Toho Gas Group

Integrated Report
2023



Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation

Web Site



#### **Toho Gas Group's Value Creation**

# Corporate Philosophy

#### Corporate Mission

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

#### Management Policy

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

#### **Employee Action Criteria**

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

## Perpetuating the Okamoto Spirit



The objective of the company is to contribute to society through services for users

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

The first president of Toho Gas, Sakura Okamoto, believed 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 have engaged in providing services in social and public aspects, advocating promotion of community welfare, and integration with local communities through this approach. This took form as the Higashiyama Botanical Gardens.

In 1932, based on a suggestion from Mr. Okamoto, the company contributed the construction costs for botanical gardens in Nagoya, which were completed five years later as the Higashiyama Botanical Gardens.

Okamoto was a manager who thought constantly about the company as a social public institution, and that spirit still forms part of the company's DNA today.



Higashiyama Botanical Gardens when it first opened



# Toho Gas Group's Value Creation

**Corporate Philosophy** 

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation



## **Contents**

# Toho Gas Group's Value Creation O1 O1 Corporate Philosophy O3 History of Toho Gas Group O5 Message from the President O9 Message from Financial Executive

**15** Toho Gas Group Vision

Materiality

Value Creation Process

- 17 Medium-Term Management Plan 2022-2025
- 23 2050 Carbon Neutrality Initiative
- 25 Initiatives for Carbon Neutrality

#### **Initiatives for ESG**

31

#### Environment

- **32** Toho Gas Group Sustainability Policy
- 33 Information Disclosure Based on TCFD Opinions
- **35** Management of Environmental Preservation
- **39** Global Warming Countermeasures
- **41** Resource Recycling
- **43** Biodiversity Conservation

#### Society

- **45** Contribution to the Local Communities
- **49** Promotion of Personnel Policies
- 53 Initiatives for Occupational Health and Safety
- 55 Initiatives for Respect of Human Rights

#### Governance

- **57** Corporate Governance
- **60** Communication with Shareholders and Investors
- **61** Internal Control
- **63** Compliance
- **65** Directors and Audit & Supervisory Board Members
- **67** Messages from Outside Directors

#### About the Design of the Cover

The cover of the Integrated Report 2023 was designed by an employee of Toho Flower Co., Ltd. The four lines representing the four themes of the Toho Gas Group's Medium-term Management Plan 2022-2025 rise straight and steadily, symbolizing our new initiatives. Toho Flower Co., Ltd. is a company in the Toho Gas Group established in October 2019. It aims to encourage hiring and lasting employment for persons with disabilities.



#### **Business Report**

71

- City Gas Business
- 77 Technical and Product Development
- 79 LPG and Other Energies
- **80** Electricity Business
- **81** Business Development

#### **External Opinion and Evaluation**

84

#### **Data Section**

85

- 85 Financial and Non-financial Highlights
- **87** Financial Highlights (Consolidated)
- **89** Consolidated Balance Sheets
- 90 Consolidated Statements of Income/ Consolidated Statements of Comprehensive Income
- 91 Consolidated Statements of Cash Flows
- **92** Stock Information
- Company Overview

#### Contents

Toho Gas Group's Value Creation

#### Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# History of Toho Gas Group

room at Kanagawa opened for disaster

restoration

Toho Gas celebrated the centennial anniversary of the company's establishment in June 2022.

Taking on numerous challenges in response to changes in the business environment based on the company's founding spirit, we have converted the energy resources used for city gas, expanded usage applications, and achieved growth and development together with local communities.

While utilizing the strengths acquired over the past 100 years, we will continue to evolve as a corporate group that offers diversified energy in addition to gas, electricity, and

hydrogen, and through this and non-energy value creation, we will develop alongside local communities. 1922 1960 1985 1990 1995 2000 1950 1970 1980 Gas heat-pump Gas absorption Gas cooking stoves **Eco Station** Natural gas trucks Gas stoves Gas fan heaters Gas cogeneration Air conditioners water chillers Operations for 1978 Start of conversion • 1993 Completion of conversion Coal **Petroleum** conversion to to natural gas to natural gas natural gas • 1922 Establishment of Toho Gas Co., Ltd. ● 1970 Start of operations at Sorami Works
 ● 1985 1990 Introduction of district 2001 heating and cooling in Nagoya Start of operations Establishment of • 1976 Start of operations • 1958 Start of operations at Komei Works Sakae 3-chome area at Chita-Midorihama Technical Research at Chita Works • 1959 Establishment of Toho Liquefied Fuel of the Gas Energy Exhibition •1991 Start of operations Works • 1977 Chita LNG Terminal Co., Ltd. and start of LPG business **2002** at Yokkaichi Works First arrival of LNG Establishment of • 1961 First Gas Exhibition held Toho Gas Group's Activities carriers • 1987 Opening of Meiko LPG Terminal Customer Center • 2003 Merger of Godo Gas, Gifu Gas, and Okazaki Gas Former Gokiso Works Gas Energy Exhibition Former Komei Works Chita LNG Terminal District heating and cooling (Demonstration Area) (1922)Technical Research Institute Meiko LPG Terminal Customer Center Sorami Works Historical Events 1941~45 • 1959 • 1973 Start of first oil crisis • 1995 • 2000 Tokai Flood The Pacific Ise Bay Great Hanshin • 1977- No. 1 in Japan for volume of shipments Typhoon Earthquake of goods from Aichi Prefecture • 1979 Start of second oil crisis Thermal regulation Free public bath Meter replacement preparations Gas holder in flames due

#### Toho Gas Group's Value Creation

Corporate Philosophy

#### History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

**Data Section** 

to aerial bombardment

operations at advance base

# Number of customers End of FY2022

\*1 Total number of customer accounts of City Gas, LPG, and Electricity.

2005

2010

2015

2020

• 2016 Entry into retail electricity business

Power Generation

• 2017 Start of operations at Yokkaichi

2018 Opening of Minato AQULS

smart town/Pro Kitchen OISIS

• 2019 Start of HOME REFORM

Toho Gas Network Co., Ltd. Takes on general gas pipe

renovation.

commercial kitchen showroom

by TOHO GAS, a store

devoted exclusively to

• 2022

business, etc.















Hydrogen station

#### Natural gas

- 2009 Completion of circularization of transportation trunk pipeline
  - 2013 Completion of Cross-Ise Bay Gas Pipeline
- 2005 Name changed to Toho Liquefied Gas Co., Ltd.



Cross-Ise Bay Gas Pipeline



Yokkaichi Power Plant



kitchen showroom



Pro Kitchen OISIS commercial



Minato AQULS



My House Meister, a store devoted exclusively to renovation

Strengths acquired through 100 years of business management

> Provision of diverse energies, systems that support stable supply and technology development and solutions

**Business foundations** in local communities, contact points with customers and trust from regions and customers

Organizational culture and human resources with the mission of supporting the region

## What we aim to be in the mid-**2030**s

Reliable energy operator in the region

Life and business partner beyond the boundary of energy Corporate group that leads the realization of a sustainable society

Data Section

**Contents** Toho Gas Group's Value Creation Corporate Philosophy History of Toho Gas Group Message from the President

Message from Financial Executive

Value Creation Process

Toho Gas Group Vision

Medium-Term Management Plan

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Governance

**Business Report** 

**External Opinion and Evaluation** 

Society

Materiality

2022-2025

•2005 Expo 2005 Aichi, Japan world exposition/ Opening of Chubu Centrair International Airport

Gas Pavilion (Expo 2005 Aichi, Japan)

Transportation trunk line work

• 2008 Global financial crisis



Great East Japan Earthquake

- 2015 Adoption of Paris Agreement (COP21)
- 2016 Complete liberalization of electric power sales
  - 2017 Complete liberalization of gas sales
    - 2020 Spread of novel coronavirus infections

**Toho Gas Group's Value Creation** 

Message from the President

While adhering to our fundamental stance of growing together with the region, we aim to expand our business domains through various endeavors and further enhance our corporate value.

# Nobuyuki Masuda

Representative Director, President



#### Contents

#### Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

#### Actively Pursuing Initiatives Aligned with the Topics of Our Medium-Term Management Plan 2022-2025

In June 2022, Toho Gas celebrated the centennial of the company's founding. Many opportunities to reflect on the company's century of history before and after this important juncture. I would like to express again my heartfelt gratitude to all people and regions involved with Toho Gas.

Since the transition to FY2023, behavior restrictions to counter COVID-19 have been relaxed, and although social and economic activity are both trending toward recovery, the ongoing situation in Ukraine continues to create uncertainty and a lack of transparency in the economic and energy supply sectors. Energy companies must also overcome successive changes, including the changes in the competitive environment brought about by the full liberalization of electricity and gas retail markets, shifts in energy demand structure due to progress towards carbon neutrality, changing customer lifestyles and values driven by digitalization, and rising prices and evolving labor conditions. Viewed from a different perspective, however, we can see an expansion in new possibilities and news opportunities.

Given this awareness of the situation, the Toho Gas Group is actively pursing initiatives aligned with the Medium-term Management Plan 2022-2025 announced in March 2022. This Medium-term Management Plan is positioned as the first step toward achieving the sustainable growth on into the future indicated in our Group Vision, and outlines our course for addressing four key themes: "Promote carbon neutrality," "Evolve as an energy operator," "Create diverse value," and "Contribute to the SDGs."

To our shareholders and other stakeholders, I have been communicating the vision and efforts behind this Medium-term Management Plan through IR briefings and various other channels. Within the Toho Gas Group as well, I have consistently emphasized to our employees the significance of these four key themes, which serve as our overarching direction, as they each tackle the tasks before them, and we are united as a group in working towards their realization.

I believe that perceiving the goals set in the Medium-term Management Plan not just as "company objectives" but also as "matters contributing to the prosperity of the communities where live" makes it personal for our employees, leading to their growth as individuals and harnessing the full potential of our organization. Lately, I have noticed a sense of accomplishment as this mindset has permeated throughout the workforce, fostering a shared direction and progress. Actually, to understand the perspective of employees working at the forefront, I regularly visit various departments within the company, engaging in meetings with employees, including young human resources. It is evident that each employee is deeply

driven by a strong desire to make a positive impact on the region. Our region is a major metropolitan area, second only to the Tokyo and Osaka metropolitan areas, and houses various manufacturing industries, including the automotive sector, and is projected to experience steady growth on into the future. While adhering to our fundamental stance of "growing together with the region," we aim to expand our business domains through various endeavors and further enhance our corporate value.

#### Looking Back on the First Year of the Medium-term Management Plan (FY2022)

Looking back on fiscal year 2022, we have made steady progress in expanding the numbers of customers in the city gas, LPG, and electricity sectors, which constitute our customer base. Our target of "reaching 3 million customers as soon as possible" has been advancing well, with a total of 2.92 million customers as of the end of FY2022. However, there were challenges in our core business of city gas sales, as the higher average temperatures throughout the year and production reductions caused by supply shortages in the industrial sector resulted in performance below the previous year.

With respect to our financial performance, amid the global upward trend in energy prices, we focused on stable procurement of natural gas, the primary raw material for city gas, chiefly through long-term contracts. As a result, our ordinary income recorded a substantial increase of 119.8% over to the previous period, reaching 48.1 billion yen. On the other hand, the electricity business faced severe financial challenges due to rising electricity procurement costs and other factors, leading us to undertake various approaches, including a reevaluation of procurement, to improve the financial situation.

Four themes to work on from FY2022 to FY2025 **1** Promote carbon neutrality

**03** Create diverse value

**02** Evolve as an energy operator

**04** Contribute to the SDGs

Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

#### Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Message from the President

#### Medium-term Management Plan Theme to Address: Promote Carbon Neutrality

Actively Working Toward Decarbonizing Gas Itself and Promoting Widespread Adoption of Hydrogen

In July 2021, Toho Gas announced the "2050 Carbon Neutrality Initiative" and has been making concrete efforts toward achieving carbon neutrality by 2050. While achieving carbon neutrality has now become a significant business issue for many companies, as an energy operator, we consider the decarbonization of gas itself and the expansion of hydrogen adoption as crucial management issues directly related to fulfilling our social responsibilities. Also, our frequent opportunities to interact with customers are one of our strengths, and we believe that through energy supply and other means, we can contribute to achieving low carbon and decarbonization at our customers' locations. These efforts are essential for the sustainable growth of the Toho Gas Group, and given especially that they require time, it is vital to proceed steadily, one step at a time.

Regarding the decarbonization of gas itself, we are working on the introduction of e-methane. E-methane is a synthetic methane produced primarily from non-fossil energy sources such as green hydrogen and CO<sub>2</sub>. If the adoption of e-methane as an alternative fuel to LNG proceeds, it will not only be able to efficiently utilize the city gas pipeline network, which is a social infrastructure, but will also eliminate the need for fuel conversion on the customer side. In our journey toward achieving carbon neutrality, striking the right balance between environmental performance and societal costs is crucial, and e-methane represents a realistic solution as a carbon-neutral synthetic fuel. Additionally, we are collaborating with universities and other institutions

to advance the development and verification of  $CO_2$  separation and capture, which is essential for  $CO_2$  recycling.

With respect to expanding adoption of hydrogen, we are actively working on establishing a hydrogen supply chain, which involves such tasks as constructing manufacturing facilities, examining transportation and supply systems, and developing technologies related to consumption. Specifically, we are building a hydrogen production plant at the Chita-Midorihama Works, which is our key city gas manufacturing plant, and plan to commence hydrogen supply by FY2024. While meeting the demand for hydrogen usage in thermal fields, mobility applications, and other areas and collaborating with other companies possessing knowledge and expertise, we aim to contribute to the realization of a hydrogen-based society.

Along with this, to support our customers' journey towards carbon neutrality, we are expanding our CNxP (Carbon Neutrality x Partner) business, which provides comprehensive services from consulting to engineering in a one-stop manner. We are also developing and procuring renewable energy sources to promote low carbon and decarbonization for electricity. Toho Gas is dedicated to advancing various initiatives toward achieving carbon neutrality.

Medium-term Management Plan Themes to Address:

Evolve As an Energy Operator Create Diverse Value

Launching New Services in the Energy Area While Ensuring Stable Cash Flow

To expand our energy share, I would like to stay committed to increasing the number of customers. While

Toho Gas has been devoting effort to lifestyle services for residential customers and engineering services for commercial clients, securing a solid customer base is vital for expanding these services. It is essential for us to fulfill our responsibilities as an energy operator by ensuring unwavering safety, security, and stable supply, and first achieving the milestone of 3 million customers for city gas, LPG, and electricity as quickly as possible while earning the trust of our customers.

In the energy area, while maintaining a stable sales volume in city gas despite advancing energy efficiency, we will aim to achieve further revenue growth by expanding the business scale of LPG and electricity as growth drivers. We intend to prudently allocate the stable cash flow acquired in the energy area to strategic business investments and shareholder returns, contributing to the overall growth of the group.

Also, starting from our energy customer base, we are actively expanding our range of new service offerings and products. In the realm of everyday living, we are enhancing digital points of contact, such as the Club TOHOGAS member site and the ASMITAS site, and intend to become a valuable presence in various life situations. Likewise, in the field of business support as well, we are working to expand the TOHOBIZNEX member site. Leveraging the strengths of our company, which enjoys real-world interactions with customers through city gas, including these digital touchpoints, we aim to be a versatile support in both personal and business aspects of life.

 Medium-term Management Plan Theme to Address: Contribute to the SDGs
 Strengthening the Business Foundation to Address a Wide Range of Challenges

With respect to our response to ESG matters, in

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 



February 2023 we established the Toho Gas Group Sustainability Policy, outlining our approach towards achieving sustainability, and formed a new Sustainability Committee. We will diligently promote ESG initiatives across the entire Group.

As an energy operator supporting social infrastructure, we consider community engagement essential and are devoted to collaboration with local municipalities. In FY2022, we signed comprehensive cooperation agreements with six municipalities, focusing on promoting carbon neutrality and contributing to regional revitalization. As Toho Gas strives for sustainable growth alongside the communities, I am personally delighted that we can contribute in various ways to the region.

In pursuit of expanding our business areas in line with the Medium-term Management Plan, there is a need for changes in human-resource management. We are working on enriching expertise-enhancing training programs and study-abroad opportunities, and promoting career-based hiring. In these and other ways, we are working to create a larger space for exploring new initiatives and strengthening the supporting mechanisms for these endeavors.

In supporting human-resource management, ensuring flexible working arrangements and promoting diversity are vital. To enhance employee engagement, we are implementing concrete measures such as expanding support measures for work-life balance with respect to child-rearing, caregiving, and the like, encouraging male parental leave, and increasing employment opportunities for people with disabilities.

Regarding governance reinforcement, we are advancing initiatives across the entire Group, such as risk management and information security enhancement, to ensure that we remain a trusted and reliable company with respect to our stakeholders.

# Engaging in Dialog with the Stock Market More Carefully Than Before

In our Medium-Term Management Plan, we have set the shift of management resources from core businesses to strategic businesses as a goal. In support of this, we consider capital policy to be tremendously important. As call for the need for management awareness of capital costs and stock prices increases, we sense a need to

engage in dialog with the stock market more carefully than ever before.

Currently, Toho Gas has set the following management goals for the period of the Medium-Term Management Plan: a profit-oriented target of operating cash flow of 210 billion yen or higher, an efficiency target of around 3% ROA, and a soundness target of approximately 0.6 times Debt to Equity ratio. We are making progress in line with these targets, but the business environment is constantly changing, and we are therefore committed to always listening to the voices of our shareholders and other stakeholders and leveraging their input in our management decisions.

Regarding shareholder returns, our basic approach is to provide stable dividends and flexibly implement the repurchase and retirement of treasury stock, aiming to achieve approximately 40% to 50% of consolidated net income as a target for the medium to long term. Even as strategic business-related investments expand on into the future, we will continue to implement actions in line with our basic policy on shareholder returns to further enhance corporate value.

In my address at this year's entrance ceremony for new employees, I referred to Darwin's theory of evolution. In every era, there are things that must be preserved unchanged. However, adapting to change and continuously evolving is crucial for a company to achieve sustainable growth. While upholding the fundamental stance of growing together with the region, we remain committed to pursuing various challenges to expand our business areas and further enhance corporate value.

July 2023

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Message from Financial Executive

#### We are committed to achieving the management goals set in the Medium-Term Management Plan 2022-2025.

In our Toho Gas Group Vision announced in March 2022, we outlined our ambition to transform the business portfolio to expand the business scale of the overall Group by 1.5 times or more by the mid-2030s. Specifically, this transformation involves allocating strategic management resources to businesses including electricity, energy services and engineering, and also such new areas a hydrogen and renewable energy, while maintaining the core operations of city gas and LPG as our bases of income.

As the first step towards realizing this Group Vision, the Medium-Term Management Plan 2022-2025 sets financial indicators such as operating cash flow, ROA, and Debt to Equity ratio. Additionally, this indicates the balance between cash inflows, such as operating cash flow and borrowings, and cash outflows, including shareholder returns and investments (core business:strategic business = 1:1).

We are now truly at a transitional phase of the business portfolio transformation, and entering a stage where investments are increasing to expand our business areas. As the financial executive, I would like to stay committed to achieve the management goals set in the Medium-Term Management Plan while staying strongly focused on maintaining balanced financial operation with regard to profitability, efficiency, and soundness.

	Management Index	Management Goal
Profitability	Operating cash flow	210 billion yen and over (Cumulative total from FY2022 to FY2025)
Efficiency	ROA	About 3%*1 > WACC*2 (FY2025)
Soundness	Debt to Equity ratio	About 0.6 (FY2025)

<sup>\*1</sup> Consolidated ordinary income for FY2025 is approximately 25 billion yen.

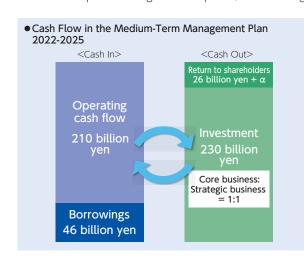
We will focus on maintaining balanced financial operation with regard to *profitability*, *efficiency*, and *soundness* to achieve the goals of the Medium-Term Management Plan 2022-2025.

#### Satoshi Yamazaki

Director, Senior Managing Executive Officer

 In FY2022, despite being amidst various uncertainties, we achieved stable financial management.

In FY2022, the first year of the Medium-Term Management Plan, demand growth for gas sales was hindered by factors such as temperature impacts on residential gas sales and production cuts due to parts supply shortages in the commercial sector. Additionally, due to the impact of rising crude oil prices, a weakening



yen, and the impact of the situation in Ukraine, the volatility of energy prices increased significantly, creating a challenging financial management situation. Despite these challenges, through thoroughgoing cash flow management while focusing on stable LNG procurement, particularly through long-term contracts, we were fortunate to secure profits that exceeded our plans.

With respect to the financial indicators set in the Medium-Term Management Plan, operating cash flow was 56.4 billion yen, ROA was 5.0%, and Debt to Equity ratio was 0.36 times, making for a promising start toward achieving the plan's objectives. We anticipate continued uncertainty ahead, but we will maintain a financial operation conscious of management indicators while making steady, step-by-step progress in addressing the themes outlined in the Medium-Term Management Plan, including carbon neutrality initiatives.

 Managing the balance sheet and investment profitability is a key financial challenge in the Medium-Term Management Plan.

Amid the transformation of the business portfolio, the financial challenge of management of the balance sheet and investment profitability is becoming more critical than

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

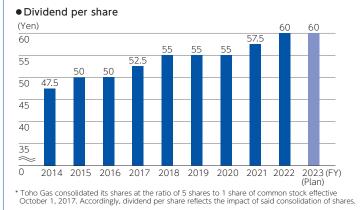
Governance

**Business Report** 

**External Opinion and Evaluation** 

<sup>\*2</sup> WACC = Cost of capital: Mid 2% range

#### Shareholder Return Trends (Last 10 Years)



● Purchase of treasury stock				
Purchase value (million yen)				
2,999				
2,381				
2,199				
2,994				
2,999				
1,596				

ever. During the period of the Medium-Term Management Plan, as we move toward expanding strategic businesses and achieving carbon neutrality, we plan to make capital expenditures (230 billion yen for four years) exceeding operating cash flow (210 billion yen for four years), and the balance sheet will expand. Recognizing the importance of pursuing efficiency while assets increase due to investments, in the Medium-term Management Plan, we have set achieving ROA of about 3% as one of the management goals, surpassing the cost of capital, WACC (in the mid 2% range). We will diligently manage the balance sheet to avoid excessive expansion while maintaining constant awareness of asset efficiency.

With respect to investment decisions in strategic businesses, we establish hurdle rates for individual projects and invest in those that secure profitability exceeding those rates. Furthermore, even after investment, we take steps that include periodically checking the profitability of individual projects and considering divestment or replacement of business assets as needed, thus managing profitability in a thoroughgoing manner.

 We will engage in careful dialog with the stock market while remaining constantly conscious of capital efficiency and financial soundness.

Recently, discussions about PBR (price-to-book ratio) have increased in our dialogs with shareholders and investors, and to work to improve PBR, we recognize the need to enhance both *profitability relative to equity capital* and *evaluation from the stock market*.

In working to improve profitability relative to equity capital, what is most crucial is enhancing earning power. As outlined in the Medium-Term Management Plan, we will first focus on increasing the number of customers for city gas, LPG, and electricity to ensure stable revenue generation centered on energy. Along with this, we will take measures such as shifting management resources to strategic businesses, including energy-related and new services, and combining various services grounded on the energy customer base, thereby aiming to improve profitability with a medium- to long-term perspective. Meanwhile, to prepare for risks such as raw-material

procurement and earthquakes, we will need to maintain an appropriate level of equity capital and sustain financial soundness. We will continuously conduct review with respect to appropriate levels while remaining constantly conscious of capital efficiency and financial soundness.

With regard to evaluation from the stock market, we consider careful dialog through IR activities to be crucial. For instance, as we move toward achieving carbon neutrality, we will resolutely communicate Toho Gas's belief that natural gas will continue to play an important role in reducing CO<sub>2</sub> emissions for society during the transition period to practical decarbonization technologies. From the perspective of dialog with the stock market, we also consider it important to express our stance on shareholder returns. Our fundamental approach to returns to shareholders is to "provide stable dividends and flexibly implement the purchase and retirement of treasury stock, and pay out around 40% to 50% of consolidated net income over the medium to long term." Going forward, we will continue to take action while maintaining a balance between necessary investments for sustainable growth and stable shareholder returns.

We have received valuable feedback from shareholders and investors through dialog at various opportunities regarding our management policy and financial strategies. Going forward, we will continue to listen to your views and work towards enhancing corporate value. We sincerely appreciate your understanding and support.

July 2023

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

#### Toho Gas Group's Value Creation

# Value Creation Process

Based on the founding spirit in which customers, shareholders, and employees form a trinity with the aim of being a public (local community) service, we have constantly sought to create new value while taking on various challenges as a Group and growing together with the region. While utilizing our strengths acquired through 100 years of business management to the fullest, we will contribute to the realization of a sustainable society while also achieving the Toho Gas Group Vision.

#### Financial capital 693.5 Total assets billion ven 58.0% Equity ratio (%)

## Natural capital

Financial ratio (R&I)

2.66 LPG purchase volume million tonnes

0.63 LPG purchase volume million tonnes

#### Manufacturing capital

Domestic bases City gas plants 4 Works **Pipeline** Approx. **30,000**km

length LPG supply network Meiko LPG Terminal

(secondary terminal), gas-filling and delivery bases 21 Power generation equipment

Yokkaichi Works 16.5 MW Tsu Power 11.4 MW Storage Station

Capital expenditures 60.1 (Inc. investment) billion yen

#### Human capital

Number of consolidated employees 6,080

Engagement rating\*1

Female total managerial hiring ratio 32.8%

#### Society and related capital

City gas service area (in three Tokai prefectures) 54 cities 21 towns, and 1 village

#### Intellectual capital

Research and development costs billion yen

(FY2022)

#### Strengths acquired through 100 years of business management

Provision of diverse energies. systems that support stable supply, and technology development and solutions

Business foundations in local communities, contact points with customers, and trust from regions and customers Organizational culture and human resources with the mission of supporting the region

AA

#### External environment Increasing demand for Digitalization Decarbonization Depopulation Decentralization System reforms sustainability Energy

Service Carbon neutral Engineering Living/ **Business support** Hydrogen Core business Remodeling/ Strategic Residential Business City gas/LPG **Electricity and** renewable energy **Digital Service** Overseas Real estate Energy

#### Toho Gas Group Medium-Term Management Plan 2022-2025 ▶P.17

Toho Gas Group Vision ▶P.15

## Materiality P.13

Promote carbon neutrality

Contribute to the region through

the resolution of social issues

Provide various kinds of energy and services

Improve work satisfaction and ease of work and promote diversity

Supply safe, secure and stable energy

Strengthen compliance and governance

#### Corporate **Philosophy Corporate Mission** ▶P.1

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.

**Business Model** Input

#### Contents

#### Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

#### Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

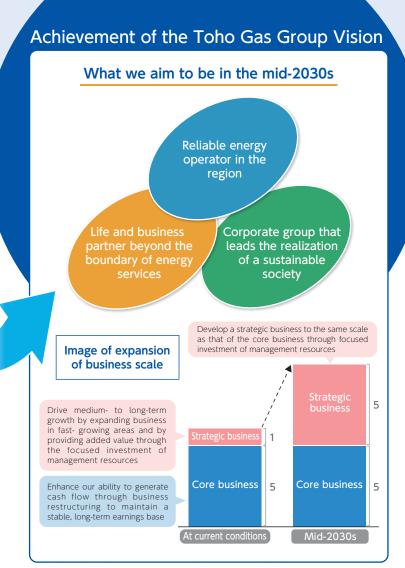
**Business Report** 

**External Opinion and Evaluation** 

<sup>\*1</sup> Engagement survey results according to Link and Motivation Inc.

	FY2022 results	Change from previous year
Number of customers *2	2.92 million	(+ <b>50</b> thousand)
City gas sales volume *3	3.55 billion m³	(- <b>0.16</b> billion m³)
LPG sales volume	475 thousand tonnes	(-10 thousand tonnes)
Electricity sales volume	2.37 billion kWh	(+ <b>0.24</b> billion kWh)
Digital contact*4	<b>0.9</b> million	(+ <b>0.2</b> million)
New service launches*5	<b>11</b> /year	(-)
CO <sub>2</sub> reduction contribution volume	<b>307</b> thousand tonnes	(-)
Volume of renewable energy sources handled *6	<b>93</b> thousand kW	(+29 thousand kW)
Operating cash flow	<b>56.4</b> billion yen	(+ <b>20.9</b> billion yen)
ROA	5.0%	(+2.5 points)
Debt to Equity ratio	0.36	(-0.01)

# Goals until FY2025 Reaching 3 million as soon as possible Maintain our current pace Expand by about 10% Expand by about 10% annually 1.30 million About 10/year 1 million tonnes 250 thousand kW 210 billion yen or more (FY2022-2025 aggregate) About $3\%^{*7} > WACC^{*8}$ (FY2025) About 0,6 (FY2025)



- \*2 Total number of customer accounts of City Gas, LPG, and Electricity.
- \*3 Including LNG sales volume (Converted to the amount of City Gas)
- \*4 Total number of customer accounts of Club TOHOGAS. ASMITAS, and TOHOBIZNEX
- \*5 Total for ASMITAS, new services, digital services, etc.
- \*6 Volume of renewable energy sources handled includes power development and ownership both domestically and internationally, FIT sources, as well as procurement.
- \*7 Consolidated ordinary income for FY2025 is approximately 25 billion yen.
- \*8 WACC = Cost of capital: Mid 2%

Output Outcome



Toho Gas Group's **Value Creation** 

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

**Value Creation Process** 

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

Web Site

#### Toho Gas Group's Value Creation

# **Materiality**

Toho Gas Group has specified key issues evaluated for both their economic and social value as materiality.

## - Materiality Identification Process

Taking as a reference the GRI Standards\*, which are the international standards for sustainability information disclosure, we extracted individual issues based on the expectations of stakeholders in line with the consideration of the Toho Gas Group Vision. The issues were evaluated from the viewpoints of economic and social value, and, after exchanging opinions with the relevant agencies, the materiality was selected through the Management Committee and the Board of Directors.

\* Standards for sustainability information disclosure published by the Global Reporting Initiative (GRI), an international NGO

#### Extraction of individual issues

Based on the details of considerations in the process of formulating the Group Vision, items for evaluation by ESG evaluation agencies, and expectations from stakeholders, the potential individual issues were brought up and, following interviews with each department, 30 individual issues were extracted.

2

#### Organization and evaluation of extracted individual issues

The prospective materiality was investigated in a workshop based on the individual issues extracted in STEP 1. Based on

the viewpoints of both economic and social value. the individual issues were mapped out toward the realization of a sustainable society and the Group Vision. Issues with common factors were grouped together.



Materiality Workshop



#### **Identify Materiality**

Discussions were held about the groups formed in STEP 2, and a draft materiality was organized. The materiality was selected through the Management Committee and the Board of Directors.

The challenges and goals for efforts toward the materiality were brought in line with the Medium-Term Management Plan 2022-2025.

