities











#### Shareholders and investors P49 - 50

I Corporate value enhancement ■ Stable return to shareholders

# Partner companies P45

I Fair and unbiased transactions Collaboration with subcontractors





# Employees P51 - 54

Respect human rights I Pleasant working environment





## Sustainable Development Goals (SDGs)



The SDGs are 17 goals with 169 targets set to achieve a sustainable society.





# Message from the President

Toho Gas will support customers' lives and manufacturing activities, and contribute to regional growth and a low-carbon society.

# Progress and Evaluation of the Medium-term Management Plan

# Positioning of the Medium-term Management Plan

Toho Gas will celebrate the centennial of the company's founding in 2022. The current Medium-term Management Plan ("Medium-term Plan") covering the three years leading up to the centennial (FY2019 through FY2021) is positioned as something indicating the orientation of the strategy we should adopt in this era of full liberalization, while simultaneously showing the basic policies for building a foothold directed toward sustainable growth on

During these three years, we will respond with a sense of speed to the effects of the novel coronavirus on the economy and social activity and other changes in our operating environment in addition to liberalization and other major trends of the times, and along with this, we will remain aware that we stand on the cusp of extremely important changes, such as the major revision of our business structure ahead of the legal separation occurring

#### Assessment of FY2019

We regard FY2019, in which the Medium-term Plan began, as having been able to get off to a fair start. The record-breaking warm winter and reduced operation of equipment at customer sites, the effects of liberalization, and other such circumstances did make for quite harsh conditions for the Group, but such factors as acquisition of new demand and improvement in gains and losses due to the sliding time lag effect enabled us to accomplish our period-initial profit plan, and with respect to our operating cash-flow target of "creating 160 billion yen or higher over three years," we achieved a progress rate of over 40% in the first fiscal year.

Regarding individual efforts, we made steady forward progress including in new departures, centered on the company's strengths of energy and the region. Firstly, in the area of energy, despite the economic slowdown and

the effects of liberalization, our total share of the region's energy market grew, thanks to new development of city gas and LPG, securing contracts for electricity, and the transition of the Yamasa Group into a subsidiary. Through

#### ■Medium-term Management Plan - Targets and Progress

			FY2019	Medium-term Plan target FY2021
	Natural gas	Number of customers*1	2.51 million	2.55 million
	ivaturat gas	Sales volume*2	3.88 billion m³	<b>4.1</b> billion m <sup>3</sup>
	LPG	customers	510 thousand	
	LFG	Sales volume	486 thousand tons	490 thousand tons
	Electricity	Number of customers	335 thousand 300 thousand	
		Sales volume	0.99 billion kWh	1.0 billion kWh
		of reduced CO <sub>2</sub> customer locations	0.141 million tons	0.60 million tons

Operating cash flow 68.3 billion yen Investment into the city gas business 27.7 billion yen Investment into growth businesses 20.7 billion yen 2.9 %

<sup>e</sup> 160.0 billion you 60.0 billion ye 3 % and over such circumstances as conversions from petroleum to city gas as fuel and adoption of cogeneration, we were also able to help reduce CO<sub>2</sub> emissions at customer locations. In addition to this, and although the portion of electrical power generation it accounts for is still only a few percent, we also devoted attention to introducing renewable energy sources, such as by ownership of solar power facilities and investing in renewable-energy funds.

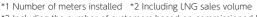
Next, in terms of the region, as part of our move toward local consumption of locally produced energy, we set up New regional electricity business Okazaki City in Aichi Prefecture as well, following on the business we helped to establish in Matsusaka City, Mie Prefecture. In addition to pressing ahead with the adoption of gas air conditioners in public elementary and junior-high schools, thereby contributing to improving the learning environment for the children who will inherit the future, we also moved forward with endeavors conducive to regional growth and vitalization, such as developing Minato AQULS. We also developed operations that help with social contribution, including the " Junijuni " shopping service\*, which aims to reduce food loss and the like, and Toho Flower, established in aims of working to create more workplaces for persons with disabilities and entrenching employment. I feel that the ways in which we can contribute to regional growth while giving full play to the Group's strengths will become an increasingly consequential issue.

\* "junijuni sponsored by TOHO GAS," a socially conscious shopping service "JUNIJUNI" and " junijuni" are pending trademarks of Toho Gas Co., Ltd.





Yoshiro Tominari



<sup>\*3</sup> Including the number of customers based on commissioned business for delivery



# Toward Accomplishing Our Plans



# Business Environment Perceptions

We are now in the fourth year of the full liberalization of retail markets that began in 2017, and the outflow of customers is still continuing and the number of operators newly entering the market is rising, and in ways such as these the competition is growing increasingly fierce. In addition, rapid development and penetration of digital technology, heightening social demand for lower carbon and decarbonization, declines in numbers of households and in population – these and numerous external factors exist that, going forward, will greatly impact our business activities.

Added to these most recently is "corona shock." We see a strong possibility of myriad changes, from international relations through to the values and modes of action of society and our customers, and together with this, of acceleration in the exacerbation of current issues and the surfacing of future issues. As we determine what will change and what will not, along with as where the risks and opportunities that change brings lie, we will press ahead with innovations that anticipate future needs in our organizational system and workstyles, in how to work in a way that balances efficiency and sense of fulfillment, in the modalities of responding to customers, and in all other aspects.

#### Orientation of Our Efforts

For FY2020, the second year of our Medium-term Plan, the plan's values for the fiscal year, based on financial trends moving forward and certain premises, were announced when we released the financial results for the first quarter. Circumstances appear to be changing moment by moment, but through flexible course correction based on a quick remedial action with light hand on the rudder, we will ride out the harsh business climate. At the same time, we are pressing ahead with strengthening and expanding our business foundation for the Group's subsequent growth while we work to hasten the deployment of measures for accomplishing the Medium-term Plan.

As an example of "something that changes," acceleration of the digital shift appeals to maintain social distancing and changes in workstyles and values is decidedly apparent, but whereas the realm of "non-contact" services is expanding, the value on one-to-one communication and direct-contact personal services may actually be increasing even further. It also seems that, from the smallest

community units – families and lives – to the larger units of companies and areas, the strength of the links within these communities will gain greater emphasis.

To touch on the relationship with the three key strategie in the Medium-term Plan, while continuing to keep energy supply the core, we will seize such change and rapidly compose services that resonate with the customer. To deliver these and elicit delight not just among existing customers but also among others, including customers in surrounding regions, we will enhance the real physical points of contact that are our strength together with expanding digital points of contact. My belief is that such efforts become the foundation for regional revitalization and consequently lead to improvement of our total energy share and expansion of the scope of business.

In the sense of "something that does not change," the current COVID-19 situation has forcefully impressed it upon me once more that "ensuring safety and security, and stable supply" is a vital mission we carry. Heretofore we have devoted effort to spreading and expanding facility and equipment measures, emergency measures, and distributed energy systems from the standpoint of disaster preparedness and mitigation with respect to earthquakes and climate change, but henceforth we are also adding the perspective of infection measures and expending effort in health management for the employees who carry out our mission and in improving the environments in which they work, and continue contributing to strengthening the resilience of the region as a whole.

Together with this, to heighten our ability to withstand fluctuations in the business environment, my resolve to carry out sweeping cost-structure reforms and build a business foundation that is slimmer and more robust has also grown stronger. Specifically, we intend to acquire the real management ability to be able reduce fixed costs at the current level of around 110 billion yen to the mid-100 billion yen level called for in the Medium-term Plan, then in the future to around 100 billion yen.

Even amid the further accelerating environmental changes that the Group faces, the Medium-term Plan's direction itself remains unchanged, and I am convinced that accomplishing the plan's key strategies is certain to carry us beyond our fist hundred years.

# **Toward Sustained Growth**

# ■ The Founding Spirit Carried Down to This Day

For the Toho Gas Group to enjoy long-term, sustainable growth, in addition to strengthening and expanding our business foundation by brining our Medium-term Plan to a successful conclusion, fulfilling our *social responsibility* to an even greater degree – that is to say, contributing to social continuity through responsible corporate activities with consideration for society and the environment – will become crucial, I believe. This is precisely the thinking behind ESG, and the awareness that the aims are the same as those of SDGs.

Some hundred years ago, Sakura Okamoto, Toho Gas's founding president, held in the company's management philosophy that "Customers, shareholders, and employees form a trinity, and the coexistence and coprosperity of such stakeholders in the company is indispensable." He expanded this way of thinking to a doctrine of public service, and advocated furthering local-community welfare and integration with local communities. This thinking has been passed down unbroken to the present, and forms the core of the current Medium-term Plan. This appears in at the beginning of the Medium-term Plan, in the passage reading

"to support customers's 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," and is thinking that is congruent with ESG activities.

#### Efforts Toward ESG

As an example of new initiatives concerning the environment (E), in April 2020 we endorsed the Task Force on Climate-related Financial Disclosures (TCFD). In the course of long-term change to low carbon and decarbonization, we will work for harmony with natural gas and renewable energy, and while taking a hard look at the impact of climate change, with will work to achieve sustainable growth as an energy operator. Through our participation in the new "Challenge Zero" project launched by Keidanren in June 2020, we will also take up the challenges of innovation geared toward net zero carbon, including development of hydrogen utilization technology. Regarding society (S), to resolve the concerns of customers in this region and social issues the region faces, thinking that asks what kinds of support we can provide is basic for the Group. With grounding on an awareness of connection to the countries and people of the world through our regional

customers, I would like to face the regions with thinking that has global currency and making contributions capable of the meeting the region's needs, with supplying energy at the core of this. Like-minded persons who share such thinking and support our efforts – that is to say, hiring and fostering human resources who are highly sensitive to change, profoundly sensitive themselves, and capable to thinking things through and translating this thought into action for the benefit of the region is critical. We will concentrate on developing a milieu in which they can take action with alacrity and enthusiasm.

Accordingly, as has also been described in the section on the materiality we have now identified (see P. 14), what serves as the base for all corporate activity is the portion of compliance and governance (G). We will devote unstinting hard effort so that we will be able to link the bonds of trust that we have built up among customers and local communities to the next level, and also so that investors will be able to commit to us with confidence. I believe that such diligence will lead directly and indirectly to achieving SDGs.

# Considering Our Long-term Vision

As a means to realize these, we plan to start discussing our future vision from the second half of FY2020, with our sights

fixed on our 100th anniversary and after. While giving full play to the spirit of the Group Vision we formulated on the occasion of our 90th anniversary, we will meld the course of the times with our uncompromising determination, taking into account the myriad changes in environment that have occurred since, present a clear view of the vision of ourselves to strive for. To state this another way, this is a task that taking our centennial an important juncture for reflecting anew on our raison d'etre.

This is a business climate experiencing dizzying changes, but from both the short-term and the medium- to long-term perspectives, we will spare no effort in engaging in management so as to meet the trust of customers, local communities, shareholders and investors, employees, and other stakeholders.

We truly appreciate your continued support and understanding.

# **About Our Capitalization Strategy**

# Basic Approach

The main point of our capitalization strategy is to achieve a good balance for the matters of sustained growth, improving asset efficiency, and a sound financial foundation for the Group.

The Medium-term Plan adopts a target of creating cash flow of 160 billion yen and over during the three years, and we will allocate this in a manner that balances investment in the gas business and growth businesses and return to shareholders while maintaining a certain measure of financial soundness.

#### Investments

In addition to investments into the city gas business, our core business, with the aim of reinforcing the business foundation and achieving further growth, we will make growth-business investments to expand our business scope. For growth-business investments, to keep amounts for investment from themselves becoming objectives, we will work with carefully selected feasible and good-quality projects. In particular, we will take into account the

circumstances in which the business environment is changing greatly due to the impact of COVID-19 and other factors and carefully scrutinize the feasibility of proposed projects, and concentrate investment resources with a central focus on *energy* and *the region*. We will borrow to a certain extent in the case of a good-quality project, but as we ready ourselves with respect to the current COVI19 situation and against seismic risk, we believe that also maintaining considerable equity capital is commensurately necessary.

#### Returns to Shareholders

Based on an approach of providing stable dividends and flexibly implementing the purchase and retirement of treasury stock, and from a medium to long-term perspective, we have heretofore paid out 40% to 50% of net income in dividends.

Despite the murky outlook for the business environment, we intend to keep our basic thinking unchanged and continue stable making returns to shareholders.

## ■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 Pun FebMay 2001	chase value
Feb -May 2001	
root ridy 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
FebJun. 2006	1,746
Feb. 2007	2,668
FebMar. 2008	2,784
Dec. 2009-Mar. 2010	2,996
MarJun. 2011	2,751
May-Jun. 2015	2,999
May-Jun. 2016	2,381
Mar. 2017	2,199
May-Jul. 2017	2,994
Aug-Oct. 2019	2,999
Total	44,606

# Identification of Key Issues (Materiality)

The Toho Gas Group, in moving toward "promotion of ESG management" as espoused in the Medium-term Management Plan (FY2019-FY2021), identified social issues of high importance to society (stakeholders) and the Group as materiality. We are devoting effort toward resolving social issues in line with materiality, and will continue contributing to the growth of local communities.

# Materiality Identification Process

Taking as a reference the GRI Standards\*, international standards for sustainability information disclosure, we identified issues by following the steps described below.

\* Standards for sustainability reports by the Global Reporting Initiative (GRI), a global NGO

# STEP 1



# Analyze the Present Status

We analyzed the present status of social issues through investigation of such matters as various international criteria and stakeholder expectations and demands and analyzed the present status of the company itself in terms of our corporate philosophy and our Corporate Code of Ethical Conduct, and compiled materiality elements on the basis of the items cited in the GRI Standards.

- \*1 ISO 26000: International standards relating to social responsibility
- \*2 SASB: Sustainability Accounting Standards Board of the U.S.A.
- \*3 FTSE: FTSE Russell, subsidiaries of the London Stock Exchange Group \*4 MSCI: Morgan Stanley Capital International

International Standards GRI Standards, ISO 26000\*1, SASB\*2

SDG targets

Evaluation items of ESG ranking organizations (FTSE\*3, MSCI\*4)

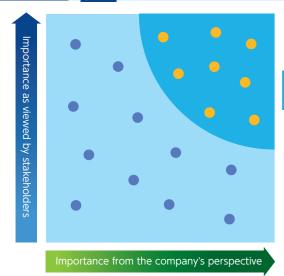
Stakeholder expectations and demands (matters voiced by customers. dialog with investors, etc.)

Ethical Conduct,

Medium-term

Corporate philosophy and our Corporate Code of Environmental Action Principles. Management Plan

# Rank by Priority



Economic performance Indirect economic impact Energy Water and wastewater Biodiversity Atmospheric emissions Wastewater and waste products

issues to prioritize

Occupational health and safety Training and education Diversity and equal opportunity Local communities Customer health and safety Customer privacy

Items to prioritize (items from GRI Standards

We weighted the results of present-status analysis, taking into account industry characteristics taken, and along the two axes of importance as viewed by stakeholders and importance from the company's perspective, we extracted from among the items indicated in the GRI Standards the

#### STEP 3



# **Identify Materiality**

The status of efforts for last fiscal year can be viewed on our website.

We organized and integrated the items thereby extracted, taking into account the Medium-term Management Plan and other such considerations, and after management-level discussion, we identified the materiality. We also established action issues in line with this materiality.



https://www.tohogas.co.jp/ lang-n/en/approach/eco/

STEP 4



# Disclosure and Review

We conduct reviews that cover evaluations of action performance, changes in the business environment, stakeholder views, and other matters, and make appropriate revisions.

# **Identified Materiality**

Materiality, on the basis of compliance and governance grounded on the Toho Gas Group Medium-term Management Plan, was arranged into issues to be addressed in a strategic manner (materiality 1 through 4) and action issues as the management foundation that supports the first group (materiality 5). The SDGs (sustainable development goals) associated with this materiality are as shown below. The Group has even heretofore promoted action with respect to social issues through its business activities, and will continue to contribute to achieving SDGs in line with materiality.

#### Aims of the Medium-term Management Plan

Based on the "customer first" spirit we have cultivated since the company's inception, we aim to support customers' lives as well as manufacturing through supplying energy ( Materiality 1 2 ), and contribute to the growth of the region ( Materiality 3 ) and to a becoming a low-carbon society





Compliance and Governance

# Toho Gas Group Initiatives

# Grow with Energy—Go beyond Energy

Strategy 2

Development into

a Total Energy Provider

Offer optimal proposals for

the three different energies and

provide added value through

# Strategy 3

# Taking on New Scopes

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

## FY2019-FY2021

# 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.

# 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 / Improvement of Efficiency / Reform of the Organizational Structure / Technological Development for the Future / Promotion of ESG Management











## Strategy 1

# Further Growth of the City Gas Business

Efforts to Support the Lives of P17
People in the Region

Efforts to Support Manufacturing and Businesses in the Region

Expansion of Natural Gas Service Areas P20
Stable Energy Procurement at a Reasonable Price

Secure Stable Supply and Safety P21

Strategy 2

# Development into a Total Energy Provider

Provision of Added Value through
New Services

Strengthening of the LPG Business

P24

Expansion of the Electricity Business

P24

Strategy 3

# Taking on New Scopes

Strategy 1

Further Growth of

the City Gas Business

Ensure safety, security and stable supply.

urther strengthen cost competitiveness.

Deepen relationship with customers.

Reinforcement and Development of P25 Group Businesses

Development of New Businesses P25

# Reinforcing the Business Foundation of the Toho Gas Group

Reinforcement and Use of Human Resources	P27
Improvement of Efficiency	P28
Reform of the Organizational Structure	P28
Technological Development for the Future	P29
Promotion of ESG Management	P31







Application website for RakuRaku Lease

(separate charges apply) 3 Premium discount services

Water heater and built-in らくらくナンテ stove maintenance

らくらく回動サポート

saGAS!

A lease system for a reasonably らくらくリース priced use of various gas equipment

#### \* Current as of July 2020 For details, please see our website.

# Provide a Wide Range of Life Support Services

We are continuing to expand our living-related service menu, in addition to RakuRaku Kurashi Support, RakuRaku Maintenance, and RakuRaku Lease. As an example, in coordination with Air Trunk Co., Ltd., we are providing preferential use of home delivery storage services according to city gas and electricity contracts (limited to some areas).

# **Strengthening and Expanding Housing Renovation**

We launched a new service for renovation, My House Meister, responding to a wide range of customer needs related to housing and living as a partner in the area of daily living.

From minor concerns to full-scale renovation, Meister is a one-stop solution as a general partner in customers' daily lives in the region.



Easy consultation via LINE Support for program (awarding of discount coupons, etc.)

Prompt response for estimates

Meister membership

Advance introduction to a construction

**å ≟** areferral

warrantv

For details, please see our website

# **Enhancement of Security and Service System Close to the Community**

Around-the-clock phone service for customers expanded to cover the acceptance of reservations for gas and electricity connections\*1 on top of dealing with requests for repair service. This is designed to enable customers' access to Toho Gas staff 24 hours a day, 365 days a year, as part of our efforts to make our service more convenient and expeditious for customers while relieving them of any source of concern.

High-quality services including a troubleshooting maintenance and repair service offering on-site repair of gas equipment up to 9:00 p.m.\*2, free inspection that includes plumbing\*3, and more are provided.



1Acceptance of repair requests and reservations for gas and electricity connections only (on-site repair service is not

\*2Gas 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

BFor details, please see our

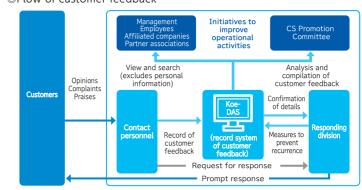
# Improvement in CS\* \*Customer Satisfaction

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 FY2019, we received 9,516 instances of feedback, including opinions, complaints, and praise. We share these

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.

with related divisions for the purpose of prompt response and operational improvements.

# OFlow of customer feedback



©Examples of Improvements Made Through Customer Feedback (FY2019)

I want to pay my gas bill using electronic money.	LINE Pay added to payment slips as an available payment method
I want to earn Gas-Teki Points with my gas bill.	Launched service to automatically award Gas-Teki Points according to gas and electricity payment amounts
Making non-Japanese customers aware that there are different gas appliances for city gas and for LPG gas would ease concern.	Expanded the "FOR YOUR SAFETY" safety-awareness leaflet to provide information for non-Japanese.

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 in customers' daily lives, we will offer proposals for a comfortable and ecological life, and provide a wide range of services tailored to the various lifestyles of customers. In addition, by leveraging the strength of the Group's "security and service system close to the community," we will enhance support in the event of a problem and continue to be a company of choice for our customers.

# Propose Comfortable and Ecological Life

To further the popularization of zero-net-energy houses (ZEH\*) and the like, we are promoting expansion of high-efficiency gas equipment that enhances convenience for customers.

Toho Gas Group Initiatives Strategy 1

Further Growth of

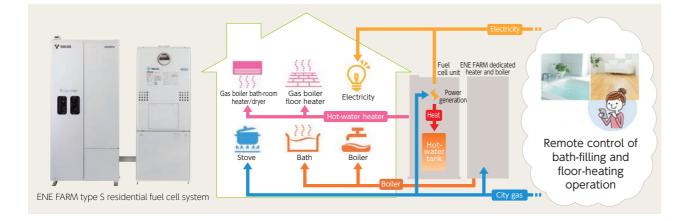
the City Gas Business

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.

We launched sales of the new model of ENE FARM on 2020.

In addition to improving power generation efficiency (from 52% for the previous model to 55%), it is equipped with an IoT function to achieve remote control of city gas appliances. In addition, types that can continue power generation even during a power outage are also available in the product lineup.

ZEH: Residential housing whose aim is to realize zero annual net consumption of primary energy by achieving dramatic energy savings by vastly improving insulation performance and the like and adopting high-efficiency equipment systems as well as renewable energy.



# **TOPICS**



#### Engagement of Mao Asada in a New Series of **Television Commercials**

Former ice figure skater Mao Asada has been appearing in the "My Answer Is Toho Gas Group" series of television commercial messages as our new brand ambassador since November 2019.

The "My Answer Is Toho Gas Group" messages showcase combination plans for gas and electric power, lifestyles featuring ENE FARM, gas-equipment repair services, and more.

17 Toho Gas Group Integrated Report 2020

# Efforts to Support Manufacturing and Businesses in the Region Materiality 1

Toho Gas proposes to customers a shift from oil-based fuels to gas, the introduction of energy-efficient gas facilities, and the use of diverse energy sources. These measures enable customers to conserve energy, reduce CO2 emissions, and curtail business costs. We are also committed to providing high-quality services (total business support) to customers while using our advanced, up-to-date technologies. By doing so, we can contribute to manufacturing and other business development in our service area.

# Highly Efficient and Diverse Use of Natural Gas

We are promoting fuel conversion for oil fuel customers by proposing high-efficiency burners utilizing our combustion technology.

We are also promoting the use of city gas in line with customers, such as energy savings, CO2 savings, cost savings, and BCP by proposing highly efficient gas air conditioning and cogeneration.

We are also leveraging the energyrelated technical capabilities and expertise that we have cultivated to strengthen proposals of diverse energy utilization



Energy-saving diagnosis



Gas cogeneration system with a BOS\* function \*Blackout start: A function to start up engine and supply electricity without using an external power supply source

#### **TOPICS**

## Sales Launch for GHP XAIR III

Sales began in April 2020 for he GHP XAIR III, which achieves even further improvements in energy savings and other aspects of performance and functionality as a next-generation high-efficiency gas engine heat pump – a gas air-conditioning system that achieves energy savings and lower power consumption.



#### LNG Bunkering

We conducted demonstration test at the Port of Nagoya in November 2019 for LNG bunkering, which entails using LNG tank trucks to supply LNG-fueled marine vessels with LNG. The LNG fuel was taken from the Chita-Midorihama Works to the Port of Nagoya by LNG tank truck, then supplied to a berth LNG-fueled tugboat. We are using the findings from the demonstration test to

make an appeal for the conversion of marine vessels to LNG fuel, and devoting effort to reduce the load on the environment.



# Provision of Total Business Support

We are promoting moves that include proposal of energy saving and cost saving using heat storage material by our original technology, cost-saving proposals for utility equipment other than energy, such as water treatment equipment and compressors, and improvements in added value by utilizing digital tools, such as emergency response and maintenance of industrial furnaces.

# High-density Thermal Storage Material

We developed heat-storage material with about 10 times the amount of heat storage of water. We will actively use our cogeneration system in various fields to promote energy conservation and cost cutting. For example, unused exhaust heat will be stored as thermal energy using the cogeneration system.



# **Expansion of Natural Gas Service Areas**

riality 2 3

We will expand gas pipeline networks for city gas, broaden gas supply areas, and increase the capacity of gas transportation.

In addition, we will provide natural gas to a broader area by strengthening the supply system through the active use of LNG tank trucks.

# **Expansion of City Gas** Service Areas

The gas pipeline network that Toho Gas has constructed heretofore has a total length of 30,000 km.

To supply city gas in a stable way, we are promoting improvement and expansion of the gas pipeline network from a medium- to long-term perspective, expanding the area of supply and increasing the amount of gas sent.

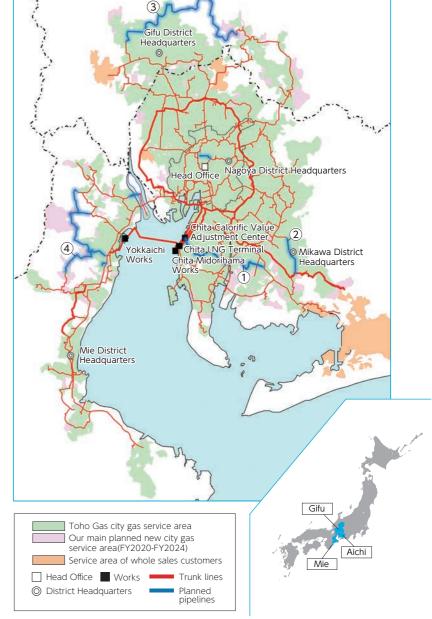
In FY2019 the Taketoyo-Mihama Line was completed, expanding the suppliable area for city gas on the Chita Peninsula.

We are promoting enhanced gas transportation capacity by laying trunk gas pipelines in southeastern Aichi Prefecture, together with expanding our service area for city gas through line extension works in Gifu and Mie prefecture.

	Pipeline length	
Aichi	1 Nambu Trunk Line (Chita-Anjo)	30km
AICH	2 Daimon-Sakazaki Line	10km
Gifu	3 Motosu-Gifu-Minokamo Line	60km
Mie	4 Inabe-Yokkaichi-Kameyama Line	50km







# **Expand LNG Tank Supply** to Wider Areas

We are promoting stimulation of gas demand not only in the three prefectures in the Tokai region but also in peripheral areas and the Hokuriku region by deploying LNG tank trucks.



ING tank trucks

# Stable Energy Procurement at a Reasonable Price

We are promoting further diversification of procurement including procurement from new areas to ensure stable LNG procurement at reasonable prices and work to improve flexibility in procurement systems, including LNG receiving facilities.

# Diversification of LNG Procurement

In order to ensure stable LNG procurement at reasonable prices, we will continue to implement measures to diversify procurement areas, price indexes, and contract types.

#### [ Procurement areas ]

We have started procurement from the Cameron Project in the U.S.A, and expanded the number of suppliers under long-term LNG contracts to six countries. We utilizing LNG carriers partially invested by Toho Gas to transport LNG from

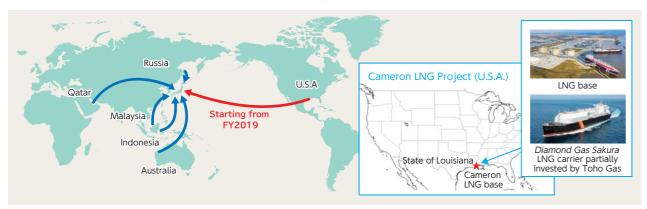
the U.S.A.

#### [ 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.

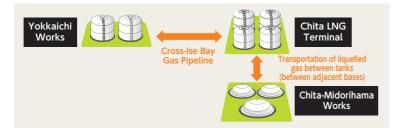
#### [ Contract types ]

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



# Flexible Operation of LNG **Receiving Bases**

We are utilizing the Cross-Ise Bay Gas Pipeline and LNG transfer between bases, strengthening inter-base operations, and establishing flexible and efficient operation of the terminals.



# Secure Stable Supply and Safety (Strengthening the Resilience) Materiality 2

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.

In the face of spreading new coronavirus infections, we will strengthen infection-prevention measures and sustain gas manufacturing and supply systems based on our business continuity plan (BCP).

#### [ 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.

#### [ 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.



# **Advance Disaster Control Measures**

We are promoting measures to protect facilities from earthquakes, windstorms, and floods (facility protection measures), to prevent secondary disasters (emergency response measures), and strengthening systems for recovering quickly from disasters (recovery measures), in terms of hard and soft infrastructure.

# Facility Protection Measures

#### Measures to Protect Manufacturing Facilities Against Earthquake and Tsunami

Equipment such as LNG tanks is designed to withstand major earthquakes, windstorms, and flooding. Tsunami screens have been installed to prevent damage caused by driftage from a tsunami.



#### Measures to Protect Supply Facilities Against Windstorms and Flooding

We are promoting incorporation of anti-flooding systems into governors (pressure adjusting equipment) to ensure a stable gas supply in the event of typhoon or torrential rain.



#### Gas Pipes with Superior Earthquake Resistance

We are promoting the spread of adoption of gas pipe materials and connection methods that offer superior resistance to earthquakes.

Polyethylene pipes have an indefinite lifespan with no risk of corrosion, and physical flexibility is excellent.

#### Measures to Protect Supply Facilities Against Tsunami

To carry out emergency response rapidly and reliably when a tsunami occurs, we are adopting a system that integrates warning and water-level information.

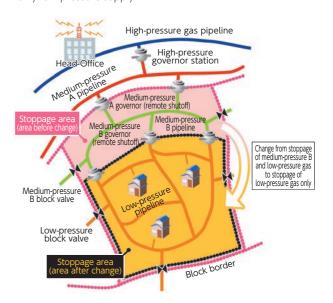


# Emergency Response Measures

#### Segmentation of Supply-stoppage Blocks

When an earthquake occurs we collect seismic data from approximately 250 seismometers (SI sensors) installed in our supply area and perform remote gas shutoff of medium-pressure A governors to stop the supply of gas in individual gas-pipeline network blocks, thereby preventing secondary disaster.

Further, to hold the impact of supply stoppages to a minimum and help bring about quick recovery, we are expanding the target areas for cutoff of medium-pressure B governors stopping only low-pressure supply.



# Recovery Measures

#### Disaster Drills and Establishment of an Emergency **Supply System**

To heighten the effectiveness of our BCP, we conduct an annual disaster drill in integration with our Group companies and partner companies, along with conducting constant reviews of the BCP to ensure it reflects the latest damage projections.

We have also made preparations for the emergency supply of city gas to core disaster hospitals and other socially vital facilities by means of mobile gas production equipment.



Mobile gas production

#### •Use of IT to Speed Recovery After a Disaster

We will make gas-connection work after a disaster or accident

more expeditious through the active use of IT. For example, arranging for gas-connection work will be accepted via the internet.

#### Strengthened Cooperation in the Event of a Disaster

In aims of hastening mutual disaster recovery, we conduct joint drills with local municipalities, Self-Defense Forces, and other gas operators and retail operators.





Earthquake drill with the Nagoya City Sewerage & Waterworks Bureau

Material and equipment transport training with the Japan Ground

# **TOPICS**

## Agreement on Cooperation Signed with the National Research Institute for Earth Science and Disaster Resilience

In order to share information rapidly in the event of a disaster, we have entered into an agreement regarding cooperation with The National Research Institute for Earth Science and Disaster Resilience (NIED)\*. By Toho Gas sharing information on areas where gas supply is stopped and receiving information on road damage, landslides, and the like provided by NIED, we will

contribute to quick recover of gas service as well as to disaster response made with other involved entities.

\* An institute whose basic objective is "realization of a society resilient to natural disasters" conducting research activities in a broad range of fields, including earthquakes, wildfires, meteorology, snow and ice, disaster-reduction studies, and social disaster mitigation.



TOHO GAS

# 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

In addition to direct contact with customers, one of the Group's strengths, we will steadily provide new services by enhancing digital channels and provide one-stop added value beyond energy supply.

# **Total Energy Provider** City Gas Electricity Provide added value through new energy-related services

# Provision of New Services

Under the concept of "providing services that satisfy tomorrow's lifestyles," the e-commerce website\* ASMITAS was launched in March 2020 as a life service platform that provides services other than energy.

\* An Internet website for product sales

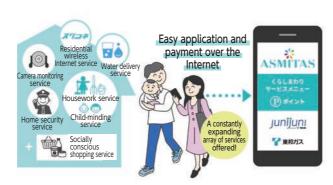
# [ASMITAS Life Service Platform]

With smartphones as the point of contact, we are providing one-stop services that make everyday life more convenient, comfortable, safe, and secure from this point on.

The first batch of services being provided is monitoring service through the installation of network cameras, home security services, water delivery through water servers, housework services, and operation of online shopping sites, with part of the

sales earmarked for donations in order to contribute to society\*. In July 2020, we began offering Sugu-Conne, our own independent wireless Internet service.

As well as energy supply, we will continue to expand a wide range of services to suit the tastes and various lifestyles of our customers.



	Service	Description
スワコネ	Sugu-Conne wireless Internet service	This is a residential wireless Internet service provided by Toho Gas. The basic usage charge is free for the first month of the contract, and no penalty fees are charged for contract cancellation. No wiring installation work is required – usage is simple and easy.
Reace Eye	Peace Eye camera monitoring service	This is a camera monitoring service that can be used with no installation work required. Also, using it in combination with an appliance controller (optional) makes it possible to operate appliances using a smartphone.
SMART ROOM SECURITY	Smart Room Security home security service	This is a home security service that can be used with no installation work required. With sensors that detect unwarranted opening of doors and windows and send alerts to a mobile phone, as well as a security company response service (optional), this provides support for safety and security.
PREMIUM WATER  HighQuality Water Delivery Service	Premium Water water delivery service	This is a periodic delivery service for natural water dispensed from home-installed water servers.
Aqua Clara	Aqua Clara water delivery service	This is a periodic delivery service for mineral-added designer water dispensed from home-installed water servers. The bottles used are collected for reuse.
<b>O</b> Bears	Bears housework service	This provides services that include everyday cleaning, cooking, shopping, laundry, ironing, and other such housework, as well as such services as house cleaning and child minding. Disinfection cleaning services were added in June 2020.
Junijuni	junijuni sponsored by TOHO GAS socially conscious shopping service ("JUNIJUNI" and "JUNIJUNI" are pending trademarks of Tokyo Gas Co., Ltd.)	This service sources products from manufacturers who endorse reducing product disposal due to such reasons as approaching best-by dates, and makes them available to customers for easy and convenient purchase. It aims to contribute to achieving SDGs through such means as reducing food loss. A portion of purchase amounts are donated to social-contribution organizations.