#### Materiality

#### Promote carbon neutrality



#### **Action Issues**

- customer locations
- Contribute to the reduction in CO₂ emissions from
- Develop technologies to decarbonize gas itself
- Establish a foundation to expand the use of

#### Provide various kinds of energy and services



Supply safe, secure and stable energy



Contribute to the region through the resolution of social issues



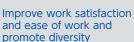
What we

aim to be















Strengthen compliance and governance



- Reductions of carbon and decarbonization at gas
- society as a whole

- Low-carbonize/decarbonize electricity
- Development into a Total Energy Provider
- Expansion of domestic and overseas energy-related
- Provide value through services that enrich life and services that support business
- Advancing security measures and disaster measures
- Stable procurement at a reasonable price
- Strengthen initiatives for coexistence with local
- Promotion of CSR procurement
- Promoting resource recycling
- Biodiversity conservation
- Human resource management
- Diversity and inclusion
- Realizing flexible workstyles
- Safety and health management
- Promote risk management and strengthen information security
- Compliance promotion

#### **Contents**

#### Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

#### Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

#### Target (FY2025)

- Amount of contribution to CO₂ reduction 1 million tonnes
- Reduction of CO<sub>2</sub> emission intensity in business activities -2% CO2 emission intensity/year
- Promote development and verification of technology for CO<sub>2</sub> capture and utilization and methanation
- Establish firm position as a hydrogen supplier in the region
- Amount handled of renewable energy power sources 250.000 kW\*1
- Numbers of city gas, LPG, and electricity customers 3 million\*2
- Digital contact membership 1.3 million
- New service launches About 10 services a vear
- Maintain zero serious accidents
- Advancing Security Measures and Disaster Measures
- Diversify procurement sources
- Strengthen efforts for coexistence with local communities to solve social issues and improve resilience
- Conduct initiatives that contribute to SDGs and education related to SDGs for the next generation in collaboration with local communities
- Promote confirmation of procurement status and CSR procurement in collaboration with related parties
- Recycling rate of waste generated after gas pipeline construction: 99% or more
- Sustenance and recovery of biodiversity through business activities and regional contribution activities, satoyama and forest conservation, and contribution to protection of local species
- Improve employee engagement
- Ensure diversity in appointing managers
- Share and raise awareness about compliance and risk detection in the entire organization

#### FY2022 Results

- Amount of contribution to CO<sub>2</sub> reduction 307 thousand tonnes
- CO<sub>2</sub> emission intensity in business activities
   +3.4% CO<sub>2</sub> emission intensity compared to the previous year
- Signed an agreement with the city of Chita for small-scale methanation
- Launched in-depth examination concerning the introduction of e-methane to Japan using the Cameron LNG base in the U.S.A.
- Began construction of hydrogen production facilities at the Chita-Midorihama Works
- Launched sales of industrial furnace burners capable of switching between city gas and hydrogen combustion
- Amount handled of renewable energy power sources 93,000 kW
- Number of energy customers reached 2.92 million (city gas: 1.74 million, LPG: 0.60 million, electricity: 0.58 million)
- Participated in industrial-use natural gas sales business in Southeast Asia (Thailand, Vietnam)
- Digital contact membership 0.90 million
- New service launches 11 services a year
- Zero serious accidents
- Advanced measures against aging (LNG plant control system updates, aging pipeline countermeasures)
- Configured a LNG procurement portfolio resilient to environmental changes
- Decision to implement system-connected batteries to contribute to stable power supply
- Minato AQULS selected as a Decarbonization Leading Area by the Ministry of the Environment
- Signed comprehensive cooperation agreements with six municipalities
- Established three now regional Shin-denryoku companies in collaboration with municipalities and other entities
- School-education support activities (special classes at schools, Toho Gas Energy Exhibition Hall), hosted EPOC environmental education classes
- 99.7% recycling rate for waste materials generated by gas pipeline construction
- Maintained and managed biotopes, implemented satoyama and forest conservation activities in collaboration with municipalities

• Developed and published CSR procurement policy and guidelines • Maintained our partnership-building declaration

- Recognized as a certified enterprise under Aichi Biodiversity Company Certification Program
- Began management training for all managers
- Conducted external-speaker seminars (Toho Meetup) for young employees
- Ratio of women in management positions: 3.4% (26 persons), Gender pay gap: 73.3%, Ratio of mid-career hires: 25.5% (28 persons), Ratio of employment of people with disabilities: 2.40%
- Expanded programs to support compatibility with child-rearing and caregiving
- Recognized as a "Certified Health & Productivity Management Outstanding Organization 2023 (White 500)" for the fourth consecutive year
- Conducted training presuming anticipating the occurrence of a cyber-attack against core systems
- Held workplace meetings focused on close-at-hand job-related risks
- Enacted measures relating to compliance with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade
- Augmented education through periodic streaming and library archiving of compliance training videos
- Established and promoted the utilization of consultation services based on the amended Whistleblower Protection Act

#### \*2 Total number of customer accounts of City Gas, LPG, and Electricity \* Annual disclosure of actual results based on the Board of Directors' report is planned

#### Main related pages

- P.25 Initiatives for Carbon Neutrality
- P.35 Management of Environmental Preservation
- P.39 Global Warming Countermeasures
- P.80 Electricity Business
- P.25 Initiatives for Carbon Neutrality
- P.25 Initiatives for Carbon Neutrality
- P.77 Technical and Product Development
- P.25 Initiatives for Carbon Neutrality
- P.80 Electricity Business
- P.71 City Gas Business
- P.79 LPG and Other Energies
- P.80 Electricity Business
- P.81 Business Development
- P.71 City Gas Business
- P.81 Business Development
- P.71 City Gas Business
- P.71 City Gas Business
- P.80 Electricity Business
- P.45 Contribution to the Local Communities
- P.45 Contribution to the Local Communities
- P.55 Initiatives for Respect of Human Rights
- P.41 Resource Recycling
- P.43 Biodiversity Conservation
- P.49 Promotion of Personnel Policies
- P.49 Promotion of Personnel Policies
- P.53 Initiatives for Occupational Health and Safety
- P.61 Internal Control
- P.63 Compliance
- P.63 Compliance

Contents Toho Gas Group's Value Creation Corporate Philosophy History of Toho Gas Group Message from the President

Message from Financial Executive

Value Creation Process

Toho Gas Group Vision

Medium-Term Management Plan

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Governance

**Data Section** 

**Business Report** 

**External Opinion and Evaluation** 

Society

Materiality

2022-2025

<sup>\*1</sup> The target amount handled of renewable energy power sources by 2030 is 500,000 kW. The amount handled of renewable energy power sources includes power development, ownership, FIT sources, and procurement both domestically and overseas.

#### Toho Gas Group's Value Creation

# **Toho Gas Group Vision**

As the Group comes together as one to pave the way toward a new future, Toho Gas Group has established a new Vision to define the image of society in 2050 and to establish our aims for the interim point in the mid-2030s and the direction of initiatives toward achieving those aims.

#### Strengths acquired through 100 years of business management

Provision of diverse energies, systems that support stable supply and technology development and solutions

Business foundations in local communities. contact points with customers and trust from regions and customers

Organizational culture and human resources with the mission of supporting the region

## What we aim to be in the mid-2030s Reliable energy operator in the region Corporate group that leads the realization partner beyond the of a sustainable society

#### Role to fulfill by 2050

Contribute to a sustainable society by facing up to the various needs and issues in life, business and regional communities.

- Achievement of carbon neutrality
- Living/Business/Achievement of prosperity in the region

#### 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.

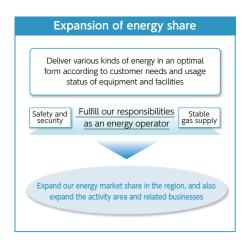
Three initiatives are being promoted toward the realization of what we aim to be in the mid-2030s.

## Direction of efforts 1 Evolve as an energy operator

Provide various energy services to more customers

Just as the company has worked together to respond to major environmental changes in the past, we will work on achieving carbon neutrality and expand our market share by leveraging our strengths in diverse kinds of energy.

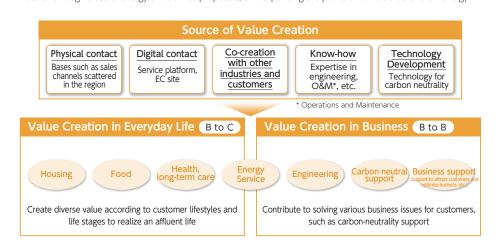
#### Provide various kinds of energy By adding electricity and hydrogen to our business apart from gas (city gas/LPG), we will work on low carbon/decarbonization from the ground up and make efforts to implement various measures in society to promote a smooth carbon-neutral transition. Promote fuel conversion, etc. to achieve low-carbon/decarbonization Concurrently, develop and implement technologies to decarbonize gas itself •Build a hydrogen supply chain in the region Hydrogen •Create demand for hydrogen in the fields of mobility, heat sector, etc. •Develop various renewable energy power Electricity ·Build a system that integrates distributed



## Direction of efforts 2 Create diverse value

A better present and future for your life and business

We will contribute to solving "current" problems of customers in their lives and businesses, realizing a better "future" through a set of energy and service proposals, and expanding the provision of value other than energy.



#### **Contents**

#### Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

#### **Toho Gas Group Vision**

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

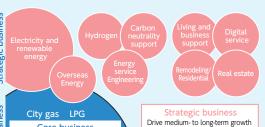
**Business Report** 

**External Opinion and Evaluation** 



#### Transformation of business portfolio

#### Business portfolio image at mid-2030s



restructuring to maintain a stable, long-term earnings base

Core business

Enhance our ability to generate

cash flow through business

Energy area

added value through the focused investment of management resources Areas other than energy

Organizational

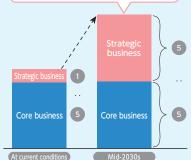
individual growth

by expanding business in fast-

growing areas and by providing

#### Image of expansion of business scale

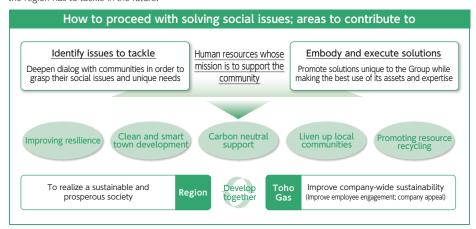
Develop a strategic business to the same scale as that of the core business through focused investment of management resources



## Direction of efforts 3 Promote social issue solutions

Contribute to the SDGs and the future ahead

We will contribute to achieving the SDGs and grow together with the region by further demonstrating the power of our organization and human resources, whose mission is to support the region, and by helping solve issues that the region has to tackle in the future.



#### Company-wide challenges

#### Company

Expand opportunities for the employees to take on challenges and evaluate their motivation and actions

Establish a comfortable working environment where the employees can balance and fulfill their business and personal needs

Ensure the diversity of human resources and support the exercise of their strengths

Provide health support services and create a safe and comfortable workplace where employees can play an active role for a long time

## **Employees**

Set higher goals and fearlessly take on challenges

Work in a productive manner so that the employees can balance and fulfill their business and personal needs

Respect diverse ideas and backgrounds of the members and work together to explore optimal solutions

Demonstrate high performance while taking care of the physical and mental health of themselves and their families

Environment Society

Materiality

2022-2025

Governance

**Business Report** 

Initiatives for ESG

Contents Toho Gas Group's Value Creation Corporate Philosophy History of Toho Gas Group Message from the President

Message from Financial Executive Value Creation Process

**Toho Gas Group Vision** 

Medium-Term Management Plan

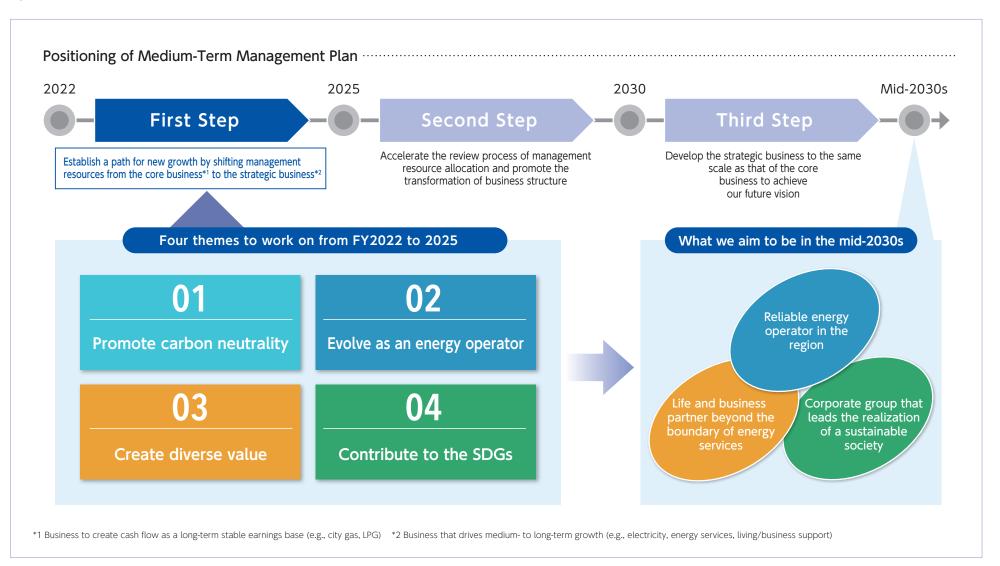
2050 Carbon Neutrality Initiative Initiatives for Carbon Neutrality

**External Opinion and Evaluation** 

#### **Toho Gas Group's Value Creation**

# Medium-Term Management Plan 2022-2025

This Plan is positioned as the first step toward realizing what we aim to be in the mid-2030s, as stated in the Group Vision, and the path toward new growth will be made certain by means of initiatives based on four themes.



#### Contents

Toho Gas Group's
Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG
Environment

Society

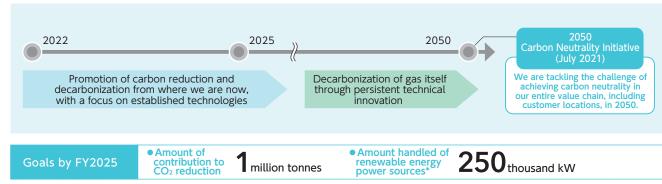
Governance

**Business Report** 

**External Opinion and Evaluation** 

## **01** Promote carbon neutrality

In addition to promoting low-carbon/decarbonization efforts for our gas customers' premises, we will work to develop technologies with an eye on future decarbonization of gas itself. We will also work to expand the use of hydrogen, reduce/eliminate carbon in electricity and promote the transition to carbon neutrality.



\* The amount handled of renewable energy power sources includes all power sources developed and owned in Japan and overseas, feed-in tariff (FIT) power generation, and procurement.

# Reductions of carbon and decarbonization at gas customer locations

We provide one-stop support so that customers can achieve carbon neutrality by shifting fuel to city gas, promoting advanced energy utilization, and introducing carbon-neutral LNG.

#### Promotion of fuel type switching and advanced utilization of energy

- •Contribute to low carbonization by switching fuel to city gas •Promote advanced use of energy using cogeneration and heat storage materials; strengthen sales of ENE-FARM, etc.
- ●Efforts by the procurement side to meet customer needs
- •Procure carbon-neutral LNG in a flexible manner
- •Investigate and study overseas projects on CO<sub>2</sub> absorption and fixation and on procurement of zero emission fuels, etc.
- Support customers to achieve carbon neutrality
- •We will provide support for a series of initiatives of our corporate customers so that they can realize carbon neutrality, from consulting to implementation of reduction measures to subsequent operation management and maintenance

#### Develop technologies to decarbonize gas itself

We will steadily promote the development and demonstration of CO<sub>2</sub> separation/capture and methanation, which are some of the key technologies to achieve carbon neutrality.

#### ●CO₂ separation and capture

- •With the aim of separating and capturing CO<sub>2</sub> at our customers' sites, build a system that uses membranes and adsorbents to promote in-house verification
- •Toward the future, promote element study and test evaluation with the aim of separating and capturing CO<sub>2</sub> from the atmosphere/exhaust gas by using LNG cold energy

#### Methanation (e-methane)

- •Start with a small-scale demonstration using biogas-derived CO<sub>2</sub> for the practical application of methanation technology and the mass introduction of e-methane
- •Use methane synthesized in the demonstration as a raw material for city gas

#### Establish a foundation to expand the use of hydrogen

In addition to embodying the concept of a hydrogen supply base, we will build up a firm position as a hydrogen supplier in the region by advancing efforts to the practical application of hydrogen utilization technology and by responding to increasing hydrogen needs.

#### Building the Chita Midorihama Factory-based hydrogen supply chain

- •Constructed a hydrogen production plant in the factory
- •Actively promote alliances with other companies that have insights and expertise, and take initiative in establishing a hydrogen supply chain in the region

#### Use of hydrogen

•Promote technological development related to hydrogen

combustion to expand its applicability in the thermal and other fields and commercialize hydrogen technologies at an early stage through demonstration at customers' sites

•As for mobility applications, develop and operate hydrogen stations by utilizing a cross-industry framework to expand vehicle types and applications

#### Low-carbonize/decarbonize electricity

We will enhance the development and procurement of renewable energy power sources while diversifying power sources, and we will provide a menu of services that utilize these sources to contribute to our customers' carbon neutrality.

#### Expansion of renewable energy power sources

•In addition to solar power, biomass, and other renewable energies, we will diversify power sources in the medium-term future, including involvement in offshore wind power, and broaden the development and procurement of renewable energy power sources

#### Utilization of renewable energy power supply

- •Combine renewable energy power sources and nonsfossil certificates to provide a carbon-neutral electricity service menu
- •Propose new regional electric power etc. centering on renewable energy sources

#### Expansion of electricity services

- •Strengthen sales of distributed energy resources, such as solar power generation and storage batteries
- •Launch demonstration and commercialization of Virtual Power Plants, etc.

#### Contents

#### Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation

# Medium-Term Management Plan 2022-2025

# **02** Evolve as an energy operator

We will continue to take all possible measures to ensure safe, secure, and stable supply and strive to increase our energy market share by utilizing diverse kinds of energy.

We will also work to further extend new energy-related business at home and overseas.

#### **Expansion of energy share**

As a total energy provider, we deliver variety of energy services, including city gas, LPG, electricity and hydrogen, to more customers in an optimal manner to support their life and business.

#### Responding to diverse customer needs

- •Improve menu options to meet diverse customer needs such as carbon-neutral energy supply
- Promote solution proposals

#### Strengthening sales proposals, alliances

- •Deepen relationships with customers through our community-based service shop "ENEDO," which serves as a real contact point
- •Utilize/strengthen alliances with other companies; broad-based development

#### Ensuring safe, secure and stable supply

We will ensure constantly safe, secure and stable energy supply while steadily promoting the development of city gas infrastructure to achieve low carbonization from the ground up. FY2025

Number of customer accounts\*1

Achieving 3 million as soon as possible

Sales volume

City gas\*2 ··· Maintain the same level as 2021 LPG ··· Approximately 10% expansion Electricity ··· Expanded by about 10% every year

- \*1 Total number of customer accounts of City Gas, LPG, and Electricity.
  \*2 Including LNG sales volume (Converted to the amount of City Gas)
  - Develop infrastructure for the spread and expansion of city gas
  - •Expand service areas through city planning and demand development
  - •Promote the development of supply infrastructure to improve the capacity of gas transportation to wider areas
  - ●Ensure safe, secure and stable city gas supply
  - •Promote various measures to ensure safe, secure and stable supply

#### Realization of low-cost and stable procurement

To mitigate the effects of the changing international situation and rapidly changing market conditions, we will promote the diversification of suppliers in order to secure stable and inexpensive procurement.

#### ■LNG procurement

- •Decentralize procurement areas and diversify contract types
- •Launch procurement from the LNG Canada Project
- •To further improve flexibility and achieve lower procurement prices, examine measures and establish systems by making use of the Group's assets and expertise

#### ●LPG procurement

- •Flexible procurement by using the Meiko LPG Terminal
- •Streamline delivery management through the use of digital technology

#### Electricity procurement

 Procure stable power by utilizing the Yokkaichi Power Station and collaborating with multiple partners

**Group Vision** 

What we aim

to be

Reliable energy

operator in the

region

•To stabilize procurement and income/expenditure fluctuations, promote efforts to secure power sources and improve the ratio of in-house power sources (e.g., examining large-scale power sources, utilizing VPP and storage batteries)

# Expansion of domestic and overseas energy-related business

With the knowledge and expertise cultivated through our business operation, we will scale up energy-related business, such as gas sales/LNG-related business and renewable energy business, at home and overseas.

#### Participate in investments in domestic and overseas energy projects

- •Participation in domestic and overseas renewable energy business
- •Fuel conversion from coal, petroleum, etc. to city gas in collaboration with local gas companies
- •Strengthen information gathering and project discovery capabilities by enhancing overseas base factors

#### •Involvement in the LNG value chain, etc.

 Launch the LNG Canada Project (midstream project) in addition to the Ichthys Project (upstream) and LNG transport vessels

#### Policy

- •Accelerate investment for sustainable growth while maintaining the ability to generate operating cash flow
- •Even in an investment expansion phase, balance between efficiency and soundness to manage the entire system

	Profitability	Efficiency	Soundness	
Management Index	Operating cash flow	ROA	Debt to Equity ratio	
Management Goal	210 billion yen and over (Cumulative total from FY2022 to FY2025)	About 3%*1 > WACC*2 (FY2025)	<b>About 0.6</b> (FY2025)	
*1 Consolidated ordinary income for FY2025 is approximately 25 billion yen  *2 WACC=Cost of capital: Mid 2%				

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

## Create diverse value

customer needs and solve their problems and also

#### Expansion of services that enrich people's lives

Enhance customer contact points by improving the contents and convenience of our digital platforms.

#### Expansion of contact points with customers

- •Expand the number of contact points by expanding the content and convenience of digital platforms
- Expansion of service menu.
- •Enhance services through initiatives such as co-creation with customers or start-ups

Goals by

- Digital contacts Membership 1 3 million
- Number of new service launches

About 1 ( ) services a year

#### **Expansion of services to support business**

We will enhance our support for customers' business by expanding service menu options that help solve increasingly complex and sophisticated business issues.

#### Expand products and services

- •Expand the menu of products and services that contribute to improving customers' business profitability and operation through "TOHOBIZNEX," our total business support site
- •In the energy service area, broaden the scope of services for appliances in addition to cogeneration and gas air conditioning
- •Co-creation with other industries to further expand service areas

**Group Vision** What we aim to be

Life and business partner beyond the

#### Broaden business domains by utilizing our assets and expertise

We will expand our business domain by leveraging the Group's assets and expertise and actively engage in co-creation with other businesses.

#### Utilization of owned real estate

•Effectively utilize real estate, such as former sales offices and supply stations, for regional development

#### External sales of production technology and shared technology

•Expand expertise and commercial materials cultivated through the production and supply of city gas to other fields/industries

#### Business development in new areas

- •Explore and demonstrate new areas that contribute to solving social issues and promoting regional development while utilizing company-owned assets and expertise
- •Create value through cocreation and collaboration with other industries and start-ups

to be

Corporate group that leads the realization of a sustainable society

## Contribute to the SDGs

As a community-based company, we will continue to contribute to the achievement of the SDGs together with our stakeholders.

#### Strengthen initiatives for coexistence with local communities

We will work more closely with local governments and other organizations to strengthen efforts for coexistence with local communities to solve social issues and improve resilience.

#### Promote solutions for social issues by collaborating with local governments

- •Contribute to the development of attractive communities by deepening cooperation with local governments in various fields, including carbon-neutral support and the introduction of district heating and cooling
- •Revitalize regional economy through regional new energy

#### Improve local resilience

- •Improve region-wide disaster prevention capabilities by enhancing industry-government-academia collaboration
- •Conduct joint disaster prevention drills and fortify collaborative structures with local governments in case of a disaster

- •Improve resilience of other gas operators through deterioration diagnosis of facilities and technical support for construction/maintenance of other infrastructure
- •Promote the introduction of distributed power sources

#### •Minato AQULS (Second stage development)

- •Promote the revitalization of the region and development of sustainable and robust communities
- •In a tie up with Nagoya City, introduce various technologies to achieve carbon neutrality at an early stage and improve the quality of life

#### Initiatives for ESG

We will steadily address the ESG issues toward the realization of sustainability.

#### Environment (E)

•Implement climate change countermeasures, resource environment protection, and biodiversity conservation; contribute toward realizing a sustainable society

#### Society (S)

•Maintain and strengthen relationships with stakeholders and contribute to regional development together with partner companies and other concerned parties

#### Governance (G)

•Strengthen corporate governance to continue to be a company trusted by stakeholders

#### Improve work satisfaction and ease of work and promote diversity

We will work to improve job satisfaction and ensure a comfortable working environment and diversity in order to increase employee engagement and to achieve individual and organizational growth.

#### • Human resource management

•Promote challenges for employees through training. placement, evaluation, etc. for their further growth

#### Diversity and inclusion

•Secure diverse human resources and support their activities toward revitalizing the organization, strengthening competitiveness, and creating innovation

#### • Flexible working style

•Establish an environment where employees can choose a productive working style so that they can achieve a fulfilling work-life balance

#### Safety and health management

•Encourage physical and mental health promotion and create a safe, secure and comfortable workplace so that employees can play an active role for a long time

## **Group Vision** What we aim

**Business Report** 

**External Opinion and Evaluation** 

**Contents** 

Toho Gas Group's

Corporate Philosophy History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Toho Gas Group Vision

Medium-Term Management Plan

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Governance

Society

Materiality

2022-2025

Value Creation

**Data Section** 

Web Site

# Medium-Term Management Plan 2022-2025 Report on Progress in the First Year

#### Four themes to work on from FY2022 to 2025

#### Promote carbon neutrality

Through initiatives such as fuel conversion for heat demand and proposals for advanced energy utilization, we have been promoting decarbonization at customer sites. We are also advancing the development of methanation and CO<sub>2</sub> separation and capture technologies in anticipation of the future decarbonization of gas itself. Additionally, efforts towards the decarbonization of hydrogen usage and electricity are steadily progressing

Additionally, efforts towards the decarbonization of hydrogen usage and electricity are steadily progressing.					
Reductions of carbon a	Reductions of carbon and decarbonization at gas customer locations				
Promotion of fuel type switching and advanced utilization of energy	Initiatives for Carbon Neutrality  ①Reductions of carbon and decarbonization at customer locations: Switching fuel types for thermal demand Initiatives for ESG [ Environment ] - Global Warming Countermeasures Climate Change Mitigation at Customer Locations Business Report: City Gas Business - "Responding to Diverse Customer Needs"	P.25 P.39 P.75			
Efforts by the procurement side to meet customer needs	Initiatives for Carbon Neutrality  ①Reductions of carbon and decarbonization at customer locations: carbon-neutral LNG	P.25			
Support customers to achieve carbon neutrality	Initiatives for Carbon Neutrality  ①Reductions of carbon and decarbonization at customer locations:  CNXP business	P.25			
Develop technologies t	o decarbonize gas itself				
CO <sub>2</sub> separation and capture	Initiatives for Carbon Neutrality ②Carbon recycling Business Report: Technical and Product Development – "Technical Development Linked to Promotion of Carbon Neutrality"	P.26 P.77			
Methanation(e-methane)	Initiatives for Carbon Neutrality ③Decarbonization of gas itself	P.27			
Establish a foundation	to expand the use of hydrogen				
Establish a foundation in Building the Chita Midorihama Factory-based hydrogen supply chain	to expand the use of hydrogen  Initiatives for Carbon Neutrality  (a) Use of hydrogen: Building a hydrogen supply chain	P.29			
Building the Chita Midorihama Factory-based hydrogen	Initiatives for Carbon Neutrality	P.29 P.29 P.30 P.76 P.77			
Building the Chita Midorihama Factory-based hydrogen supply chain	Initiatives for Carbon Neutrality  ①Use of hydrogen: Building a hydrogen supply chain  Initiatives for Carbon Neutrality  ①Use of hydrogen: Development of hydrogen combustion technology  ①Use of hydrogen: Implementation of hydrogen technology at Minato AQULS  Business Report: City Gas Business -  "Expansion of Services to Support Business"  Business Report: Technical and Product Development -  "Technical Development Linked to Promotion of Carbon Neutrality"	P.29 P.30 P.76			
Building the Chita Midorihama Factory-based hydrogen supply chain Use of hydrogen	Initiatives for Carbon Neutrality  ①Use of hydrogen: Building a hydrogen supply chain  Initiatives for Carbon Neutrality  ①Use of hydrogen: Development of hydrogen combustion technology  ①Use of hydrogen: Implementation of hydrogen technology at Minato AQULS  Business Report: City Gas Business -  "Expansion of Services to Support Business"  Business Report: Technical and Product Development -  "Technical Development Linked to Promotion of Carbon Neutrality"	P.29 P.30 P.76			
Building the Chita Midorihama Factory-based hydrogen supply chain  Use of hydrogen  Low-carbonize/decarbo  Expansion of renewable	Initiatives for Carbon Neutrality  (a) Use of hydrogen: Building a hydrogen supply chain  Initiatives for Carbon Neutrality (b) Use of hydrogen: Development of hydrogen combustion technology (c) Use of hydrogen: Implementation of hydrogen technology at Minato AQULS (c) Business Report: City Gas Business –  "Expansion of Services to Support Business"  Business Report: Technical and Product Development –  "Technical Development Linked to Promotion of Carbon Neutrality"  Onize electricity  Initiatives for Carbon Neutrality (s) Electricity: Decarbonization of power sources  Business Report:Electricity Business –	P.29 P.30 P.76 P.77			

### 02 Evolve as an energy operator

While maintaining safety, security, and stable supply as our key premises, we have expanded our energy market share, and the number of customers for city gas, LPG, and electricity has reached 2.92 million. Our business has also expanded overseas, such as starting operations in Thailand and Vietnam, leading to growth in gas, LNG, and renewable energy businesses overseas as well.

Expansion of energy share					
Responding to diverse customer needs	Initiatives for Carbon Neutrality  @Reductions of carbon and decarbonization at customer locations:				
Strengthening sales proposals, alliances	Business Report: City Gas Business – "Improving customer service"	P.74			
Ensuring safe, secure, a	and stable supply				
Develop infrastructure for the spread and expansion of city gas	Business Report: City Gas Business – "Ensuring Safe, Secure, and Stable Supply"	P.71			
Ensure safe, secure, and stable city gas supply	Business Report: City Gas Business – "Ensuring Safe, Secure, and Stable Supply"	P.71			
Realization of low-cost	and stable procurement				
LNG procurement	Business Report: City Gas Business – "Realization of low-cost and stable procurement"	P.71			
LPG procurement	Business Report: LPG and Other Energies – "Stable Energy Procurement at a Reasonable Price"	P.79			
Electricity procurement	Business Report: Electricity Business – "Procuring a stable supply of electric power"	P.80			
Expansion of domestic	and overseas energy-related business				
Participate in investments in domestic and overseas energy products  Initiatives for ESG [ Society ]: Contribution to the Local Communities "Regional Revitalization Through Regional New Power Generation" Business Report: Business Development - "Overseas energy businesses"		P.45 P.81			
Involvement in the LNG value chain, etc.  Business Report: Business Development – "Overseas energy businesses"		P.81			

#### Contents

Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

## 03 Create diverse value

We expanded our services to enrich lives through enhancements such as the content on our Club TOHOGAS member site and the launch of the Mitasu Kurasu information dissemination medium within the ASMITAS life service platform. We also advanced the expansion of business support services centered around TOHO BIZNEX. In addition, progress was made in trials of the on-land fish-farming business Chita Cool Salmon, which uses LNG-based cooling and heating.

Expansion of services that enrich people's lives				
Expansion of contact points with customers	Business Report: City Gas Business – "Expansion of services that enrich people's lives" Business Report: City Gas Business – "Improving customer service"	P.73 P.74		
Expansion of service menu	Business Report: City Gas Business –  "Expansion of services that enrich people's lives"  Business Report: Business Development –  "Expanding Services and Contact Points with Customers"			
Expansion of services t	o support business			
Expand products and services	Business Report: City Gas Business – "Expansion of services to support business"	P.76		
Broaden business dom	ains by utilizing our assets and expertise			
Utilization of owned real estate	Business Report: Business Development – "Utilizing real estate holdings and unused land"	P.83		
External sales of production technology and supply technology	Business Report: City Gas Business – "TOPIC: Sales of gas production and supply technology to third parties"	P.72		
Business development in new areas	Business Report: Technical and Product Development – "Developing products that enrich people's lives"  Business Report: Business Development – "TOPIC: Chita Cool Salmon Land-Based Aquaculture"	P.77 P.83		

#### **04** Contribute to the SDGs

We have entered into comprehensive cooperation agreements with multiple local governments and established regional electricity companies with the aim of solving regional social issues such as achieving carbon neutrality and promoting locally sourced energy consumption. We also formulated sustainability policies and restructured our implementation framework. We are committed as well to promoting diversity and inclusion, improving ease of work, and enhancing safety and health management, and our efforts have been recognized with certifications that include Platinum Kurumin and White 500.