(Current as of end of July 2020)

# Strengthening of the LPG Business

1 2 3

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

# Business Deployment to Wider Areas

We are expanding our business activity areas to Hokuriku, Shiga, Shizuoka, and Nagano.

We set up a sales base in Hamamatsu in April 2020 to expand the area toward Shizuoka.

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

# Reinforcement of the Business Foundation

We are expanding shipping facilities as well as strengthening delivery networks and widen involvement in distribution networks in cooperation with other companies, thereby achieving both greater efficiency and stable supply.

We aim to realize stable and reasonably priced LPG procurement by using the non-international Daiichi Horin-maru cargo vessel jointly owned with Toho Liquefied Gas Co., Ltd., and by taking advantage of Meiko LPG Terminal, one of the largest secondary terminals for gas companies in Japan.





Horinmaru No non-international cargo vessel



Electrical character "Ambear"

# Expansion into the Electricity Business

We are steadily increase power demand and diversify procurement to ensure stable electricity procurement at reasonable prices. We are also increasing the adoption of renewable energy to help further brings about lower carbon and decarbonization.

# Stable and Flexible Electricity Procurement at Reasonable Prices

We will achieve a stable, reasonably priced, and flexible power supply by taking into account customer usage conditions and optimizing the combination of procurement sources - power generation operators, wholesale markets for electricity, and the Yokkaichi Power Plant.

OChanges in Numbers of Electricity Customers P64 Major Data

# Enhancement of Services

Together with implementing measures such as sales promotion campaigns in cooperation with other companies, we are promoting verification testing for new service development, including construction of virtual power plants and home demand response.

#### [Demonstration of Virtual Power Plant (VPP) Construction]

Toho Gas has been taking part in the experimental project for building a virtual power plant (VPP) system (undertaken by the Ministry of Economy, Trade and Industry) since May 2019, which involves verification of power control technology utilizing multiple cogeneration systems.

#### [Demonstration of Home Demand Response (DR)]

Verification on an experimental basis has been underway since June 2020 for the effects of a demand response (DR) adjustment by Toho Gas, which is aimed at enabling customers to save electricity continuously in an enjoyable way. Through this verification

testing, we are verifying the responses of participating monitors to requests from Toho Gas to conserve electricity during periods and times of rising demand for electricity, as well as the effectiveness of curtailment through such power conservation.

Smartphone app

We will also develop power-cutting systems and hold events aimed at expediting power saving, both with the use of smartphone apps, in partnership with Nanzan University. By promoting such systems and events, which should be enjoyable for customers, we aim to develop new services.

# Expansion of the Introduction of Renewable Energy

We are actively working to secure renewable energy power sources from the perspective of meeting social demand and customers needs with respect to reduction of carbon emissions and decarbonization.

#### [Expansion of the Adoption of Renewable Energy]

In FY2019, a total of 2.7 MW (at 5 locations) of solar power plants started operation, mainly in the three Tokai prefectures. A solar power plant having an electricity production capacity of 1.4 MW on the former site of a Toho Gas factory began operating

in April 2020. In this and other ways, we are promoting the development of power systems using other renewable energy sources.



Solar power plant ona former factory site

# 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

We will steadily expand Group businesses, particularly focused on the four scopes: the comprehensive utility service business, the renovation business, 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, cogeneration, and hydrogen stations. We installed gas air-conditioning systems at

Strengthen Renovation Business

Toho Gas will join hands with Toho Gas Group companies and ENEDO

to steadily promote the housing renovation business. Toho Gas will

We will offer renovation services in response to the diverse needs of

customers. To that end, the Toho Gas Group will be united in deploying

its marketing expertise, enhancing its technological expertise, expanding

the range of products and services to be offered, and adopting a

Promote the Expansion of Outside Sales

thereby play a supporting role for local people in their daily lives.

business approach targeting a broader spectrum of customers.

facilities in the cities of Okazaki. Toyota, and Yokkaichi in fiscal year 2019. The plan is in response to the adoption of gas air-conditioning systems at many elementary and junior high schools in these cities.



Construction work for a gas air-conditioning

#### medium-pressure polyethylene pipes that were developed using our state-of-the-art pipeline technology called the "stream method," which received an award for excellence (2020) at the IGRC\*, and the new calorific value adjustment system that received the Japan Gas Association's 2016 Technology Award.

\* IGRC: The International Gas Research Conference, organized chiefly by the International Gas Union (IGU) 2020 (IGRC 2020)





# Use of Our Owned Properties P26

We are promoting development of Minato AQULS, together with expanding leasing business utilizing properties we own and expanding the rental meeting-room business utilizing our knowledge from our own buildings.

#### [Hivi Casa Rental Apartment Complexes]

Following on Hivi Casa Mizuho, which was completed in February 2020, a rental apartment complex is under construction on the site of the former Nakamura Sales Office in Nakamura-ku, Nagoya.



# of Production and Supply Technologies We will step up the marketing of a new protective material for

# Development of New Businesses

Utilizing the expertise and resources of business we have cultivated heretofore, we are actively engaging in expanding energy-related business operations in Japan and abroad.

# Domestic Energy P47

We are utilizing the expertise and resources of city gas, LPG, and power business operations to strengthen business development such as regional electricity business installations and renewable power generation.

Regional Shin-denryoku operations are regarded as contributing to regional economic development by promoting local production and local consumption of energy and making active use of the profit generated through business operations. Toho Gas took part in a project for a Shin-denryoku facility in Okazaki City, which began supplying electrical power in July 2020. This follows previous participation in a Shin-denryoku project in Matsusaka City.

# Overseas Energy

We are promoting entry into the energy-usage and LNG-terminal businesses as well as other businesses where we can make the utmost use of technologies and expertise in conduits and other components.

We have also initiated overseas power generation business initiatives.

# [Joint Participation in a Gas-fired Power Project in the U.S.A.]

Toho Gas established a new company in March 2020 jointly with Saibu Gas Co., Ltd. and Hiroshima Gas Co., Ltd., and acquired an equity stake in a gas-fired power project participated in by Sojitz Corp. and Kyushu Electric Power Co., Inc. in Birdsboro in the U.S. state of Pennsylvania.



















## Minato AQULS

#### [Promotion of Development of Minato AQULS]

Since its opening in September 2018, Minato AQULS, a smart town in Minato-ku, Nagoya City, has bustled with many visitors to LaLaport Nagoya Minato AQULS and sports facilities, and events, as well as fact-finding tours and more. In March of this year, occupants began to take up residence in the 165 condominium units at Park Homes LaLa Nagoya Minato AQULS (main developer: Mitsui Fudosan Residential Co., Ltd.), with 100 units expected to be filled by this October.



In phase II development, attraction of facilities such as those related to education, health care, and welfare is planned, and foundation improvement work has begun.

Going forward, we will continue to promote development that can contribute to sustained growth together with the local community and the realization of an environmentally harmonious society.



#### [Cooperative Activities with the Region]

The Minato AQULS Urban Development Promotion Council is devoting effort to vitalizing Minato AQULS and the local community and engaging in urban development for safety, security, and comfort through such moves as upkeep and management of public spaces, creating vitality and interchange, and conducting disaster-response and crime-prevention activities while working in cooperation with the local community and administration.









# [Smart Energy System]

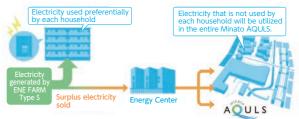
The Energy Center that is centrally located at Minato AQULS provides a centralized supply of electricity, heat, and gas to the town's facilities. In addition to such distributed power sources as gas cogeneration (which enjoys high overall efficiency), renewable energy, and storage batteries, by optimizing the energy of the entire town using a community energy management system (CEMS) that utilizes waste heat from power generation and canal water as unused energy, at one year after the town's opening, we achieved a 60% reduction rate in CO<sub>2</sub> emissions (compared with 1990). In addition to the condominium units in which ENEFARM is implemented, we are engaged in bringing about optimized energy usage for the entire town. We are also contributing to strengthening disaster-mitigation functionality in the region, including continuing to supply energy to the towns facilities together with supplying emergency electrical power to the adjacent Minato Ward Office in the event of a

#### ▶ Local Production and Local Consumption of Energy

disaster-response performance.

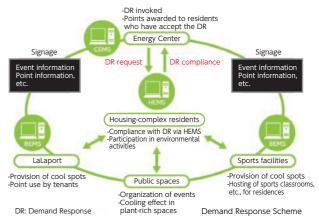
ENE FARM type S, standard equipment in all condominium units, is in rated operation around the clock, with the generated electrical power used preferentially by the residence, and any surplus used by the entire town. In this way, we are promoting local production and local consumption of energy.

disaster, thereby achieving both low-carbon performance and



#### ▶Demand Response

Depending on the state of energy demand, facilities and residents are requested to conserve energy as needed, with cooperating residents receiving redeemable points that they can use in the town. Holding concurrent events and the like to encourage spending time out in the town is also planned.



#### **TOPICS**

#### Recipient of the 2020 Aichi Environmental Award Gold Prize

Toho Gas received the 2020 Aichi Environmental Award Gold Prize in recognition for contributing in a major way to reducing the environmental load and forming a low-carbon society through development of the Minato AQULS smart town.





**Toho Gas Group Initiatives** 

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 P51~54 Human Resource Management

We are developing human resources to support the growth of the Group and realize flexible working styles to utilize human resources.

# Employment and Development of Diverse Human Resources

In addition to recruiting new graduates, we are promoting recruitment and development of diverse human resources, such as strengthening career recruitment and follow-up training.

# Human Resource Development Through an Internal Recruitment System

We publicly recruit new businesses for young and mid-level employees, and proposers of excellent ideas will be transferred to the business development department to develop human resources who can start new businesses.



Innovation leader training program utilizing the internal recruitment system

#### Strategy Workshop Training

We select leader classes in each department and develop them into management human resources who can lead business structure reforms into the future through in-house strategy formulation training.

# Realization of Flexible Working Styles

We are improving the teleworking environment, which also contributes to enhanced working-style flexibility and emergency response.

In addition to promoting active participation by women and the elderly, we also work to support

the balance between work and childcare, nursing care, and medical treatment so as to promote a work-life balance for employees.



eleworking



# Improvement of Efficiency

Promote radical improvements in efficiency, including the use of new and digital technologies.

# Use of New and Digital Technologies

We are promoting teleworking and paperless operations by introducing company-wide cloud-type groupware.

We are investigating how to make field work more advanced and efficient by using tablets and drones.





COI

# Utilization of Drones in Pipeline Construction

We are streamlining on-site surveying and design work for pipeline construction through drone-based imaging

combined with image processing. We are also considering alternatives to visual inspection of gas pipelines in bridges.



Drone ut

#### **TOPICS**

#### • Joint Verification of Projected Pipeline Deterioration Using AI

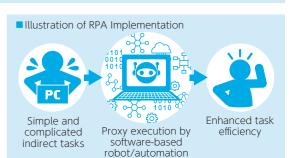
Since August 2019, Toho Gas and Fracta (California, U.S.A.) have been conducting verification testing for using artificial intelligence (AI) and machine learning to predict deterioration in gas pipelines managed by the Toho Gas. This takes a piping-deterioration prediction AI algorithm employing over a thousand environmental variables and applies it to gas pipelines, and is the world's first attempt at such an endeavor.

With the aim being to raise return on investment with respect to replacement of aging gas pipes, using the data on gas pipelines and inspection results that Toho Gas has collected and Fracta's leading-edge AI and machine-learning technology and environmental databases, we are promoting the creation of an algorithm to predict the degree or deterioration in gas pipes.

# Business Process Re-engineering (BPR)

We are promoting radical increases in the efficiency of business by reviewing business flow and utilizing robotic process automation (RPA).

RPA was implemented in 130 operations by the end of FY2019, achieving an increase in efficiency by 74,000 hours per year.



# Reform of the Organizational Structure

In addition to smoothly and surely taking measures to legally separate the pipeline division, we will promote a transformation of organization so that we can flexibly respond to changes in the environment for sustainable growth.

# Actions Toward Legal Separation of Gas Pipeline Divisions

We established the Pipeline Network Company in April 2020, aiming for legal separation (spin-off) of pipeline division in April 2022.

To ensure neutrality and transparency, efficient business operation, and ensure group governance, the Pipeline Network Company has the necessary internal control and

FY2019	FY2020	FY2021	FY2022
	★ Establish Pipeline	Network Company	★ Legal separation
Distribution Division	Pipeline Network Company		Pipeline-business company

corporate functions as an independent operating company. We are promoting steadily made preparation for spin-off while taking into account trial execution of tasks within the company structure.

# Restructuring the Sales Organization

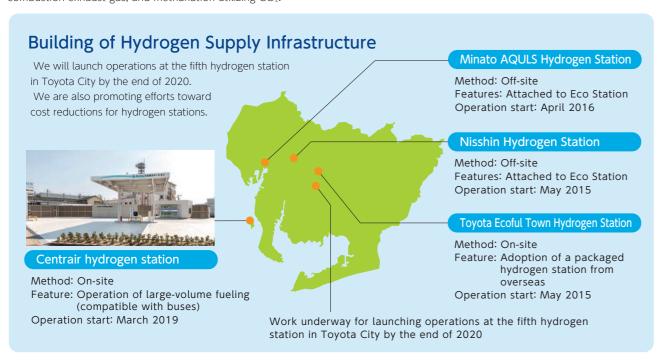
To respond to broad-ranging customer needs in accurately and promptly, in April 2020 we revised the structure of the sales division, consolidating the planning functions responsible for formulating sales policy, together with reorganizing the front sales functions responsible for actual operations up through providing services.

We will continue to enhance proposals that support lives and manufacturing in the region.

# Technological Development for the Future Materiality 4

# Initiatives with Our Eyes Set on Energy Distribution and a Hydrogen-based Society P33

Amid hydrogen being regarded as a major energy, we are promoting the development of hydrogen supply infrastructure and utilization technology. We are also promoting surveys and research into future technologies such as CO₂ separation and capture from combustion exhaust gas, and methanation utilizing CO2.



## Development of Hydrogenuse Technologies

We are promoting development of technology to use hydrogen as fuel at factories and other facilities.

# Participation in Hydrogen Utilization Study Group in the Chubu Area

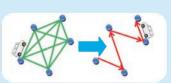
This consists of private-sector companies (including Toyota Motor Co., Ltd.) working on hydrogen use, and is engaged in discussing supply-chain and demand potential in the Chubu area and the possibility of large-scale use of hydrogen.

# Utilization of Digital Technology

We are promoting utilization of the latest digital technologies to develop new services, enhance existing services, and improve efficiency.

# **Development of New Services**

We are engaged in virtual power plant (VPP) construction (P24), demonstration of demand response (DR) for home use (P24), demonstration tests with start-up companies to utilize quantum annealing technology, which performs high-speed processing ft combination-optimization problems to elucidate the best-condition choice from among a combination of various choices.



problem (shortest route)

# **Enhancing Existing Services**

We are utilizing data such as on energy consumption and owned equipment to strengthen proposals for products and services that meet customer needs. We are also promoting an augmented

lineup of gas appliances equipped with IoT functions, as well as support for diversifying fee settlement methods by introducing LINE Pay and other means.



# Promotion of Efficiency P28

We are promoting teleworking and paperless operations through the use of digital technology, as well as promoting endeavors such as the utilization of

drones for route survey of new pipelines and the development of a gas-pipe deterioration prediction system using Al.

# Participation in Keidanren's "Challenge Zero"



The Toho Gas Group is taking part in Keidanren's Challenge Zero\* project, and is promoting technical development oriented to future decarbonization.

For detailed information, please visit the Challenge Zero website (https://www.challenge-zero.jp/en/member/119).

\* Challenge Zero initiative by the Japan Business Federation (Keidanren), announced December 9, 2019 This initiative encourages innovation and serves as a sourcepoint for the economic sphere to take up the challenges of investment and financing aiming to proactively publicize, support, and implement actions to create net-zero-carbon technology (including transitional technology) and innovation taken by companies and organizations toward a decarbonized society.

#### Challenge1

Construction and operation of hydrogen stations and development of hydrogen usage technology for the sake of building hydrogen supply chains

Together with moving forward on the construction and operation of hydrogen stations for the sake of decarbonization in the mobility field, we are anticipating the building of hydrogen supply chains and working on the

development of hydrogen combustion technology in industrial fields. We will contribute to the attainment of net zero carbon in multiple fields through the use of hydrogen.

#### Challenge2

Establishment of both advanced energy management and enhanced resilience for the sake of spreading renewable energy and distributed power sources

Through feasibility evaluation of virtual power plants (VPP), we are working on developing technology for electricity supply and demand coordination and are moving forward toward practical viability. In this way, we will contribute to expanding the amount of renewable energy installed. Also, through actual operation of smart energy systems composed of distributed power supply

and heating equipment, we are accumulating energy management know-how that contributes to extremely minimizing CO<sub>2</sub> emissions and enhancing resilience. We will also investigate and research CO<sub>2</sub> capture and utilization (CCU) technology and combine the technology with the smart energy systems in order to contribute to the attainment of net zero carbon.

## Challenge3

Development of high-density heat storage technology that contributes to the effective use of heat energy

With the objective of working for the effective utilization of unused heat in a wide variety of applications, we are working on developing performance improvements for high-density heat storage materials as well as expanding the range of usage

temperatures for heat storage materials and opening up applications for them. In this way, we will promote the utilization of unused heat in a wide variety of fields and contribute to further energy conservation.

# Promotion of ESG Management

Together with embracing international standards, we are promoting ESG management by rolling out local-community activities that contribute to achieving SDGs ( P36) ) and strengthening corporate governance.

# Promotion of ESG Management Based on International Standards

# Identification of Key Issues (Materiality)

The Toho Gas Group, in moving toward "promotion of ESG management" as espoused in the Medium-term Management Plan (FY2019-FY2021), identified social issues of high importance to society (stakeholders) and the Group as materiality. (P13~14)

(**************************************				
Materiality 1	Provision of energy and related services			
Materiality 2	Ensuring safety and security, and stable supply			
Materiality 3	Contribution to local communities			
Materiality 4	Realization of a society in harmony with the environment			
Materiality 5	Reinforcement of human resources			
Compliance and Covernance				

# Endorsement of the TCFD As Efforts Addressing Climate Change [233]

The Toho Gas Group announced endorsement in April 2020 of the Task Force on Climate-related Financial Disclosures (TCFD) to promote analysis of the risks and opportunities that climate change brings to business as well as disclosure of the information this yields. Together with this, we also became a member of the TCFD

Consortium, which was established to serve as a forum for discussion by corporations, financial institutions, and other entities endorsing this initiative.

The Ten Principles of



# Participation in the UN Global Compact

The Toho Gas Group is a signatory to and participant in the UN Global Compact advocated by the United Nations.

The UN Global Compact is a voluntary initiative through which companies and organizations, by demonstrating responsible and creative leadership, act as good members of society and participate in the creation of a global framework for achieving sustainable growth.

The Toho Gas Group supports the Ten Principles of the United Nations Global Compact in the four areas of *human rights*, *labor*, *the environment*, and *anti-corruption*, and will promote resolution of social issues through business activities, together with contributing to achieving

WE SUPPORT

SDGs.

the United Nations Global Compact ( Principle 1 ) Businesses should support and respect the protection of internationally proclaimed humanrights; and (Principle2) make sure that they are not complicit in human rights abuses. ( Principle3 ) Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; ( Principle4 ) the elimination of all forms of forced and compulsory labour: ( Principle5 ) the effective abolition of child labour; and 〈 Principle6 〉 the elimination of discrimination in respect of employment and occupation. ( Principle 7 ) Businesses are asked to support a precautionary approach to environmental challenges Principle8 > undertake initiatives to promote greater environmental responsibility; and ⟨ Principle9 ⟩ encourage the development and diffusion of environmentally friendly technologies. (Principle10) Businesses should work against corruption in all its forms, including extortion and bribery.

# Promotion of Environmental and Social Activities P37~54

We have set goals for business activities and reducing environmental impact at customer sites, and are promoting the development of local community activities that contribute to achieving SDGs in cooperation with local governments and other entities.

# Establishment of Toho Flower Co., Ltd.

Toho Flower was established in October 2019 with the aim of working to encourage hiring and lasting employment for persons with disabilities, and to achieve the Group's legally mandatory proportion of jobs for persons with disabilities in a sustainable way as well as to contribute to the local community.

Going forward, we will promote the creation of workplaces where individuals with disabilities can thrive while developing their own personal qualities and strengths through various office-support tasks in the Group.

Toho Flower's entire workforce proposed and discussed ideas and created this graphic logo, which presents an image of gentle kindness and *love* that is grounded on the corporate philosophy and course of action.





Toho Flowe

# Recognized As a "Certified Health & Productivity Management Outstanding Organization 2020 (White 500)"

In March 2020, Toho Gas was recognized as a "Certified Health & Productivity Management Outstanding Organization 2020 (White 500)" under a program administered jointly by the Ministry of Economy, Trade, and Industry (METI) of Japan and the Nippon Kenko Kaigi.

This program recognizes corporations that practice especially excellent health management

based on efforts to address regional health problems and efforts to promote health that are advocated by the Nippon Kenko Kaigi. Toho Gas earned acclaim for the Health and Body Health Promotion Measures for Employees implemented by the company to support health and security around the clock, 365 days a year.



# Establishment of Toho Gas Forest Seto in Seto City, Aichi Prefecture

To put into practice "protection of life on land," the 15th of the sustainable development goals (SDGs) adopted at the UN summit in 2015, we opened Toho Gas Forest Seto in Seto City, Aichi Prefecture, in May 2020. This follows upon earlier conservation initiatives in Odai, Mie Prefecture, and Mitake, Gifu Prefecture. With this, we are now engaging in forest conservation efforts by means of Toho Gas Forests in all three Tokai prefectures.

Going forward, we will encourage more employees and their families to experience the importance of nature for themselves and contribute to local communities together with working to raise awareness with respect to the environment.



Toho Gas Forest Seto

# Reinforcement of Corporate Governance P55~58

We are strengthening internal controls through thorough risk management and compliance, including measures for disasters and cyber-security.

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# **Efforts Addressing Climate Change**

The Toho Gas Group has heretofore actively devoted effort addressing climate change through such moves as the spread and expansion, highly efficient use, and high-degree application of clean energy sources, such as environmentally friendly natural gas. Amid this, in financial markets where ESG investment is expanding, taking into account the frequent occurrence of natural disasters in recent years and in particular the focus of attention on the risks and opportunities accompanying climate change, in April 2020 we endorsed the Task Force on Climate-related Financial Disclosures (TCFD).

Henceforth, we will contribute to realizing a low-carbon society through supplying energy, together with also devoting effort to technical development with its sights fixed on future decarbonization.



The TCFD was established by the Financial Stability Board (FSB)\* at the request of the G20 Finance Ministers and Central Bank Governors to study how to conduct disclosure of climate-related information and accommodate financial institutions. The TCFD released its final report in June 2017, which recommends that corporations and other such entities disclose the items shown below relating to climate-related risks and opportunities.

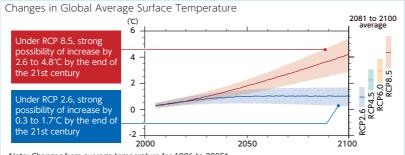
\* An international body composed of financial ministers and central banks of G20 member nations which conducts governance relating to international finance

	Item	Response	For reference
Governance	Governance for organizations involved in climate-related risks and opportunities	Risks and opportunities accompanying climate change are reported to the Management Committee and Board of Directors as key business issues, with the Board of Directors conducting governance regarding the status of execution.	Corporate governance system     Risk management system     Environmental management system  P57
Strategy	Accommodation of the impacts of climate-related risks and opportunities	We used scenario analysis to identify climate-change risks and organized our response to the impacts of risks and opportunities.	•See the chart on the page at right for an overview.
Risk management	Identification, assessment, and management processes for the climate-related risks	Risks arising from climate change are integrated into the risk-management systems and processes of all Group companies, and reported to the Management Committee and Board of Directors.	•Risk management p57 system
Metrics and targets	Metrics and targets used for assessment and management	Risks and opportunities accompanying climate change are managed using gas sales volumes, environmental action goals, etc.	•Global warming countermeasures •Environmental action goals

# Glossary

#### • RCP (Representative Concentration Pathways) scenarios

The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) presented four scenarios for increase in average global temperature by 2100 and indicated projections. The temperature was projected to rise by around 2°C in the scenario with the smallest temperature rise (the RCP 2.6 scenario) and by about 4°C in the scenario having the greatest rise (the RCP 8.5 scenario. The values of "2.6," "8.5," and the like following "RCP" represent effectiveness in causing global warming (called "radiative forcing"). The high is the value, the higher are greenhouse-gas concentrations and the greater is the effectiveness in causing warming.



Note: Changes from average temperature for 1986 to 2005\* Source: Annual Report on the Environment in Japan 2020

\* In the period of 1986 to 2005, temperature rose by approximately 0.61°C compared with before the Industrial Revolution (1850 to 1900).

Source: Climate change 2014 Intergovernmental Panel on Climate Change Fifth Assessment Report Synthesis Report Summary for Policymakers

# Strategy (Impacts of and Responses to Risks and Opportunities Accompanying Climate Change)

The Toho Gas Group conducted TCFD-recommended scenario analysis using the 2°C and 4°C climate-related scenarios\*. Referencing data from the International Energy Agency (IEA) for transition risks and data from the Japan Meteorological Agency and other such sources for physical risks, we modeled society in 2050 and organized "major risks and opportunities," "impacts," and "main responses" as indicated below. For "major risks and opportunities," with our basic aim being to steadily advance energy policies and responses based thereon under the

For "major risks and opportunities," with our basic aim being to steadily advance energy policies and responses based thereon under the 3E+S principles grounded on the 5th Energy Basic Plan with cognizance of transitions, and thereby securely achieving the 2030 energy mix, we investigated response measures with our sights fixed on reducing carbon and future decarbonization.

- \* 2°C scenario: A scenario for the case of implementing the necessary measures to hold the increase in global temperatures to no more than 2°C lower above pre-industrial levels (RCP 2.6).
- \* 4°C scenario: A scenario an increase in the global average temperature to 4°C or lower above pre-industrial levels. This is a natural-course scenarios in the case of no implementation of additional measures with respect to climate change (RCP 8.5).

Classi	fication	Major risks and opportunities*1	Impacts	Main responses		
Transition risks	Policies and regulation	Increased carbon taxes	- Changes in competitiveness	>If carbon taxes are levied indiscriminately for fossil fuels, spread and expansion can be expected for natural gas, which produces low CO <sub>2</sub> emissions.		
			- Cost increases	Response Promotion of switching fuel types through application of fuel-related technology, promotion of expanding LNG supply using tank trucks to wider areas, promotion of LNG bunkering, etc.		
		Sweeping policies for transition to renewable energy	- Impact on gas sales volume - Expanded demand for renewable energy	>We will promote efforts to spread renewable energy together with the spread and expansion of high-affinity distributed generation systems.  Response Spreading renewable energy + distributed generation systems, high-level area energy networks (demand optimization using CEMS and VPP technology), realization of both minimization of energy consumption and resilience, etc.	> Research and development relating to CO <sub>2</sub> separation, capture, and effective utilization (CCU) technology, methanation technology, etc.	
	Market	Change in	- Impact on industrial/ commercial-use gas sales volume accompanying greater use of ZEVs (including FCVs)	>We will promote responses to the spread of fuel cell vehicles (FCVs) accompanying greater use of ZEVs.  Response Accommodating supply of hydrogen for fuel cell vehicles, promoting improvement of hydrogen infrastructure, etc.		
		rket	preferences	customer preferences	- Impact on gas sales volume due to a shift to ZEHs and electrification	>We will promote the high-efficiency use of natural gas, including for heating, and proposals for energy optimization.  Response Promotion of technical development and spread of high-efficiency cogeneration and fuel cells (SOFCs, etc.), proposal of optimal energy, including for heating, proposal of life support services, etc.
Physic	Acute	Increasing weather intensity	- Impact on manufacturing and supply equipment	>We will promote security and disaster measures for readiness against increasing weather inter  Response Reinforcement of shore protection and other high-tide measures, improv watertightness and other flood measures. Measures aimed at accelerating disaster recov through segmentation of supply-stoppage blocks, etc.		
Physical risks *2	Chronic	Rising temperatures	- Impact on demand for heating and hot-water boilers	<ul> <li>&gt;We will proposed high-efficiency air conditioning in response to increasing air-conditioning needs accompanying rising temperatures.</li> <li>Response Promotion of technical development and spread of high-efficiency gas air conditioning (heating and cooling), proposal of optimal energy, including for heating, etc.</li> </ul>		

\*1 indicates risk and indicates opportunity.

\*2 Physical risk and its impact under the 2°C scenario is projected to change less in comparison with the 4°C scenario.

## •LNG bunkering

Supplying a marine vessel with liquid natural gas (LNG) fuel.

# CEMS (Community Energy Management System) A system of centralized management of the energy of

A system of centralized management of the energy of an entire area.

## VPP (Virtual Power Plant)

Controlling (utilizing) the energy resources of various consumers as if they were a single power plant.

#### ■ FCV (Fuel Cell Vehicle)

An automobile whose motor is driven using electrical energy generated by the chemical reaction of hydrogen and oxygen in a fuel cell.

#### ■ZEV(Zero Emission Vehicle)

An automobile such as an electric vehicle (VEHICLE) or fuel cell vehicle (FCV) that produces no gas emissions.

#### ■ ZEH (Net Zero Energy House)

A house whose aim is realize zero annual net consumption of primary energy by achieving dramatic energy savings by vastly improving insulation performance and adopting high-efficiency equipment systems as well as renewable energy.

#### SOFC (Solid Oxide Fuel Cell)

A solid oxide fuel cell is composed of ceramic material and is characterized by having a high power-generation temperature of 600 to 1,000°C. Expectations are high for its use as a cogeneration system offering excellent energy-saving and nonvolatile performance.

#### CCU (Carbon Capture and Utilization)

Technology for separating, capturing and utilizing the CO<sub>2</sub> in emissions from sources such as thermal power plants.

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Original graphics by Jerker Lokrantz/Azote based on a concept by Johan Rockström and Pavan Sukhdev;

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# SDGs Wedding Cake

**Governance Report** 

Board of Directors and Audit & Supervisory Board Members

Corporate Governance

Internal Control

Compliance

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# Contribution to Sustainable Development Goals (SDGs)

SDGs are international goals for realizing a sustainable world, with 17 goals established in aims of improving the economy, society, and the environment in an integrated way by 2030.

The wedding cake shown above is composed of the four goals relating to the environment as its base layer, with the eight society-related goals above that, and the four economy-related goals forming the top layer. The Toho Gas Group will continue contributing to achieving SDGs through its business activities.

# **Environment Report**

Management of Environmental Preservation

Global Warming Measures P40 Resource Recycling P45

Biodiversity Conservation P46



経団連自然保護協議会



Challenge Zero

Initiatives for ESG

a low-carbon society, and ESG has been the very business activities themselves.

The Toho Gas Group has heretofore supported customers' lives and manufacturing in the region through the supply of energy, contributing to the development of the region and transformation into

Going forward, we will promote ESG management so as to be able to meet the trust of our

customers, the local communities, shareholders and investors, employees, and other stakeholders.



Contribution to the Local Communities **Enhancement of Communication** P49 with Shareholders and Investors Human Resource Management P51







# 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.



the first President













# Report

Initiatives for ESG [Environment]

# Management of Environmental Preservation

# **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; final revision in 2011) are regarded at Toho Gas's business policy.

	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.
		Principle 1	The Group will contribute to reducing the impacts of its business activities on the environment related to customers.
	Deinsinles	Principle 2	The Group will reduce the impacts of its business activities on the overall environment.
	Principles	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 <sub>2</sub> 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 <sub>2</sub> emissions in its business activities through continuous improvement of its operational activities.		
Resource Recycling	The Group will work to reduce CO2 emissions in its business activities through continuous improvement or its operational activities.  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.		

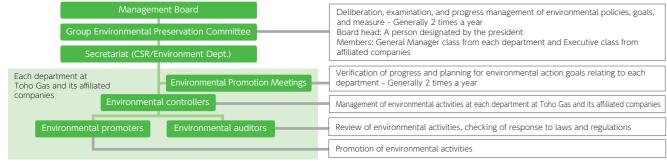
## Organizational Structure for Management of Environmental Preservation

We have set up the Group Environmental Preservation Board, 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. Regarding environmental action goals in particular, we have established an Environmental Promotion Meeting in each department to verify progress and realization planning in

conjunction with the Group Environmental Preservation Board.

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

# Organizational Structure for Management of Environmental Preservation



# Environmental Action Goals (FY2019-FY2021)

The environmental action goals are formulated seamlessly in conjunction with the Medium-term Management Plan and efforts to reach them

FY2019 was the first fiscal year for the period of the environmental action goals based on the Medium-term Management Plan announced in November 2018, and we made favorable progress in the goal areas.

Туре	Goal item		Goal value	FY2019 results
	CO₂ reduction t	arget related to customers	600 thousand tons-CO <sub>2</sub> *	141 thousand tons-CO <sub>2</sub>
	CO <sub>2</sub> emissions reduction in business activities	CO <sub>2</sub> emission intensity of city gas plants	11.5 tons-CO <sub>2</sub> /million N m³ or less (gas sales volume)	9.6 tons-CO <sub>2</sub> /million N m³
Global Warming Countermeasures		CO <sub>2</sub> emission intensity of the Energy Center	75.1 tons-CO <sub>2</sub> /thousand GJ or less (heat and electricity sales volume)	73.4 tons-CO <sub>2</sub> /thousand GJ
		CO <sub>2</sub> emission intensity of offices	79.8 tons-CO <sub>2</sub> /thousand m <sup>2</sup> (total floor area)	73.2 tons-CO <sub>2</sub> /thousand m <sup>2</sup>
		Initiatives to reduce CO2 emissions in the electricity business		Start of solar power generation (2.7 MW)
	Zero emissions	s at city gas plants	Continuation (1% or lower final disposal rate)	Continuation (0.10% final disposal rate)
	Recycling of waste generated after gas pipeline construction		Recycling rate of 99% or more	Recycling rate of 99.7%
Resource Recycling	Reduction in use of natural mountain sand and detritus in gas pipeline construction compared with use under conventional engineering methods		15% or lower	Natural mountain sand and detritus usage amount of 11.2%
	Recycling of ge	eneral waste	Recycling rate of 80% or more	Recycling rate of 80.7%
	Promoting "3R" (reduce, reuse, and recycle) through green procurement and the recycling of used gas equipment			•Green procurement amount (11.7 million yen) •Recycling of used gas equipment (850.8 tons)
Biodiversity Conservation			ess activities, etc.	•Forest conservation activities in Toho Gas Forests •Biotope management, elimination of invasive species – 10 times
Technology Development	Promoting tech efficiency	nnology development for reducing (	CO2 emissions and improving	·Centrair hydrogen station operation launch ·Home demand response verification testing conducted ·Participation in Keidanren "Challenge Zero"
Collaboration with Local Communities	Promoting initiatives such as environment social co environmental education for the next generation in communities			-Local-community cleanup activities (including beach cleanup) -Special classes at elementary schools, etc. (201 times) -Environmental learning at the Toho Gas Energy Exhibition Hall (Number of Hall visitors: Approx. 22,000)

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

Note 2: The CO<sub>2</sub> emissions factor for purchased electricity is pegged at 0.474 kg-CO<sub>2</sub>/kWh (Chubu Electric Power), a figure recorded in the base year (FY2009). Note 3: The effects of efforts to reduce  $CO_2$  emissions through private power generation are calculated using the  $CO_2$  emission factor (the emission factor for thermal power source) for marginal power source in the base year (FY2009) of 0.69 kg- $CO_2$ /kWh.