Strengthen initiatives for coexistence with local communities				
Promote solutions for social issues by collaborating with local governments	Initiatives for ESG [ Society ]: Contribution to the Local Communities "Signing Comprehensive Collaboration Agreements with Municipalities" "Regional Revitalization Through Regional New Power Generation"			
Improve local resilience	Initiatives for ESG [ Society ]: Contribution to the Local Communities "Basic Agreement on Technical Cooperation with Municipalities"			
Minato AQULS (Second stage development)				
Initiatives for ESG				
Environment (E)	Initiatives for ESG [ Environment ]	P.33		
Society (S)	Initiatives for ESG [ Society ]	P.45		
Governance (G)	Initiatives for ESG [ Governance ]	P.57		
Improve work satisfact	ion and ease of work and promote diversity			
Human resource management	Initiatives for ESG [ Society ]: Promotion of Personnel Policies "Human Resource Management"	P.49		
Diversity and inclusion	Initiatives for ESG [ Society ]: Promotion of Personnel Policies "Diversity and Inclusion"			
Flexible working style	Initiatives for ESG [ Society ]: Promotion of Personnel Policies "Improving Ease of Work"			
Safety and health management	Initiatives for ESG [ Society ]: Initiatives for Occupational Health and Safety			

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

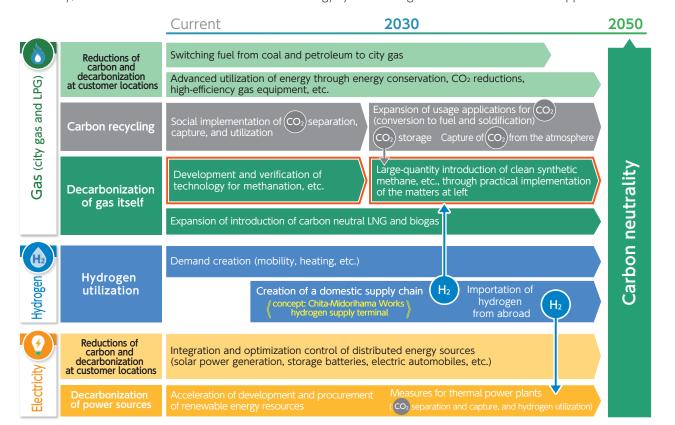
External Opinion and Evaluation

# 2050 Carbon Neutrality Initiative

Since the founding of Toho Gas in 1922, we have supported the lives and businesses of the Chubu region through energy supply, and have grown together with the region. The raw materials for our main city gas business have progressively transitioned from coal-based to petroleum and, more recently, to natural gas, which is the fossil fuel having the least environmental impact. We have also actively worked towards reducing environmental impact through the development and promotion of high-efficiency gas equipment.

Against the backdrop of the growing concern about global warming in recent times, in July 2021, we formulated and announced the 2050 Carbon Neutrality Initiative. With the aim of achieving carbon neutrality, we are accelerating efforts for low-carbonization and decarbonization at customer locations, focusing on hydrogen use and technological innovations in carbon recycling. This is intended to contribute to the future decarbonization of gas itself.

Toho Gas Group, centered around the three energy sources of gas (including city gas and LPG), hydrogen, and electricity, aims to build a clean and carbon-neutral energy system through a combination of diverse approaches.



#### Goals and Progress for FY2030 and FY2025

#### CO<sub>2</sub> reduction contributions

FY2022 performance	FY2025	FY2030
307 thousand tonnes	1 million tonnes	3 million tonnes

Through the conversion to city gas and LPG, the introduction of high-efficiency equipment, as well as the decarbonization of gas itself and the expansion of renewable energy adoption, we aim to reduce CO<sub>2</sub> emissions for our customers. In addition, we strive to reduce our own CO<sub>2</sub> emissions and contribute to CO<sub>2</sub> reduction through our business activities.

#### Amount handled of renewable energy power sources

FY2022 performance	FY2025	FY2030
93	250	500
thousand kW	thousand kW	thousand kW

In the electricity business, we will expand the amount handled of renewable energy power sources, solar and biomass, through development, ownership, and procurement of renewable energy sources both domestically and internationally.

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

### **Basic Concept**

The "3E+S" perspective continues to be crucial in energy supply, and in achieving carbon neutrality, the balance of stable supply and economy - that is to say, the best mix of energies - is essential. By effectively utilizing a rugged pipeline infrastructure together with taking advantage of the favorable affinity of gas and renewable energy, we are pursuing the best mix of a wide variety of energies and helping to strengthen the resilience of the region.

To achieve carbon neutrality, innovative technical development is a requirement, and tremendous time and costs become necessary to overcome this. Consequently, we believe that if we first steadily press ahead with reducing carbon and decarbonization using established technology, it will become possible to make a smooth transition to carbon neutrality by achieving decarbonization of gas itself in the future.

#### Portrait of the future

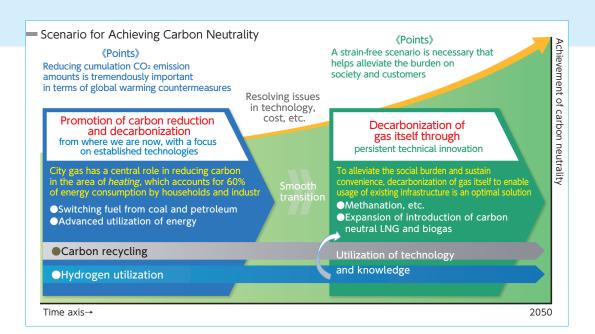
Through broad-based collaboration with all concerned, Toho Gas aims to create an energy system that contributes to carbon neutrality, with the pivot being the three types of energy of gas (city gas and LPG), hydrogen, and electricity.

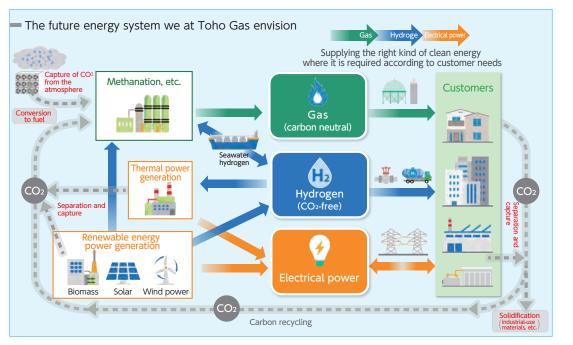
#### (Points)

- •In the short to medium term, we will strive to suppress overall societal CO<sub>2</sub> emissions in a substantial way by maximizing the use of gases of superior environmental friendliness while promoting energy conservation and sophisticated use of energy.
- •Toho Gas will also lead the decarbonization efforts of our customers through technological advancements, including enhancing our existing carbon recycling technology
- •From a medium- to long-term perspective, we will work on the development and practical use of technologies like methanation, which involves synthesizing gas from hydrogen and CO<sub>2</sub>. Through the widespread adoption of clean substances such as e-methane produced in this way, we aim to achieve the decarbonization of gas itself and ensure a smooth transition to carbon neutrality.

- •Taking into consideration the characteristics of the Chubu region, a hub for industries centered around the automotive sector, we will focus on initiatives to create demand for hydrogen in mobility, heat requirements, and related areas.
- Simultaneously, to meet the rapidly increasing demand for hydrogen, we will solidify plans to establish a hydrogen supply hub at the Chita-Midorihama Factory and take on the challenge of building a hydrogen supply chain in the Chubu region.

In addition to effectively utilizing distributed energy resources (solar panels, battery storage, electric vehicles, and the like) we will work on the decarbonization of energy sources with a focus on the expansion of renewable energy sources.





#### **Contents**

#### Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

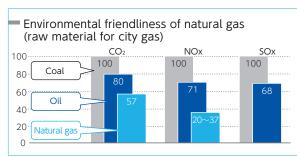
#### **Toho Gas Group's Value Creation**

# **Initiatives for Carbon Neutrality**

# ①Reductions of carbon and decarbonization at customer locations

#### Switching fuel types for thermal demand

To achieve carbon neutrality, we will advance the conversion to city gas, one of the established low-carbonization technologies at the grassroots level. The Chubu region is a prominent industrial hub, particularly in the high-temperature heat sector, where there is potential for the low-carbonization of fossil fuels. Natural gas, the raw material for city gas, has the lowest CO<sub>2</sub> emissions among fossil fuels, and by transitioning from coal, oil, and other fuels, it contributes to the low-carbonization of heat demand.



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

# Energy conservation and advanced utilization of energy

We contribute to regional and customer-location energy conservation and decarbonization through the promotion of high-efficiency gas air conditioning, cogeneration, district cooling and heating, and the like. In addition to traditional energy conservation and advanced utilization of energy, we also actively promote new initiatives such as carbon recycling and hydrogen utilization, providing comprehensive support for achieving low-carbon and decarbonized environments at customer locations.

#### ■ GHP XAIR III gas heat-pump air conditioner

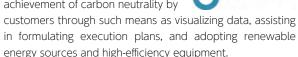
The ultra-high-efficiency GHP XAIR II gas engine heat pump maintains low power consumption of less than 1/10 of EHP (electric heat pump) building multiple packaged air conditioning systems, while achieving further energy savings and improved functionality, addressing such needs as achieving energy conservation and power savings and climate change adaptation.

#### Advancement of heat management through high-density thermal storage technology

We are promoting the practical application of thermal storage material of our own proprietary development that is aimed at effectively utilizing unused waste heat and other sources. The thermal storage material developed by Toho Gas has a heat storage capacity of about ten times that of hot water, and over twice that of existing latent heat storage materials that are mainly composed of paraffin. This material is being implemented in Toho Gas research institute facilities as well as in practical applications such as camping and disaster prevention supplies, and food preservation. We are further working on expanding its application scope, including for water heating, air conditioning, on-vehicle applications, industrial applications, and in agriculture.

#### — CNxP business

We are carrying out CNxP
Business operations, which support
achievement of carbon neutrality by



The CNxP Business is a service where the energy <u>Professionals</u> that Toho Gas Group comprises provide support from consulting to engineering as a one-stop <u>Package</u>, working

together with customers as <u>Partners</u> aiming for carbon neutrality.

Leveraging our strength in offering integrated energy and engineering solutions, we contribute to achieving carbon neutrality by cycling through the steps of (1) assessment, (2) reduction, and (3) maintenance.

Utilizing the technologies and expertise gained and refined through solving challenges at production sites and other areas, we clarify the current state and issues related to customer CO<sub>2</sub> emissions and create a roadmap toward carbon neutrality.

(2) Reduction In addition to operational improvements and equipment upgrades, we provide customers with optimal CO2-reduction solutions through both energy and engineering aspects, such as fuel conversion and the utilization of carbon-neutral energy.

(3) gaintenants

Through diagnosis, effectiveness verification, and other methods, we retrospectively review operations and maintain a favorable state through maintenance.

#### Carbon-neutral LNG

Toho Gas introduced carbon-neutral LNG in April 2021 and began supplying it in August 2021. As a means of carbon neutrality for city gas that can be implemented from the grassroots level, we have received diverse industrial customer demands for it, and the amounts handled are expanding. To ensure transparency and reliability, the operation status of carbon neutral LNG undergoes verification by third-party institutions. We will continue to investigate and consider projects that lead to agile procurement and credit creation, contributing to customer CO<sub>2</sub> reductions.



mportation Woodland conservation, etc.

Reducing CO<sub>2</sub> emissions on a global scale

\* All steps from extraction of natural gas to combustion at customer locations

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

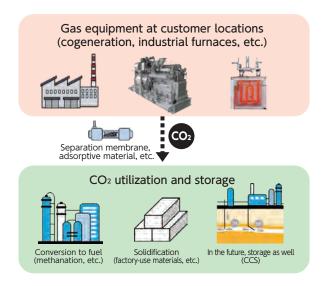
**Business Report** 

**External Opinion and Evaluation** 

#### ② Carbon recycling

Toho Gas was quick to focus on developing  $CO_2$  separation and capture technology. In the future, we will further enhance our technological capabilities from the perspective of  $CO_2$  utilization (conversion to fuel and solidification) and storage.

As a grassroots-level low-carbonization method, we aim to establish a supply chain for carbon recycling, where  $CO_2$  is separated and captured at customer locations for utilization. Alongside the development of  $CO_2$  separation and capture technologies, we are conducting studies to achieve actual  $CO_2$  utilization. We are also exploring challenges such as direct atmospheric capture and expanding utilization applications.



#### Achieving higher-performance, lower-cost separation and capture

Within the Toho Gas Technical Research Institute, we have established a demonstration facility composed of membrane separation and physical adsorption methods. We are conducting performance evaluations of CO<sub>2</sub> concentration, capture volume, energy consumption, and the like, and working toward achieving higher performance and lower costs.



-Exploration of new materials (membranes and adsorbents) that yield high  $\mathsf{CO}_2$  concentrations and large capture volumes, with installation in the demonstration facility for evaluation and enhancement

·Optimization using simulation technology

#### **■**Technical development for the future

As a technology for cost-effective CO<sub>2</sub> capture using unused cold heat from LNG, we are devoting effort to technical development of Cryo-Capture® to capture exhaust gases from large-scale factories and the like in coastal areas as well as to technical development of Cryo-DAC® with the aim of capturing CO<sub>2</sub> from the atmosphere in the future.

Conventional technology

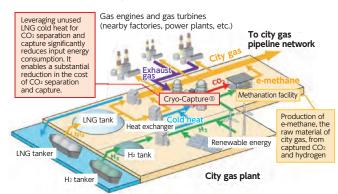
System driven by heat (high-cost CO<sub>2</sub> capture)

Innovative technology

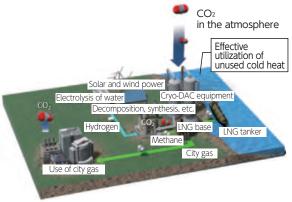
System driven by unused LNG cold heat (enables reduction of CO<sub>2</sub> recovery costs)

For  $CO_2$  separation and capture targeted at large-scale facilities in coastal areas, we are collaborating with Nagoya University as part of the New Energy and Industrial Technology Development Organization's (NEDO) Green Innovation Fund project to commercialize the technology. In the demonstration phase (FY2028 to 2030), we plan to use  $CO_2$  captured by Cryo-Capture® at an LNG base for the production of e-methane.

The separation and capture of  $CO_2$  from the atmosphere are being pursued through a NEDO "moonshot"-type research and development project, involving collaborative research between academia and industry.



Artist's concept of societal implementation of Cryo-Capture®



Artist's concept of societal implementation of Cryo-DAC®

Initiatives for CO₂ separation and capture ▶ P.77

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

**Initiatives for Carbon Neutrality** 

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# **Initiatives for Carbon Neutrality**

#### ③Decarbonization of gas itself

Toho Gas is positioning methanation as the core of our gas decarbonization efforts, aiming to achieve practical application of methanation technology and the like, and the widespread adoption of clean e-methane through this. Through a broad array of alliances, we are working on demonstrations and solutions to challenges, including improving efficiency and reducing costs.

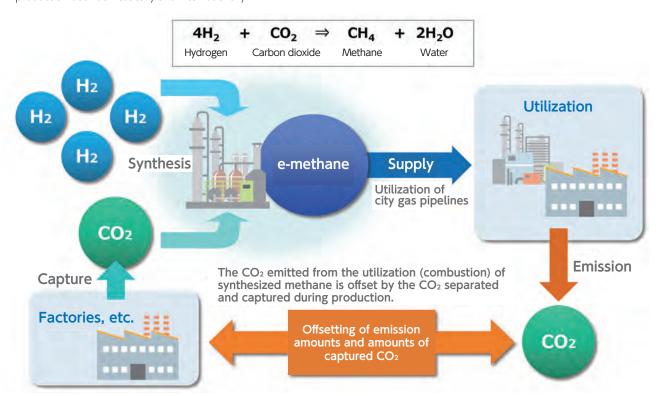
Toward the societal implementation of e-methane by 2030, we are conducting business feasibility studies for e-methane production both domestically and internationally.

#### Benefits of e-methane

Methanation is a technology that synthesizes methane (e-methane) by reacting hydrogen and CO<sub>2</sub>, and is expected to be a potential means for the future decarbonization of gas itself.

E-methane produced from captured  $CO_2$  and hydrogen is a decarbonized fuel, and when used in the same way as hydrogen or ammonia, does not contribute to increased atmospheric  $CO_2$ .





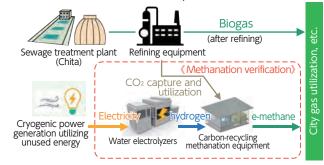
The utilization of e-methane can also effectively leverage existing city gas infrastructure and consumer devices. As it facilitates efficient energy transportation, it contributes to reducing societal costs and sustaining customer convenience.

# Methanation verification utilizing CO<sub>2</sub> from biogas

We have initiated methanation demonstration in collaboration with the city of Chita, Aichi Prefecture, and are working on identifying and addressing challenges on both technical and regulatory fronts.

In this initiative, we carry out methanation using CO<sub>2</sub> derived from biogas generated through sewage sludge treatment at the Chita City Nambu Purification Center, along with hydrogen produced from cryogenic power generation. The resulting product, e-methane, is intended to be used as a raw material for city gas, in a move intended to contribute to the effective utilization of local resources. This endeavor aims to establish a domestic first by utilizing methanation-synthesized e-methane as a raw material for city gas. Looking ahead, through large-scale societal implementation of methanation facilities, we aspire to achieve the decarbonization of gas itself.

#### Overview of methanation demonstration in collaboration with the city of Chita



#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

#### Feasibility study for the implementation of e-methane using an LNG base in the U.S.A.

We are advancing a feasibility study for e-methane production near an overseas LNG shipping facility.

In preparation for the start of implementation of e-methane in 2030, we, along with Mitsubishi Corporation, Tokyo Gas, and Osaka Gas, are conducting a feasibility study for e-methane production in North America. This collaborative effort aims to utilize the existing LNG supply chain of the Cameron LNG facility, LNG vessels, receiving terminals, and the like to liquefy and transport e-methane, as well as to achieve the goal of adopting 1% e-methane in Japan by 2030. Detailed discussions have been initiated to achieve this target.

With respect to the adoption and dissemination of e-methane produced overseas, ensuring origin certification to differentiate it from natural gas between Japan and the production countries, calculation of the CO<sub>2</sub> emission count during e-methane utilization, and securing investment visibility for e-methane production and utilization are crucial. To advance these regulatory and environmental arrangements, discussions with stakeholders in the U.S. and Japan are also planned.

#### Overseas (U.S.A) Japan Mitsubishi Corporation 4-company joint venture (+ overseas partners\*1) Tokyo Gas, Osaka Gas, Toho Gas In-house renewable Construction and energy development operation of water Construction and Liquefaction at the Transportation Utilization of existing city gas or external purchase electrolyzers operation of Cameron LNG base infrastructure (grid, PPA) methanation plant H<sub>2</sub> Industrial water or Emitter or CO<sub>2</sub> \*2 self-produced water pipeline External procurement \*1 Solicitation of overseas partners as needed is under consideration. \*2 External hydrogen procurement (particularly during start-up, targeting Candidate site for both blue and green sources) is also under considerations. methanation plant Cameron LNG base construction

#### Investigations oriented toward building a value chain for hydrogen, e-methane, etc.

In collaboration with Toyota Tsusho Corporation and Total Energies, we are conducting a feasibility study on the business potential of building a value chain for hydrogen, e-methane, and other components to introduce these elements into Japan.

By combining the expertise of Toho Gas in the LNG value chain, the knowledge of Toyota Tsusho Corporation in decarbonized fuel business, and Total Energies's global fuel supply portfolio, Toho Gas is conducting business feasibility studies in Australia and other locations for creating an optimal value chain.



#### Discussion of methanation regional collaboration in the Chubu area

In collaboration with Aisin Corporation and Denso Corporation, we are exploring regional circulation models for  $\mathsf{CO}_2$ .

With the goal of early achievement of a carbon-neutralization method for heat demand, we are investigating a model case where CO<sub>2</sub> emitted from inland factories is captured, transported to city gas production facilities, and subjected to methanation. This model envisions the circulation of CO<sub>2</sub> within domestic and regional areas.

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

Initiatives for Carbon Neutrality

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# **Initiatives for Carbon Neutrality**

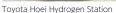
#### **4**Use of hydrogen

#### Expanding mobility needs

In the Chubu region, the utilization of hydrogen for mobility purposes is advancing, and to support the proliferation of fuel cell vehicles, Toho Gas is working on establishing hydrogen stations. For industrial and transportation vehicles, as well as others, we will leverage cross-industry frameworks to effectively utilize the hydrogen infrastructure as we expand the range of vehicle models and applications.

#### Establishment of hydrogen stations (5 locations in operation)







#### Building a hydrogen supply chain

We are constructing a hydrogen production plant at Chita Midorihama Works (Chita, Aichi Prefecture) that uses natural gas as a raw material. By 2024, we aim to complete the construction of a plant with a hydrogen production capacity of 1.7 tonnes per day and begin hydrogen supply.

We are considering distribution to demand sites using trailers, carriers, and the like, as well as exploring pipeline supply through local networks. Through the establishment of the hydrogen supply chain, we aim to drive the expansion of hydrogen adoption in the Chubu region.

Furthermore, Toho Gas is advancing alliances with other companies possessing knowledge and expertise in the transportation, supply, and consumption of hydrogen. This is aimed at establishing a foundation for the widespread adoption and expansion of hydrogen, and in the future, we

#### Building a hydrogen supply chain

•Collaboration with other companies possessing knowledge and expertise to advance initiatives at various stages in response to the hydrogen utilization needs of the local region

#### Manufacturing

·Launch of construction of a plant with a manufacturing capacity of 1.7 tonnes per day\* at Chita Midorihama Works, with hydrogen supply scheduled to commence by 2024

Hydrogen supply change (future image)

CO<sub>2</sub> separation and capture

\* A capacity of 1.7 tonnes can fill approximately 340 fuel cell vehicles.

#### Transportation and supply

·Consideration of transportation using trailers and carriers in collaboration with other companiesence by 2024 ·Advancing studies for hydrogen pipeline supply (local network) at Minato AQULS

Hydrogen local network

#### Consumption

Promoting the technical development and demonstration of hydrogen combustion and co-combustion technologies to expand applications in the thermal sector and beyond Promotion of hydrogen and city gas dual-use burners Investigation of the challenges and other matters in hydrogen co-combustion in conventional gas engines ·Contribution to the proliferation of mobility, including

#### hydrogen stations, fuel cell vehicles, and industrial vehicles Expansion of hydrogen combustion testing services



Hydrogen combustion Test Field (within the Technical Research Institute) Leveraging expertise and technology in fuel conversion and burner development to support the identification of challenges and solutions for hydrogen utilization using customers' burners and furnaces

Construction of a dedicated test site in March 2023 to accommodate larger furnaces

also aim to position Chita Midorihama Works as a receiving hub for imported hydrogen.

Utilization

#### Development of hydrogen combustion technology

To bring about a hydrogen society, Toho Gas is pressing ahead with development of hydrogen combustion technology for industrial burners and cogeneration systems, and has initiated demonstration tests and other activities.

#### Hvdrogen combustion

Initiation of joint demonstration experiments on hydrogen combustion technology targeting Aisin Corporation's industrial furnace burners

NOx emission control technical

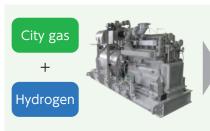
Hydrogen combustion technology using single-end radiant tube burners

Aluminum

Initiation of hydrogenation demonstrations, including aluminum melting furnaces

#### Hydrogen co-combustion cogeneration

For the first time in Japan, Toho Gas successfully engaged in test operation of city gas and hydrogen combustion using gas engine cogeneration units, making use of rated power generation output and achieving a hydrogen mixing rate of 35% (by volume).



Heat

Contents

Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

**Initiatives for Carbon Neutrality** 

Initiatives for ESG

Environment

Society

Governance

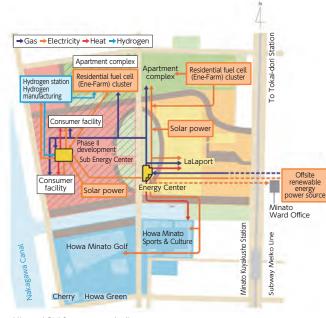
**Business Report** 

**External Opinion and Evaluation** 

#### Implementation of hydrogen technology at Minato AQULS

In the Minato AQULS Phase II development now under discussion, hydrogen is positioned as a new energy source.

Hydrogen utilization is anticipated to begin from hydrogen stations in inland areas, and plans are progressing to manufacture hydrogen at a hydrogen station within Minato AQULS. The produced hydrogen will be supplied to fuel cell vehicles and the like. Hydrogen pipelines will also be laid from the station to supply hydrogen-using equipment such as cogeneration facilities and fuel cells.



Minato AQULS energy supply diagram

Minato AQULS Initiatives ▶ P.46

#### ⑤Electricity

#### Reductions of carbon and decarbonization at customer locations

Along with promoting the adoption of diverse distributed energy resources, including solar power generation, energy storage batteries, and electric vehicles, Toho Gas aims to provide services that integrate and control these resources using digital technology, enabling the mutual exchange of electricity and environmental value. This approach seeks to provide services that both create customer benefits and achieve efficient energy utilization.

#### Initiatives toward VPP commercialization

A virtual power plant (VPP) is a system that uses IoT to remotely and integrally control devices such as customer-owned storage batteries, operating them like a single power plant. This concept involves operators called aggregators, which act as control centers to manage the supply-demand balance of electricity.

Toho Gas initiated discussions for VPP commercialization in FY2019. Currently, we are establishing VPP systems primarily focusing on the equipment of commercial and industrial customers. Serving as an aggregator, we engage in demand response aligned with the supply-demand situation to contribute to maintaining the balance of electricity supply and demand.

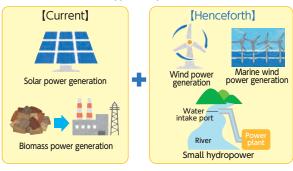
# Toho Gas (aggregator) Industrial-use equipment Solar power Solar power Electric vehicle charger Residential-use Solar power Electric vehicle charger Residential-use Solar power Ene-Farm

#### Decarbonization of power sources

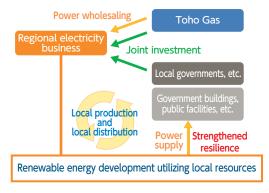
To decarbonize Toho Gas's own power sources, we are devoting effort to developing and procuring renewable energy sources, and to their diversification.

In collaboration with local governments, we work towards utilizing potential renewable resources within the region through initiatives such as regional new power suppliers, contributing to addressing local issues including localized energy production and consumption, as well as enhancing resilience.

#### Diversification of types of power sources



 Power Source Development Contributing to Local Production and Local Distribution



Initiatives for regional new power ▶ P.45

#### Contents

# Toho Gas Group's Value Creation

Corporate Philosophy

History of Toho Gas Group

Message from the President

Message from Financial Executive

Value Creation Process

Materiality

Toho Gas Group Vision

Medium-Term Management Plan 2022-2025

2050 Carbon Neutrality Initiative

**Initiatives for Carbon Neutrality** 

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Initiatives for ESG























#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

#### Environment

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

Management of Environmental Preservation

Global Warming Countermeasures

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

Data Section

Web Site

The Toho Gas Group has established its approach to achieving sustainability as the "Toho Gas Group Sustainability Policy." Furthermore, to consider and promote initiatives related to sustainability, a Sustainability Committee has been established.

## Toho Gas Group Sustainability Policy

The Toho Gas Group contributes to a sustainable society through the stable supply of environmentally friendly energy and the co-creation of new value.

- ◆ We contribute to a better "future" through the optimal provision of diverse kinds of energy and the creation of new value for lives and businesses, thus promoting development alongside the region.
- ◆ We contribute to the reduction of environmental impact, including the reduction of greenhouse gas emissions.
- ◆ We promote business activities with respect for human rights and strive to prevent and mitigate adverse human rights impacts.
- ◆ By enhancing a comfortable working environment that respects health and safety, and by fostering challenges and actions, we stimulate the growth of our organization and human resources.
- ◆ We strive to enhance systems for conducting our business properly and efficiently and promote business activities with integrity, in compliance with laws and the spirit of the law.





















15 LIFE ON LAND













The SDGs are 17 international goals that aim to achieve a sustainable society by 2030. The Toho Gas Group will continue contributing to resolving social issues and achieving SDGs through its business activities.



Toho Gas Group's Value Creation

Initiatives for ESG

**Environment** 

**Toho Gas Group Sustainability Policy** 

Information Disclosure Based on TCFD Opinions

Management of **Environmental Preservation** 

**Global Warming Countermeasures** 

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Information Disclosure Based on TCFD Opinions

The Toho Gas Group regards climate change as a critical management issue, and has made proactive efforts to reduce environmental impact through expanding the popularization of natural gas, which is the fossil fuel with the least environmental load, and as well as developing high-efficiency gas equipment and encouraging its adoption. Having endorsed the Task Force on Climate-related Financial Disclosures (TCFD) in April 2020, the Group has been promoting efforts addressing climate change in line with the recommendations of the TCFD and, in July 2021, it enacted and published The Toho Gas Group 2050 Carbon Neutrality Initiative. In addition to promoting low-carbon and decarbonization efforts for our customers' premises, we will work to develop technologies with an eye on future decarbonization of gas itself. We will also work to expand the use of hydrogen, reduce or eliminate carbon in electricity, and promote the transition to carbon neutrality.

— Information Disclosure in Line with the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
The TCFD published its final report in June 2017, and has recommended that enterprises and other organizations make disclosures with respect to the



#### **Output Output Output**</p

- •The Group recognizes that response to environmental issues, including climate change countermeasures, is a critical business issue.
- •The Carbon Neutral Promotion Committee comprises executive officers from company departments, including the Toho Gas Company President and Representative Director, who acts as head of the committee. The Committee holds discussions to define the directionality for important matters, including policies and plans relating to carbon neutrality.
- •With the Executive Office in charge of the CSR Environment Department as the chairperson, the Group Sustainability Committee comprising directors and department heads from Toho Gas and its major subsidiaries is convened to discuss and check policies and targets toward sustainability, including measures to address climate change.
- •Such important matters as risks and opportunities, strategies, risk management, and metric reporting relating to climate change are discussed by the Board of Directors through the Management Committee, which supervises the state of execution.

#### 2 Strategy

following items, including governance related to climate change as well as strategies (risks, opportunities, and responses).

- •To assess and evaluate future climate-related risks, opportunities, and responses in line with TCFD recommendations, we are conducting cross-sectional scenario analysis for the year 2050.
- •As external scenarios we selected an "under-2°C scenario" in which the increase in global temperatures is held to less than 2°C and a "4°C scenario" in which change to lower carbon does not proceed. Based on the images of society in 2050 drawn out by these scenarios, and taking into account such temporal axes as short- to medium-term (through 2030) and mediumto long-term (through 2050), we identified risks and opportunities and assessed their impact.

#### Main external scenarios used in scenario analysis

#### International Energy Agency (IEA)

- World Energy Outlook ·NZE scenario ·STEPS scenario
- Energy Technology Perspectives •B2DS scenario •RTS scenario

#### Intergovernmental Panel on Climate Change (IPCC)

- Fifth Assessment Report •RCP2.6 scenario •RCP8.5 scenario
- ·As a strategy geared to 2050, following discussions by the Board of Directors via the Management Committee, the Toho Gas Group 2050 Carbon Neutrality Initiative was formulated and announced in July 2021. With this strategy at the core, we are organizing our response measures for risks and opportunities and evaluating their resilience.

#### **3** Risk Management

- At Toho Gas, we push forward organizational identification, assessment, and response with respect to risk occurrence and change based on Risk Management Rules, and improve the level of risk management and conduct smooth business operations.
- ·Climate-related risks are integrated into the company-wide risk management system and processes, annual identification of risk factors, including climate-change factors, is conducted, response measures by the assigned department are discussed, and comprehensive evaluation is carried out. The comprehensive evaluation results and other matters are discussed by the Board of Directors through the Management Committee one or more times a year, and the Board of Directors supervises company-wide risk management and its execution status.

#### 4 Metrics and targets

- •Environmental action goals and other values are used as metrics and targets.
- •Progress relating to these metrics and targets is discussed by the Board of Directors through the Management Committee and the Board of Directors supervises the execution status.
- Environmental action goals ▶ P.36

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

#### Environment

Toho Gas Group Sustainability Policy

## Information Disclosure Based on TCFD Opinions

Management of Environmental Preservation

**Global Warming Countermeasures** 

Resource Recycling

**Biodiversity Conservation** 

#### Society

Governance

**Business Report** 

External Opinion and Evaluation









#### Major Risks Accompanying Climate Change

Risks having comparatively large financial impact

	Scenarios and external environment		nd external environment	Short- to medium-term (through 2030)	Medium- to long-term (through 2050)
.0		Technology	Progress of decarbonization innovation	• Transition to renewable energy through the development of technology	Lagging behind in competitive ability due to delays in the development of decarbonization technology for non-renewable energy sources
scenario	isks	Regulation	Carbon pricing	• Increased sales price of natural gas due to carbon pricing	• Acceleration of movement overseas by domestic companies due to relative increase in tax
Csc	ition	Regulation	Transition to renewable energy	Transition to renewable energy and a general shift to electrification	Advancement of energy-saving and shift to electrification in the area of heating
nder-2°	Transi	Market	Change in customer preferences	Decrease in thermal demand for commercial use due to electrification of passenger cars     Shift toward electrification due to the adoption of standard specifications for the new formation of ZEH/ZEB	Decrease in thermal demand for commercial use due to electrification of all vehicles     Further shift toward electrification due to the adoption ZEH/ZEB
Ō		Reputation	Assessment by investors	• Lower assessment of companies that are passive with respect to decarbonization	• Even lower assessment of companies that are passive with respect to decarbonization
scenario	al risks	Acute	Increasing weather intensity	Gradual increases in countermeasure expenses related to production and supply equipment and facilities     Gradual increases in disaster-recovery costs	Further increases in countermeasure expenses related to production and supply equipment and facilities     Further increases in disaster-recovery costs
4°C so	Physica	Chronic	Rising temperatures	Reductions in demand for heaters and water heaters     Strain on electrical power transmission at peak periods attendant upon expanded air-conditioning demand	Further reductions in demand for heaters and water heaters     Further strain on electrical power transmission at peak periods attendant upon expanded air-conditioning demand

#### Major Opportunities Accompanying Climate Change

Opportunities having comparatively large financial impact

	Scenarios and external environment			Short- to medium-term (through 2030)	Medium- to long-term (through 2050)
		Technology	Progress of decarbonization innovation	Wider use of technology for energy conservation and advanced and high-efficiency use of energy	Establishment and wider use of decarbonization technology (e-methane, carbon recycling, hydrogen usage)
enario	S.		Carbon pricing	Expansion of gas demand through fuel switching and advanced utilization	Expansion of use of carbon neutral energy by domestic businesses due to the establishment of suitable taxation and systems
C scen	on risk	Regulation	Transition to renewable energy	Expansion of use of renewable energy sources and batteries     Supplementation of renewable energy and wider use of cogeneration that contributes to improved resilience	Wider use of renewable energy and batteries     Augmentation of renewable energy and wider use of decarbonization technologies that contribute to enhanced resilience
Under-2°(	Transiti	Market	Change in customer preferences	Wider use of fuel-cell passenger cars and compact specialized vehicles (forklifts, etc.) accompanying improvement of the infrastructure for hydrogen     Increased need for optimized utilization and advanced utilization (resource aggregation) of energy, including for heating and electricity	Expansion of the market for passenger cars, buses, cargo vehicles, and other fuel-cell vehicles accompanying the expanded spread of the hydrogen infrastructure     Energy supply and demand will be optimized through bidirectional power flexibility involving individuals and through the practice of local production for local consumption
2		Reputation	Assessment by investors	Higher assessment of energy companies that are proactive with respect to decarbonization	Even higher assessment of energy companies that are proactive with respect to decarbonization
scenario	al risks	Acute	Increasing weather intensity	Increase in demand for a high-resilience supply infrastructure     Increased need for energy systems providing convenience and resilience	Further increase in demand for a high-resilience supply infrastructure     Further increase in need for energy systems providing convenience and resilience
4°C SQ	Physica	Chronic	Rising temperatures	Expansion of demand for air conditioners and increase in demand for high-efficiency air conditioning     Increase in demand for products and services that contribute to peak-cut control for electricity	Further expansion of demand for air conditioners and increase in demand for high-efficiency air conditioning     Further expansion of the spread of products and services that contribute to peak-cut control for electricity

#### Major Responses Addressing Climate Change

	Sce	Scenarios and external environment		Main responses		
Under-2°C scenario	Tra	Transition risks		<ul> <li>CO<sub>2</sub> separation and capture, e-methane (synthetic methane), and other technological developments leading to decarbonization of gas itself</li> <li>Building the Chita Midorihama Factory-based hydrogen supply chain and increased used of hydrogen in the future</li> <li>Expansion and use of renewable energy power sources, expansion of power services leading to low-carbonized/decarbonized electricity</li> </ul>	Toho Gas Group's 2050 Carbon Neutrality Initiative ▶ P.23	
4°C scenario	Physical risks	Acute	Increasing weather intensity	• High-tide countermeasures such as reinforcement of protective embankments, flooding countermeasures such as water-tightening, and expediting disaster received energy systems offering high energy savings, convenience and resilience (cogeneration and smart towns)		
		Chronic	Rising temperatures	Provision of advanced utilization of energy and energy savings with respect to increase in demand for air conditioning accompanying rising temperatures  Peak-cut control for electricity through resource aggregation (demand response [DR], virtual power plants [VPPs], etc.) and advanced utilization of gas		

**Contents** 

Toho Gas Group's Value Creation

Initiatives for ESG

**Environment** 

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

Management of Environmental Preservation

Global Warming Countermeasures

Resource Recycling

Biodiversity Conservation

Society

Governance

Business Report

External Opinion and Evaluation

# Management of Environmental Preservation

#### **Basic Concept**

Toho Gas Group has set its Environmental Action Principles and Environmental Action Guidelines to help the realization of a sustainable society, including carbon neutrality. Having set environmental action goals, we are engaging in a wide range of environmental actions, including global warming countermeasures, resource recycling, and making an environmental social contribution in cooperation with the region. Furthermore, in addition to engaging in compliance with environmental laws and environmental education by constructing Environmental Management Systems, we are managing the progress of initiatives through a PDCA cycle.

#### Environmental Action Principles

The Environmental Action Principles (established in 1993; final revision in 2022) are regarded at Toho Gas's business policy.

#### Environmental Action Principles

#### **Basic Policy**

Toho Gas and its Group companies recognize the importance of preserving the environment on a regional and global basis. The Group contributes to the realization of a sustainable society through the resolution of social issues relating to the environment.

#### Principle

(Principle1) The Group will contribute to reducing the impacts of its business activities on the environment related to customers.

(Principle2) The Group will reduce the impacts of its business activities on the overall environment.

(Principle3) The Group will contribute to environmental preservation in collaboration with local communities and the global community.

(Principle4) The Group will step up research and development regarding environmental preservation technologies.

#### **Environmental Action Guidelines**

Our Environmental Action Guidelines (established in 2011 and revised in 2022) set out the concept and content of key environmental activities that the Group is engaged in.

#### Environmental Action Guidelines

#### **Global Warming Countermeasures**

The Group aims to achieve carbon neutrality in the entire supply chain through the expansion, highly-efficient use, and high-degree application of environmentally-friendly energy, including natural gas, and the utilization of renewable energy and the decarbonization of gas itself.

#### Resource Recycling

The Group will promote the effective use of resources in each stage of business activities and reduce, reuse and recycle waste to minimize external emissions.

#### **Biodiversity Conservation**

The Group recognizes the importance of biodiversity, which is the foundation of society and the economy, 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 contribute to the resolution of social issues by participating in environmental activities/projects in collaboration with local communities and the global community.

#### Technology Development

The Group will promote technology development toward realizing carbon neutrality, such as the highly-efficient and high-degree application of energy, the use of hydrogen and renewable energy, the capture and separation of CO<sub>2</sub> and methanation.

#### **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. We comply with the demands of laws, ordinances and agreements relating to the environment.

# Organizational Structure for Management of Environmental Preservation

Regarding key environmental challenges such as reducing environmental impact and complying with environmental regulations, the Sustainability Committee composed of Toho Gas and major subsidiaries deliberates, discusses, and monitors the direction, goals, and various initiatives of activities.

For environmental action goals, the Environment Subcommittee reviews achievements from various departments and confirms approaches. Also, within Toho Gas and subsidiaries, specific roles are assigned to drive activities: *environmental promoters* responsible for advancing specific actions, *environmental auditors* conducting voluntary environmental compliance audits, and *environmental controllers* overseeing these roles, all working to promote environmental initiatives.



#### Contents

Toho Gas Group's
Value Creation

Initiatives for ESG

#### Environment

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

#### Management of Environmental Preservation

Global Warming Countermeasures

Resource Recycling

**Biodiversity Conservation** 

#### Society

Governance

**Business Report** 

**External Opinion and Evaluation** 









# Environmental Action Goals (FY2022-FY2025)

Aligned with the timeframe of the Medium-Term Management Plan, we have established environmental action goals for FY2022 to Fy2025 as follows, and are actively promoting initiatives to achieve them. Below is the progress for the initial fiscal year, FY2022. While the target for reducing CO2 emissions per unit of business activity has not been met due to increased energy usage caused by changes in operational conditions resulting from global LNG supply-demand constraints, we will continue efforts to curb emissions through energy conservation measures. Progress on other target areas is proceeding smoothly.

Туре		Goal item FY2025 target value		FY2022 results	
	Global Warming Countermeasures	Amount of contribution to CO₂ reduction	1 million tonnes compared to FY2020	307 thousand tonnes	
		Amount handled of renewable energy power sources	250 thousand kW	93 thousand kW	
		Reduction of CO <sub>2</sub> emissions in business activities	-2% CO <sub>2</sub> emissions intensity /year	+3.4% compared with the previous year	
Environmental load reduction		Zero emissions of industrial waste at city gas plants	Maintain (1% or lower final disposal rate)	Maintained (0.3% final disposal rate)	
	Resource Recycling	Recycling rate of waste generated after gas pipeline construction	99% or more	99.7%	
	Resource Recycling	Promoting "3R" (reduce, reuse, and recycle) through business activities		Promotion of emission reduction and recycling through 3R initiatives such as waste recycling Company-wide rollout of in-house reuse activities Appropriate compliance with waste-related regulations such as the Act on Promotion of Resource Recycling Related to Plastics	
		Reduction in the use of natural mountain sand and crushed stone in gas pipeline construction	15% or lower compared to conventional engineering methods	10.0% compared to conventional engineering methods	
Biodiversity Conservation  Environmental Social Contribution  Technology Development		Sustenance and recovery of biodiversity through business activities and regional contribution activities, satoyama and forest conservation, and contribution to protection of local species		Certified company under the Aichi Biodiversity Company Certification Program     Maintenance and management of biotopes, and implementation of satoyama and orest conservation activities in collaboration with local governments     Planting of flower seedlings in the Western-style garden of Higashiyama Botanical Garden     Forest conservation volunteer activities in Nagoya Higashiyama Forest and Toho Gas Forests (Odai, Mitake, Seto)	
		Environment social contribution activities in collaboration with local communities, and contribution to resolution of regional and social issues		Company-wide cleanup activities Beautification activities around business locations (conducted bimonthly: Mizushima Gas Co., Ltd., etc.) Providing environmental learning opportunities through the Gas Energy Exhibition Hall (number of visitors: about 12,000) Offering special on-site classes and environmental education courses	
		Advanced use of energy and promotion of technical development for achieving carbon neutrality		<ul> <li>Initiation of verification testing for CO<sub>2</sub> separation and capture technology targeting factory exhaust gas</li> <li>Signing an agreement with the city of Chita for methanation verification utilizing biomass-derived CO<sub>2</sub></li> <li>Expansion of hydrogen-utilization support services for industrial combustion equipment and construction of a dedicated testing site</li> </ul>	

### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

#### **Environment**

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

#### Management of **Environmental Preservation**

Global Warming Countermeasures

Resource Recycling

**Biodiversity Conservation** 

#### Society

Governance

Business Report

External Opinion and Evaluation

# Management of Environmental Preservation

# **Environmental Load of the Value Chain**

Emissions of CO<sub>2</sub> and other greenhouse gases as well as other instances of environmental load occur throughout the entire value chain, including in such business activities as the manufacturing and supply of city gas, LPG, and electricity, as well as at different stages such as raw-material procurement and at customer locations.

In the gas business, a significant portion of greenhouse gas emissions occurs at customer locations, and so the Toho Gas Group devotes effort to mitigating these emissions. Additionally, we assess the state of greenhouse gas emissions and evaluate environmental load in relation to raw-material procurement sources. For our business activities, we also make effort to reduce greenhouse gas emissions through measures such as improving energy efficiency and energy conservation.

Greenhouse gas emissions Ram-material in the value chain procurement sources Customer SCOPE 3 locations Categories 1, 2, 3, and 4 (84%)1.58 million tonnes-CO<sub>2</sub> FY2022 SCOPE 3 10.94 million Business activities (1%) Category 11 9.2 million tonnes-CO<sub>2</sub> tonnes-CO<sub>2</sub> SCOPE 1 & 2 137 thousand tonnes-CO<sub>2</sub> SCOPE 3 Categories 5, 6, 7, and 9 Note: CO<sub>2</sub> equivalents 16 thousand tonnes-CO<sub>2</sub> including greenhouse gases such as methane and chlorofluorocarbons.



Release to the atmosphere Greenhouse gases 1,580 thousand tonnes-CO<sub>2</sub>

Portion thereof released during facility construction 50 thousand tonnes-CO<sub>2</sub>

134 thousand tonnes-CO<sub>2</sub> CO<sub>2</sub>Release to NOx 35 tonnes the atmosphere SOx 0 tonnes 38.593 tonnes Amount generated Industrial Reduction/recycling ration waste materials Amount of external disposal 1,467 tonnes

Release to the atmosphere Combustion of city gas 7.780 thousand tonnes-CO<sub>2</sub>

Combustion of LPG 1.430 thousand tonnes-CO<sub>2</sub>

To enhance the reliability of environmental data, the Toho Gas Group has obtained third-party guarantees for environmental data annually since FY2002. The data subject to guarantees, calculation criteria, and guarantee reports are available on our company's website under "ESG Data: Environmental Data 2023."

https://www.tohogas.co.jp/lang/en/approach/eco/eco-10/

Toho Gas Group's Value Creation

**Contents** 

Initiatives for ESG

**Environment** 

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

Management of **Environmental Preservation** 

**Global Warming Countermeasures** 

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 











#### **Environmental Management System** (EMS) Certification

We are working proactively to acquire EMS certification to enhance its environmental management. We have obtained the ISO 14001 certification at all city gas plants. Some subsidiaries have obtained Eco Action 21 certification from Japan's Ministry of the Environment. In addition, Toho Gas and its subsidiaries have also gained environmental certification from local authorities, such as Nagoya SDGs Green Partners.

Туре	Certified companies (offices)	
ISO14001	Toho Gas (Chita-Midorihama Works, Chita LNG Terminal, Chita Calorific Value Adjustment Center, Yokkaichi Works)	
Eco Action 21	Toho Gas Engineering Co., Ltd.	
Certification programs of municipalities	<ul> <li>Toho Gas (branch office, Minato AQULS Energy Center, etc.),</li> <li>Toho Liquefied Gas Co., Ltd. (Nagoya branch office, etc.),</li> <li>Toho Real Estate Co., Ltd. (Imaike Gas Building, etc.),</li> <li>Toho Gas Engineering Co., Ltd.</li> <li>Toho Gas Techno Co., Ltd. (branch office, etc.),</li> </ul>	

### Compliance with Environmental Laws and Regulations

The main environmental laws and regulations related to the Toho Gas Group are as follows. Under our environmental management framework, we conduct environmental law and regulation seminars, voluntary environmental audits, and the like to ensure proper compliance. There have also been no accidents or violations of regulations that would significantly impact the environment.

Туре	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	Waste Management Act, Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes, Act on Recycling of Construction Materials, Act on Recycling of Specified Kinds of Home Appliances, Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, Act on Promotion of Recycling and Related Activities for Treatment of Cyclical Food Resources, Act on Promotion of Resource Recycling Related to Plastics	
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 Trans	

# **Environmental Education**

Toho Gas Group provides environmental education by target employees. We hold environmental seminars on topics such as environmental policies and social trends for senior management. We also annually 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.

Name	Target	
Environmental training seminars	Senior management	
Environmental law training seminar	Managers and employees	
New employee training	New employees	

# Self Environmental Audits

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

# Implementation of Self Environmental Audits Implementation period

July through September, 2022

### Audit target

Workplaces of Toho Gas and subsidiaries whose operations relate to environmental laws and regulations

#### **Environmental auditors**

Individuals appointed in each department and subsidiary who have been confirmed to have acquired sufficient knowledge of environmental laws and regulations through environmental law training sessions and e-learning

Target laws and regulations	Key points of confirmation during audits	
Waste Management and Public Cleansing Act	Internal rule enforcement regarding pre-contract compliance checks for industrial waste disposal outsourcing (including confirmation of contractor's permit, contract signing, and on-site verification) proper operation of storage areas and the like, manifest issuance and retention, and status of submission of regular reports, and other such matters	
Act on Rational Use and Proper Management of Fluorocarbons	Implementation of equipment management ledger for GHP and other regulated containers under the Act on Rational Use and Proper Management of Fluorocarbons and regulatory inspection as well as thorough implementation of company rules on legal compliance check when disposing equipment	
Air Pollution Control Act	Thorough prior survey on asbestos before demolishing buildings	
Other environmental laws and regulations	Organizational check on requirement of filing for Construction Material Recycling Act	

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

#### **Environment**

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

#### Management of **Environmental Preservation**

**Global Warming Countermeasures** 

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Global Warming Countermeasures

# Basic Concept

Global Warming Countermeasures are an important management issue for the Toho Gas Group. As an energy business operator, Toho Gas Group is implementing countermeasures against global warming taking into consideration the value chain.

Toho Gas not only aims to reduce our own  $CO_2$  emission factor but also sets environmental action goals aimed at restraining  $CO_2$  emissions at customer locations. We promote a wide range of initiatives, including supplying environmentally friendly energy, switchover from other fuels to natural gas or LPG, promoting the adoption of advanced and highly efficient devices such as fuel cells, fostering the utilization of renewable energy in collaboration with local communities, as well as pursuing technological development and testing such as methanation and  $CO_2$  separation, capture, and utilization, all in the pursuit of achieving carbon neutrality by 2050.

# Climate Change Mitigation at Customer Locations

Toho Gas has set the target of contributing to CO<sub>2</sub> reduction through our business activities. The actual CO<sub>2</sub> reduction contribution for FY2022 amounted to 307 thousand tonnes-CO<sub>2</sub>.

# Transition to natural gas

Among fossil fuels, natural gas is an environmentally superior energy source with lower  $CO_2$  and NOx emissions upon combustion, and no SOx emissions. By transitioning fuel sources at customer locations, such as from petroleum and the like to natural gas, we are contributing to the reduction of  $CO_2$  emissions.

# Promoting implementation of high-efficiency gas equipment and systems

In addition to transitioning fuels, we introduce high-performance burners and other equipment to our customer locations, which can further reduce  $CO_2$  emissions.

We are alo advancing the adoption of energy-efficient equipment and systems, including household fuel cell systems like "Ene-Farm" for residential use, gas cogeneration

systems for commercial use, high-efficiency boilers, and gas heat pump (GHP) air conditioning systems.





Gas cogeneration system

Flow-through boiler

# Suppression of fluorocarbon emissions

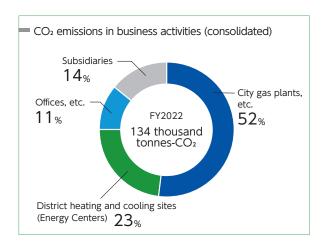
Fluorocarbons used in air conditioning equipment and the like have very high global warming potentials, making their emissions control a significant concern.

We conduct the collection of refrigerant fluorocarbons generated during maintenance and upgrading of commercial air conditioning equipment. In FY2022, we collected and appropriately processed the entire amount of fluorocarbons from the targeted equipment (1,291 units, with a collected amount of 13.9 tonnes of fluorocarbons).

# CO<sub>2</sub> reduction in business activities

The Toho Gas Group promotes energy-saving initiatives throughout various aspects of our business operations as an energy provider. In FY2022, the CO<sub>2</sub> emissions from our business activities across the entire Toho Gas Group amounted to 134 thousand tonnes-CO<sub>2</sub>.

We establish targets for global-warming prevention within each business sector, invest in energy-saving equipment, and implement thoroughgoing efficient operational management to achieve these targets. Consequently, we have consistently received the "Class S" (excellent performer) rating in the classification assessment of the Act on Rationalizing Energy Use.



# Initiatives at City Gas Plants

City gas plants use a manufacturing method of extremely high energy efficiency during manufacturing, in which vaporized gas is manufactured by heat exchange using seawater of liquid natural gas (LNG) at a temperature of around -160°C.

Toho Gas Group Sustainability Policy

**Contents** 

Toho Gas Group's

Value Creation
Initiatives for ESG
Environment

Information Disclosure Based on TCFD Opinions

Management of Environmental Preservation

Global Warming Countermeasures

Resource Recycling

Biodiversity Conservation

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 













Efficient utilization of the cold energy of LNG is made in supplying cold energy, manufacturing dry ice and liquid nitrogen in adjacent plants, and in advanced energy-saving equipment that reliquefies the BOG (boil-off gas) produced in LNG tanks.

In addition to these initiatives, pipelines built as back-ups between plants and to adjust inventory, for example, are also used to adjust the amount of gas sent to new plants as part of our efforts to further reduce the amount of energy used by reviewing operation methods for the overall optimization of operation methods at all LNG plants.

#### Initiatives in District Heating and Cooling

In district heating and cooling, we aim to achieve low carbon for entire neighborhoods by supplying hot water and thermal energy (cold energy and heat) for heating and cooling to

ı	I list of District Heating and Cooling Cites (Fragge Contage)
ı	List of District Heating and Cooling Sites (Energy Centers)
ı	

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

multiple buildings within an area and by optimizing equipment operation. We conduct heat-supply business in ten areas that Toho Gas operates directly and six areas in which we are invested in operations, mainly in the City of Nagoya.

At the Minato AQULS Energy Center, which is an example of the latest district heating and cooling, we are optimizing energy for the entire town by means of a community energy management system (CEMS) that utilizes exhaust heat during power generation and the unused energy of canal water in addition to distributed power sources that include gas cogeneration offering high overall efficiency, renewable energy, and storage batteries. Further, all condominium units in the area are installed with ENE FARM type S in rated operation around the clock as standard equipment, with excess power used town-wide. In this way, we are promoting local production and local consumption of energy.

#### Initiatives in Offices, etc.

In our offices, for example, we are striving to reduce  $CO_2$  through various energy-saving countermeasures, including the introduction of highly efficient gas air conditioning, LED illumination, and other energy-saving equipment, as well as low-emission vehicles.

To enhance the energy-saving awareness of each individual employee, we continue our efforts to curb increases in energy consumption by providing feedback on energy usage for each building, raising awareness about the Office Energy-saving Manual, and promoting practices such as turning off unnecessary lighting, optimizing air-conditioning temperatures, and reducing elevator usage.

# — Utilization of Internal Carbon Pricing

When considering investments such as adopting energy-saving equipment or upgrading existing equipment to high-efficiency models, we are experimentally implementing

internal carbon pricing.

We are consistently conducting evaluations of facility investments to restrain CO<sub>2</sub> emissions associated with business activities. In FY2022, we identified comprehensive company-wide measures for reducing CO<sub>2</sub> emissions and assessed the investment payback period, considering the CO<sub>2</sub> reduction effects. Using a carbon price range of 3,000 to 15,600 yen per tonnes\* as a reference, we evaluate implementation with priority given to high-efficiency, cost-effective, low-carbon initiatives, and have newly formulated investment plans for the enhancement of efficiency in city gas production facilities and the expansion of LED lighting in office buildings.

# TOPIC

# Participation in GX League

In March 2022, our company endorsed the "GX (Green Transformation) League Basic Concept" advocated by the Ministry of Economy, Trade, and Industry

We are also participating in the full-scale activities of the GX League that began in FY2023.

Through our participation in the GX League, we will

steadfastly advance efforts to reduce greenhouse gas emissions and collaborate with customers and partners, and work to bring about a sustainable society.



#### Contents

Toho Gas Group's
Value Creation

Initiatives for ESG

#### **Environment**

Toho Gas Group Sustainability Policy

Information Disclosure
Based on TCFD Opinions

Management of Environmental Preservation

Global Warming Countermeasures

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

<sup>\*</sup> Reference was made to the APS Scenario 2030 prices in the International Energy Agency (IEA) World Energy Outlook 2021.

# Resource Recycling

# Basic Concept

Due to the increase in resource usage amounts caused by the rise in the global population and economic growth, there are concerns that problems such as depletion of water and other natural resources and marine pollution by waste materials will become more serious.

Based on the Environmental Action Principles and Environmental Action Guidelines, Toho Gas Group has set Environmental Action Goals in the area of Resource Recycling, and is promoting the 3R (reduce, reuse and recycle) toward the reduced consumption of natural resources and the effective use of recycled resources through efforts that include zero emissions from industrial waste at city gas plants, recycling the waste generated from gas pipeline work, and the promotion of paperless business.

# Initiatives to Reduce Waste Materials and to Reduce Resource Usage Amounts in Our Business Activities

# Industrial waste at city gas plants

- Toward the achievement of zero emissions

At city gas plants, we have been working since FY2008 to achieve zero emissions (reduction of the final disposal rate for waste materials). As an environmental action goal, we have set a target of achieving a final disposal rate of 1% or less and have continued our activities accordingly.

For waste materials at plants, recycling of the sludge and mixed waste materials at seawater intake ports is an issue, and these account for 80% of the final disposal rate. For this sludge, we turned our attention to "graded recycling," which creates stable fluidization treatment soil by separating sludge by grain size into slurry, sand, silt, and cohesive soil and recompounding, and improved the recycling rate.

Additionally, for mixed waste, we have diligently sorted and separated materials to enhance the recycling rate.

### Recycling of Industrial Waste Materials Produced in Gas Pipeline Construction and Reduction of Amount of Natural Mountain Sand Used

Gas pipeline construction generates industrial waste in the form of asphalt and concrete lumps, which is classified as rubble, and used polyethylene pipes, which is classified as waste plastic. In an effort to limit asphalt concrete lumps and excavated soil, we have introduced shallow-layer pipe installation\*1, the trenchless pipe installation method\*2, and the pipe rehabilitation and repair construction and installation method\*3, and promoted the use of temporary filling material\*4 in construction requiring re-excavation. In FY2022, we reduced the amount of waste generated by 25% compared with conventional construction methods.

Furthermore, excavated soil is processed and recycled at the Soil Modification Centers, aiming for resource recycling as backfill material for gas pipeline construction. This effort has reduced the amount of external outflow of excavated soil by 75% compared to conventional methods. Additionally, in conjunction with the use of recycled crushed stone, the amount of natural mountain sand and natural crushed stone used in gas pipeline construction has been reduced by 10%

from the amount used in conventional methods.

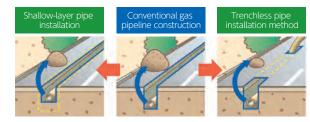
By reducing the new extraction of mountain sand, this initiative also contributes to minimizing the impact on ecosystem biodiversity.

Almost the entire volume of asphalt and concrete lumps is recycled a reclaimed asphalt mixture (pavement material). Used polyethylene pipes are recycled as raw materials for components that secure gas pipes and other uses. As a result, a recycling rate of 99.7% for industrial waste generated from gas pipeline construction has been achieved.



Trenchless pipe installation method

- \*1 Refers to burying a gas pipeline in a roadway at approximately half the conventional depth.
- \*2 Construction method of drilling at both ends of the construction area and pulling the gas pipe underground
- \*3 Construction method for repairing and renewing gas pipe from the inside \*4 Polystyrene blocks used as temporary backfill



#### **Contents**

Toho Gas Group's Value Creation

**Initiatives for ESG** 

#### **Environment**

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

Management of **Environmental Preservation** 

**Global Warming Countermeasures** 

#### Resource Recycling

**Biodiversity Conservation** 

#### Society

Governance

**Business Report** 

**External Opinion and Evaluation** 











#### Recycling of Used Gas Equipment and Other Materials

The Toho Gas Group has organized a system to collect used gas equipment and packing materials from customers, facilitating efficient resource recycling. In FY2022, this resulted in collection of 1012.7 tonnes of used equipment and 39.7 tonnes of packing material. Results for recycling of resources subject to the Containers and Packaging Recycling Act were 4.2 tonnes of plastic containers and packaging and 0.3 tonnes of paper.



Recycling used gas equipment

#### Reduction of waste materials and recycling resources

We are working to recycle general waste at our offices. Since 1996, we have been consistently devoting efforts to collecting waste paper, which accounts for the majority of waste generated. While the Toho Gas Group has long been advancing paperless practices, starting from FY2020, we have significantly increased the proportion of electronic approvals for business processes and further promoted paperless practices in major meetings and many other scenarios.

For kitchen waste from cafeterias, we are promoting recycling into fertilizers.

# Initiatives by Subsidiaries

Toho Real Estate Co., Ltd. had been placing amenities in every room of the Howa Seminar Plaza training facility with accommodation, but has changed to amenity bar style to provide amenities to only those that need them in response to the Act on Promotion of Resource Circulation for Plastics that went into effect in April 2022. Steps have also been taken to reduce plastic use, such as by switching from plastic straws to paper straws at the Cherry bakery cafe at Minato AQULS.

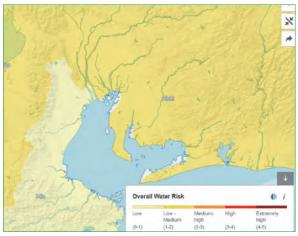


Amenity bar at Howa Seminar Plaza

# Responses for Water Risks (Water Security)

#### Evaluation of the Effects of Water Stress

The Toho Gas Group uses water resources for various purposes, such as gasification of LNG, and is aware of the importance of the effective utilization of water and evaluates the water stress and impact of the risk. We conduct evaluations using Aqueduct, which is issued by the World Resources Institute (WRI) every year, and confirm that the areas where the Group's major places of business and factories are located all have low water stress.



Taken from the Aqueduct Water Risk Atlas

#### Compliance with Regulation Criteria

In FY2022, we complied appropriately with regulations and agreements on water, and have experienced no accidents having major environmental impact, or any legal violations.