## 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, Minato AQULS Energy Center) Toho Real Estate Co., Ltd. (Building Business Unit Imaike Gas Building, Cherry Minato Shop, Howa Green, Howa Sports Land, Howa Seminar Plaza, Howa Minato Golf) Toho Liquefied Gas Co., Ltd. (Nagoya Sales Office, Meiko LPG Terminal, Shiromi Eco Station) Toho Gas Techno Co., Ltd. (Headquarters Office, Fukue Office) Toho Gas Engineering Co., Ltd.

- \*1 An international standard for reducing environmental load and improving environmental management levels
  \*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







# Compliance with Environmental Laws and Regulations

The main environmental laws and regulations related to the Group are described below. In FY2019, we continued to respond to them appropriately, and experienced no accidents having a serious environmental impact, or any legal violations or penalties. We will continue to promote education concerning environmental laws and regulations and conduct 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

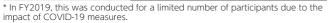
# Environmental Education

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 FY2019, we conducted specialized training seminars and e-learning courses concerning the Act on Rational Use and Proper Management of Fluorocarbons ahead of its enactment. We also conducted SDG Study Meetings for environmental auditors to boost understanding of SDGs.

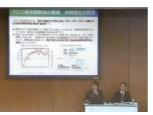
In addition, we encourage employees to acquire environment-related certifications, such as Qualified Person for Energy Management and the Certification Test for Environmental Specialists (Eco Test).

Name	Target	
Environmental training seminars	Senior management*	
Environmental law training seminars	Different levels of managers and employees	
SDG Study Meetings	Environmental auditor	
New employee training	New employees	





nvironmental law training seminar



Training seminar on the revised Act on Rational Use and Proper Management of Fluorocarbons

# **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. 2019–Sep. 2019
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

# Utilization of preliminary checksheets prior on the outsourced disposal of industrial waste, appropriate operation of temporary storage areas, etc., accommodation of mercury-containing waste regulations, manifest delivery and storage, regular reporting, etc. Act on Rational Use and Proper Management of Fluorocarbons State of storage of GHP and other regulated containers under the Act on Rational Use and Proper Management of Fluorocarbons Accommodation of the Water Pollution Prevention Act in the event of oil-leakage accidents, status reporting and of compliance with regulation criteria with respect to the Air Pollution Control Act and legislation restricting noise and vibration

# **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.

Promotion of purchasing energy saving products, etc.

Main contents of Green
Procurement Guidelines

Enhancement of "3R" (reduce, reuse and recycle)

"Green delivery" with low-emission vehicles and eco-driving

# **Basic Concept**

Materiality 4

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 the reduction of  $CO_2$  emissions by customers and targets for reduction of the  $CO_2$  emissions basic unit in our business operations.

#### Initiatives with Customers

Toho Gas has set a goal of reducing cumulative total of CO₂ emissions at customers from FY2019–FY2021 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.

The amount of CO<sub>2</sub> emissions reduced in FY2109 was 141 thousand tons-CO<sub>2</sub>, surpassing the planned target for the first fiscal year, making for favorable progress. CO<sub>2</sub> emissions from customers by using city gas were 8,190 thousand tons-CO<sub>2</sub>.

# Popularization of High-efficiency Equipment and Systems in Industrial-use Areas

# Energy-saving Governors

Our city gas supply area is a region containing many companies in the automotive industry, and the production of metal components for automobiles is also flourishing. To support this region in terms of technology, Toho Gas is providing energy-saving support for the burners needed in the processes that perform heat treatment for metal. At the Technical Research Institute, we have developed energy-saving burners, and in addition to proposing these at the time when a fuel switchover is made, we also make energy-conservation proposals on a day-to-day basis, supporting sustains energy savings and reductions of CO<sub>2</sub> emissions by our customers.

#### <Example of Implementation> Hidaka Kogyo Co., Ltd.



Heat-treatment furnace installed with a single-end



Burner



#### <Customer Comments>

We are grateful that we were able to consult the company, as energy experts, about many matters, including production processes.

What sealed the decision to go ahead with adoption was the high efficiency and the ability to reduce CO<sub>2</sub> emissions by 5% compared with

conventional gas burners, as well as the excellent durability. Actual wear and replacement of burner materials has also been reduced, so this contributes to reduced waste materials and cost reductions as well. We also plan to implement these in our new factory. We look forward to more proposals regarding energy-related services.

#### Gas Burner Air Ratio Visualization System

In 2019 we developed the Air Ratio Visualization System, a system for monitoring the state of combustion in gas burners. We will contribute to global warming countermeasures by means of proposals that lead to energy savings and efficient maintenance at customer sites through such utilization of digital technology.



as Burner Air Ratio Sualization System

# Gas Cogeneration Systems

Gas cogeneration systems are energy-saving systems that generate electrical power using a gas engine or gas turbine together with collecting exhaust heat. In particular, since the 2011 Tohoku earthquake and tsunami, customer expectations have risen from the perspective such matters as ensuring electrical-power security and conserving electricity as objectives in business continuity plans (BCPs). We are devoting effort to developing high-efficiency cogeneration systems encouraging their adoption in hospitals, commercial facilities, office buildings, factories, and other locations, and thereby contributing to environmental-load reductions and BCPs.

#### <Example of Implementation> Imuraya Co., Ltd.



Gas engine cogeneration system



<Customer Comments>

The island-wide blackout from the 2018 Hokkaido Eastern Iburi earthquake spurred us to revise our BCP. At that time, we decided to introduce a cogeneration system that would be effective in achieving energy savings and reductions in CO<sub>2</sub> emissions during normal

times, as well as enabling the supply of electrical power in the event of an emergency. We look forward to proposals of a variety of services that lead to stable supply and reduced CO<sub>2</sub> emissions.

# Popularization of High-efficiency Equipment and Systems in Industrial-use Areas

#### Steam and Hot-water Boilers

City gas boilers offer excellent energy-saving performance compared to conventional oil-burning boilers, thanks to high combustion efficiency and high-efficiency operation matched to load. Also, no fuel-storage space is needed, making it possible to maintain a clean operating environment, and handling is also simple, reducing the workload of boiler operators. Its has become popular in a broad range of varied areas, enjoying use in healthcare facilities, linen laundering, bathing facilities, factories, and elsewhere, and contributes to greater energy savings, greater space savings, and management maintenance burden for customers.

#### < Example of Implementation > Kariya Toyota General Hospital





Steam boiler

<Customer Comments>

This hospital is engaged in energy-conservation activities every day in order to achieve its goals as a Type 1 Designated Energy Management Factory. On this occasion, by converting a portion of our kerosene-burning boilers to city gas, we have been able to reduce the environmental load by conserving energy and lowering CO<sub>2</sub> emissions, as well as to achieve energy diversification as a core disaster hospital. Going forward, we will devote effort to continuing energy-conservation activities and augmenting disaster healthcare

#### <Example of Implementation> Model Sha Co., Ltd.

Note: These figures are examples, and may differ depending on conditions at the customer.

City gas Steam

Air regulation valve

1.0% to 2.0%

0.5% to 3.0%

of heat-transfer

surfaces

increase in efficiency

increase in efficiency

thanks to no soiling

through air-ratio





Exhaust gas 2.0% to 5.0%

increase in efficiency

Water

<Customer Comments>

When we were considering replacing our aging diesel boiler, we received a great proposal. By switching to clean natural gas, which offers low CO<sub>2</sub> emissions, we are not only contributing to mitigating global warming, but are also improving consideration for our urban neighbors

in terms of less odor from emissions and parking problems for fuel-delivery tank trucks, for which we are tremendously grateful. Going forward, we would like to change other factories over to city gas.

# Kitchen Equipment

Suzu-chu®\* kitchen equipment that curbs rises in room temperatures helps maintain a comfortable kitchen environment and the to save energy and reduce CO<sub>2</sub> emissions by lowering the air-conditioning load.

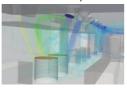
Pro Chubo OISIS, one of the Tokai region's largest experience-oriented commercial kitchen showrooms, which opened at Minato AQULS (Minato-ku, Nagoya City, Aichi Prefecture), is a sourcepoint for communicating the appeal of gas kitchens and the latest food-related information to kitchen professionals such as cooks and nutritionists at restaurants, hospitals, hotels, schools, and other facilities. Through displays of Suzu-chu and equipment installed with safety features as well as by hands-on experience of the functionality on actual equipment, visitors can verify for themselves the comfort and safety of gas kitchens, as well as their economy and ease of use for cooking. Other incidental equipment for commercial kitchens such as ventilation and sanitation systems for maintaining food safety are also on display, enabling efficient collection of kitchen-related information.

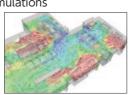
\* Suzu-chu® is a registered trademark of Osaka Gas Co., Ltd.





■Ventilation-system Simulations



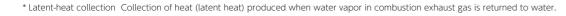


Noodle-cooker simulation

Full-room simulation

# Popularization of High-efficiency Equipment and Systems in Residential-use Areas

Eco-JOES is a hot-water heater that achieves hot-water-supply thermal efficiency of approximately 95% (conventional devices: approximately 80%) by collecting\* latent heat in combustion exhaust gas. Going forward, we will work to popularize it in stand-alone residential houses and condominiums.





#### Initiatives in Business Activities

Toho Gas Group strives to reduce CO2 emissions in its business activities. Our CO<sub>2</sub> emissions in FY2019 were 118 thousand tons-CO2. With respect to our Environmental Action Goals, we have set separate base-unit goals for city gas plants, area heating and cooling (energy centers), and offices, and are engaged in making reductions.

# Initiatives at City Gas Plants

CO<sub>2</sub> emissions at city gas plants have been significantly reduced by switching energy resources from coal to petroleum and to LNG. Moreover, we strive to reduce 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.

# Initiatives in Area Heating and Cooling (Energy Centers)

The Toho Gas Group is devoting effort to area heating and cooling, which efficiently performs air conditioning and hot-water supply for multiple structures in a fixed areas.

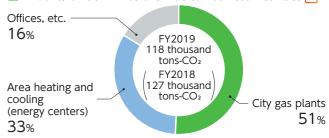
Also, at locations such as Minato AQULS P26 where an advanced energy system has been implemented, we are also working to reduce CO<sub>2</sub> emissions through such means as improvement in terms of the operation of area heating and cooling and upgrading to energy-saving equipment. We are also tackling heat exchange by networking the Nagoya Station south and Nagoya Station east regions.

## ■List of Area Heating and Cooling Sites (Energy Centers)

Operated by Toho Gas

	● Imaike ● Sakae 3-chome north		
Nagoya City	●Nagoya Station south ●Sakae 3-chome		
rugoja citj	●Chiyoda ●Higashi Sakura ●Ikeshita		
	Johoku     Minato AQULS		
Komaki City	Komaki Station west		
Operated by Companies in Which Toho Gas Holds an Equity Stak			
	● JR Central Japan Nagoya Station area ● Nagoya Station east		
Nagoya City	Quality Life 21 Johoku     Sasashima Live 24		
	●JR Central Japan Nagoya Station north		
Tokoname City	Chubu Centrair International Airport		

#### ■Amounts of CO<sub>2</sub> Emissions Due to Business Activities ✓



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

400

CO<sub>2</sub> emission volume (thousand tons-CO<sub>2</sub>) Gas production volume (million m<sup>3</sup>) 4,000 3,000 300 - City gas 2.000 Purchased ga - LNG 200 - IPG 1,000 100 1980 1990 2010 2019 (FY)

#### Initiatives at Offices

Toho Gas Group strives to reduce CO2 emissions with energy-saving 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 affixed "awareness stickers" to remind employees to turn off devices.



# Initiatives in the Power-generation Business

We are working to reduce the amounts of CO<sub>2</sub> emissions through such means a expanding adoption of renewable energy.

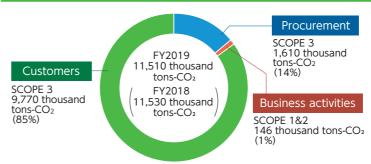
# Carbon Offset Utilizing J-Credit Scheme

Toho Gas is working to reduce CO<sub>2</sub> emissions utilizing carbon offsets under the J-Credit Scheme\* for certifying greenhouse-gas (GHG) emissions reduction operated by the national government.

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

# Amounts of CO<sub>2</sub> Emissions in the Toho Gas Group Value Chain

P43-44



Direct emission by business operator

Indirect emissions accompanying use of electricity and heat supplied by other companies

Indirect emissions other than SCOPE 1 & 2 (Emissions of others related to business activities of the operator)

transportation stage

Natural gas

## Environmental Load of the Value Chain

**Procurement** 

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

Liquefaction facilities

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.

LNG carrier

# ■ Environmentally Friendly Energy

and cold water and steam

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

Sources: Regarding CO<sub>2</sub>: Report of Research into Demonstration of Atmospheric Impact Technology for Assessment of Thermal Power Plants (March 1990), The Institute of Applied Energy; Regarding NOx and SOx: Natural Gas Prospects to 2020 (1986), IDA

helping reduction of CO<sub>2</sub> emissions, by combined production and supply of hot

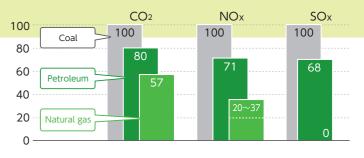
District heating and cooling

Energy centers

The Power transmission and distribution networks of existing power

companies are used, so electrical power of unchanged quality is delivered.

and distribution



Offices, etc. Customers Toho Gas Group is promoting conversion from other fuel to natural gas Toho Gas Group is promoting energy conservation and resource recycling at business offices. The Group also provides district heating and cooling P42 and the spread of high-efficiency gas equipment and systems, such as

# Customers

cogeneration systems, to assist in reducing customer CO<sub>2</sub> emissions.

We are promoting verification testing for adjusting demand and supply and conserving electricity, including virtual power plants (VPPs) and for implementing home demand response.



We are engaged in curbing CO<sub>2</sub> emissions by switching over fuel-burning

We are working to save energy by increasing efficiency (and thereby reducing fuel consumption) through such moves as collaborating with other companies in the industry in filling and distribution operations.

> Bulk tank truck Delivery truck

Cold water/hot water/

equipment (boilers, industrial-use burners, etc.) to LPG, in cogeneration, and in popularizing energy-saving equipment such as high-efficiency water boilers

· Greenhouse gas emissions in the natural gas exploitation and liquefaction stages (CO<sub>2</sub> equivalent)

Non-international

cargo vessel

Because this can easily be liquefied and reduced in volume by

compression or cooling, the environment load is small and

transportability is excellent.

Import terminal

(primary terminal

- · Greenhouse gases (CO<sub>2</sub> equivalent) consequent upon operation of LNG cargo vessels and the production, import, and domestic transport of LPG
- · CO2 emissions from the manufacture and supply of city gas, power generation, and the filling and distribution stages of LPG

Purchased electricity: 120,370 thousand kWh

City gas consumption: 16.100 thousand m<sup>3</sup>N

Purchased electricity: 22,760 thousand kWh

City gas consumption: 620 thousand m<sup>3</sup>N

Manufacturing and Supply

City gas pipelines

LPG filling station

Large-capacity tank truck

ower-generation

Our city gas plants strive to reduce CO<sub>2</sub> emissions by thorough

City gas plants

Production

through to supply of city gas.

regional Shin-denryoku business.

initiatives for resource recycling.

Meiko LPG Terminal (secondary terminal

LNG tanks

energy-saving, and is promoting resource recycling from production

As an initiative to secure sources of power and reduce carbon through

devoting effort to setting up and operating power plants (in-house power

Mega solar (Feed-in tariff (FIT)

procurement of clean electrical power at reasonable prices, we are

sources) and securing renewable energy power sources, and to the

We are devoting effort to creating a supply network that covers the

entire three-prefecture Tokai region as one of the largest secondary

terminal in Japan, and to increasing efficiency. We are also promoting

- · Waste generation from gas pipline construction
- Use of water resources and environmental load on water

Vehicular fuel: 30 thousand GJ

Vehicular fuel: 100 thousand GJ

- CO<sub>2</sub> emissions from office energy use
- · Waste generated from offices

Large-capacity tank truck

· CO<sub>2</sub> emissions from operation of district heating and cooling

■ Well water: 350 thousand m<sup>3</sup>

■ Well water: 130 thousand m<sup>3</sup>

■ Tapwater: 70 thousand m<sup>3</sup>

■ Industrial water: 10 thousand m<sup>3</sup>

■ Tapwater: 1 thousand m<sup>3</sup>

■Water for irrigation: 1,130 thousand m<sup>3</sup>

■ Industrial water: 770 thousand m³

Water for irrigation: 220 thousand m<sup>3</sup>

- · Customer CO2 emissions from city gas use
- Disposal of used gas equipment

out of energy	Toho Gas	Resoure ILNG: 2 ILPG: 1
gy res	Affili	Resour

ces for city gas 2.860 thousand tons 110 thousand tons

ces for city gas 46 thousand tons LPG: 0.8 thousand tons Resources for LPG

LPG: 490 thousand tons

Emission into air \*1 Resources for city gas\*2 ■Greenhouse gas (CO₂ equivalent): 1,410 thousand tons-CO<sub>2</sub>

Emission into air \*1

Resources for city gas\*2 Resources for LPG Greenhouse gas Greenhouse gas (CO<sub>2</sub> equivalent): (CO<sub>2</sub> equivalent): 20 thousand tons-CO<sub>2</sub> 170 thousand tons-CO<sub>2</sub> Emission into air and water ICO2 emissions\*3: 118 thousand tons-CO2

> NOx emissions\*4: 41 tons ICOD load\*4: 0.2 tons

Emission into air

ICO2 emissions\*3: 23 thousand tons-CO2

Rate of reduction/ Final disposal generated General 572 tons 81% 110 tons Industria 1 264 tons 97% 40 tons waste Industrial 35,751 tons 98% 782 tons waste

Energy sales volume

City gas sales volume: 3,740 million m<sup>3</sup> Electricity sales volume: 990 million kWh Heat sales volume: 400 thousand GJ

Energy sales volume

City gas sales volume: 60 million m<sup>3</sup> LPG sales volume: 490 thousand tons

Emission into air City gas supply

LCO<sub>2</sub> emissions\*3: 8,190 thousand tons-CO<sub>2</sub>

Emission into air

City gas supply LPG supply CO<sub>2</sub> emissions\*<sup>3</sup>: 120 thousand tons-CO<sub>2</sub>

CO<sub>2</sub> emissions\*<sup>3</sup>: 1.460 thousand tons-CO<sub>2</sub>

\*2 Calculations of amounts of greenhouse gases released into the atmosphere are made using resources for LNG (not including resources for LPG).
\*3 CO<sub>2</sub> emission factors used for calculation (main emission factors) •City gas:2.29 tons-CO<sub>2</sub>/thousand m³N •LP gas:3.00 tons-CO<sub>2</sub>/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)
\*4 Target: manufacturing-related equipment for city gas and heating

Toho Gas Group Integrated Report 2020

• City gas: Japan Gas Association website
• LPG: 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)

Note: Detailed data, annual changes, calculation standards, factors, etc., and affiliated companies included are described in the ESG Data online. \*1 Sources of CO<sub>2</sub> emission factors used for calculation

Social Report



# **Basic Concept**

Materiality 4

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

Industrial waste: sludge, waste plastic, scrap metal General waste: waste paper, combustible waste

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

# Initiatives at Plants and Offices

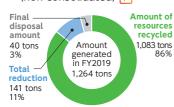
Both industrial and general wastes are generated at Toho Gas Group plants and offices. As a result of efforts to reduce the weight of industrial waste materials and to recycle more, the final amount of Toho Gas waste disposed of in FY2019 totaled 3% of the volume generated. At city gas plants, we set a goal of zero emissions P38, which we have continued and consecutively achieved since FY2009.

Recycling general waste materials is also addressed in our Environmental Action Goals, and we recycled 80.7% of general waste by collecting waste paper that accounts for the majority of waste generated.

As a result of appropriate implementation of water conservation and quality control for waste water, the amount of water used in FY2019 was 1.125 thousand m³, and the COD load was 0.2 tons

\* COD: Chemical oxygen demand

Processing of industrial waste (non-consolidated) 🔽



# • Initiatives in Pipeline Construction

Pipeline construction generates excavated soil as well as asphalt and concrete lumps. In an effort to suppress these, we have introduced shallow-layer pipe installation, the trenchless pipe installation method\* $^{1}$ , the pipe rehabilitation and repair construction and installation method\*2, and promotion of use of temporary filling material in construction requiring re-excavation. In FY2019, we reduced the amount of waste generated by 27% compared with conventional construction methods.

By striving to recycle excavated soil and asphalt and concrete lumps, we have reduced the amount of excavated soil externally

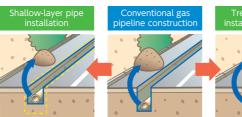
disposed of by 73%, the amount of sand and natural quarried stone used by 87% compared with conventional methods, and almost all asphalt and concrete was recycled.

Almost all used gas pipes were recycled in FY2019 and 86% of used gas meters were reused through maintenance, including part replacement, and inspection.





\*2 Construction method for repairing and renewing gas pipe from the inside \*3 Polystyrene blocks used as temporary backfill



Excavated soil reduced by installing the pipe in



Drilling only at the ends

Trenchless pipe

installation method

# 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 FY2019, this resulted in collection of 850.8 tons of used equipment and 35.4 tons of packing material. Results for recycling of resources subject to the Containers and Packaging Recycling Act were 5.5 tons of plastic containers and packaging and 0.9 tons of paper.

We also recovered refrigerant fluorocarbons generated during maintenance and renewal of commercial air conditioning equipment. In FY2019, all of the fluorocarbons were recovered from the target equipment and processed appropriately (1,342 units, with 14.3 tons of fluorocarbons recovered).

## **Reduction of Construction Filler** Soil Through Use of Gas-pipeline **Protective Materials**

We developed protective material for medium-pressure B polyethylene pipeline jointly with Daito Denzai (Suita City, Osaka). By enhancing this to eliminate the gap between the pipe and the side panels on the left and right, we succeeded in reducing the amount of excavation work and filler soil used in construction.

# **Basic Concept**

Materiality 3 4

Initiatives for conservation of biodiversity form the basis for social and economic sustainability as addressed by SDGs.

The Toho Gas Group is promoting support for local communities through conservation efforts for the ecosystems that support these communities and opportunities for learning about these efforts.

#### **Initiatives in Business Activities**

In our business activities, we devote effort to such moves as conservation of region ecosystems through the establishment of biotopes. In gas pipeline construction, we strive to protect habitats through minimizing the amounts of natural mountain sand and detritus used.

# Biotope Establishment

In 2000, we established a 7,500-m<sup>2</sup> biotope at the Chita-Midorihama Works,

and in 2010 we established the 600-m<sup>2</sup> Biotope Place at the Gas Energy Exhibition Hall. We also installed an 800-m2 biotope at Group-incepted Minato AQULS. In these and other ways, we are working to conserve ecosystems, including rare local species, and to nurture endemic species. These facilities also serve as venues for educating the coming generation about biodiversity in collaboration with local governments.



Biotope at Chita-Midorihama

## •Weed Control Using Goats at Chita-Midorihama

At the Chita-Midorihama Works, thanks to a suggestion made in an internal idea contest, "eco-weeding" using plant-eating goats on the grounds has been taking place since FY2018. The goats, which eat an amount of

grass covering an area of approximately 10 m<sup>2</sup> per day, show high adeptness in areas humans find hard to work in, such as on slopes and in places of dense growth, and not using herbicides or fuel for mowing equipment reduces the environmental load and helps conserve biodiversity.

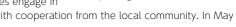


# Initiatives in Local Communities

In local communities, we are engaging in such efforts as forest-conservation activities in Toho Gas Forests and in satoyama - natural woodlands that coexist with nearby populated areas - as well as biodiversity education programs for the coming generation.

#### 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, and promote activities there. 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. In May 2020, we opened a third site, Toho Gas Forest Seto, in Seto City, Aichi Prefecture.

# Satoyama Conservation Activities

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

at Higashiyama Forest in Nagoya City, which Japan's Ministry of the Environment has selected as an important satochi-satoyama with respect to biodiversity conservation, and at Chikurin Hiroba Park in Gifu City. In FY2019, a total of 31 persons took part.



An activity in the Nagoya Higashiyama area

# Education on Biodiversity in Collaboration with Local Communities

Working in collaboration with local governments, we have been establishing learning opportunities on biodiversity for the members of the coming generation. We have held lectures on biotopes at Nagoya Open University of the Environment in cooperation with Nagoya City, and as an endeavor with Aichi Prefecture, we are

participating in the planning for the Chita Peninsula Ecosystem Network Council, and are fostering the next generation of leaders through living-creature monitoring surveys as an Inochiwotsunagu Project ("Connecting Life' Project"). camera installed in a biotope for a



Tanuki photographed by a fixed-point living-creature monitoring survey

## Nature Conservation Activities Overseas

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

Through the committee, we are providing aid for nature conservation activities by environmental NGOs in Indonesia and elsewhere around the world.

## **Endorsement of the Keidanren Declaration** of Biodiversity and Action Policy

Toho Gas endorsed the Keidanren Declaration of Biodiversity and Action Policy in July 2020. The company's endeavors are congruent with this declaration and action policy, and we will continue to devote effort accordingly.













# **Basic Concept**

Materiality 3

The Toho Gas Group is engaged in regional revitalization through the regional electricity business, chiefly in the three Tokai prefectures (Aichi, Gifu, and Mie). In addition to this, the Group is actively engaged in making contributions to regions through education in energy and the environment for the next generation, and also by taking part in cultural activities and other events.

# Initiatives for Forming a Regional Circular and Ecological Sphere

outside Okazaki City:

Thermal, hydropower,

energy conservation,

etc.

# Regional Revitalization Through Regional Electricity Business

The Toho Gas Group works to collaborate with local governments and other entities and contribute to the regions by promoting local production (or sourcing) and making active use of the profits generated through business activities.

Matsusaka Shin-denryoku Co., Ltd., established jointly with Matsusaka City and other entities in November 2017, supplies electrical power to public facilities in Matsusaka City, mainly using power generated at

Matsusaka Clean Center (a trash processing facility). We made the decision to donate the business profit from this to Matsusaka City, and these donations have been used to establish a fund for new construction by the city for regional development, and is utilized in regional; revitalization initiatives.

In March 2020, Toho Gas, through joint investment with Okazaki City and three



other private-sector companies, established Okazaki Sakura Electric Power Co., Inc., a regional power retailer whose aim is achieve local production

(or sourcing) and local distribution of energy and lower carbon in Okazaki City. By supplying electrical power generated at trash processing facilities in Okazaki City to public facilities and other sites in the city, this initiative helps to stimulate the regional economy by reducing CO<sub>2</sub> emissions and realizing local production (or sourcing) and local distribution of energy.



#### **TOPICS**

#### Initiatives to Prevent the Spread of COVID-19 Infections - The Social Mission of Companies Responsible for Infrastructure

To counter novel coronavirus infections, the Toho Gas Group has taken thoroughgoing infection-prevention measures, including making it mandatory for employees to wear masks. Along with this, the Group has been working to ensure a stable supply and security for energy, such as by prohibiting shift-working employees engaged in gas production and supply operations from commuting by public transportation. We have also extended payment deadlines as a special measure for gas and electrical power charges and for transmission and supply charges.

#### Preventing Crime to Protect Children

-Utilized to realize the popularization and expansion of

renewable energy and in businesses working toward local

production (or sourcing) and local distribution of energy

Donation of a portion of business profits to Okazaki

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





Gradual expansion is planned

chiefly to private-sector

companies in the other entities

having high affinity with the

# Energy and Environment 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 FY2019, we developed six programs, including "The Global Environment and Natural Gas" and "Highly Nutritious Homemade Snacks." We held 201 classes at 78 schools.

We have also started engaging in collaborative activities with local groups and corporations, including participating in a next-generation education project hosted by the Nagoya Chamber of Commerce and Industry and giving visiting lectures.



Special class

## Food Education **Activities**

In cooperation with other gas operators, we conduct the Tokai regional competitions



National family cooking contest

of a that the With-Gas Club\*1 has held since FY2007 to promote food education. In FY2019, we received applications from 3,177 children and their parents. The family representing the Tokai region was the winner of the grand prize at the national meet.

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 400 people took part.

In addition, since FY1997, Toho Gas has held Eco-cooking\*2 classes in collaboration with municipalities, universities, etc. in the three Tokai prefectures to promote environmentally friendly dietary habits. In total, approximately 20,000 people have participated in this through FY2019.

\*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.

# Contribution Through Culture and Events

## • 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 FY2019, we received 6,037 entries and presented 99 awards, including the Most Moving Award.



Award ceremony

# Cleanup Activities

June is Environment Month in Japan, and in connection with this, we carry out cleanup activities (local cleanup projects) as part of our regional contribution activities. Around 1,600 persons from the

headquarters, our other offices and plants, affiliates, and manufacturing companies take part in activities that include picking up litter in the areas around our offices and plants.



Activity at Mizushima Gas

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

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

During FY2019, approximately 400 elementary school children and Participants take in explanations of the living creatures discovered parents took part.



## Promotion of "Green Curtains"

Since FY2014, we have worked to promote the spread of "green curtains" that help save energy by using plants to reduce temperature rises at buildings. In FY2019, we donated 1,000 bags containing seeds of the juroku sasage (asparagus bean), a traditional plant of Aichi, and 1,512 goya (bitter melon) seedlings to Nagova City, which were distributed to citizens at environmental events such as Environment Day

Nagoya.



# **Enhancement of Communication** with Shareholders and Investors

# **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 for return to shareholders, while maintaining a firm and stable

We paid a year-end dividend of 55.0 yen per share for the full year ending March 31, 2020. We also expect to pay 55.0 yen per share as the year-end dividend for the full year ending March 31, 2021. Also, in FY2019 we carried out purchase and retirement of treasury stock (approximately 3 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 questions frankly and clearly.

At the annual shareholders meeting for the year ended March 31, 2020, we limited the number of attendees by means of a lottery to prevent the spread of COVID-19 infection, and also held no social gathering for shareholders and our management team after the meeting.

FY2019 Annual Shareholders Meeting (June 24, 2020)

> Shareholders 16 in attendance (568 in FY2018)

Exercise of shareholder 86.8% voting rights (85.7% in FY2018)



Annual shareholders meeting

# Communication with Individual Investors

As an energy company with strong roots in the local communities, Toho Gas would like to enjoy support over the long term from as many people as possible - not just as customers, but as shareholders as well. To expand the extent of such "customer shareholders," we actively hold company briefing seminars with facility tours, showroom tours, and cooking classes, along with IR\* events conducted jointly with local companies.

In FY2019 we issued company bonds geared toward individual investors, and through the cooperation of securities companies, we publicized Toho Gas to many investors in the region.

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

Number of events held (FY2019)

15 796

Number of attendees



Poster for our 43rd unsecured bond



IR Expo by the Nagova Sťock Exchange



Event in collaboration with Kagome Co., Ltd

## 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.

We also conduct periodic IR activities to deepen understanding of Toho Gas among the members of the financial institutions that are our bond investors.

companies (FY2019) 202



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.

In addition to this, to accommodate diversifying investment styles, we are actively devoting effort to online briefings and video briefings streamed over the

Please also see the IR page of our website at the following URL. https://www.tohogas.co.jp/lang-n/en/corporate/



# Implementation of the Shareholder Benefit Program

While the basis of our return to shareholders is stable dividends and flexible purchase and retirement of treasury stock. Toho Gas 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 "customers 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.

#### [Overview of the Shareholder Benefit 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.

#### Three Offers Under the Shareholder Benefit Program

# Exchange for "Gas-Teki Points"

Shareholders with gas or electricity contracts with our company can choose "Gas-Teki Points,"\* which can be used towards payment of gas and electricity charges.

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

#### 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

#### Charity donation





Japanese Red

For details, please visit the website below. https://www.tohogas.co.jp/corporate/ir/personal-investor/personal-investor-06/



# Social Report Human Resource Management



# **Basic Concept**

# (Human Resource Management with Respect for Human Rights)

Materiality 5

The 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 race, gender, age, nationality, or disability 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)	2,314	450	
Employee numbers (people) (consolidated)	4,728	1,470	
Average age (years old)	42.8	41.5	
Average years of service (years)	17.6	18.0	
Number of graduate recruits (people)	68	18	
Number of mid-career recruits (people)	2	8	
Number of re-hires (people)	325		
Voluntary turnover rate (%) 1.53			

Note: As of the end of March 2020. Not including seconded employees. Number of graduate recruits starting April 2020, mid-career recruits for FY2019, and voluntary turnover rate is the average for the past three years.

# 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		
	Level-specific training, Role-based training (medium-ranked leaders, newly appointed chiefs, labor management administrators)				
Collective	Elective training (business skill enhan Interactive training wil	_			
training	Career training for women, Seminar on	Diversity training for middle management			
	Career training (ages 30, 40 and 50)				
	Acquisition of official certification				
Self- development	Distance education and external training				
	External study abroad*2, internal	_			
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.

# Advancement by Women

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.

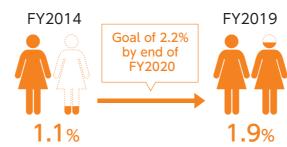
In addition to career planning training for young and medium-ranked employees, we hold seminars on childcare leave and maternity leave and interviews six months prior to return to work, aiming to contribute to a balance between work and child-raising we also established a "Women's Advancement Support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



Training (women's advancement)

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



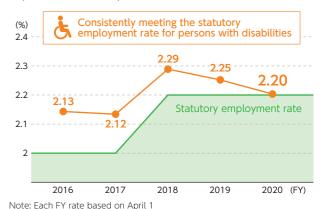
# Advancement by the Elderly

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.