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

#### Management of Water Usage Amounts and Discharge Amounts

We assess the amount of water used generally in the form of municipal potable water in offices, the amount of industrial water, and the amount of well water, and work to conserve water used. For discharged water, we assess the amount of water discharged at discrete discharge sites and manage the quality of water discharged in accordance with laws and regulations concerning discharge as well as ordinances of local governments.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

#### **Environment**

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

Management of **Environmental Preservation** 

**Global Warming Countermeasures** 

#### **Resource Recycling**

**Biodiversity Conservation** 

#### Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Initiatives for ESG[ Environment ]

# **Biodiversity Conservation**

# Basic Concept

Our daily lives and business activities are supported by the natural resources, and if the biodiversity that is its basis is lost, the lives of people and company sustainability will be impacted in a major way.

Conservation of regional ecosystems is regarded as a critical issue affecting the Group's continuing development, and we are promoting activities with consideration for biodiversity, including the establishment and maintenance of biotopes, forest conservation, and other activities.

# Initiatives in Business Activities

#### Biotope Establishment

In 2000, we established a 7,500-m² biotope at the Chita-Midorihama Works, and in 2010 we established the 600-m² Biotope Place at the Gas Energy Exhibition Hall. We also installed an 800-m² biotope at Group-incepted Minato AQULS. In this way, we are working to conserve ecosystems, including rare local species, and to nurture endemic species. We are also having surveys of plant and animal species conducted by professional contractors.



Biotope at Chita-Midorihama Works

#### Eradication Activities for Invasive Species

We are conducting eradication activities for Argentine ants at our Technical Research Institute.

The Argentine ant is a species native to South America and has been specified as a "designated invasive alien species" under the Act on the Prevention of Adverse Ecological Impacts Caused by Designated Invasive Alien Species. We cooperate with the activities of Tokai City in Aichi Prefecture, and conduct monthly eradication efforts.

### Participation in the Inochiwotsunagu ("Connecting Life") Project

The Inochiwotsunagu Project s an initiative led by a student executive committee, in collaboration with 12 companies, administrations, experts, and NGOs in the Chita Peninsula coastal area. The project focuses on creating and conserving ecosystems in corporate green spaces and nurturing students as future leaders in building a sustainable society.

Toho Gas is actively participating in this project, working in collaboration with local students to engage in activities such as maintaining green spaces and biotopes and conducting eradication of invasive species and wildlife monitoring surveys at city gas manufacturing plants, including the Chita Midorihama Works.

#### — Conservation Activities Abroad

Toho Gas 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.

### TOPIC

Recognized as a certified enterprise under Aichi Biodiversity Company Certification Program

In November 2022, Toho Gas was recognized by Aichi Prefecture as a certified enterprise under Aichi Biodiversity Company Certification Program.

Aichi Prefecture has been implementing this certification program since FY2022 to promote biodiversity conservation efforts by companies and spread excellent practices within the prefecture. Toho Gas became one of the first companies to receive this certification. The recognition highlights our exceptional contributions to biodiversity conservation.



Aichi Biodiversity Company Certification ceremony

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

#### Environment

Toho Gas Group Sustainability Policy

Information Disclosure
Based on TCFD Opinions

Management of Environmental Preservation

Global Warming Countermeasures

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 











# SDG Contribution Activities in the Local Community

In our efforts to contribute to sustainable development goals (SDGs) in the local community, we collaborate with various municipalities, citizen groups (NPOs), companies, educational institutions, and others to implement activities.

Activity	Cooperating partner	Description
Tobo Gas Forests Mitake in Gifu Prefecture, region, where tree planting, thinning, clearing, and landscape maintenance a		Toho Gas has established Toho Gas Forest Odai, Toho Gas Forest Mitake, and Toho Gas Forest Seto in the three-prefecture Tokai region, where tree planting, thinning, clearing, and landscape maintenance activities are carried out by Group employees and family volunteers. We collaborate with local forest associations for some tasks, promoting activities with the support of the local community.
Satoyama Conservation	Nagoya Higashiyama Forest Conservation Group	In Higashiyama Forest in the City of Nagoya, which Japan's Ministry of the Environment has selected as an important satochi-satoyama with respect to biodiversity cooperation, we took part in activities with an NPO engaged in satoyama conservation, with Group employees and their family members carrying out thinning and other satoyama conservation efforts on a volunteer basis.
Biodiversity Education in Courses at Nagoya Open University of the Environment	Nagoya Open University of the Environment Center for Environmental Creative Studies	As part of Nagoya Open University of the Environment's registered courses, we held biodiversity courses for families, middle and high school students, utilizing the Biotope Plaza at the Gas Energy Exhibition Hall.
		We have sponsored and participated in Environment Day Nagoya events organized by the City of Nagoya since the year 2000. Through these events, we conduct awareness activities related to the 3Rs (reduce, reuse, recycle), CO₂ reduction, and biodiversity, promoting our ESG management and SDGs initiatives.
		In FY2022, we donated 500 bags containing seeds of the goya (bitter melon) and 728 goya (bitter melon) seedlings to the City of Nagoya, which were distributed to citizens at environmental events such as Environment Day Nagoya.
Higashiyama Botanical Gardens Hana-ippai "Many Flowers" Project	City of Nagoya Higashiyama Botanical Gardens	We have participated in preparing corporate flower beds in the Botanical Gardens since activities began in FY2008, with flower seedlings planted by employees and their families on a volunteer basis three times a year.
		We have been sponsoring environmental events on the theme of encountering nature held by Aichi Prefecture and an NPO at Expo Memorial Park since FY2011. We provide support for planning and operation.
Cleanup Activities (Local Cleanup Projects)	Individual Offices, Local Governments etc.	As part of our community contribution efforts, Toho Gas Group business sites engage in cleanup activities, particularly during June, which is Environment Month.



Tree-planting at Toho Gas Forest Odai



Nagoya Open University of the Environment Biodiversity Course



Exhibition booth at Environment Day Nagoya



Osampo de Ikimono Mikke

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

#### **Environment**

Toho Gas Group Sustainability Policy

Information Disclosure Based on TCFD Opinions

Management of **Environmental Preservation** 

Global Warming Countermeasures

Resource Recycling

**Biodiversity Conservation** 

Society

Governance

Business Report

External Opinion and Evaluation

# Contribution to the Local Communities

# Basic Concept

The Toho Gas Group is advancing efforts to contribute to a sustainable society, addressing diverse regional needs and challenges such as carbon neutrality and enhanced resilience. We are deepening our collaboration with municipalities, primarily in the three-prefecture Tokai region (Aichi, Gifu, and Mie), strengthening our engagement with customers, and striving to co-create new value. By addressing the emerging challenges in the region, we aim to contribute to achieving prosperity within the region.

### Initiatives for Coexistence with Local Communities

# Signing Comprehensive Collaboration Agreements with Municipalities

To collaborate with municipalities on activities that contribute to solving such local issues as achieving carbon neutrality and educating the next generation, we have signed comprehensive collaboration agreements with the cities of Okazaki, Hashima, Chiryu, Kuwana, Anjo, and Miyoshi.

By leveraging the knowledge and expertise we have

Agreement partner	Agreement name	Date of signing
Okazaki City	Comprehensive Collaboration Agreement for the Promotion, Etc., of Carbon Neutrality	November 2022
Comprehensive Collaboration Hashima City Agreement for Achieving a Zero Carbon City		January 2023
Chiryu City	Comprehensive Collaboration Agreement for Promoting SDGs	January 2023
Kuwana City	Comprehensive Collaboration Agreement for Achieving a Zero Carbon City	January 2023
Anjo City	Comprehensive Collaboration Agreement for the Promotion, Etc., of Carbon Neutrality	March 2023
Miyoshi City	Comprehensive Collaboration Agreement for Town Development	March 2023

accumulated, we will enhance initiatives that lead to coexistence with local communities through collaboration with municipalities, aiming to achieve a sustainable society.



Signing of the comprehensive collaboration agreement with Okazaki



Stage exhibition at an environmental awareness event held by Anjo City (an undertaking based on the comprehensive collaboration agreement)

#### TOPIC

#### Carbon Neutrality of Electricity and City Gas Used in Anjo City Public Facilities

Starting from April 2023, we have successively begun supplying CO<sub>2</sub>-free electricity and carbon-neutral city gas produced at installations like Anjo City's Environmental Clean Center trash-disposal facility to such public facilities as city offices and elementary schools in Anjo.

#### Adoption of Carbon-neutral City Gas in Miyoshi

Starting from April 2023, we have begun supplying carbon-neutral city gas to 20 facilities, including city offices, a municipal hospital, and all elementary and middle schools in Miyoshi City.

#### Regional Revitalization Through Regional New Power Generation

Toho Gas has jointly established regional new power companies with municipalities and other entities. These companies supply renewable energy generated within the community, such as from waste-to-energy, to public facilities, thereby promoting carbon neutrality in the region and contributing to locally produced and locally consumed energy. In FY2022, we established three new companies, expanding the total to five. In the future, through moves such as using business profits for reinvestment in further renewable energy proliferation and donations to the municipalities, we will contribute to regional revitalization.

Municipality	Power company name	Date of establishment
Matsusaka City	Matsusaka Shin-denryoku Co., Ltd.	November 2017
Okazaki City	Okazaki Sakura Electric Power Co., Inc.	March 2020
Suzuka City	Suzuka Green Energy Co., Ltd.	September 2022
Kariya City Chiryu City	Kariya Chiryu Mirai Electric Power Co., Ltd.	November 2022
Ichinomiya City	Ichinomya Mirai Energy Co., Ltd.	January 2023

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

#### Society

Contribution to the Local Communities

Promotion of Personnel Policies

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

Governance

**Business Report** 

External Opinion and Evaluation





















**Contents** Toho Gas Group's

Value Creation **Initiatives for ESG** Environment Society

Contribution to

Health and Safety

**Human Rights** 

Governance

Data Section

**Business Report** 

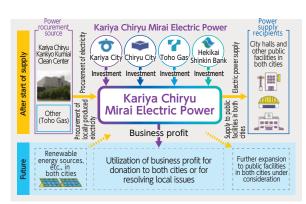
the Local Communities

Promotion of Personnel Policies

Initiatives for Occupational

Initiatives for Respect of

**External Opinion and Evaluation** 



Kariya Chiryu Mirai Electric Power business scheme

# Basic Agreement on Technical Cooperation with Municipalities

To further collaborate with the Nagoya City Waterworks & Sewerage Bureau on facility and equipment maintenance and management as well as human-resource development, Toho Gas Network Co., Ltd. has signed a Basic Agreement on Technical Cooperation.

Given the common tasks related to maintenance of pipeline equipment and human-resource development, this collaboration aims to resolve issues quickly and and enhance the efficiency of business operations through working together and cooperating in information exchange, joint inspections, and



Agreement signing ceremony (March 2023)

the like. Moving forward, we will continue to enhance safety measures, such as maintenance of gas equipment and emergency response, while further strengthening collaboration with relevant organizations, and we are working to continue providing safe and secure city gas usage to our customers.

# — Contributing to the Regional Community Through Minato AQULS

Minato AQULS is replete with water and greenery, and it creates a space that is harmonized with the environment, primarily for pedestrians to enjoy walking. Since its opening in September 2018, it has received many visitors. The development concept was "to be a town that fosters connections among people, the environment and the region" in order to resolve social issues in the region.

At Minato AQULS, we centrally manage the energy supply and demand within the area, and in FY2022, we achieved a 69% reduction in CO<sub>2</sub> emissions (compared to 1990 levels),

surpassing the initial target of 60%.

Also, condominiums that have obtained ZEH-M Oriented\* certification were completed in March 2023. Similar to the existing 265 units, all 238 units have been equipped with Ene-Farm type S. They operate at full capacity 24 hours a day, and the surplus power generated is distributed to other facilities in the community through the Energy Center. As one decentralized power source, this contributes to localized energy production and consumption.

In the future, with Minato AQULS as a Decarbonization Leading Area designated by the Ministry of the Environment, in collaboration with the City of Nagoya, while continuing our efforts at Minato AQULS to maximize renewable energy and implement advanced technologies, we will work to address local challenges and become a model for decarbonization which contributes to regional revitalization that improves the region's appeal and enhances the quality of life for residents.

\* "ZEH-M Oriented" refers to condominiums that reduce primary energy consumption by over 20% building-wide, including in shared areas.



Panoramic view of Minato AQULS



Decarbonization Leading Area Selection Certificate



# Contribution to the Local Communities

### **Expansion of Green Curtain Activities**

We have been working to expand energy-saving "green curtains" since FY2014 by making efforts to control rising temperatures in buildings using plants. In FY2022, we donated 500 bags containing seeds of the goya (bitter melon) and 728 goya (bitter melon) seedlings to the City of Nagoya, which were distributed to citizens at environmental events such as Environment Day Nagoya.



Certificate of appreciation presentation ceremony

# Protection Activities for Children and the Elderly

To deter child victimization, we, along with our sales outlets and construction companies, engage in crime prevention activities for protecting children. We designate about 200 business locations as children's emergency shelters," where children who feel unsafe can seek protection. Additionally, we have affixed "Child Crime Prevention Patrol Support Vehicle" stickers to approximately 2,200 of the Group's vehicles.

Toho Gas and Toho Gas Customer Service Co., Ltd. also entered into an agreement with local governments to cooperate in protection activities for the elderly as we work together toward creating local communities where the elderly can live in security.

# **Education for the Next Generation**

# — Activities Supporting Education in Schools

Toho Gas Network Co., Ltd. has conducted special classes to teach children who will lead the next generation about energy, the environment, and food.

In FY2022, we conducted programs such as "Let's Think! Energy and Disaster Prevention" and "Global Environment and Natural Gas" a total of 54 times in 24 schools. Starting from FY2023, we introduced a program called "Let's Make Roasted Sweet Potatoes" to experience energy-efficient cooking. We have also started engaging in collaborative activities with local groups and corporations.



Special class

# —Hosting EPOC Environmental Education Classes

We participate in the Environmental Partnership Organizing Club (EPOC), established primarily by members of the industrial sector in the Chubu region, and offer environmental education classes that help children perceive environmental issues as relevant to their daily lives.

In FY2022, we held 12 sessions of courses titled

"Learning Biodiversity through Biotope" and "Observation and Learning at the Exhibition Hall," engaging 343 elementary school students.



Environmental education class

# Environmental and Energy Education at Gas Energy Exhibition Hall

At the Gas Energy Exhibition Hall managed by Toho Gas, provide interactive exhibitions and experiences on the theme of "global warming and energy" that give elementary and junior high school students opportunities to consider the importance of the environment.

We also hold an "Eco Class" every month, where activities include observing creatures in the biotope, creating art using recycled materials, and collaborating with local universities to teach ecosystem conservation through quiz-based sessions.





#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Contribution to the Local Communities

Promotion of Personnel Policies

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

Governance

**Business Report** 

External Opinion and Evaluation





















#### Initiatives for ESG

#### Environment

Contents

Toho Gas Group's

Value Creation

#### Society

# Contribution to the Local Communities

#### Promotion of Personnel Policies

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

#### Governance

#### **Business Report**

#### External Opinion and Evaluation

#### Data Section

# Contributions to the Community Through Culture and Sports

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

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 FY2022, we received 4,498 entries and presented 109 awards, including the Most Moving Award and the Toho Gas 100th Anniversary Special Award.



Award presentation

#### Baseball Classes and Soft Tennis Classes

Toho Gas's soft tennis club holds tennis classes for elementary, junior high, and senior high school students at visited schools and elsewhere. In FY2022, team members acted as instructors at a Tennis Court Open Memorial Event held at Nanryo Junior High School in Tokoname City.

Our regulation baseball club also organizes baseball classes for local children. In FY2022, we held baseball classes for elementary school students and below at Minato

AQULS, where activities included strikeout practice and speed measurement with a radar gun, engaging around 200 participants.

We will continue contributing too the community through sports promotion activities.



Soft tennis class



Baseball class

# Toho Gas Pennant Boys' Baseball Tournament

To contribute to local sports promotion and the wholesome development of junior high school students, we have been collaborating with the Japan Boys League to host a boys' baseball tournament since FY1993. In FY2022, 29 teams participated, showcasing heated matches.



Youth Baseball Tournament



# Promotion of Personnel Policies — Strengthening Our Human Capital

# **Basic Concept**

Recognizing that people are the key to corporate growth, Toho Gas is making every effort to attract and develop a diverse range of human resources. Moving ever closer to the Toho Gas Group Vision of "what we aim to be in the mid-2030s," we strive to enable our diverse workforce to achieve their full potential while maximizing their engagement

through insightful human resource management that values diversity and inclusion in creating a safe, healthy, and comfortable workplace. Moreover, we are promoting personnel policies that emphasize respect for human rights and aim to eliminate discrimination based on race, gender, age, nationality, disability, or other attribute.

FY2022 Results
Engagement Rating BB
\*Results of engagement survey by Link and Motivation Inc.

# Human Resource Management

The goal of Toho Gas human resource management is to recruit, train, and place employees through fair and appropriate evaluation of individual ability coupled with suitable conditions of employment, thereby supporting the activities of personnel who handle our core businesses, including those with specialized expertise and management skills that propel our endeavors through times of change.

# Employment statistics

		Men	Women
Employee	Non-consolidated*1	1,312	326
numbers (people)*2	Consolidated	4,605	1,475
Average age (ye	Average age (years old)		
Average years o	16.4	17.4	
Number of gradu	62	27	
Number of mid-ca	28		
Number of re-hi	121		
Voluntary turno	1.	77	

<sup>\*1</sup> Data as of the end of March 2023. All figures except "Number of employees" are for non-consolidated employees. 
\*2 Fulltime employees, not including those on temporary assignment. 
\*3 Number starting in April 2023 
\*4 FY2022 Results 
\*5 Including part-time employees 
\*6 Results for 2022, including those on temporary assignment

# Human Resource Management Promotion Systems

Under the executive officer in charge of human resources, the Human Resource Department is taking the lead in implementing various policies in conjunction with departments and subsidiaries by enacting Management Policies that are in line with the Management Strategy. The key issues are deliberated by the Management Committee and reported to the Board of Directors.

#### Recruitment

We aim to employ persons who think and act for themselves and have a grounding that enables them to open a path to the future. In hiring, we make recruitment information publicly available via such means as the company website and recruitment seminars, and practice fair and unbiased hiring.

### Human Resource Development

In order to develop human resources capable of promoting change and dealing flexibly with decarburization, digitalization, and other changing business conditions, we provide our employees with the opportunity to achieve their full potential through a variety of effectively linked training programs, starting with on-the-job training (OJT) for learning practicable workplace skills and followed by group instruction outside the workplace (OFF-JT) as well as personal development. During FY2022, we launched a new program for all

management-level employees designed to help them improve the output of the organizations they oversee.

			Young Medium-ranked employees employees	Middle management
		Job/ Role-Based Training	Second year training, third year training, medium-ranked leader training, etc.	Labor management training, training for newly promoted supervisors, management training, and others
	Collective training	Elective/ Optional Training	Business skill enhancement training, basic skills enhancement training, interactive training with other industries,*1 DX training, etc.	Strategy Workshops* <sup>2</sup>
		Career Formation/ Diversity	Career training for women, Seminar on childcare leave and maternity leave	Diversity training
			Career training (ages 30, 40 and 50)	
	Self- development OJT		Acquisition of official certification	
			Distance education and external training	
			External study abroad, internal certification examination, etc.	<u>—</u>
			On-the-Job training	

<sup>\*1</sup> We provide training to develop employees' abilities through interpersonal exchanges with external members from different industries on the themes of leadership and innovation.

#### Transfer and Career Formation

Each year, we provide opportunities for employees to talk with their supervisors about their career plan, and these are used to confirm desired transfers and for career formation. We aim to deploy the right people in the right place so that employees can feel motivation and a job satisfaction.

We also support self-starting career formation by employees through study abroad programs, an internal recruitment system, and the like.

# Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

#### Society

Contribution to the Local Communities

#### Promotion of Personnel Policies

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

Governance

**Business Report** 

**External Opinion and Evaluation** 

<sup>\*2</sup> We provide training designed to help employees develop their management abilities by formulating corporate growth strategies, thereby nurturing candidates for future management positions.













**Contents** Toho Gas Group's Value Creation **Initiatives for ESG** Environment Society

Contribution to the Local Communities

Health and Safety

**Human Rights** 

Governance

Data Section

**Business Report** 

**Promotion of Personnel Policies** 

Initiatives for Occupational

**External Opinion and Evaluation** 

Initiatives for Respect of

Systems	Overview
Internal Offering System for New Business Ideas	We solicit new business ideas from junior and mid-level employees. Employees whose ideas are accepted are then transferred to the division where the feasibility of the new business is being studied.
Studying at domestic and international universities	Employees are sent to acquire cutting-edge, specialized expertise in business administration (MBA), project management, and other subjects.
Overseas language study	Training future international employees by means of online English conversation and brushing-up classes.
Fieldwork in overseas locations	In order to train overseas personnel, employees are dispatched to overseas offices to acquire the business English skills, expertize and know-how that are required in other countries.

Confirmation of desired transfers and support for career formation through interviews



The right person in the right place

Transfer planning policies for medium-ranked and young employees

Internal recruitment system



Improved motivation and job satisfaction

# Personnel Remuneration System

We have adopted a "diversified mission-grading system," a "target management system," and a variety of other policies designed to help us achieve our stated targets of "active participation by diverse human resources," "fostering of self-reliant human resources," "merit-based recognition." In addition to promoting personal growth in the workplace, our goal is to create job packages that inspire in our employees both a sense of satisfaction and the desire to achieve by providing them with suitable recognition of and feedback on their job performance.

# **Diversity and Inclusion**

With the aims of revitalizing the organization, strengthening competitiveness, and creating innovation, we are working to build an organizational climate to secure and train diverse human resources and to deepen mutual understanding.

Also, we actively appoint women and mid-career employees to managerial positions according to the nature and capacity of the individual.

#### A corporate culture that deepens mutual understanding

In order to create a corporate culture that is accepting of the diversity of individual employees and to enable individuals to demonstrate their maximum potential, in addition to conducting seminars and workplace meetings to deepen awareness of the significance and aims of promoting diversity, we are developing "Kaeru (change) Meetings"\* intended to resolve diversity issues in the workplace.

\*"Kaeru Meeting / Change Meeting" refers to a meeting to set the targets (ideal image) for teams, to extract the issues toward achieving that target, and set proposed improvements. \*Registered trademark of Work Life Balance Co., Ltd.

# TOPIC

#### Example of "Kaeru" Meeting/ Change Meeting Activities

To promote mutual understanding between members and communication, members create evaluation sheet for self and third-person evaluation between different pairs each month. This allows to increase interest in each other's work and improve teamwork.

We also offer opportunities for all members to

communicate during evening assembly or chat room, enabling all members to communicate with each other despite if they are working from home or at the office.



Change Meeting Activities

#### Advancement by Women

In order to promote the advancement of women, we are enhancing the systems relating to better employment and working systems as well as increasing the awareness of employment in management positions.

In terms of employment, we are actively publicizing that the company is a place where women can work comfortably and play an active role, including holding events for female students that are attended by female managerial staff. During FY2022, 32.8% of recruits hired for career-track positions were women.

In addition to setting up systems for child rearing leave and part-time work that go beyond what is legally required, we permit the use of accrued leave of absence (accumulation of elapsed paid leave) for treatment at fertility clinics and for visits to hospital gynecological departments. Also, we support career planning for female employees through training for junior and mid-level employees and middle management as well as interaction with internal and external role models in order to promote the career development of female employees.



Online seminar on maternity and childcare leave

# ●FY2025 Target

Number of women in management positions

30 or more

# •FY2022 Results

Number of women in management positions (3.4% of management positions are held by women.) \*Results for 2022, including those ontemporary assignment

Web Site

# Promotion of Personnel Policies — Strengthening Our Human Capital

#### Receipt of "Eruboshi" Certification

In July 2021, Toho Gas was recognized by the Japanese government with Eruboshi Certification for its efforts to promote opportunities for women in accordance with the Act on Promotion of Women's Participation and Advancement in the Workplace. Later, in May 2023, we were also recognized by Aichi Prefecture with Aichi josei kagayaki kampani certification.



Recognized by the Ministry of Health, Labour and Welfare with Eruboshi certification for excellence in promoting women's participation and advancement in the workplace.



Recognized by Aichi Prefecture with Aichi josei kagayaki kampani certification as a company where women can shine.

# — Advancement of Mid-Career Employees

In order to secure diverse personnel, we offer mid-career employment from a wide range of occupations. We are creating synergy with existing employees by means of assignments and training that make the maximum use of experience and specialisms. 28 mid-career employees were hired in FY2022 (mid-career employment ratio of 25.5%).

# Advancement by the Elderly

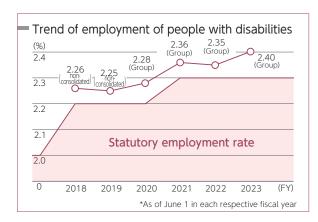
We rehire employees who reach retirement age but still wish to work. During FY2022, more than 80% of employees who reached retirement age continued to work, demonstrating the technology, skills, expertise, and experience they have developed during their careers.

To encourage work motivation and the ability to perform work roles by employees aged 50 years or older, we conduct career planning training for employees aged 50, and for employees at age 55, we hold career lectures and conduct individual interviews.

#### Advancement of Persons with Disabilities

We proactively hire people with disabilities in order to support their independence and social participation. In 2019, we established Toho Flower Co., Ltd. as a special subsidiary with the aim of achieving the legally mandated proportion of jobs for persons with disabilities for the Toho Gas Group overall and contributing to local communities.

As of June 2023, the Toho Gas Group's employment rate of people with disabilities is 2.40%, which meets the statutory employment rate of 2.3%. They are engaged in various work in a number of workplaces. We will continue to strive to expand workplace and occupational options.





Toho Flower worksite

# Improve Ease of Work

We strive to establish a positive workplace environment in order to balance and enrich the work and lives of employees.

#### —Promotion of Flexible Work Styles

To enable work to be accomplished autonomously and efficiently, we have introduced a work time system that includes a flextime system, a discretionary labor system, and reduced working hours.

To increase the flexibility of work styles even further, we are augmenting such teleworking systems and working from home and working at satellite offices, together promoting greater use of working online (web conferencing, internal business chats, electronic payment, and the like) so as to enable work styles while teleworking that are unchanged from on-site working.

# Support for Compatibility with Child-rearing, Care-giving, Recuperation, Etc.

To support compatibility with child-rearing, care-giving, recuperation, and the like, we have introduced a leave system, shorter-hours working system, and rehab on-site working system, and additionally establishing a consultation service staffed by experts.

We have also introduced a special leave system for participation in volunteer activities and an award system for employees who make contributions to local communities. In these and other such ways, we support the work-life balance of our employees.

### Newly granted recipients of childcare and caregiving leave (Number of persons)

0000	(I VUITIDE	i oi persons,			
FY	FY 2018		2020	2021	2022
Childcare leave	17(1)	23(2)	21 (5)	33(15)	39(25)
Shortened hours for childcare	12	15(2)	19(1)	7	20(2)
Caregiving leave	1(1)	2	1	1	0
Shortened hours for caregiving	1	0	2	1	1

<sup>\*</sup>Figures in parenthesis indicate the number of male employees.

#### Contents

Toho Gas Group's
Value Creation

Initiatives for ESG

Environment

Society

Contribution to the Local Communities

**Promotion of Personnel Policies** 

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

Governance

**Business Report** 

**External Opinion and Evaluation** 

<sup>\*</sup>Totals for Toho Gas and Toho Gas Network













## Percentage of male employees utilizing childcare leave

	Results for FY2022	Targets for FY2023
Percentage of male employees who received childcare leave or special leave for childcare	96.5%	100%

<sup>\*</sup>Percentage of male employees with newborn children who received childcare leave or special leave for childcare. The percentage of employees who took childcare leave was 29.4%.

<sup>\*</sup>Totals for Toho Gas and Toho Gas Network



#### Acquisition of "Kurumin" Certification

Toho Gas was recognized in 2018 by the Ministry of Health, Labour and Welfare with Kurumin Mark certification as a company that supports childcare. In 2023, we were further recognized for achieving a high level of support for childcare with Platinum Kurumin certification.

#### Improvement of Productivity

We are promoting the use of digital tools, such as robotic process automation (RPA) and chatbots for internal inquiries, the improvement of work efficiency by reviewing business processes, the creation of a comfortable working environment, and the elimination of dress codes as part of our efforts to demonstrate our strengths and individuality.

To help prevent long working hours, we comply strictly with the Agreement on Off-hours Work and Work on Days Off (Saburoku Kyotei - "36 Agreement"), together with periodically convening a labor and management committee concerned with working hours and work styles, thereby devoting effort to appropriate working-time management and revision of work styles. We have established working-time consultation services for both labor and management, and respond to individual consultations and inquiries.

#### Prevention of Harassment

To prevent harassment, including power harassment and sexual harassment, we conduct manager education and distribute guidelines, as well as engaging in such moves as holding workplace talks. We have also established a dedicated consultation service for employees troubled by harassment.

Harassment is stipulated to be prohibited behavior in our employment regulations, and disciplinary action for violators is provided for.

### Labor Relations Emphasizing Communication

We have adopted a union shop system in which 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 and sustain the working environment.

#### Compliance with Labor-related Laws and Regulations

The Toho Gas Group strives to comply with the Labor Standards Act and other labor-related laws and regulations. No major violations of labor-related laws and regulations occurred in FY2022. We will continue to monitor revisions to laws and other such trends, and promote appropriate responses.

# Main Balancing Support Systems (as of July 2023)

Item	Systems	Details
	Child-rearing Leave System	Can be used maximum of three times separately with maximum of two years in total from pregnancy to until the child reaches three years old.
	Postnatal Paternity Leave	Postnatal paternity leave is available until the infant eight weeks old. Up to four weeks of total leave may be taken in as many as two installments.
Child- rearing	Shortened work hours for childcare	Shortened work hours for childcare are available starting during pregnancy and lasting until the end of April the year the child enters fourth grade. For children with developmental or physical disabilities, availability lasts until the end of sixth grade. Working hours may be shortened in 30 minute increments for as much as two hours per day until the child finishes first grade and by as much as one hour per day thereafter.
	Prenatal and postnatal leave	As a general rule, six weeks before birth and eight weeks after birth.
	Special Leave for Spouse	Can be used within two month after spouse giving birth, and up to two days.
	Child-care Leave	Can be used until end of April of the fourth grade elementary school year child (end of the sixth grade elementary school year if the child has a mental or physical disability).
	Nursing-care Leave System	Can be used three time separately up with maximum of one year in total per person that require nursing-care.
Nursing- care	Nursing-care Shorter-hours Working System	Shortened work hours for caregiving are available in up to three installments and within a limit of five years for each person requiring caregiving. Working hours may be shortened in 30 minute increments for within a limit of two hours per day.
	Nursing-care Consultation Contacts	Offers external service for consulting on nursing-care via telephone and email.
	Flex-time System	Can be used without limitation of duration (excluding some work sites).
Othern	Fresh Up Annual Leave	Can be used to acquire paid leave three days in a row.
Other	Volunteer Leave	Can be used as special leave (paid) of maximum of five days per year.
	Local Community Contribution Award System	System that awards employees engaging in local community contribution for long time to promote participation in community activities.

#### **Contents**

Toho Gas Group's Value Creation

**Initiatives for ESG** 

Environment

#### Society

Contribution to the Local Communities

#### **Promotion of Personnel Policies**

Initiatives for Occupational Health and Safety

Initiatives for Respect of **Human Rights** 

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Initiatives for Occupational Health and Safety

# **Basic Concept**

Toho Gas believes that "ensuring the health and safety of workers is a cornerstone of fulfilling our social responsibility as a corporation" and makes every effort to ensure that our employees are able to enjoy a healthy, safe, and comfortable workplace. In addition to promoting health management, we strive to maintain an environment in which our employees will thrive over the long term.

#### Toho Gas Group Health and Safety Declaration

Toho Gas Group is working to evolve as an energy operator, to create diverse value in life and business and to promote solutions for social issues in order to contribute to a sustainable society.

It is our employees who support work and, therefore, ensuring the safety and health of our employees is the foundation for fulfilling our social responsibility as a corporation. We work to prevent occupational accidents, traffic accidents, and diseases so as to ensure the safety and health of our employees and create a comfortable working environment.

# Occupational Health and Safety Promotion System

Twice a year, we hold Central Safety and Health Board meetings chaired by the president to enhance company-wide health and safety management and to promote health. The board deliberates on the three-year action plan and the action plans for each year, reflecting the results in subsequent plans and reporting their content to the Board of Directors.

The Central Safety and Health Board also oversees the individual Safety and Health Boards and Workplace Safety and Health Councils that are in place at each company facility. These committees all work together to plan and implement company-wide health and safety activities. The Safety and Health Boards at each facility are structured so that at least half of its members are recommended by the labor union, so that our employees are active participants

in all health and safety activities.

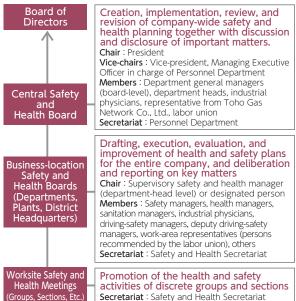
Health and

Safety Council

We also organize health and safety councils that include the participation of our partner companies in educating and enhancing awareness of both safety and quality issues together with on-site patrols and other measures intended to prevent accidents in the workplace.

We also have appointed safety and health liaisons at

### Occupational Safety and Health Management System

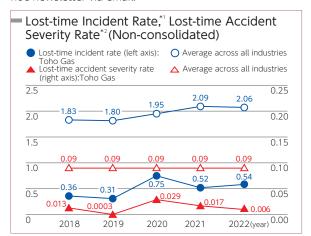


each facility, who lead efforts to promote individual wellness activities at work. Participation in walking challenges and other similar activities not only promotes health but also stimulates communication with coworkers.

### Status of work-related injuries

The incidence of lost workdays during 2022 was lower than average for companies with at least 100 workers across all industries. There were two incidents that resulted in lost-time injuries and no incidents that resulted in non-lost-time injuries reported during 2022, a decrease of one incident compared to the previous year. One of these incidents involved falling on an icy road, and the other involved falling to the ground from a height of 40 cm while working at a customer's home. Both incidents resulted in broken bones. In a typical year, fractures due to falls will account for 50% of all fractures.

In the aftermath of a workplace accident, we strive to prevent similar accidents by reporting on the accident, sharing information with all employees, and issuing an ad hoc newsletter via email.



<sup>\*1</sup> A safety indicator representing incidence of occupational accidents. Represents work stoppages caused by occupational accidents per 1,000,000 total work hours. Lost-time incident rate = (number of work stoppages) / (total work hours of workers) x 1,000,000

\*2 A safety indicator representing the number of workdays lost caused by occupational

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

#### Society

Contribution to the Local Communities

Promotion of Personnel Policies

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

Governance

**Business Report** 

External Opinion and Evaluation

Data Section

Web Site

accidents per 1,000 total work hours. Lost-time accident severity rate = (number of lost workdays) / (total work hours of workers) x 1,000







#### Toho Gas Group's Value Creation

Initiatives for ESG

**Contents** 

Environment

#### Society

Contribution to the Local Communities

Promotion of Personnel Policies

#### Initiatives for Occupational **Health and Safety**

Initiatives for Respect of **Human Rights** 

Governance

**Business Report** 

**External Opinion and Evaluation** 

Data Section





# —Group-wide Health and Safety Activities

We hold activities to share yearly health and safety policies and results of each company for mutual improvement.

In addition, we organize a Health and Safety Council including partner companies and make efforts to prevent work accidents throughout the Group by means and education and awareness of safety and quality and through on-site patrols, for example.

#### Occupational health and safety education and systems

#### **Experiential Safety Training**

We have established a training facility in the Head Office that showcases past cases of injury related to gas construction work and where risk can be experienced up close using dummies and the like. In an environment where

safety is ensured, persons can actually experience for themselves such hazardous conditions as falls, fire. electrostatic discharge, and landslides, which leads to the prevention of workplace accidents due to a heightened sense of danger.



Training facility

#### **Driver Certification System**

We have established an in-house driving-license system for employees who drive company-owned vehicles. Drivers obtaining one for the first time start with entry-level training and ride-along testing and suitability testing must be conducted at the time of renewal every five years, which helps to prevent traffic accidents. In addition, driving recorders are installed in all vehicles,

with superiors and others conducting sampling reviews of recorded video and providing guidance.



During guidance

# — Health Management Promotion

The Group is working to support health and to create a safe and comfortable workplace where employees can play an active role for a long time.

#### Comprehensive Medical Checkups

We have been collaborating with a health insurance society to conduct comprehensive health checkups that include more periodic health-check items than those mandated by Industrial Safety and Health Act, such as stomach and dental examinations as well as one-on-one interviews, thereby making thoroughgoing efforts to promote health from a younger age, and in prevention of lifestyle-related diseases. Our aim is to achieve an annual rate of 100% for periodic health checkups, and each year we have been sustaining this 100% rate.

#### **Health Consultation Contacts**

We established telephone and email contact points for health consultations with industrial physicians and public-health nurses that take a wide range of inquiries regarding mental or physical problems either from employees themselves or from their superiors, and effort is made to improve health through early action.

#### Mental Health Measures

Mental health education tailored to an employee's job level is available for new employees, mid-level employees, and managers as a primary prevention measure, and support activities for workplace improvement are conducted every year based on the results of group analysis of stress checks.

We also have made mental health counseling by public health nurses available as needed during comprehensive health checkups. For those employees who have been on leave, we have a return-to-work support program, in which industrial physicians and public health nurses work together with workplace supervisors and the Human Resources Department to provide support for those returning to work.

#### Passive-smoke Measures

While a preliminary separation of smoking and non-smoking areas was completed in 2012 by constructing indoor smoking rooms, we are currently preparing to move all indoor smoking to outdoor areas as well as to implement new rules regarding smoking. In addition, we provide employees who wish to quit smoking with access to smoking cessation services from both in-house and online clinics.

# Recognized As a "Certified Health & **Productivity Management Outstanding** Organization 2023 (White 500)"

In March 2023, Toho Gas was recognized jointly by the Ministry of Economy, Trade and Industry and the Japan Health Council a White 500 Outstanding Health & Productivity Management Organization for 2023 for the fourth consecutive year.



# Initiatives for Respect of Human Rights

# **Basic Concept**

We believe that protecting the dignity and respecting the rights of all stakeholders in our business activities is essential both to the development of a sustainable society and to our own parallel development as a sustainable business. Acting on this belief, we have established a Toho Gas Group Human Rights Policy in accordance with internationally accepted criteria, such as the United Nations Guiding Principles on Business and Human Rights. In this way, we show our commitment to contributing to the development of a sustainable society by conducting our business activities with respect for the human rights of our employees, customers, business partners, local communities, and all other stakeholders.

Toho Gas endorses and is a signatory to the Ten Principles of the United Nations Global Compact, through which we commit to meeting fundamental responsibilities in the areas of human rights, labor, environment, and anti-corruption.

# Toho Gas Group Human Rights Policy

#### Introduction

The Toho Gas Group establishes the "Toho Gas Group Human Rights Policy" (hereafter referred to as "this policy") and promotes initiatives for respecting human rights. This policy is based on the "Toho Gas Group Sustainability Policy" and was determined with the approval of the Board of Directors of Toho Gas Co., Ltd.

# 1. Our View on Respecting Human Rights

We support and respect international norms on human rights, including the United Nations "International Bill of Human Rights" and the International Labor Organization (ILO) "Declaration on Fundamental Principles and Rights at Work". We also strive to practice the United Nations "Guiding Principles on Business and Human Rights".

The officers and employees of the Toho Gas Group will promote initiatives for the respect for human rights based on this policy. We also expect our business partners to support this policy.

# 2. Applicable Laws

We will comply with the laws applicable in the countries and regions where we conduct our business activities. If there is a contradiction between internationally recognized human rights and the laws of each country and region, we will pursue ways to respect internationally recognized human rights standards.

# 3. Respecting Human Rights in Business Activities

In our business activities, we respect human rights and strive to prevent and mitigate adverse human rights impacts as follows:

**3-1** We will respond sincerely to our customers and strive to ensure safety and to improve quality.

- **3-2** If the adverse human rights impacts by business partners or other stakeholders is directly related to the business, products, or services of the Toho Gas Group, we will request our business partners to prevent and mitigate such impact.
- **3-3** We will respect the human rights of employees and strive to enhance and sustain a healthy and comfortable workplace.
- **3-4** We will understand the impact of our business activities on the local area and strive for coexistence with the local community.

# 4. Human Rights Due Diligence

Through ongoing efforts to build and implement a system of human rights due diligence, we strive to identify and assess the adverse impacts of our business activities on human rights, and take measures to prevent or mitigate these risks.

#### 5. Remediation

If it becomes clear that our business activities have adversely affected, or contributed to, human rights, we will strive for remediation through appropriate procedures.

# 6. Dialogue and Consultation

We will strive for dialogue and consultation to address potential and actual impact on human rights.

# 7. Education and Awareness

We will carry out ongoing education and awareness activities to deepen correct understanding and recognition of human rights.

#### 8. Information Disclosure

We will disclose our efforts to respect human rights based on this policy through websites and other means.

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

#### Society

Contribution to the Local Communities

Promotion of Personnel Policies

Initiatives for Occupational Health and Safety

Initiatives for Respect of Human Rights

Governance

**Business Report** 

**External Opinion and Evaluation** 

















Toho Gas Group is committed to preventing and mitigating negative impact on human rights through programs that enhance our employees' awareness of human rights and promote the prevention of discrimination and harassment.

# — Major initiatives

	Description
Employees	<ul> <li>Harassment awareness training</li> <li>Promoting Occupational Safety and Health</li> <li>Identifying latent risks through compliance awareness surveys</li> <li>Availability of counseling services</li> </ul>
Business partners	Request for action on human rights in accordance with our Human Rights Policy Request for action on human rights in accordance with our CSR Procurement Policies and Guidelines
Our customers and their communities	Protection of our customers' personal information Promoting environmental countermeasures (global warming, recycling, etc.)

# Supply chain initiatives

In cooperation with our business partners, we promote initiatives to respect human rights, including prohibitions against child labor, forced labor, and discrimination, in accordance with the Toho Gas Group CSR Procurement Policy and Guidelines.

Collaborating with our suppliers https://www.tohogas.co.jp/lang/en/ approach/eco/social/sce/

# Toho Gas Group CSR Procurement Guidelines

#### 1. Quality, Price, Delivery, and Maintenance Management, etc.

(1) Quality and Safety:

We request that our business partners provide products and services that meet the quality and performance standards required by our group, which are maintained for a reasonable period of time, and that ensure safety in use and operation. We also request our business partners to strive to maintain and improve their technical level.

(2) Price:

Considering specifications, quality, delivery, purchase quantity, and market price trends, we request our business partners to provide products and services at fair and reasonable prices.

(3) Delivery:

In delivering products and services, we request our business partners to adhere to the delivery deadline and strive to maintain a

(4) Maintenance Management & After-sales Service:

We request our business partners to maintain a system that can promptly and accurately conduct inspections, maintenance, repairs, and responses to accidents and malfunctions, and that can quickly provide necessary parts and technical assistance.

#### 2. Compliance

We request that our business partners comply with all relevant laws and regulations applicable in the countries and regions where business activities are conducted, and respect societal norms and ethics.

#### 3. Information Security

We request that our business partners strictly manage and protect any personal or confidential information collected through procurement transactions, and use it within legally permitted bounds. We also request our business partners thoroughly to implement measures to prevent the misuse or leakage of information.

#### 4. Environmental Consideration

We request our business partners to strive for environmental conservation and reduction of environmental impact. When procuring goods and services, we request for their cooperation in procurement that leads to a reduction in environmental impact, such as selecting products and services that have as little impact on the environment as possible.

#### 5. Human Rights & Occupational Safety and Health

We request our business partners to deepen their understanding of the importance of respecting the human rights and occupational safety and health of people affected by business activities, including the prohibition of discrimination, forced labor, and child labor. We request our business partners to respect human rights and strive for proper labor management and the maintenance of a safe and healthy work environment.

#### 6. Contribution to the Local Community

We request that our business partners consider the cultures and customs of the countries and regions where business activities are conducted, and strive to communicate with local communities.

#### 7. Approach to Business Partners (Supply Chain Management)

We request that our business partners not only engage in CSR procurement but also encourage their own business partners to do the same.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

#### Society

Contribution to the Local Communities

**Promotion of Personnel Policies** 

Initiatives for Occupational Health and Safety

Initiatives for Respect of **Human Rights** 

Governance

**Business Report** 

**External Opinion and Evaluation** 

# Corporate Governance

# **Basic Concept**

The Toho Gas Group, in accordance with our corporate mission, is committed to the development of a sustainable society by providing a stable supply of environmentally superior energy and the co-creation of new value even while meeting the demands of a changing society through challenges such as decarburization, digitalization, value diversification, and other issues. Thus, we continue to strengthen our corporate governance, thereby ensuring that we remain a corporate group that has earned the trust of our stakeholders.

#### —Corporate Governance Organization

#### — Corporate Governance Organizational Chart



# — Corporate Governance Organization List

Number of Directors (Outside Directors)	9(3)
Number of Audit and Supervisory Board Members (Outside Members)	5(3)
Number of Board of Directors' meetings (FY2022)	12
Number of Audit & Supervisory Board Meetings (FY2022)	12
Term of office of Directors	1 year



Board of Directors

# 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.

#### Directors

Position	Name	Attendance (FY2022)		
		Board of Directors	Attendance rate	
Representative Director, Chairman	Yoshiro Tominari	12/12	100%	
Representative Director, President	Nobuyuki Masuda	12/12	100%	
Representative Director, Executive Vice President	Shinichi Senda	12/12	100%	
Representative Director, Executive Vice President	Hidetoshi Kimura	12/12	100%	
Director, Senior Managing Executive Officer	Akira Torii	12/12	100%	
Director, Senior Managing Executive Officer	Satoshi Yamazaki	12/12	100%	
Outside Director	Tetsuo Hattori	12/12	100%	
Outside Director	Michiyo Hamada	12/12	100%	
Outside Director	Taku Oshima	12/12	100%	

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.

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

External Opinion and Evaluation



### —Audit & Supervisory Board

The Audit & Supervisory Board comprises five Audit & Supervisory Board Members, including three Outside Members. Each Audit & 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 & Supervisory Board Member also attends meetings of the Audit & Supervisory Board, convened on a monthly basis, for information sharing. The Company has set up the Audit & Supervisory Board Members' Office where full-time staff have been deployed to assist Members in the execution of their duties.

#### — Audit & Supervisory Board Members

		Att	endanc	e (FY2022	2)
Position	Name	Board of, Directors Meetings	Attendance rate	Audit & Supervisory Board Meetings	Attendance rate
Audit & Supervisory Board Member	Mitsuhiro Kodama	12/12	100%	12/12	100%
Audit & Supervisory Board Member	Hiroaki Kato	12/12	100%	12/12	100%
Outside Audit & Supervisory Board Member	Tamotsu Kokado	12/12	100%	12/12	100%
Outside Audit & Supervisory Board Member	Norikazu Koyama	12/12	100%	12/12	100%
Outside Audit & Supervisory Board Member	Keiko Ikeda	12/12	100%	12/12	100%

#### Outside Director and Outside Audit & Supervisory **Board Member**

Outside Directors and Outside Audit & 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 & 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 & Supervisory Board Members including Outside Members.

#### — Outside Director and Outside Audit & Supervisory Board Member (FY2022)

		Name	Reason for selection
	.or	Tetsuo Hattori	We have determined that his abundant experience as a corporate manager provides him with strong insight to offer valuable opinions on management overall.
Outside Director	Michiyo Hamada	We have determined that her abundant experience as a corporate legal scholar and as a member of the Fair Trade Commission Committee provides her with strong insight to offer valuable opinions on management overall.	
	Taku Oshima	We have determined that his abundant experience as a corporate manager provides him with strong insight to offer valuable opinions on management overall.	
	oard Member	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.
	Supervisory Boa	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.
	Outside Audit & Supervisory Board Member	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.

#### Evaluation of Effectiveness of Board of Directors

We evaluate all Directors and Audit & Supervisory Board Members based on surveys and individual interviews from the perspectives of standards and mechanisms, administrative management, roles and responsibilities and information-sharing/support systems, 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.

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 fixed remuneration (monetary remuneration), performance-linked compensation (monetary remuneration), and transfer-restricted stock-based compensation (non-monetary compensation) and, as a guideline, the payment ratio for (1) fixed remuneration, (2) performance-linked compensation, and (3) transfer-restricted stock-based compensation is (1): (2): (3) = 6:3:1. Outside Directors receive only fixed remuneration.

Fixed remuneration and performance-linked compensation are 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. Performance-linked compensation is indexed to items as goals in the Medium-Term Management Plan, and the state of achievement for the single fiscal year is reflected in remuneration by setting financial indicators such as consolidated ROA and non-financial indicators such as contribution to the reduction of CO<sub>2</sub>.

Transfer-restricted stock-based compensation has been adopted with the goal of further advancing shared value with shareholders and further heightening the willingness to contribute to enhancing medium- and long-term corporate value. Transfer-restricted stock-based compensation is set by resolution of the Board of Directors upon deliberation by the Nomination and Remuneration Committee, within a range of compensation amounts and numbers of shares in a framework that is separate from the foregoing range of remuneration determined at the annual shareholders meeting.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

# **Corporate Governance**

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & **Supervisory Board Members** 

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 

# **Corporate Governance**

#### — Director Remuneration Structure

	Fixed remuneration (monetary remuneration)	compensation	Transfer-restricted stock-based compensation (non-monetary compensation)
Internal Director	0	0	0
Outside Director	0	_	_

#### — Internal Director Remuneration Ratio (Standards)



# 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.

#### —Skills Matrix

With consideration for the agility of decision-making, the Board of Directors is comprised of Internal Directors who are thoroughly-familiar with the duties of each department and who understand and implement the corporate philosophy based on the social missions of providing stability and ensuring safety and security, and several Independent Outside Directors who have experience in various occupations and industries and deep insight.

In addition, the Board Members and Auditors have the skills that are required for sustainable growth and corporate value enhancement in the medium-to-long term.

#### — Amount of Director and Audit & Supervisory Board Member Remuneration, Etc. in 152st Term (FY2022)

Classification	Total remuneration	Total remu	Number of applicable		
Classification	(million yen)	Fixed remuneration	Performance-linked compensation	Transfer-restricted stock-based compensation	officers (person)
Directors (excluding outside directors)	243	155	62	26	6
Audit & Supervisory Board Member (excluding outside Audit & Supervisory Board Members)	48	48	_	_	2
Outside Directors	29	29		_	3
Outside Audit & Supervisory Board Members	29	29	_	_	3

<sup>\*1</sup> We provide performance-linked compensation to directors (excluding outside directors). Performance-linked compensation is calculated based on the goals in the Medium-Term Management Plan (return on investment, etc.), and the state of achievement in the previous fiscal year is reflected in the remuneration. ROA of previous fiscal year was 2.5%.

# - Skills Matrix of Directors and Audit & Supervisory Board Members

	Name	Corporate Management	Finance Accounting	Legal Risk Management	Human Resources Labor Human Resource Development	ESG	Sales Marketing	Technology Technology Development IT	Security Disaster Prevention Stable Supply	Internationalization
	Yoshiro Tominari	•				•		•	•	•
	Nobuyuki Masuda	•				•	•	•	•	
	Hidetoshi Kimura	•	•	•		•				•
Ors	Satoshi Yamazaki	•	•		•		•			•
Directors	Hidetaka Takeuchi	•	•	•	•		•			
Ë	Shinsuke Kagami	•					•	•	•	•
	Tetsuo Hattori	•				•		•		
	Michiyo Hamada			•		•				•
	Taku Oshima	•						•		•
sory	Mitsuhiro Kodama	•	•		•					•
pervis	Hiroaki Kato		•	•		•	•			
ASur	Norikazu Koyama			•	•	•				
Audit and Supervisory Board Members	Keiko Ikeda	•		•		•				
Aud	Akihiko Nakamura	•	•		•					

<sup>\*</sup> Main expertise and experience of Board of Directors and Audit & Supervisory Board

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

# Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

External Opinion and Evaluation

<sup>\*2</sup> In order to promote further value sharing with shareholders and to motivate directors (other than outside directors) to contribute to the enhancement of corporate value over the medium and long term, the Toho Gas allocates restricted transferable shares as non-monetary compensation to directors (other than outside directors). The period of restricted transfer shall be from the date of issuance of the restricted stock to the date that a director or executive officer retires from any position held at Toho Gas.

# 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

# Shareholder Return Policy

The basic policy for dividend payouts is to implement a Return to Shareholders of 40-50% of net income in dividends in the medium-to-long term in line with the flexible purchase and retirement of treasury stock

Based on the above policy, we have returned 40 to 50% of our consolidated net income to shareholders over the medium to long term. We generate a stable operating cash flow primarily from three energy sources: city gas, LPG, and electricity. We maintain a sound and stable financial base while also utilizing loans and other financial means to balance investment in our core and strategic businesses with returns to shareholders. The dividend for the fiscal year ending March 31, 2023, increased by 2.5 yen from the previous year to 60 yen per share for the full year, and we plan to pay that same annual dividend of 60 yen per share for the fiscal year ending March 31, 2024.

#### Shareholder Benefit Plan

Our shareholders receive shareholder incentive points based on the number of shares held and the length of time the shares have been held. These points can be exchanged for gourmet food and delicacies from the Tokai area and original, Toho Gas merchandise, or other catalog items, for donations to social action programs, and even to pay gas and electricity bills from Toho Gas.

# Communication with Shareholders and Investors

#### —Annual Shareholders Meeting

Toho Gas considers the Annual Shareholders Meeting to be an important opportunity for dialogue with our shareholders, and we make every effort to give frank and easy-to-understand answers to your questions, so that you will gain a deeper understanding of the Company.

At the Annual Shareholders Meeting for the fiscal year ending March 31, 2023, we undertook a proactive disclosure of information by having shareholders submit questions in advance in writing or via email and answering them at the meeting. We later posted a summary of these answers together with a video of the explanation at the meeting on the Toho Gas website.

●FY2023 Annual Shareholders Meeting (June 28, 2023)

Shareholders in attendance 143

Exercise of shareholder voting rights 84.8%



Annual Shareholders Meeting

#### —Communication with Individual Investors

As a community-oriented energy provider, Toho Gas seeks the long-term support of the people we serve, not

just as customers but as shareholders, as well.

During FY2022, we augmented direct communication with our shareholders in a face-to-face format with online briefings and streaming video via the Internet. Moving forward, we will continue to offer variety of opportunities for dialogue in providing our shareholders with an even deeper understanding of Toho Gas.

Results for FY2022
Number of meetings held



NSE IR Expo (September 2022)

#### —Communication with Institutional Investors

Toho Gas holds briefings on quarterly financial results for institutional investors and securities analysts. We also proactively hold individual meetings in order to enhance our sustainable growth and corporate value over the medium to long term. In addition, we make every effort to deepen understanding of our business by holding regularly scheduled investor relations activities for the financial institutions that are our bond investors.

During FY2022, we held four briefings on financial results and a total of about 100 individual meetings. We take the opinions and requests obtained during these IR activities and share them at management meetings and other in-house activities for use in enhancing corporate value.

#### Results for FY2022

Financial results briefing **4**(Quarterly)

Individual meetings
About 100 in total



# IR data

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

#### **Contents**

Toho Gas Group's
Value Creation

Initiatives for ESG

Environment

Society

Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 

# Initiatives for ESG[ Governance ]

# Internal Control

# Basic Concept (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."

#### 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)
- Risk management system

- Compliance system
- 4 Subsidiaries business management system
- 6 Audit system

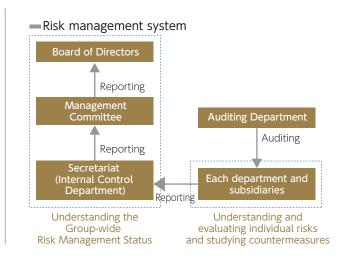
# State of Administration of the Internal Control System

# -Risk Management

# Risk management system

In accordance with our rules for risk management, Toho Gas works systematically to reduce risk by designating a department to manage a particular risk, and annual status reports of risk management within the Toho Gas Group are made to the Board of Directors via the Management Committee. Included in risk management are climate change and other risks related to ESG.

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 addition, important management issues are also deliberated from the perspective of risk management.



#### —Flow of risk management

Identifying risks faced by the Toho Gas Group according to the rules for risk dentifying risks management ·Systematically implementing risk reduction activities risk reduction ·Promote risk reduction measures for interdepartmental issues through the relevant committees ·Review and evaluate annual risk Evaluating and management activities reporting on risk reduction ·Annual status reports of risk management within the Toho Gas Group are made to the Board of Directors via activities the Management Committee. ·Anticipate risks for the coming fiscal year Improvements based on the status of implemented activities as well as on changes in the next fiscal year internal and external business environment.

# — Major risks that could affect Toho Gas Group businesses

- 1) Fluctuations in demand
- 2 Fluctuations in prices of raw materials
- 3 Fluctuations in prices of electricity procurement
- 4 Fluctuations in interest rates and other costs
- (5) Changes in energy policies, laws, regulations, systems, or other factors
- ⑥ Natural disasters
- 7 Disruptions in procurement of raw materials
- ® Disruptions in production and supply
- Disruptions in information systems
- Problems with gas appliances and facilities
- (1) Problems with the quality of products, services, and other items
- 12 Delays in the delivery of goods, materials, equipment, and other items
- (13) Changes in the investment environment
- 14 Noncompliance issues
- (15) Data leaks
- (6) Outbreaks of infectious disease

# **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

#### Governance

Corporate Governance

Communication with Shareholders and Investors

#### Internal Control

Compliance

Directors and Audit & **Supervisory Board Members** 

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 



# Disaster Preparedness and Business Continuity

City gas is indispensable to the daily life of our customers, and in order to protect our ability to supply city gas, we have established a management system and formulated a business continuity plan (BCP) based on the assumption that a disaster could occur at any time. We continuously conduct drills designed to sharpen our response to a large-scale disaster and strengthen cooperation with affiliates and partner companies.

Our BCP outlines goals to be met in responding to a major earthquake, such as "to prevent secondary disasters due to gas leaks while ensuring the safety of customers" or "to achieve prompt restoration of business by securing the personnel, equipment, and materials necessary to restore the gas supply to areas where it has been interrupted." The BCP also outlines response policies and methods as

# —Operation during emergencies

Occurrence of emergencies such as large scale earthquakes

Operations to maintain supply

Procurement of energy resources, gas production, supply adjustment, etc.

Emergency response operations (initial response) Prevention of secondary disasters, emergency security operations (responding to leaks, repairs). etc.

Emergency response operations (recovery work) Repair of pipelines, gas equipment safety checks, commencement of gas supply, etc.

Minimum maintenance of operations Financing, settlement of accounts, system maintenance management, meter reading, transportation pipeline patrols, etc. well as preparedness measures at facilities and plans to secure supplies of equipment, food, and other necessary materials.

# —Management of Subsidiaries

We support the development of internal control systems at subsidiaries, in an effort to strengthen internal control systems Group-wide.

Our subsidiaries and affiliated companies make decisions and report important matters to the Board of Directors in accordance with their own internal rules for the Board of Directors of each company.

In addition, we receive regular reports from our major subsidiaries and affiliates regarding their annual plans, financial results, operations, and activities related to internal control, as stipulated in our Regulations for Management of Affiliated Companies.

Having split-off of our Pipeline Network Division in April 2022, Toho Gas and Toho Gas Network have established Rules for Ensuring Neutrality in Pipeline Operations from the perspective of compliance with behavior regulations.

# Measures for information management and security

In accordance with our rules for document management, we preserve and manage documentation such as written statements (records of approval) and minutes of important meetings with a retention period suitable to the importance of the documentation. Additionally, we periodically conduct self-audits of document management and monitor the status of information storage and management.

Our Cyber Security Committee is responsible for overall control of cyber security throughout the company and for deliberating on the strengthening of cyber security measures. In addition, Toho Gas Group employees participate in targeted e-mail drills and online security training to enhance their awareness of security issues, and other training that simulates security incidents is conducted on an ongoing basis.

#### Internal Auditing

# Compliance with the Financial Instruments and Exchange Law

Under our Internal Control Reporting System for Financial Reporting in compliance with the Financial Instruments and Exchange Law, our relevant departments and affiliated companies conduct self-inspections to ensure that internal rules and check systems are properly established and operated, and further evaluation is performed by the Internal Auditing Department, after which the results sent to a professional auditing firm. In FY2022, this process confirmed that Toho Gas Group's internal control over financial reporting was effective and an internal control report was submitted to the Financial Services Agency.

# Internal Auditing

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

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 

# Initiatives for ESG[ Governance ]

# Compliance

# **Basic Concept**

For the 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, we hope that each employee will live up to the trust of customers.

# Corporate Code of Ethical Conduct (excerpted)

# (1) Basic guidelines

Toho Gas Group, desiring in earnest to keep the trust of its customers, shareholders, local communities, business partners, and other stakeholders, makes every effort to comply with both the letter and the spirit of all laws and regulations in contributing to local communities by undertaking honest and fair corporate activities while demonstrating common sense and respect for societal norms in our behavior. We also strive for coexistence and co-prosperity through timely and appropriate information disclosure and proactive dialogue with all concerned parties.

# (2) Guidelines for corporate officers and employees

- ① In addition to complying with all laws and regulations, we strive to demonstrate common sense and respect for societal norms in our behavior as well as to conduct ourselves as a good corporate citizen.
- ② In the course of our corporate activities, we will treat our customers, shareholders, local communities, business partners, and other stakeholders with sincerity and fairness, and maintain sound relationships with them.
- 3 We are committed on a broad scale to respecting human rights and embracing diversity as well as maintaining a friendly, safe, open, and comfortable workplace.
- ④ We will make every effort to contribute proactively to the community as one of its citizens.
- ⑤ We refuse to engage with antisocial forces that threaten the order or safety of the community, nor will we undertake any action that would benefit such forces.
- ⑥ All executive officers and other personnel responsible for leading our organization are to take the initiative in implementing this Code as well as to make every effort to foster awareness of ethics within the Toho Gas Group and ensure that this Code is followed by all our employees.
- ② All executive officers and other personnel responsible for leading our organization are to take it upon themselves to proactively address any and all violations of this Code by resolving the problem, investigating the cause, and taking action to prevent its reoccurrence. In addition, we will remain accountable to the community, clarify our authority and responsibility, and take strict corrective action even against ourselves.

Compliance Code of Conduct (Extracted from "Establishing a Relationship of Trust with Society")

#### [Social-contribution activities]

As an enterprise having close involvement with local communities, we actively contribute in projects conducive to regional development. We also support social-contribution activities, such as the volunteer activities that each of our employees perform.

#### [Initiatives against anti-social forces]

•We sever all connections to antisocial forces that threaten the order and safety of civil society and hinder sound business activities, and resolutely deny demands therefrom.