## Advancement of Persons 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 2.2%, which meets 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)



# **Establishment of** Toho Flower Co., Ltd. P32

Toho Flower Co., Ltd. was established in October 2019 with the aim of working to encourage hiring and lasting employment for persons with disabilities, and to achieve the Group's legally mandatory proportion of jobs for persons with disabilities in a sustainable way as well as to contribute to the local community.





# Creating a Work-friendly Environment

# Initiatives for Work Style Reform

#### [ Labor-related Compliance ]

We convene a labor-management board for appropriate management of work hours (elimination of excessive working 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

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

FY	2015	2016	2017	2018	2019
Child rearing leave	17(1)	26(1)	13	19(1)	27(2)
Child rearing shorter working hours	15	14	18	12	12(1)
Nursing care leave	0	2	0	1(1)	2
Nursing care shorter working hours	0	1	1	1	0

\*Male employees in brackets





Lunch-talk meeting of employees who are rearing children

Toho Gas, as a company supporting child-rearing, obtained the "Kurumin" certification recognized by the Ministry of Health, Labour and Welfare 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 reduce the safety and health impact, and create a comfortable working environment.

# Promotion of Health and Safety

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

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

#### Lost-time incident rate (non-consolidated)



Lost-time incident rate: A safety indicator representing incidence of occupational accidents. Represents work stoppages caused by occupational accidents per 1,000,000 total work

> Lost-time incident rate =(number of work stoppages) / (total work hours of workers) × 1.000.000

# Group-wide Health and Safety Activities

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



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. We are maintaining a rate of 100% for periodic 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.

## Aiming Towards Zero Accidents

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

# 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



# Recognized As a "Certified Health & **Productivity Management Outstanding** Organization 2020 (White 500)" P32

In March 2020, Toho Gas was recognized as a "Certified Health & Productivity Management Outstanding Organization 2020 (Large-scale corporation category) -White 500" under a program administered jointly by the Ministry of Economy, Trade, and Industry (METI) of Japan and the Nippon Kenko Kaigi.



# Corporate Governance

# 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

# **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 three 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.

# • 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.

# 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 three 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.

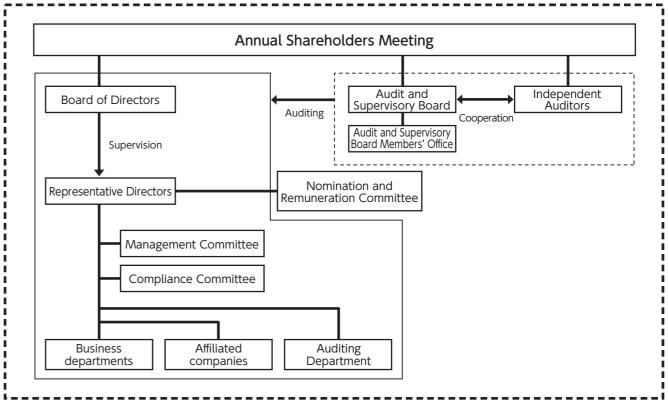
#### Outside Directors; Outside Audit and Supervisory Board Members

			Attendance		
	Name	Reason for selection	Board of Directors	Audit and Supervisory Board	
	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	_	
Outside Tetsuo Hattori Directors		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	_	
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 managemen t overall.	12/12	12/12		
Outside	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	
Audit and	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	
	Keiko Ikeda	We have determined that her specialist knowledge and abundant experience in legal affairs as an attorney provides her with strong insight to offer valuable opinions on management overall.	_	_	

N.B.: Mr. Hamada assumed the position of Director on June 24, 2020, but because he was an Audit and Supervisory Board Member in FY2019, attendance figures for the Audit and Supervisory Board are given.

Ms. Ikeda assumed the position of Audit and Supervisory Board Member on June 24, 2020, and in FY2019 was not a member of the Board of Directors or Audit and Supervisory Board for which attendance figures are given.

Corporate Governance Organizational Chart



#### Corporate Governance Organization

Number of Directors (Outside Directors)	9 (3)
Number of Audit and Supervisory Board Members (Outside Members)	5 (3)
Number of Board of Directors' meetings (FY2019)	12
Number of Audit and Supervisory Board Meetings (FY2019)	12
Term of office of Directors	1 year

# Evaluation of Effectiveness of Board of Directors

We annually 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. Roughly 30% of basic remuneration is performance-linked compensation indexed to items as goals in the Medium-term Management Plan (return on investment, etc.), and the state of achievement for the single fiscal year is reflected in remuneration. Bonuses are set by resolution of the Board of Directors, taking into account the performance of the respective Directors, upon deliberation by the foregoing Committee, which takes into account matters such as the state of Company performance, and after determining the total amount to be paid by resolution at the Annual Shareholders Meeting. Outside Directors receive only basic remuneration (no performance-linked compensation).

# 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.

Toho Gas Group Integrated Report 2020 56



# 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 the internal control system 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
- 4. Affiliated companies business management system
- 5. Audit system

# **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.

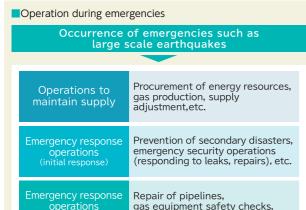
# State of Administration of the Internal Control System

# Risk Management

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. We are also promoting efforts within the risk management system for risks related to climate change and other ESG matters.

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.



of operations

commencement of gas supply,etc.

Financing, settlement of accounts,

system maintenance management.

meter reading, transportation

pipeline patrols, etc.

# Information Security Measures Materiality 2

To ensure cyber security, we took steps to create internal systems, such as establishing the Cyber Security Committee as a company-wide cyber security control organization, and continuously conduct drills that anticipate occurrence of incidents.

# 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 FY2019, 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.

# **Promotion of Compliance**

# Compliance Promotion System

Toho Gas has a Compliance Board which is chaired by the President and comprises 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 and reporting to the Board of the Directors. 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 Board, and proactively promoting compliance.

# 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 and the like for 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 FY2019 they handled 18 consultations.

## Education and Enlightenment Activities

We held lectures for Officers and General Managers, Managers, and chiefs, lectures on such matters as harassment prevention and the Act on the Arrangement of Related Acts to Promote Work Style Reform, compliance awareness training for



Harassment-prevention training

medium-ranked employees, and labor management training for managers at affiliated companies.

We also hold compliance meetings at each workplace and issue "Compliance News" periodically.

# Inspection and Survey Activities

Compliance promotion system chart

Compliance Board

Officers in charge and

**Executive General Managers** 

Workplace compliance

implementation

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 Materiality 2 Information

Affiliated companies

Compliance Board

Officers in charge of

compliance

Workplace compliance

implementation

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.

Report

# Dean, Nagoya University Law School Professor Emeritus, Nagoya University

Hiroaki Kato

Joined Toho Gas General Manager of General Affairs

Jun.2013 General Manager of East Nagoya District

Jun.2019 Audit & Supervisory Board Member(current

Jun.2015 General Manager of Auditing Department

Headquarters

position)

# Michiyo Hamada

# **Board of Directors and Audit & Supervisory Board Members**

(as of June 30, 2020)

# 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
Nov.2011 Director, Senior Managing Executive Officer,

and General Manager of Gas Sales Division Jun.2012 Representative Director, President

Jun.2016 Representative Director, Chairman (current position)

#### Representative Director, President





General Manager of Production Planning Department General Manager of Corporate Planning

Yoshiro Tominari

Jun.2009 Executive Officer, General Manager of Corporate Planning Department

Jun.2010 Executive Officer, Executive General Manager of Research & Development Division 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 Director, Senior Managing Executive Officer Jun.2016 Representative Director, President (current

# Director, Senior Managing Mitsuhiro Kodama



Jun.2013

General Manager of Gas Resources Department Executive Officer, General Manager of Gas Resources Department Executive Officer, General Manager of

Corporate Planning Department Managing Executive Officer

Jun.2017 Director, Managing Executive Officer Jun.2019 Director, Senior Managing Executive Officer (current position)

# Executive Vice President

Representative Director,



Joined Toho Gas General Manager of Public Relations Department

General Manager of Finance Department Executive Officer, General Manager of Finance Department

Shinji Niwa

Jun.2012 Managing Executive Officer, Executive General Manager of Residential Gas Sales Director, Managing Executive Officer, Executive General Manager of Residential

Jun.2014

Gas Sales Division Director, Senior Managing Executive Officer Representative Director, Executive Vice President (current position)

Shinichi Senda

Koji Miyahara

#### Director, Senior Managing **Executive Officer**



Outside Director

Apr.1982 Joined Toho Gas

Jun.2006 General Manager of East Nagoya District Headquarters

General Manager of Residential Sales Planning Department General Manager of Personnel Department Jun.2014 Executive Officer, General Manager of Gas

Resources Department Managing Executive Officer Director, Managing Executive Officer

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

Apr.2004 Representative Director, President, Corporate Officer of Nippon Yusen Kabushiki Kaisha

Apr.2015 Director, Board Counselor of Nippon Yusen

Kabushiki Kaisha

Kabushiki Kaisha

Apr.2009

Representative Director, President, President Corporate Officer of Nippon Yusen

Representative Director, Chairman, Chairman

Corporate Officer of Nippon Yusen Kabushiki

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

#### Director, Senior Managing Nobuyuki Masuda **Executive Officer**



Joined Toho Gas

Oct.2009

General Manager of Engineering Department General Manager of Production Planning Department General Manager of Distribution Planning &

Management Department Executive Officer, General Manager of lun 2015 Distribution Planning & Management

Department Executive Officer, Executive General

Manager of Distribution Division Managing Executive Officer, Executive General Manager of Research & Development Division and Executive General Manager of

Apr.2019 Managing Executive Officer, Executive General Manager of R&D/Digital Division and Executive General Manager of Production Division

Production Division

Director, Managing Executive Officer, Executive General Manager of R&D/Digital Division and Executive General Manager of Production Division

Director, Senior Managing Executive Officer, Executive General Manager of R&D/Digital Division (current position)

# **Outside Director**



Jun.2008 Representative Director and President of Kanto Auto Works, Ltd. (current Toyota Motor Fast Japan, Inc.)

Tetsuo Hattori

Senior Advisor of Kanto Auto Works, Ltd. (current Toyota Motor East Japan, Inc.) Jul.2012 Senior Advisor of Toyota Motor East Japan,

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

## Outside Director

**Audit & Supervisory** 

Nov.2011

Board Member

# Professor, Nagoya University School of Law Professor, Graduate School of Law at Nagoya University

Apr.2009 (current position) Member of the Fair Trade Commission Mar.2014 Retired from Membership in the Fair Trade

Jun.2014 Audit & Supervisory Board Member of Toho

Jun.2020 Director of Toho Gas (current position)

# Audit & Supervisory Board Members

#### Audit & Supervisory Board Member

# Oct.2005 Jun.2009

# Osamu Nakamura

Joined Toho Gas General Manager of Solution Engineering

Executive Officer, General Manager of Distribution Planning & Management Department

Director, Managing Executive Officer, Executive General Manager of Distribution

Jun.2014 Director, Managing Executive Officer, Executive General Manager of Research & Development Division

Director, Senior Managing Executive Officer Executive General Manager of Research &

Development Division Representative Director, Executive Vice President, Executive General Manager of Production Division

Jun.2018 Audit & Supervisory Board Member (current nosition)

#### Outside Audit & Supervisory Tamotsu Kokado **Board Member**



Jun.2009 Representative Director, Deputy President of The Bank of Tokyo-Mitsubishi UFJ, Ltd. (current MUFG Bank, Ltd.) Standing Advisor of The Bank of Tokyo-

Mitsubishi UFJ, Ltd. (current MUFG Bank, May.2015 Advisor of The Bank of Tokyo-Mitsubishi UFJ, Ltd. (current MUFG Bank, Ltd.) (current

> Audit & Supervisory Board Member of Toho Gas (current position)

# Outside Audit & Supervisory Norikazu Koyama **Board Member**

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 Senior Director of Japan Police Personnel Cooperative

Senior Director of Council for Public Policy (current position) Audit & Supervisory Board Member of Toho

#### Outside Audit & Supervisory Keiko Ikeda **Board Member**



Aug.1986 Established Ikeda Law Office (current Ikeda Law & Patent Office)

Apr.2018 Chairperson of Chubu Federation of Bar Associations

Gas (current position)



Apr.1983 Registered Attorney

Jul. 2000 Registered patent Attorney Apr. 2017 Chairperson of Aichi Bar Association

Jun.2020 Audit & Supervisory Board Member of Toho

Gas (current position)

# External Opinion and Evaluation

# **Expert Opinion**



Thoughts on the Gas Business in 2050

The Japan Research Institute, Counselor

Eiichiro Adachi

In this report, of notice are the new topics of the signing and participation in the United Nations Global Compact (page 31), the establishment of Toho Flower for employment of persons with disabilities (page 32), recognition as a as a Certified Health & Productivity Management Outstanding Organization (page 32), and the appointment of women as an Outside Director and as an Audit and Supervisory Board Member (page 55), as well as expansion of the scope of value chain management (page 43). The initiatives of the Toho Gas Group with respect to environmental, social and corporate governance (ESG) are to be commended for their increased comprehensiveness.

On the other hand, the arise of the debate originating in Europe as to whether LNG energy actually is congruent with a decarbonized society is a matter of concern. The European Commission issued a policy paper titled "A hydrogen strategy for a climate-neutral Europe," making clear its promotion of renewable hydrogen, which emits no carbon dioxide in production processes.

In Japan, too, the Environment Innovation Strategy decided on January 21, 2020 calls for reducing the manufacturing costs of hydrogen, which produces no CO2 emissions, to one-tenth or lower by around 2050, putting in on a par with the price of natural gas. For the Toho Gas Group as well, together with positioning demand for a decarbonized society squarely at the front in its identification of materiality, in information disclosure in line the TCFD declaration, circumstances are arising for discussing creation of a hydrogen society in terms of both opportunity and threat. I believe

I realize this is not a matter for which a quick conclusion can be reached, but I consider Toho Gas Group fortunately to have more than a few customers with latent hydrogen-use needs. In the interviews with the President, he notes that "we plan to start discussing our future vision from the second half of FY2020, with our sights fixed on our 100th anniversary and after" (page 12).

I will look forward to an account the progress of this in the next

# **Evaluation by External Organizations**

MSCI Japan ESG Select Leaders Index	Toho Gas continues to be a selected constituent since 2017.
MSCI Japan Empowering Women Index (Select)	Toho Gas continues to be a selected constituent since 2017.
SOMPO Sustainability Index	Toho Gas continues to be a selected constituent since 2012.
S&P/JPX Carbon Efficient Index	Toho Gas continues to be a selected constituent since 2018.
CDP Climate Change 2019	Toho Gas received an A-rank evaluation.
Nikkei SDGs Management Survey	Toho Gas received an overall evaluation of 3.5 starts (deviation value of 58.8).

#### **External Awards**

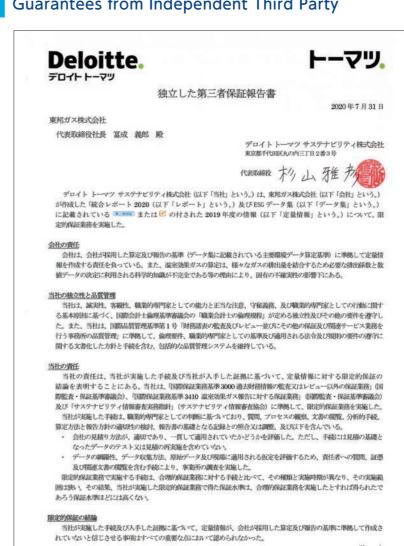
Major awards received in FY2019 are as follows.

Name	Main sponsor	Target	Joint award winner
2020 Aichi Environmental Award - Gold Prize	Aichi Prefectural Government	Development of Minato AQULS smart town	
2018 JSME Medal for New Technology *Awarded in April 2019	Japan Society of Mechanical Engineers (JSME)	Development of a city gas calorific value adjustment system with novel atomization technology (AtoMOS)	JFE Engineering Corp.
International Gas Union Research Conference (IGRC) 2020 Award for Excellence	International Gas Union (IGU) and others	Development of a trenchless pipe replacement method (STREAM method)	
Japan Gas Association 2019	Japan Gas	Development of the STREAM method (trenchless replacement method for ductile cast-iron pipes)	Toho Gas Techno Co., Ltd., Kubota ChemiX, Co., Ltd.
Technology Award	Association (JGA)	Development of the Smart Multi hybrid personal air-conditioning system with optimized operation control using remote monitoring	

# 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 第三者保証 or Mark appended to indicate data guaranteed by an independent third party, including data on greenhouse gases (CO2 equivalents) in FY2019 and energy consumption (electric power usage, gas, and other fuels), waste material volume, water usage amount, resource usage amounts (LNG and LPG), sales volumes (city gas,LPG, heat, and electric power), 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, and, from the perspective of environmental load in the value chain, sales volume for city gas, heat, and electric power, energy resource procurement sources, and CO<sub>2</sub> emissions by customers, at major business sites including city gas plants, area heating and cooling facilities, our headquarters, and at affiliated companies with significant environmental loads.