#### [Association with Related Parties and Anti-Corruption]

- Corporate entertainment and gifts that might pervert the occupational fairness or that go beyond the boundaries of what is socially-acceptable are not provided to related parties, including that which has the objective of acquiring or maintaining unjust profit or preferential treatment.
- In associating with public officials, including foreign public officials, we accept nothing that is contrary to the spirit of the National Public Service Ethics Act, Unfair Competition Prevention Act (Prohibition against the Provision of Wrongful Gains to Foreign Public Officials) or the relevant laws of other countries. Association with persons treated as public officials and the officers and staff members of organizations subject to provisions concerning bribery in special laws also conforms to this.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

#### Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

#### Compliance

Directors and Audit & **Supervisory Board Members** 

Messages from Outside Directors

**Business Report** 

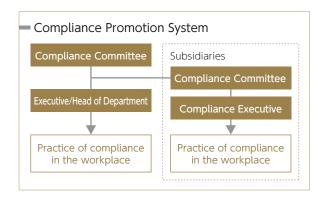
**External Opinion and Evaluation** 



### —Compliance Promotion System

The Toho Gas Compliance Committee is chaired by our president and includes all executive officers, general managers, and others responsible for overseeing compliance, meets at least twice a year to deliberate compliance activity plans and their results, and reports its findings to the Board of Directors. The general manager of a department is responsible for promoting compliance, while managers and section managers are responsible for implementing compliance activities.

We have also established a system for continuous oversight at each of our affiliated companies by naming a compliance executive and establishing a compliance committee.



# Compliance Consultation Service (Whistleblowing Hotline)

Toho Gas Group has set up Compliance Consultation Service both within the company and outside the company at a lawyer's office, where employees can consult directly in person, by e-mail, or by phone about legal compliance, maintaining a sound work environment (including harassment issues), and fair business activities. This service is available to all Toho Gas Group employees, whether permanent or temporary, as well as to retirees, business partners, and others.

In accordance with our rules for handling compliance consultations, Toho Gas will promptly investigate the facts of all matters raised during a compliance consultation. In the event that an investigation reveals noncompliance, we will take the necessary corrective actions and implement preventative countermeasures immediately. Additionally, we will provide employees who work at the Compliance Consultation Service with training and make every effort to ensure confidentiality, prohibit retaliatory treatment, and otherwise protect whistleblowers.

The reported information is strictly managed and monitored by an auditor, reported to management, and handled appropriately.

During FY2022 there were 43 consultations.

#### Education and Enlightenment Activities

Toho Gas Group conducts a wide variety of compliance training programs for employees at all levels. During FY2022, approximately 150 executive- and management-level personnel attended compliance seminars, roughly 30 attended labor management training for managers at affiliated companies, and a total of 16,500 employees participated in one of three online training sessions. In addition, we hold compliance meetings at each workplace and regularly publish a Compliance NEWS newsletter for all employees.

# Inspection and Survey Activities

Toho Gas Group conducts inspections of all its facilities on a regular basis to ensure compliance with all applicable laws and regulations. We also conduct annual surveys of all Toho Gas Group employees to ascertain their awareness of compliance and workplace culture issues and reflect the results of these surveys in our action plans. During FY2022, 6,484 employees responded for a response rate of 89.4%.

#### —Protection of Personal Information

Based on the Act on the Protection of Personal Information and various guidelines, we have established a personal information protection policy, personal information protection rules, and other internal regulations and manuals in an effort to take safety management measures and to handle personal information appropriately.

As part of our system for protecting personal information, we have established a Personal Information Protection Committee, which is chaired by the Personal Information Protection Manager, who is an executive officer appointed by the company president. The Committee also includes those supervisors responsible for protecting customer, shareholder, employee, and other types of personal information, who meet to deliberate on action plans for the protection of personal information and their results.

All Toho Gas Group facilities regularly conduct self-audits on the management of personal information, and we make every effort to ensure the security of our information systems by restricting access to personal information and preventing unauthorized access via the Internet.

#### Fair business activities

In April and October of 2021, Toho Gas was subject to on-site inspections and review of the terms and conditions of its electricity and gas transactions by the Japan Fair Trade Commission. We take this issue very seriously, and in addition to having established rules for handling contact with competitors, we have once again conducted training for executive officers and managers on compliance with the Antimonopoly Law. We are committed to strengthening compliance not just with antitrust laws but with all applicable laws and regulations at Toho Gas and at all our affiliated companies.

#### Contents

Toho Gas Group's
Value Creation

Initiatives for ESG

Environment

Society

#### Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

#### Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 

# Directors and Audit & Supervisory Board Members

# Directors

# Yoshiro Tominari

# Representative Director, Chairman



Apr. 1981 Joined the Company

Jun. 2003 General Manager of Production Planning Dept.

Jun. 2006 General Manager of Corporate Planning

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

Jun. 2010 Executive Officer, Executive General Manager of Research & Development

Jun. 2011 Managing Executive Officer

Jun. 2012 Director, Managing Executive Officer

Jun. 2015 Director, Senior Managing Executive

Jun. 2016 Representative Director, President

Jun. 2021 Representative Director, Chairman (current position)

#### Nobuyuki Masuda

#### Representative Director, President



Apr. 1986 Joined the Company

Jun. 2008 General Manager of Engineering Dept. Oct. 2009 General Manager of Production Planning Dept.

Jun. 2014 General Manager of Distribution Planning & Management Dept.

Jun. 2015 Executive Officer, General Manager of Distribution Planning & Management

Jun. 2017 Executive Officer, Executive General Manager of Distribution Division

Jun. 2018 Managing Executive Officer

Jun. 2019 Director, Managing Executive Officer

Jun. 2020 Director, Senior Managing Executive

Jun. 2021 Representative Director, President (current position)

### Hidetoshi Kimura

#### Representative Director, **Executive Vice President**



Apr. 1982 Joined the Ministry of International Trade and Industry

Jul. 2011 Director-General of Chubu Bureau of Economy, Trade and Industry

Jun. 2014 Senior Executive Director of Japan Finance Corporation

Jan. 2019 Joined the Company Apr. 2019 Executive Researcher

Jun. 2019 Managing Executive Officer

Jun. 2021 Director, Senior Managing Executive

Apr. 2022 Representative Director, Executive Vice President (current position)

- Assistant to President In charge of Auditing Dept. and Power Business Promotion Dept.

#### Satoshi Yamazaki

#### Director, Senior Managing Executive Officer



Apr. 1986 Joined the Company Jun. 2010 General Manager of West District

Headquarters Jun. 2012 General Manager of Finance Dept.

Jun. 2016 General Manager of Corporate Planning Dept. (Kikaku-bu)

Apr. 2017 General Manager of Corporate Planning Dept. (Keieikikaku-bu)

Jun. 2017 Executive Officer, General Manager of Corporate Planning Dept. (Keieikikaku-bu)

Apr. 2019 Executive Officer, General Manager of Corporate Planning Dept. (Kikaku-bu)

Jun. 2020 Managing Executive Officer

Jun. 2021 Director, Managing Executive Officer Apr. 2022 Director, Senior Managing Executive Officer (current position)

- In charge of Business Development Dept., Finance Dept. and Personnel Dept.

#### Hidetaka Takeuchi Director, Senior Managing Executive Officer



Apr. 1984 Joined the Company Apr. 2012 General Manager of East District Headquarters

Jun. 2014 General Manager of Home Systems & Appliance Sales Dept.

Jun. 2016 General Manager of General Affairs Dept. May 2018 General Manager of General Affairs Dept. Director and President of Toho Gas

Living Co., Ltd. Jun. 2018 Executive Officer Director and President of Toho Gas Living Co., Ltd.

Jun. 2021 Managing Executive Officer of the Company

Apr. 2023 Senior Managing Executive Officer

Jun. 2023 Director, Senior Managing Executive Officer (current position)

- In charge of Internal Control Dept., General Affairs Dept. and Public Relations Dept.

# Shinsuke Kagami

# Director, Managing Executive Officer



Apr. 1988 Joined the Company

Oct. 2009 General Manager of Engineering Dept.

Jun. 2014 General Manager of Production Planning Dept.

Jun. 2017 General Manager of Gas Resources

Jun. 2018 Executive Officer, General Manager of Gas Resources Dept.

Jun. 2020 Executive Officer, Executive General Manager of Production Division

Jun. 2021 Managing Executive Officer

Jun. 2023 Director, Managing Executive Officer (current position)

- In charge of Site Development Dept., Executive General Manager of Industrial & Commercial Gas

Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

#### Governance

Corporate Governance

Communication with

Shareholders and Investors

Internal Control

Compliance

**Directors and Audit & Supervisory Board Members** 

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 

#### Tetsuo Hattori

#### Outside Director



Apr. 1971 Joined Toyota Motor Co., Ltd.
Jun. 1999 Member of the Board of Directors of
Toyota Motor Corporation

Jun. 2003 Managing Officer of Toyota Motor Corporation

Jun. 2004 Senior Managing Director of Toyota Motor Corporation

Jun. 2007 Executive Vice President of Kanto Auto Works. Ltd.

Jun. 2008 President of Kanto Auto Works, Ltd. Jun. 2012 Senior Adviser of Kanto Auto Works, Ltd. Jul. 2012 Senior Adviser of Toyota Motor East

Japan, Inc. Jun. 2015 Outside Director of the Company

(current position)
Jun. 2016 Honorary Adviser of Toyota Motor East
Japan, Inc.(Retired in June 2018)

# Michiyo Hamada

#### Outside Director

Outside Director

Apr. 1985 Professor, Nagoya University School of Law

Apr. 1999 Professor, Graduate School of Law at Nagoya University

Apr. 2008 Dean, Nagoya University Law School Apr. 2009 Professor Emeritus, Nagoya University (current position)

Member of the Fair Trade Commission (retired in March 2014)

Jun. 2014 Outside Audit & Supervisory Board Member of the Company

Jun. 2020 Outside Director of the Company (current position)

# Taku Oshima

Outside Director

Apr. 1980 Joined NGK INSULATORS, LTD.

Jun. 2007 Vice President of NGK INSULATORS, LTD.

Jun. 2011 Senior Vice President of NGK INSULATORS, LTD.

Jun. 2014 President of NGK INSULATORS, LTD.

Apr. 2021 Chairman of NGK INSULATORS, LTD. (current position)

Jun. 2021 Outside Director of the Company (current position)

# Audit & Supervisory Board Members

# Mitsuhiro Kodama

### Audit & Supervisory

Apr. 1982 Joined the Company Apr. 2007 General Manager of Gas Resources

Jun. 2013 Executive Officer, General Manager of Gas Resources Dept.

Jun. 2014 Executive Officer, General Manager of Corporate Planning Dept.

Jun. 2016 Managing Executive Officer

Jun. 2017 Director, Managing Executive Officer Jun. 2019 Director, Senior Managing Executive

Jun. 2021 Audit & Supervisory Board Member (current position)

#### Hiroaki Kato

# Audit & Supervisory



Apr. 1984 Joined the Company

Nov. 2011 General Manager of General Affairs

Dept.

Jun. 2013 General Manager of East Nagoya District Headquarters

Jun. 2015 General Manager of Auditing Dept. Jun. 2019 Audit & Supervisory Board Member

(current position)

# Norikazu Koyama

#### Outside Audit & Supervisory



Apr. 1980 Joined National Police Agency Aug. 2001 Chief, Tottori Prefectural Police Headquarters

Aug. 2003 Director of Salary and Welfare Division, Commissioner General's Secretariat, National Police Agency

Aug. 2005 Director, Community Safety Planning Division, Community Safety Bureau, National Police Agency

Feb. 2007 Secretariat, Japan Police Personnel Mutual Aid Association Headquarters

Aug. 2008 Chief, Aichi Prefectural Police Headquarters

Jan. 2010 Vice President of National Police Academy and Councilor of Commissioner General's Secretariat of National Police Agency (in charge of Criminal Affairs Bureau)

Jan. 2012 Director General of Chubu Regional Police Bureau

Apr. 2013 Director General of Kanto Regional Police Bureau

Sep. 2014 Councilor of Japan Police Personnel Cooperative

Dec. 2014 Senior Director of Japan Police Personnel Cooperative

Jun. 2017 Senior Director of Council for Public Policy (part-time; retired in June 2021)

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

# Keiko Ikeda

#### Outside Audit & Supervisory



Ikeda Law & Patent Office)

Jul. 2000 Registered Patent Attorney

Apr. 2017 Chairperson of Aichi Bar Association

' (retired in March 2018) Apr. 2018 Chairperson of Chubu Federation of

Apr. 2018 Chairperson of Chubu Federation of Bar Associations (retired in March 2019)

Jun. 2020 Outside Audit & Supervisory Board Member of Toho Gas (current position)

# Akihiko Nakamura

#### Outside Audit & Supervisory



Apr. 1982 Joined The Tokai Bank, Ltd.

Jun. 2009 Executive Officer of The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Executive Officer of Mitsubishi UFJ Financial Group, Inc.
(retired in May 2010)

May 2012 Managing Executive Officer of The Bank of Tokyo-Mitsubishi UFJ, Ltd.

May 2015 Managing Executive Officer of Mitsubishi UFJ Financial Group, Inc. (retired in May 2018)

May 2016 Senior Managing Executive Officer of The Bank of Tokyo-Mitsubishi UFJ, Ltd.

Apr. 2018 Senior Managing Executive Officer of MUFG Bank, Ltd. May 2018 Deputy President of MUFG Bank, Ltd.

Jun. 2018 Member of the Board of Directors, Deputy President of MUFG Bank, Ltd.

Jun. 2022 Senior Advisor of MUFG Bank, Ltd. (current position)
Jun. 2023 Outside Audit & Supervisory Board Member of Toho Gas
(current position)

Value Creation

Contents

Initiatives for ESG

Environment

Society

#### Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

External Opinion and Evaluation



# **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

#### Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

Messages from Outside Directors

**Business Report** 

External Opinion and Evaluation

# Aligning the Vectors of All Members and Concentrating All Strengths Are Important



Tetsuo Hattori Outside Director

# ■Important Issues for Future Efforts

I believe the important issues are achieving the Group Vision and reaching the goals set in the Medium-Term Management Plan. At present, various departments and areas within the Toho Gas Group are working toward realizing the Group Vision, breaking down the goals and specific action plans in alignment with the Medium-Term Management Plan. However, achieving the vision cannot be accomplished by just one department or division. It is important to share information across the entire Group, align the vectors of all members, and concentrate all strengths, and effective Group communication plays a vital role in this.

To strengthen communication, it is crucial to institutionalize the practice of swiftly relaying the discussions and decisions made in board meetings, management

conferences, departmental meetings, and the like from the respective leaders to the employees. I hope to foster a culture where all employees are aligned in their vectors and efforts.

One of the themes in the Medium-Term Management Plan is "Create diverse value" and with respect to this, it's essential to be sensitive to societal and business changes, and to incorporate customer feedback into our products and service offerings. As we reform our sales areas, I would like to promote activities that facilitate prompt communication with relevant departments and stakeholders, deriving from the voices of our customers.

Contributing to the achievement of the SDGs is also crucial. However, since implementing many SDGs at once can be challenging, we should focus on strengthening initiatives for coexistence with local communities and all work together as employees to steadily address prioritized challenges.

The world is constantly changing in a global and rapidly fluctuating manner, and the future remains uncertain. Sensing and being responsive to the changes in economic activity, I want to face these changes without fear, stay grounded, take a patient and composed approach, and embrace a sense of urgency as we venture into new initiatives.

# Assessing the Effectiveness of the Board of Directors

In this rapidly changing era, the Board of Directors engages in valuable discussions within an atmosphere that encourages open expression. In the future, I believe it would be beneficial to have opportunities for discussion on the progress, challenges, and concerns related to themes, projects, and other matters addressed in the management plan, categorized by theme and project.

# My Experience, Expertise, and the Role of Outside Directors

I have been primarily responsible for product planning, development, and technical planning and development. When we develop new products or introduce new technologies to the world, our fundamental principle is to ensure that our customers don't encounter any inconvenience. Throughout each step of the development process (planning, design, prototyping, pilot production, and mass production), we meticulously check and evaluate everything from the materials used to the functionality and performance of the product, making sure it can adapt to various environments (usage environments and usage conditions), ensuring that nothing was overlooked in the development process. While this has been both enjoyable and challenging for me as a developer, there have also been grueling times.

Looking ahead, Toho Gas is likely to introduce a diverse range of new products and technologies, including energy and service equipment related to decarbonization. For any company, earning reliability lies not only in the technical aspects of its products but also in its commitment to ESG management. Building upon the tradition of "safe and secure Toho Gas" cultivated over its long history, I aspire to contribute my experiences, meager though they are, and join forces with everyone to create a trusted brand for a new era.

#### Contents

Toho Gas Group's
Value Creation

Initiatives for ESG

Environment

Society

Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

**Messages from Outside Directors** 

**Business Report** 

**External Opinion and Evaluation** 

# Messages from Outside Directors

# From an Objective Standpoint, Contributing to Governance Reform and the Sustainable Growth of Business



Michiyo Hamada Outside Director

# ■Important Issues for Future Efforts

Carbon neutrality (CN) is a significant global-level objective, and for Toho Gas, as an energy operator, it represents the most critical challenge worth pursuing wholeheartedly. The turbulent energy environment on a global scale, and we must inject capital and human resources into strengthening research and development as well as our supply capabilities with a heightened sense of crisis and mission. On the sales front, we need to make innovative strides that can lead customer needs toward CN objectives.

Additionally, "Contribute to the SDGs," one of the action themes of the Medium-term Management Plan, means that Toho Gas will do its best to facilitate the smooth transition of industries and lifestyles toward CN in the region. This

endeavor is pivotal for realizing a sustainable society and also constitutes the core of our social contributions.

Throughout our business operations, it is essential to be fully attentive to such social issues as respecting human rights, promoting diversity, and supporting the employment of people with disabilities.

It is also important to boldly embrace fair market competition, enhance business profitability, and earn favorable evaluations from shareholders and investors. Additionally, alongside our efforts for CN-related research and development and contributing to sustainable development in the region and for humanity as a whole, we should strive to maintain an appropriate balance between growth investments and shareholder returns. We also must remember to ensure that our employees enjoy a fulfilling and supportive working environment that rewards their challenges and personal growth.

# ■ Assessing the Effectiveness of the Board of Directors

With respect to the evaluation of the effectiveness of the Board of Directors, the Corporate Governance Code has become a significant driving force. Many companies, including Toho Gas, are continually working on analyzing and evaluating the effectiveness of their boards, leading to a sustainable improvement in board functionality.

We have been conducting annual surveys and aggregating evaluations from all directors and auditors, and based on analysis of these, we have steadily improved the effectiveness of the Board of Directors. I am pleased that recently, opportunities for real on-site inspections by

outside officers and face-to-face discussions have increased, thanks to the waning of the pandemic.

# My Experience, Expertise, and the Role of Outside Directors

As a corporate law scholar, I have conducted research for over half a century, focusing on the evolution of Japan's corporate system and comparing it with systems in various other countries. Throughout this time, I have continued to offer suggestions for legislative and legal interpretation improvements. In recent years, the role of soft laws, such as corporate governance codes, has been increasingly emphasized, and I've been attentive to this trend from a legal scholar's perspective. In my current position as an Outside Director, I have been given the opportunity to be involved in Toho Gas's corporate management, allowing me to gain firsthand experience in the progress of governance reform. Leveraging this valuable direct experience in both my role as a corporate legal scholar and as a director, I am committed to effectively fulfilling the supervisory role expected of directors with respect to execution of operations. I intend to contribute to the further advancement of governance reform and the sustainable growth of our company by consistently expressing my opinions from an independent and objective standpoint to the management side.

Furthermore, I believe it is crucial to focus on enhancing the work environment and job satisfaction for each employee in their respective workplaces, and I especially intend to closely monitor the degree of progress in cultivating a culture of legal compliance and promoting women's active participation.

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & Supervisory Board Members

**Messages from Outside Directors** 

**Business Report** 

External Opinion and Evaluation

# Leveraging My Experience as a Tech Specialist and Business Leader for Toho Gas's Management



Taku Oshima Outside Director

# Important Issues for Future Efforts

The world is already moving towards the 2050 carbon neutrality (CN) goal. Toho Gas has clearly outlined its vision for 2050 and what to aim for in the mid-2030s as part of the Group Vision, but the most crucial challenge is how we will proceed to achieve it. The Vision's realization will not be easy, and it largely depends on the collective efforts of our employees. Individuals must each clearly recognize their roles and show a proactive attitude in facing challenges, and as management, we need to provide a clear action plan and followup. I consider staying attuned to technological advancements in the world and being flexible to make adjustments when necessary are vital aspects.

In the pursuit of "Promote carbon neutrality," our

Medium-term Management Plan focuses on promoting low-carbon and decarbonization efforts in the short term. as well as exploring future decarbonization of gas itself through technological development. Fuel conversion to city gas, which is connected to CN support for our customers, and supplying carbon-neutral LNG are advancing. We have also embarked upon research and development on key technologies for CN realization, such as combustion technology for hydrogen utilization and the evaluation of CO<sub>2</sub> separation and capture. We eagerly await the establishment of these new technologies.

Last year marked our centennial anniversary, and with our Group Vision in place for the future, we stand on a new starting point. We now have clear directions and defined tasks to accomplish, and the challenge lies in how we face them and turn them into results.

I had the opportunity to visit Israel, a startup powerhouse leading the world. I saw with my own eyes the remarkable advancement being made by Israel, a nation composed of the Jewish people, who elsewhere are in the minority. Their progress is founded on a historical sense of urgency, which drives unwavering dedication to education and a thirst for learning. Their approach revolves around developing technologies and software with a global perspective in mind, always aiming for international relevance. The future of Toho Gas will be upheld by the individual strengths of each employee, and it is crucial to extract the maximum capabilities from everyone and ensure a management approach where each individual excels in their respective field. I am determined to collaboratively establish such a framework.

# ■ Assessing the Effectiveness of the Board of Directors

The current resolution and reporting items in the Board of Directors are appropriately set, and I feel that open discussions and exchanges of opinions take place during the meetings. Previously, apart from daily performance reports, most of the discussions were on individual approval cases, but we can expect the need for more followup on important themes in the future. I would like to have regular exchanges of opinions with the executive team on the themes addressed by the Board of Directors.

# My Experience, Expertise, and the Role of an Outside Director

I come from a company engaged in the manufacturing and sales of ceramics, a completely different industry from Toho Gas, which is involved in infrastructure businesses. However, despite the fact that the companies handle different business areas, the fundamental principles and approaches towards work remain common. As someone with experience as a tech specialist and an entrepreneur, I hope to contribute, even in a small way, by applying the knowledge and insights gained from my successes and failures to Toho Gas's management.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

Corporate Governance

Communication with Shareholders and Investors

Internal Control

Compliance

Directors and Audit & **Supervisory Board Members** 

Messages from Outside Directors

**Business Report** 

**External Opinion and Evaluation** 

# City Gas Business

# **Business Overview**

Toho Gas rolls out the city gas business through its gas pipeline network that covers approx. 30 thousand km centering in Aichi, Gifu and Mie prefectures. We are engaged in everything from the procurement of raw gas materials through to manufacturing, supply, sales, pipeline construction for gas

supply and the sale of gas equipment.

City gas sales volumes decreased 4.4% year on year to 3.45 billion m<sup>3</sup>. Residential use fell 8.8% due to high temperatures and energy conservation, while commercial use was down 3.4% due to decreased production caused by a shortage of parts and other factors.

2021 2020 2022 288.6 324.4 460.3 Net Sales (billion yen) 9.8 9.0 46.1 Operating Income (billion yen) 3.61 3.61 3.45 City Gas Sales Volume (billion m³)

Despite decreased sales volumes, net sales of city gas increased 41.9% year on year to 460.3 billion yen, and operating income increased 412.1% year on year to 46.1 billion yen, as the raw materials cost adjustment system allowed us to reflect increased costs in unit prices.

# Realization of low-cost and stable procurement

# Building an LNG procurement portfolio that is resilient to changes in the business environment

Amid tight supply and demand in the LNG market, we will secure sufficient procurement volume, primarily through long-term contracts. We will also continue building a procurement portfolio that is resilient to changes in the business environment, while making every effort to maintain both price competitiveness and supply stability.



#### Promoting a dynamic response to changes in the business environment

Prepare and implement a flexible yet dynamic response to sudden changes in supply and demand. We are also planning upstream development and investment in LNG carriers to strengthen the LNG value chain.



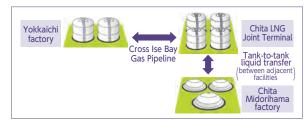


Ichthys central processing facility

LNG Canada project (under construction)

# Flexible operation of LNG receiving terminals

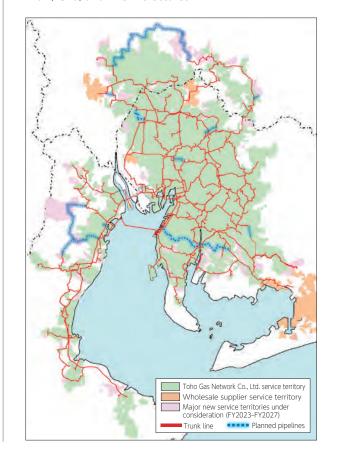
Flexible operation of our receiving terminal is achieved by utilizing both the Cross Ise Bay Gas Pipeline and tank-to-tank liquid transfer facilities.



# Ensuring safe, secure, and stable supply

### Improvement of supply infrastructure

As of the end of FY2022, Toho Gas Network Co., Ltd. maintains and operates approximately 30,000 km of gas pipelines in the Tokai region, supplying city gas to 76 municipalities (54 cities, 21 towns, and 1 village) in Aichi, Gifu, and Mie Prefectures.



#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and **Product Development** 

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

#### — Promoting disaster preparedness for earthquakes, tsunamis, and other natural disasters

We have completed disaster preparedness countermeasures against large-scale earthquakes, such as the reinforcement of LNG receiving pipelines for city gas production, and against tsunamis, such as increasing the elevation of



"Tsunami screen" as a countermeasures against flotsam from\ factories

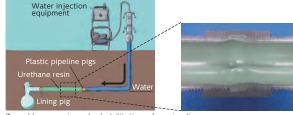
facilities. Moving forward, we will continue to enhance our disaster response capabilities by improving software measures.

We have adopted a three-pronged approach to disaster preparedness for earthquakes, windstorms, floods, and other natural disasters. This three-pronged approach includes "preventive measures," which are designed to protect gas pipeline supply facilities against earthquakes and tsunamis; "emergency measures," which are intended to prevent secondary disasters in severely damaged areas by temporarily suspending the supply of gas; and "restoration measures," which are implemented in cooperation with regional gas retailers and nationwide gas utilities in the event of a large-scale earthquake. We also are strengthening our ties with local communities by coordinating our response to natural disasters with local governments and administrative agencies.

## Promoting countermeasures for older equipment

We are steadily promoting countermeasures for our city gas plants, such as the replacement of aging electrical equipment and instrumentation.

We are steadily implementing measures for our gas pipelines that are prioritized according to the type of pipe and the soil in which it is buried together with periodic inspection



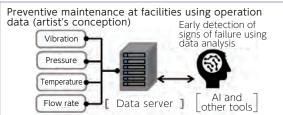
Trenchless repair and rehabilitation of service lines

and testing of gas facilities. We are also developing and introducing into use trenchless methods for the installation as well as the repair and rehabilitation of gas pipelines.

#### —Promoting efficient operation by introducing digital technology

The introduction of digital technology affords us greater efficiency and sophistication in the operation and maintenance of our city gas plants.





Smart meters, which will be introduced in fiscal 2023, enable remote monitoring of customer conditions. In addition to improved efficiency during ordinary meter reading, early detection of on-site abnormalities will enable us to respond in a timely and reliable fashion. What is more, in the event of a natural disaster, remote shutdown and startup of service can be expected to help expedite restoration work.



In addition, the introduction of 3D pipeline burial information and other advanced digital technology will promote efficiency and sophistication in on-site. management, and maintenance operations.

In addition, we are promoting more efficient gas pipeline replacement by prioritizing and targeting areas that are predicted to exhibit deterioration using AI developed in collaboration with the U.S. startup company Fracta. We also plan to market a system developed jointly by Toho Gas Network and Fracta.



Data acquisition

Creating 3D drawings

Technology for 3D gas pipeline burial information

#### TOPIC

#### Sales of gas production and supply technology to third parties

Toho Gas has developed a compact electrical power generation system that utilizes the unused energy source of pressure differential in city gas, and is preparing to sell this system to third parties. By integrating a Electrical power turbine turbine and generator into a single generator



unit, we have significantly reduced the space required for and the costs of installation. Toho Gas offers unique pipeline engineering services, such as trenchless excavation, repair, and rehabilitation methods as well as remote monitoring systems that we make available to other gas utilities. We also collaborate with water utilities with which we have strong affinity in maintenance and management operations. We also cooperate with water utilities, with whom we share significant common interests, in maintenance and management operations. Toho Gas is working to grow into a dependable and versatile infrastructure provider.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and **Product Development** 

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

## **Business Report**

## City Gas Business

#### Expansion of services that enrich pe'ople's lives

We are developing products and services to fill a variety of needs above and beyond energy through our "This and That for Your Lifestyle, Toho Gas" program.



#### - Household fuel cell ENE FARM

Models sold in EY2022 will have as a standard feature an electrical power generation function that helps strengthen household resilience against interruptions in energy supply.



Artist's conception of ENE FARM CO2 reduction Source: August 2017 A Complete Guide to Energy Conservation in the Home: Spring, Summer, Fall, and Winter, from the Agency for Natural Resources and Energy at the Ministry of Economy, Trade and Industry

#### Contributing to the spread of ZEH —net Zero Energy Homes

We promote proposals for ZEH that combine gas-powered hot-water floor heating with solar power generation and ENE FARM for a comfortable lifestyle. Our latest ENE FARM model, released in April 2023, is more efficient than ever.

#### —Club TOHOGAS

—A website where you'll find special offers and added convenience

Club TOHOGAS is a convenient and economical web-based membership service that will help you "make

beautiful tomorrows." Members are able to check their monthly gas and electricity bills in a timely and easy-to-understand format that helps us protect the environment by reducing the use of paper.

Other features include "GASUTEKI," which is a fun-to-read column that offers useful tips for daily life, "GASUTEKI Points," which accumulate in accordance with your contracts for gas and electricity service and can be used to pay your gas and electricity bills, and the convenience of making a variety of requests online from your smartphone or PC.

As of March 31, 2023, more than 800,000 customers have become Club TOHOGAS members, and we are continually enhancing the services available via this digital point of contact with our customers.



#### Launch of the e-commerce website Kurashi Soko

Kurashi Soko is an e-commerce service available from Club TOHOGAS that aims to deliver enjoyment and excitement to your life. It's a place where you'll find goods and services you'd never imagined before that provide you with the thrill of trying new things. And we are continually adding new products and services that will fill the many different needs of your daily lifestyle.





#### Emergency Response Plumbing Service

In January 2023, we launched our Emergency Response Plumbing Service to provide customers with immediate help in response to sudden problems 24 hours a day, 365 days a year. Both Toho Gas customers and non-customers alike in Aichi, Gifu, and Mie (excluding isolated islands) can find help for sudden problems such as leaking faucets, clogged drains, and toilets that do not flush.



#### TOPIC

Using AI to improve customer service by accurately predicting requests for starting or stopping service

Since April 2023, we been using artificial intelligence (AI) to predict the number of requests we receive to start or stop gas service. Our goal is to optimize staffing levels by accurately predicting upcoming workloads, thereby improving our ability to respond to customer requests in a timely manner.

In general, the number of requests for start or stop of service tends to increase in March and April as well as on Saturdays, which is when many people change residences. We are sometimes forced to make sudden adjustments to our staffing levels to accommodate all requests. Pilot operation of this system was conducted from October to December, 2022, and achieved efficient staffing levels in just half the time previously required for forecasting.