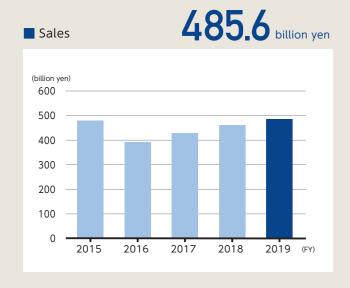
This fiscal year, in response to COVID-19, we avoided conducting face-to-face surveys, and instead devised measures such as web meetings to carry out the

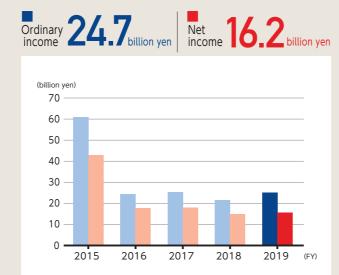
In the future, we will continue to work on the enhancement of data reliability and augmented disclosure of the Toho Gas Group's environmental information.

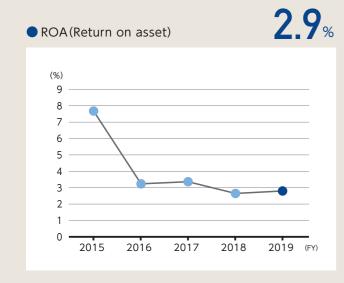


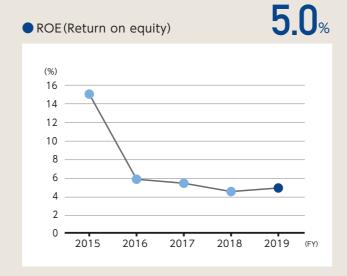
mentation of independent third party guarantee worl

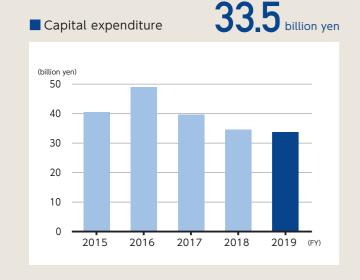
# **Fundamental Data**

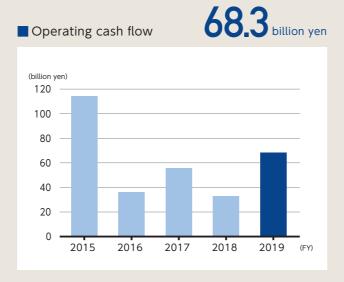


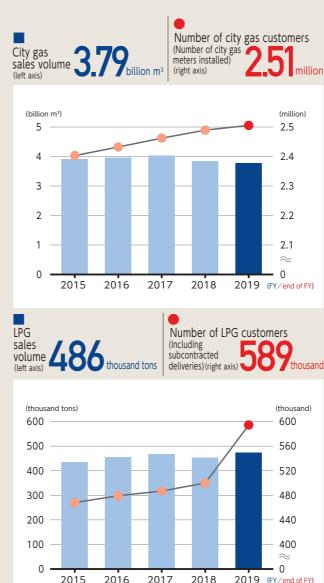




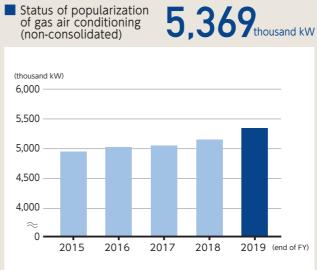


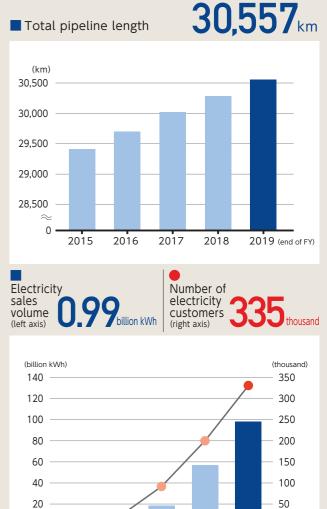


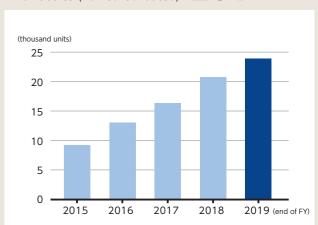












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# Financial Highlights (consolidated)

(FY)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Net sales (million yen)	411,524	436,825	482,360	518,305	560,462	580,984	479,870	390,433	428,868	461,199	485,623
Operating income (million yen)	17,819	23,906	17,503	12,621	15,751	28,760	60,725	23,188	23,984	17,831	21,351
Ordinary income (million yen)	17,351	24,334	18,164	13,382	17,053	29,516	61,132	24,490	25,208	21,485	24,763
Net income attributable to owners of the parent (million yen)	10,976	14,491	8,570	8,526	11,241	19,053	43,008	17,749	18,022	14,820	16,266
Net cash flow from operating activities (million yen)	77,279	53,929	32,163	40,261	37,809	62,320	114,923	37,264	57,047	32,615	68,376
Free cash flow (million yen)	33,289	20,085	(1,426)	1,903	4,792	24,480	72,727	(20,703)	13,702	(7,396)	25,420
Total assets (million yen)	506,724	495,626	492,889	504,461	509,760	543,286	555,217	532,931	541,087	550,599	564,756
Equity capital (million yen)	220,854	221,425	224,292	236,470	245,890	282,827	285,186	306,801	326,279	327,339	322,76
roa (%)	2.1	2.9	1.7	1.7	2.2	3.6	7.8	3.3	3.4	2.7	2.
ROE (%)	5.1	6.6	3.8	3.7	4.7	7.2	15.1	6.0	5.7	4.5	5.
Total asset turnover (times)	0.81	0.88	0.98	1.03	1.10	1.07	0.86	0.73	0.79	0.84	0.8
Equity ratio (%)	43.6	44.7	45.5	46.9	48.2	52.1	51.4	57.6	60.3	59.5	57.
Interest-bearing debt (million yen)	171,051	161,400	164,325	162,015	164,517	149,703	127,163	114,954	112,199	127,298	128,49
D/E ratio (times)	0.77	0.73	0.73	0.69	0.67	0.53	0.45	0.37	0.34	0.39	0.4
EPS (yen)	98.38	131.09	78.42	78.12	103.05	174.72	397.06	164.87	169.28	139.37	153.6
BPS (yen)	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	3,056.4
PER (times)	25.91	16.36	31.12	39.25	27.27	20.06	10.06	23.87	19.32	35.66	31.9
PBR (times)	1.28	1.07	1.19	1.41	1.25	1.35	1.52	1.37	1.07	1.61	1.6
Number of issued shares at the end of the term (excluding treasury stock) (thousand shares)	110,602	110,094	109,156	109,091	109,062	109,042	108,241	107,086	106,339	106,335	105,60
Dividend per share (yen)	40.0	40.0	42.5	45.0	45.0	47.5	50.0	50.0	52.5	55.0	55.
Capital expenditures (million yen)	43,672	33,259	32,546	35,198	33,093	36,570	40,101	49,298	39,629	34,610	33,56
Depreciation and amortization (million yen)	61.157	40,573	40,272	36,901	35,780	33,950	32,987	35,482	35,973	36,075	37,55
Pipeline length (km)	27,796	28,073	28,373	28,709	28,970	29,203	29,431	29,722	30,007	30,274	30,55
Number of city gas customers (installed gas meters) (thousand)	2,295	2,307	2,322	2,345	2,364	2,387	2,409	2,434	2,463	2,486	2,51
City gas sales volume (million m³)	3,711	4,001	4,035	4,045	4,073	4,031	3,908	3,974	4,024	3,838	3,79
Number of employees (persons)	5,643	5,654	5,668	5,662	5,813	5,817	5,818	5,860	5,892	5,799	6,19

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

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

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)

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

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

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 /

# **Consolidated Balance Sheets**

		(million yen
	End of FY2018 (March 31, 2019)	End of FY2019 (March 31, 2020)
Assets		
Non-current assets		
Property, plant and equipment Production facilities	76,111	72,421
Distribution facilities	158,415	154,175
Service and maintenance facilities	27,588	26,476
Other facilities	45,677	47,372
Construction in progress	9,693	10,622
Total property, plant and equipment	317,486	311,068
Intangible assets Other	6,616	10,829
Total intangible assets	6,616	10,829
Investments and other assets Investment securities	83,492	76,879
Long-term loans receivable	6,732	7,754
Deferred tax assets	10,138	13,755
Net defined benefit asset		323
Other	8,852	11,759
Allowance for doubtful accounts	(64)	(96)
Total investments and other assets	109,152	110,376
Total non-current assets	433,255	432,275
Current assets		
Cash and deposits	19,338	34,702
Notes and accounts receivable-trade	57,833	58,111
Lease receivables and investment assets	11,159	11,007
Inventories	24,258	23,912
Other	4,958	4,919
Allowance for doubtful accounts	(204)	(171)
Total current assets	117,344	132,481
Total assets	550,599	564,756

	(IIIIttion yen)

	End of FY2018 (March 31, 2019)	End of FY2019 (March 31, 2020)
Liabilities		
Non-current liabilities		
Bonds payable	50,000	70,000
Long-term loans payable	43,440	36,541
Deferred tax liabilities	690	649
Provision for gas holder repairs	1,751	1,690
Provision for safety measures	17,105	15,173
Provision for gas appliance warranties	3,296	2,808
Net defined benefit liability	6,530	7,959
Other	9,460	9,443
Total non-current liabilities	132,275	144,265
Current liabilities		
Current portion of non-current liabilities	14,799	13,833
Notes and accounts payable-trade	20,009	23,432
Short-term loans payable	17,828	6,862
Income taxes payable	4,970	6,480
Other	33,377	47,113
Total current liabilities	90,984	97,721
Total liabilities	223,260	241,987
Net assets		
Shareholders' equity		
Capital stock	33,072	33,072
Capital surplus	8,387	8,387
Retained earnings	248,694	256,066
Treasury stock	(63)	(11)
Total shareholders' equity	290,091	297,514
Other comprehensive income		
Valuation difference on available-for-sale securities	35,177	29,790
Deferred gains or losses on hedges	599	(3,422)
Foreign currency translation adjustment	2,186	1,852
Remeasurement of defined benefit plans	(715)	(2,967)
Total other comprehensive income	37,248	25,253
Total net assets	327,339	322,768
Total liabilities and net assets	550,599	564,756

# **Consolidated Statements of Income**

		(IIIIIIOII yell)
	FY2018	FY2019
	(April 1, 2018 to March 31, 2019)	(April 1, 2019 to March 31, 2020)
Net sales	461,199	485,623
Cost of sales	315,324	330,092
Gross profit	145,874	155,530
Selling, general and administrative expenses	128,042	134,179
Operating income	17,831	21,351
Non-operating income		
Interest income	10	377
Dividend income	1,828	1,906
Rent income	681	679
Miscellaneous income	2,185	1,747
Total non-operating income	4,705	4,710
Non-operating expenses		
Interest expenses	672	821
Miscellaneous expenses	379	476
Total non-operating expenses	1,051	1,298
Ordinary income	21,485	24,763
Extraordinary income		
Gain on sales of investment securities	_	1,434
Total extraordinary income		1,434
Extraordinary loss		
Impairment loss	-	2,526
Loss on valuation of investment securities	421	277
Total extraordinary loss	421	2,803
Net income before income taxes	21,064	23,393
Income taxes-current	4,604	6,613
Income taxes-deferred	1,639	514
Total income taxes	6,244	7,127
Net income	14,820	16,266
Net income attributable to owners of the parent	14,820	16,266

# Consolidated Statements of Comprehensive Income (million yen)

FY2018 FY2019 (April 1, 2018 to March 31, 2019) (April 1, 2019 to March 31, 2020) 14,820 16,266 Net income Other comprehensive income Valuation difference on (6,951)(5,369)available-for-sale securities Deferred gains or losses on hedges 617 (4,025)(675)Foreign currency translation adjustment (90)Remeasurement of defined benefit plans (167)(2,205)Share of other comprehensive income of (316)(304)entities accounted for using equity method (7,493) (11,994) Total other comprehensive income 7,326 4,271 Comprehensive income Comprehensive income attributable to: 4,271 7,326 Owners of the parent Non-controlling interests

# Consolidated Statements of Cash Flows

	FY2018 (April 1, 2018 to March 31, 2019)	FY2019 (April 1, 2019 to March 31, 202
Cash flows from operating activities	( , , , , , , , , , , , , , , , , , , ,	NI I
Net income before income taxes	21,064	23,393
Depreciation and amortization	36,075	37,557
Impairment loss	-	2,526
Gain on sales of investment securities	_	(1,434)
Loss on valuation of investment securities	421	277
Increase (decrease) in provision	(1,685)	(2,712)
Interest and dividend income	(1,839)	(2,283)
Interest expense	672	821
Decrease (increase) in notes and accounts receivable-trade	(8,959)	1,354
Decrease (increase) in inventories	(5,649)	1,140
Increase (decrease) in notes and accounts payable-trade	(271)	2,777
Other	(1,504)	8,232
Subtotal	38,323	71,652
Interest and dividend income received	1,839	2,280
Interest expenses paid	(668)	(769)
Income taxes paid	(6,878)	(4,787)
Net cash provided by (used in) operating activities	32,615	68,376
Cash flows from investment activities:	· · · · · · · · · · · · · · · · · · ·	·
Purchases of non-current assets	(34,610)	(33,566)
Proceeds from sales of non-current assets	290	243
Purchase of investment securities	(3,210)	(1,717)
Proceeds from sales of investment securities	520	1,765
Purchase of subsidiaries accompanying change of scope of consolidation	_	(6,412)
Other	(3,001)	(3,262)
Net cash provided by (used in) investment activities	(40,011)	(42,949)
Cash flows from financing activities:		
Net increase (decrease) in short-term loans payable	12,445	(12,437)
Net increase (decrease) in commercial paper	(2,000)	_
Proceeds from long-term loans payable	18,045	6,116
Repayment of long-term loans payable	(13,671)	(5,466)
Proceeds from issuance of bonds	9,938	19,888
Redemption of bonds	(10,000)	(10,103)
Purchase of treasury stock	(17)	(3,012)
Cash dividends paid	(5,847)	(5,830)
Other	(57)	112
Net cash provided by (used in) financing activities	8,834	(10,730)
Effect of exchange rate change on cash and cash equivalents	(54)	22
Net increase (decrease) in cash and cash equivalents	1,383	14,718
Cash and cash equivalents at beginning of year	17,876	19,260
Cash and cash equivalents at end of year	19,260	33,979

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 LPC •Sale of gas equipment and facilities, and gas piping installation

Capital	33,072 million yen
City gas supply areas	54 cities, 21 towns and 1 village in Aichi, Gifu and Mie Prefectures
Number of employees	2,764 (6,198 on a consolidated basis)
Partner Companies	<ul><li>100 ENEDO (gas equipment sales and service) shops</li><li>165 gas engineering companies</li></ul>

# **Stock Information**

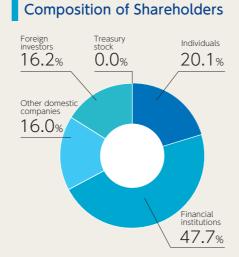
Securities code	9533
Fiscal Year	April 1 to March 31 of the following year
Annual Shareholders Meeting	June every year
Stock Exchange Listing	Tokyo Stock Exchange, Nagoya Stock Exchange
Administrator of Shareholders' Register and Special Account Management Institution	Mitsubishi UFJ Trust and Banking 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	105,606,285 shares (including treasury stock 2,773 shares)
Number of Shareholders	21,644

# Major Shareholders

Name of Shareholder	Number of Shares Held (Thousand)	Percentage of Share Ownership(%)
The Master Trust Bank of Japan, Ltd. (Trust a/c)	5,894	5.58
Nippon Life Insurance Co.	5,854	5.54
Sumitomo Mitsui Banking Corp.	3,304	3.12
Japan Trustee Services Bank, Ltd. (Trust a/c)	3,270	3.09
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	2,872	2.72
The Dai-ichi Life Insurance Co., Ltd.	2,582	2.44
Toho Gas Group Employees Shareholding Association	2,330	2.20
Japan Trustee Services Bank, Ltd. (Trust a/c 5)	2,003	1.89
Meiji Yasuda Life Insurance Co.	1,841	1.74
JP Morgan Chase Bank 385151	1,574	1.49

Note: Percentage of share ownership is calculated by the number of shares excluding treasury stock (2,773 shares).





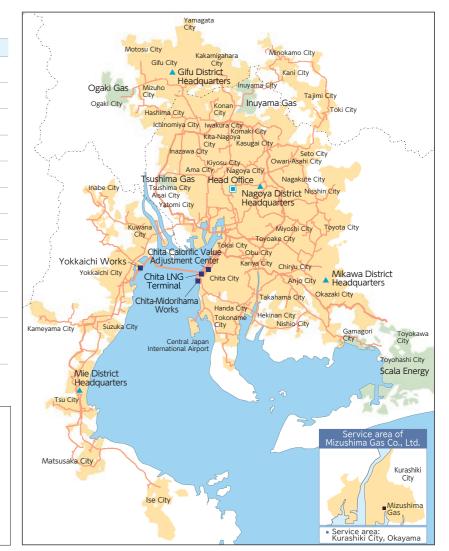
# \*We consolidated common shares at a ratio of five shares to one share on October 1, 2017. Accordingly, the stock price and trading volume figures reflect the impact of the consolidation of shares.

# Overview of Major Pipeline Networks and City Gas Service Area

# Major Business Sites

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





# 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.
- Yamasa Co., Ltd.
- Toho Gas Australia Pty. Ltd.

Note: The number of consolidated subsidiaries, including the above major affiliated companies, is 31.

# Our Websites

## **Investor Relations**

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



# Initiatives for ESG

https://www.tohogas.co.jp/ lang-n/en/approach/eco/