Toho Gas is continually working on ways maintain safety and security while improving efficiency.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and **Product Development** 

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

## Improving customer service

Our Toho Gas Kurashi Shop sales outlet has long been a strength of the Toho Gas Group, and now, as we expand and strengthen our points of contact with our customers. In addition to providing expertise in the sale, installation, repair, and remodeling of a wide variety of appliances and equipment, we aim to be close to our customers as a partner in their daily lives by configuring an integrated and effective means of providing them with both energy and a diverse lineup of useful services.

#### —Gas appliance repair service

Do you have a gas appliance that needs repair? You can schedule a service call with Toho Gas by phone or via the Internet 24 hours a day, 365 days a year.

Toho Gas customers with a valid contract who request repair of a household gas appliance by 7 p.m. will receive a service call no later than 9 p.m. that same day.



### Toho Gas remodeling specialists: My House Meister

The My House Meister brand has 25 locations where you can find specialists in remodeling homes. Customer needs for housing are becoming more and more diverse. Let My House Meister will help you

address each of your needs in remodeling your house into the ideal home.



## Gas Exhibition to be held concurrently with the 100th Anniversary Campaign

Our Gas Exhibition is held annually in October and November. We think it is an event that will please all visitors with raffles, demonstrations of the latest gas appliances, remodeling products, a diverse range of services, and consultations on improving your daily lifestyle.

The 62nd exhibition in FY2022 featured raffles that were held at exhibition sites in commercial facilities and Toho Gas facilities or sales outlets as well as on the exhibition website.

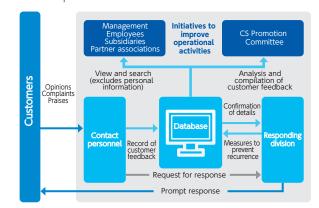
all of which took place concurrently with the Toho Gas 100th Anniversary campaign.



## Enhancing customer satisfaction

The Toho Gas Customer Service Promotion Executive Committee and customer service committees from each of our departments, affiliates, sales outlets, and gas contractors are working together to enhance the quality of all operations and services in accordance with basic policies for customer service activities adopted by the Customer Service Promotion Board,

which comprises executive offices and general managers. Customer opinions are valuable management resources, which we share with the relevant departments, leading to prompt measures and business improvement, and the results of Customer Satisfaction Surveys are reported to the relevant departments to make improvements that enhance customer satisfaction.



#### **TOPIC**

## Qualifications and training for sales outlets to develop gas professionals

Employees at sales outlets acquire the basic knowledge and skills they will need in the field and obtain the qualifications necessary to perform repairs on gas appliances or other related work at Toho Gas Training Centers. Currently, roughly 3,000 gas professionals are working to protect the safety and security of our customers.

Toho Gas Training Centers are where our employees not only learn how to suggest appropriate gas appliances but also acquire service knowledge and the skills to make proposals for remodeling for kitchens, baths, and toilets. Our skilled professionals help create comfort by responding to the individual needs of each customer.

#### Contents

Toho Gas Group's
Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

External Opinion and Evaluation

## **Business Report**

## **City Gas Business**

## Responding to diverse customer needs

We will further strengthen our proposals to integrate energy and engineering in helping customers solve their business issues, starting with the reduction of CO2 emissions in their supply chains by measures such as fuel conversion to city gas, promotion of advanced energy use, and supply of carbon-neutral city gas.

#### Gas cogeneration systems

Power is generated via the gas engine and gas turbine, while the gas cogeneration system that collects the waste heat contributes to the improvement of power security, a reduction in the environmental load, and BCP.

#### Steam and hot water boilers

City gas boilers are widely use anywhere hot water, steam, or other forms of heat are needed, such as in medical care, cleaning linen, bathing facilities, and factories. Thanks to a high combustion efficiency and highly efficient operation in accordance with the load, not only are city gas boilers more energy-efficient than conventional oil boilers, they save space and represent a lower management burden.

## —Gas-powered air conditioning

In response to the diverse needs of our customers, we offer support for the installation of highly efficient, electric power independent gas turbines (heat pumps) that offer enhanced resiliency.

#### =Suzuchu ®\*

Here is our proposal for an economical kitchen that minimizes heat from appliances even while cooking delicious meals with gas.

\*Suzuchu ® is a registered trademark of Osaka Gas.

### —Installing highly efficient, natural chillers

Natural chillers (gas absorption chiller/heaters) are eco-friendly, non-Freon air conditioning systems that uses water as a refrigerant. Not only do they offer superior economy and ease of installation, they come with the benefit of helping prevent air pollution and leveling power loads by peak shaving, which is why they are widely used for central air conditioning at large facilities. These compact, light-weight units are also easy to replace.

#### A typical installation

Installation at the Aeon Mall Atsuta for the Aeon Retail Co., Ltd.

Some 20 years after installation, with their previous energy service contract about to expire and aging equipment increasingly prone to breakdowns, Aeon Retail Co, began to consider replacing its outdated facilities with new equipment.



Since replacement, there have been almost no equipment breakdowns, and we feel that tenant complaints about the air conditioning not working have decreased, as well. Not only that, but energy consumption has markedly decreased due to the greater efficiency of the new equipment, which in turn has reduced both CO<sub>2</sub> emissions and energy costs.



Two highly efficient, natural chiller units

#### Demonstration of hydrogen combustion technology using a burner that combines hydrogen and city gas

In collaboration with Nippon Furnace Co., Ltd., Toho Gas has developed an industrial burner that can switch from city gas to hydrogen combustion without replacing any parts. Having overcome issues related to the use of hydrogen, such as backfire and other abnormal combustion as well as the deterioration of metal parts caused by high-temperature flames, this burner will enable easy, low-cost fuel conversion once a hydrogen supply network is in place.

#### A typical installation

#### Installation at the Kariya Plant of Aichi Steel Corporation

As part of our effort to achieve carbon neutrality by 2050, Toho Gas is promoting fuel conversion to low-carbon city gas. One of our projects was the conversion from heavy-oil burners to hydrogen and city gas burners in anticipation of the future availability of hydrogen at Aichi



Steel Corporation's Kariya factory, which is a model plant for carbon neutrality. Carbon neutrality at the Kariya factory began with the introduction of renewable electric power and was achieved with the introduction of this burner as part of a fuel conversion to carbon-neutral city gas. Moving forward, Toho Gas intends to take on the challenge of testing prototype equipment and continuing its development of hydrogen combustion technology in preparation for the future availability of hydrogen.



furnace to which the burners were installed (background) and a burner assembly with piping attached next to the furnace (foreground).

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and **Product Development** 

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

## Expansion of services to support business

In addition to launching the Toho Gas CN×P Business in support of our gas customers' efforts to achieve low-carbon and decarbonization, we are strengthening our energy-related services with an expanded range of products and services that will contribute to solving energy issues for customers in a wide range of industries.

Services such as TOHOBIZNEX, a web-based membership service that provides total business support, will afford greater convenience and offer a wide range of useful information to our business customers.

### Major services offered by TOHOBIZNEX

Consulting services in support of achieving carbon neutrality

■ Initiatives for Carbon Neutrality

▶ P.25

Visualizing your factory—Toho Gas Visualization Services

Toho Gas CN×P hydrogen burners

Hydrogen combustion trial service / Toho Gas hydrogen combustion testing

On-site solar power generation system (PPA model) ▶ P.80

Web reference service: Inquiries about Toho Gas city gas and electricity usage and rates

Franomista: Toho Gas inbound marketing (customer attraction) service for restaurants P.82

## Factory visualization service for improved energy use

Toho Gas Factory Visualization service enables you to see city gas and electricity as well as steam and air. By visualizing a wide range of energy uses, we are able to propose improvements in how that energy is used. In addition to energy savings, factory visualization will help to improve the workplace environment and operational efficiency as well as to identify the cause of problems when they occur.

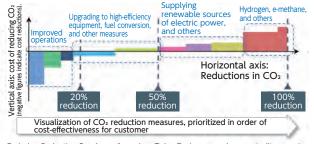
We also provide a variety of diagnostic services, including those for steam, chemical analysis, and industrial furnaces, which help save energy and solve problems.



A typical implementation (example of visualization of city gas at a manufacturing plant)

### Consulting on the reduction of CO<sub>2</sub> emissions

We make an overall visualization of the customers' CO<sub>2</sub> emissions, determine appropriate countermeasures for reducing those emissions, and prioritize them based on cost-effectiveness. We also determine emission reduction targets and develop a medium- to long-term roadmap.



Emission Reduction Roadmap (based on Toho Gas's own carbon-neutrality curve)

#### Subsidy Application Support Service for aiding the introduction of energy-saving equipment or other measures

While there are a variety of grants and subsidies available from national, prefectural, and municipal governments to

support the installation of energy-saving equipment in factories and other facilities, there are also complex screening criteria and application procedures to be aware of when preparing applications. Given our many years experience dealing with all kinds of grants and subsidies, Toho Gas is uniquely qualified to assist companies that are applying for subsidies.

## Expansion of hydrogen combustion trial services

Utilizing our know-how and expertise in the development of fuel conversion and burner technology, we actually use hydrogen as fuel in the existing equipment at the customer's factories and other facilities to identify issues in and devise countermeasures for enabling the use

of hydrogen. In March 2023, construction will begin on a dedicated testing facility that will be able to accommodate larger furnaces.



Hydrogen combustion test field at the Toho Gas Technical Research Institute

#### Business Continuity Plans for IT systems: Housing Services (data center)

Toho Gas Housing Services enable our customers to store the servers for their own IT systems at the Toho Gas Information System Data Center. Information and data that are crucial to our customers' businesses are stored securely at our data center in a building that conforms to the latest earthquake resistance standards and is situated in a location that is relatively safe from the threat of earthquakes and other disastrous events. Toho Gas offers high-quality services based on our own extensive experience with security systems, data transfer systems with financial institutions, and other mission-critical core business operations.

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

# Technical and Product Development

## Technical Development Linked to Promotion of Carbon Neutrality

Toho Gas Group contributes to the achievement of carbon neutrality and other characteristics of a sustainable society by developing technologies that address the diverse needs and challenges of our customer's lives, businesses, and communities.

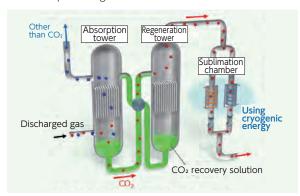
### Development of technology to capture CO<sub>2</sub> from the atmosphere using cryogenic heat

We are working to develop technology that will be widely available by 2050 to enable commercial-scale facilities to separate and capture CO<sub>2</sub> from the atmosphere as part of a project subsidized by the NEDO Moonshot Research and Development Program.

Cryo-DAC \*\* technology is unique in that it radically reduces the heat load required to regenerate CO<sub>2</sub> by adopting a CO<sub>2</sub> sublimation (dry ice conversion) system that utilizes cryogenic energy from LNG.(\*Direct Air Capture)

## Development of high-efficiency CO<sub>2</sub> capture technology using cryogenic energy

The Japanese government has established a Green



Innovation Fund to subsidize development of technology that will drastically reduce CO<sub>2</sub> capture costs, and Toho Gas is working to meet that goal by developing a CO<sub>2</sub> capture technology called Cryo-Capture ®, which utilizes unused cryogenic energy from LNG.

Once the pilot phase begins in FY2028, Cryo-Capture® technology will be implemented at an LNG terminal, and a series of carbon-recycling tests will be performed, in which the captured CO<sub>2</sub> together with hydrogen produced through water electrolysis will be used in the production of e-methane and its conversion to raw materials for the production of city gas.

#### Development of hydrogen burners

Toho Gas is working to develop new technologies for using hydrogen as a fuel for industrial furnaces, which are indispensable in manufacturing. Solutions to technical issues such as backfiring and other combustion instability, increased emission of NOx, and leakage of hydrogen are being developed by making improvements to burners for city gas and evaluating the suitability of solenoid valves, check valves, and other auxiliary devices for use with hydrogen.

We are using both test furnaces and our customers' production furnaces to evaluate temperature rise time and its effect on product quality when using hydrogen.

City gas



Hydrogen

# n -

#### Trial operation of a hydrogen cogeneration system

We are working on the development of a city gas/hydrogen co-firing engine technology that can contribute to both low-carbon and decarbonized electric power generation. The results of both co-firing tests of gas engines and model simulations are used to solve problems

that arise during hydrogen co-firing, such as suppressing abnormal combustion and reducing emissions of NOx. Toho Gas is promoting the future application of this technology to gas-engine cogeneration.



## Developing products that enrich people's lives

## Commercialization of the anti-cold, Trans-Warming <sup>®</sup> L Mat

Toho Gas has commercialized its anti-cold, Trans-Warming ® L Mat, a thermal mat that alternately stores and releases heat using a material developed by Toho Gas that retains latent heat. Using a solar collector to store heat from sunlight and then dissipating the stored heat by warping the metal strips built into the mat, the Trans-Warming ® L Mat is perfect for keeping your feet

warm. Capable of staying warm all night long, it can be used either as thermal protection during outdoor leisure activities or as a welcome addition to a disaster-preparedness kit.



Anti-cold mat

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### **Business Report**

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

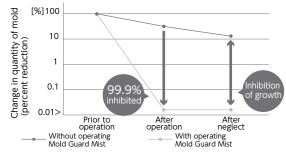
**External Opinion and Evaluation** 

### Development of a bathroom heater-dryer that inhibits the growth of mold

Noting that mold is susceptible to extremely hot water, we verified that the high temperature and high humidity of a mist sauna is capable of inhibiting the growth of mold and correlated the growth of typical molds present in the bathroom against temperature, humidity, and exposure time.

Based on this know-how, we developed jointly with Rinnai Corporation the Mold Guard Mist function, which can inhibit the growth of mold merely by operating the unit once every two weeks, and have incorporated this

#### Percent reduction in mold



\*Based on a survey by Rinnai Corporation. Test conditions as follows. ●Testing organization: NPO Mold Consultation Center ●Test Method: Mold was cultured at 25°C and humidity of 90% for 7 days, after which spores were transferred to a test specimen and placed on a wall near the floor of the bath and shower unit. ●Test subject: Black mold (Cladosporium cladosporioides) ●Before operation: Prior to operation of Mold Guard Mist ●After operation: Under rainy season conditions, 187 minutes of Mold Guard Mist operation (67 minutes of mist + 120 minutes of drying). Without Mold Guard Mist operation, the unit was left standing under rainy season conditions (rainy season conditions: 25°C, humidity 80%). ●After neglect: After neglecting the room for 14 days under rainy season conditions, both with and without Mold Guard Mist operation ●Test No. CFCJ Contract 22-045

#### Mist generation



Mist and warm air are used to maintain a high temperature and humidity, thereby inhibiting the growth of mold.

#### Automatic drying

automatically until



Keeps your bath and shower unit clean by inhibiting growth of fungi that cause blackening.

Completion

function into a commercially available bathroom heater and dryer with a mist sauna unit.

#### — Gour-meal — a multifunctional, reduced-pressure cooker — goes on sale

Toho Gas has begun sales of Gour-meal—an energy-saving, economical, multi-functional, reduced-pressure cooker, which it developed independently and now sells through the Toho Gas webstore and other sales channels. Reduced-pressure cooking is a great way to prepare meals that are flavorful, take less time to cook, and are less prone to boiling over.





Gour-meal—a multifunctional, reduced-pressure cooker

## Sales of technology and know-how to third parties

## — Chemical analysis technology in support of business

We utilize chemical analysis to ensure a safe and stable supply of city gas and to develop carbon neutrality technologies. We also maintain the capability to perform analysis as necessary to ensure the quality of the hydrogen gas we produce. We also include many of our analytical technologies developed in-house as part of the analytical services we offer our customers.

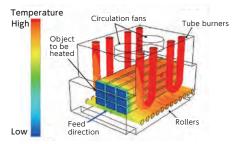




Chemical analysis

#### Technical support services using simulation technology

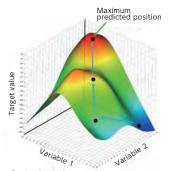
Toho Gas uses simulation technology to ensure a safe and stable supply of city gas, to promote new business activities, and to support our customers' efforts to achieve carbon neutrality. We conduct preliminary evaluations of heating performance and propose improvements for fuel conversion in industrial furnaces as well as performance evaluations and improvement proposals for city gas production and supply facilities.



## — Creating new added value using digital technology

In order to provide new services to our customers as well as to promote efficient and sophisticated business operations, Toho Gas is working to utilize cutting-edge data analysis technologies, including big data analysis of energy usage and machine learning in forecasting energy demand. By combining these digital technologies with our

accumulated knowledge of energy-related equipment, we are able to create operating schedules for air conditioning and power generation equipment that minimize CO<sub>2</sub> emissions.



Optimal solution mapping

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### **Business Report**

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

External Opinion and Evaluation

# LPG and Other Energies

#### **Business Overview**

The LPG and LPG equipment sales businesses are being expanded. In addition, we are conducting LNG sales, fuel supply business, and sales of coke and petroleum products.

Sales in LPG and other energy businesses increased 15.6% year-on-year to 110.5 billion yen, and operating income increased 17.6% to 2.3 billion yen. The number of LPG customers increased by 1,000 to total 604,000 with a sales volume of 475,000 tonnes at the end of FY2022.

	2020	2021	2022
Net Sales (billion yen)	73.8	95.5	110.5
Operating Income (billion yen)	1.9	2.0	2.3
LPG Sales Volume (thousand tonnes)	462	486	475

## Strengthening of the LPG Business

#### Increasing demand across our retail service territories and in wholesale

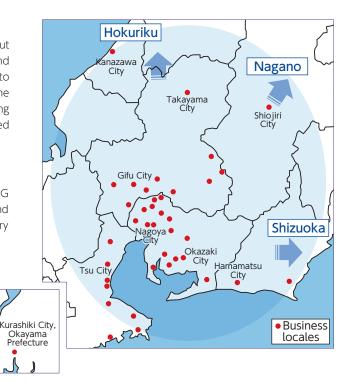
In addition to proactively developing demand throughout our core service territories of the three Tokai prefectures and Kurashiki City in Okayama Prefecture, we are working to develop residential, commercial, and industrial demand in the Hokuriku, Shizuoka, and Nagano areas. We are also working to expand our share of wholesale sales through contracted delivery and systemization support.

## —Stable Energy Procurement at a Reasonable Price

We are making every effort to achieve low-cost, stable LPG procurement by taking advantage of economies of scale and our own strengths as operators of one of the largest secondary terminals in Japan (storage capacity of over 5,000 tonnes).

#### Enhancing Filling and Delivery Foundations

We are promoting improved efficiency of filling and delivery by reviewing the locations of our base facilities and other aspects of our operations. Moving forward, we are looking to improve



efficiency even further by using remote meter reading technology and Al-based delivery route optimization in combination with our filling and delivery system.

#### TOPIC

#### Using LPWA wireless communications and AI

Toho Liquefied Gas Co., Ltd. is in the process of installing low-power, wide-area (LPWA) wireless communications terminals at its LPG supply facilities. The use of LPWA technology will enable remote meter reading of our customers' gas consumption. Also, in collaboration with Optimind Inc., a Nagoya University launched AI venture in logistics, we have developed a system that uses AI to automatically identify and

display on a driver's smartphone optimal delivery routes. The implementation of these technologies in our delivery system will contribute both to reducing the burden on our delivery staff and ensuring a stable supply of gas.

Displaying an optimal delivery route on the driver's smartphone



## Expanding our LNG business

LNG is delivered from the Chita Midorihama and Yokkaichi plants to satellite facilities on the customer's premises by LNG tanker trucks. The LNG is stored and then vaporized at the satellite facilities to supply clean, low-carbon natural gas.



Typical workflow from a shipping locale to a facility using gas

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### **Business Report**

City Gas Business

Technical and
Product Development

LPG and Other Energies

**Electricity Business** 

Business Development

**External Opinion and Evaluation** 

# **Electricity Business**

#### **Business Overview**

The electricity retail business is expanding. We are providing electricity fee plans using renewable energy and a Company-oriented Solar Power Generation On-site Service.

The number of electricity customers increased by 62,000 to a total of 576,000 at the end of FY2022, with a sales volume of 2.37 billion kWh yielding a 51.5% year-on-year increase in sales to 108.2 billion yen but resulting in an operating loss of 10.5 billion yen due to increased procurement costs.

	2020	2021	2022
Net Sales (billion yen)	48.3	71.4	108.2
Operating Income (billion yen)	△2.9	2.4	△10.5
Electricity Sales Volume (billion kWh)	1.60	2.13	2.37

## Strengthening our electricity business

As we work to build our reputation in our service territories as a rock-solid provider of energy, strengthening our electricity business as one of the diverse sources of energy we offer to our customers is a priority. We are also making every effort to lower or completely decarbonize our electric power sources and expand our electric services so that customers will choose Toho Gas electricity.

## —Procuring a stable supply of electric power

In addition to our own power sources such as the Yokkaichi Power Station, we procure a stable supply of electric power by combining several methods of procurement. We will also install large-scale storage batteries (grid storage batteries) that connect directly to the power grid. We are promoting initiatives to increase our in-house power sources, including studying the feasibility of acquiring large-scale power sources and the use of VPPs and storage batteries. Even as we diversify our electric power sources, we are working steadily to expand development and procurement of renewable energy sources in order to achieve our targets for volume of renewable energy sources handled.





Tsu Power Station (under construction)

## Low-carbonize/decarbonize electricity

### Expansion of renewable energy power sources

We are promoting the development and procurement of diverse sources of electric power, including solar and biomass as well as onshore and offshore wind power, while strengthening our system to stabilize the operation and management of power plants.

### Electricity services

We offer a service menu that utilizes renewable and other energy sources to contribute to the low-carbon and decarbonization of electricity. And we are expanding that service menu to promote the efficient use of energy.

#### — Green Eco Plan for Home Use

The Green Eco Plan for Home Use is an electricity rate plan utilizing electricity supplied from renewable energy sources with virtually zero  $\text{CO}_2$  emissions. And we use non-fossil certificates derived from renewable energy sources.

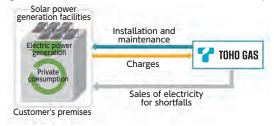
For a home using 300 kWh of electricity per month (3,600 kWh/year), this amounts to a reduction equivalent to the CO<sub>2</sub> absorbed by about 100 cedar trees in one year.



\*The carbon storage capacity per hectare of 50-year cedar trees in a planted forest is estimated to be 170 tons or about 190 kg of carbon per tree. Dividing 190 kg by 50 years, we can say that each tree is estimated to absorb about 3.8 kg of carbon or about 14 kg of CO<sub>2</sub> per year. (Source: Forestry Agency, Absorption of Carbon Dioxide by Forests) \*CO<sub>2</sub> emission coefficient is estimated to be 0.000462 tonnes of CO<sub>2</sub>/kWh (national average for FY 2018)

### On-Site Solar Power Generation Services for Corporations

This service enables a business to install, own, maintain, and manages solar power generation facilities on their own premises as an electric power supply for their own facilities. It also provides the customer with a renewable energy source that does not generate  $CO_2$  emissions for an initial investment of zero yen.



## Residential demand response serviceEnergy saving challenge

Toho Gas is offering rewards commensurate with the amount of energy saved to customers who respond to

requests for energy savings made through the Club TOHOGAS app during the designated time period.



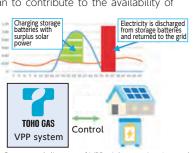
saving challenge request

\*The Ministry of Economy, Trade and Industry surveys, evaluates, and publicizes the level of information and services provided by electric and gas utilities to consumers in promoting energy efficiency and conservation.

## Trial operation of VPP for residential use

We working on a plan to contribute to the availability of

renewable energy by building virtual power plants (VPP) utilizing storage batteries and other means for residential customers, thereby increasing their contribution to the supply-demand balance of electricity.



Conceptual diagram of VPP trial operation (control of solar power generation and storage batteries)

**Contents** 

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### **Business Report**

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

# **Business Development**

## **Business Overview**

(Other Businesses)

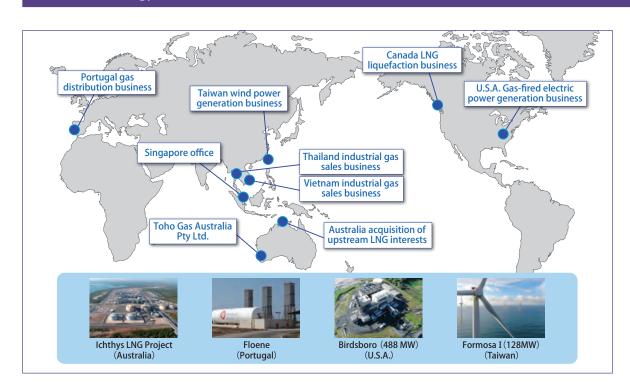
Business is expanding in Japan and in other countries, including overseas natural gas development and investment, LNG contract processing, LNG cooling and sales of liquid nitrogen, security control of gas equipment, real estate management and leasing, plant and equipment design and construction, the integrated utility services business, sales

of residential equipment, data processing services, vehicle and equipment leasing, and more.

Net sales of other businesses increased 14.6% year-on-year to 54.5 billion yen, and operating income rose 36.9% to 4.2 billion yen, primarily due to increased sales at overseas subsidiaries.

	2020	2021	2022
Net Sales (billion yen)	46.3	47.6	54.5
Operating Income (billion yen)	3.3	3.1	4.2

## Overseas energy businesses



As a strategic initiative to utilize the knowledge and expertise we have accumulated through our business operations to date, we are working to expand our overseas energy businesses, including gas, LNG, and renewable energy.

In Southeast Asia, where demand for energy is rising, Toho Gas Group's knowledge and expertise in the use of natural gas and other resources is contributing to both local economic growth and low-carbonization.

In Singapore and Australia, we are building information networks to identify new projects and provide sales and technical support to our investee companies.

In Europe, the U.S., and elsewhere, we are deepening our involvement in the management of businesses involved in the use of natural gas and promoting business surveys about carbon neutrality.

In addition to the Ichthys project and its LNG upstream concessions, we are involved in feasibility studies of projects related to carbon neutrality, including renewable energy and CO <sub>2</sub> capture and storage (CCS).
Working jointly with Marubeni Corporation, we have set up a special purpose company for participating in the gas distribution business as well as investing in privately owned businesses that own gas distribution operators with business rights in their respective regions.
Working jointly with Saibu Gas Holdings and Hiroshima Gas, we have set up a special purpose company to participate in a gas-fired electric power generation business in which Sojitz Corporation and others have invested.
Working with partner companies, we are participating in a project to liquefy natural gas.
Working jointly with Mitsui O.S.K. Lines and Hokuriku Electric Power Company, we have set up a special purpose company to participate in an offshore wind power generation project funded by JERA and other companies from Europe and elsewhere.
Working jointly with Shizuoka Gas, we have set up a special purpose company to develop natural gas sales for industrial use with local companies.
With Vietnam continuing to experience economic growth, we have invested in local companies that are developing gas businesses and participating in sales of natural gas for industrial use.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### **Business Report**

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

External Opinion and Evaluation

## Expanding Services and Contact Points with Customers

Toho Gas is working to enhance the content and convenience of its Club TOHOGAS membership service (▶ P.73) and the ASMITAS service platform in expanding its points of contact with customers.

#### — ASMITAS life service platform

ASMITAS features a variety of services that will make your life more convenient and more enjoyable.

#### The Mitasu Kurasu information dissemination medium, the e-commerce site Mitasu Shop

To enhance the appeal of ASMITAS and keep customers coming back, we are strengthening our ability to communicate with consumers by launching Mitasu Kurasu, a website that features information on local products useful for daily life from local creators. And our e-commerce site Mitasu Shop offers visitors the opportunity to purchase little known gems from the Tokai region that can be found in content from Mitasu Kurasu.



#### Franomista receives an Honorable Mention from the Japan Subscription Business Awards

In December 2022, Franomista, a single-drink subscription service, received an Honorable Mention at the 2022 Japan Subscription Business Awards. For a monthly fee of just 550 yen (tax included, as of July 2023), Franomista subscribers receive a free drink daily

at each participating restaurant they patronize. As an energy provider, it is only fitting that we take the slogan "Bringing more cheer to Japan" literally in providing energy to the people and communities we serve.



#### Enjoy a potager garden on your veranda: Nana Plants (7 Plants)

Our Seven Plants service enables customers to create a small potager that combines fruits, vegetables, and herbs to turn a balcony into a practical yet decorative kitchen garden. Toho Gas offers services that propose new

lifestyles, such as ethical permaculture, which is a means to design a society where people and nature coexist in harmony.



ナナプランツ

## Toho Gas Parking parking share system

Toho Gas Parking is a parking share system that enables owners to go through just a simple registration process in making effective

use of vacant parking spaces by renting them out on a daily basis. Toho Gas



Parking also enables drivers to easily find vacant parking.

### Toho Gas Car Share, an easy and convenient car sharing service

Toho Gas Car Share is a convenient car sharing service that enables users to reserve, check out, and check in a car from their smartphone 24 hours a day, 365 days a year.

Toho Gas customers are also able to take advantage of a Toho Gas Electricity Contract Discount Menu.

TOHOGAS カージェア

## Welfare vehicle transport service supports nursing care facilities (day care providers)

This cloud-based service automatically creates optimized pick-up and drop-off routes for providers of day care who must pick up and drop off different people each day. Not



only does this system reduce the manpower needed to create pick-up and drop-off plans manually, it also enables a facility to track the current location of each vehicle.

## —Walking application TOHOGASU

TOHOGASU is the name of our new walking application that contributes to better health. Achieve the targeted number of steps to receive points that can be accumulated and redeemed for Amazon gift certificates. Enjoy this easy-to-use app with a simple design.

E-commerce site Kurashi Soko ▶ P.73

TOHOBIZNEX, a web-based membership service that provides total business support ▶ P.76

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

City Gas Business

Technical and Product Development

LPG and Other Energies

**Electricity Business** 

**Business Development** 

External Opinion and Evaluation

## **Business Development**

#### -SUGUKONE Mobile

Toho Gas announces SUGUKONE Mobile, a mobile WiFi service that combines gas, electricity, and mobile service into an economical set.

Your device comes with 100 GB of monthly data

usage and a free support center to ensure that you can enjoy the service with peace of mind.





## Utilizing real estate holdings and unused land

Toho Gas Group promotes initiatives that contribute to solving social issues and enriching local communities by proactively utilizing our expertise and assets, such as the sites of former sales offices and supply centers. Together with our affiliate, Toho Real Estate, we are working to create higher added value in urban spaces and to foster growth of local communities.

## —Highly efficient agriculture

As part of our efforts to contribute to regional development by promoting both the use of unused land and local production for local consumption, we are collaborating with Towing Co., a start-up that has developed technology for high-performance, artificial soil. During FY2022, after conducting trial cultivation of crops, Toho Gas invested in Towing, which is currently

studying business models and cooperative arrangements for the sales of high-performance soil as they move toward commercialization of their technology as soon as possible.



High-performance soil



## New bouldering gyms

In May 2022, a bouldering gym opened at Howa Minato Sports & Culture operated by Toho Real Estate. Popular with everyone in the community from children to adults, the facility includes a beginners wall, a 6.5-meter climbing wall, and the first

cube-shaped attraction wall in the Tokai region.



## Effective use of cryogenic energy

## Low-temperature and cryogenic grinding business

Toho Reinetsu utilizes cryogenic energy to perform low-temperature crushing primarily of resins by means of a system that integrates crushing, classification, and

While there are some materials, such as rubber and plastics, that are difficult to crush at room temperature, many such materials rapidly become brittle at low temperatures, and our technology meets a diverse range of needs. Powders milled at low-temperatures are suitable

for a variety of applications, including the grinding of substances with low melting points as well as those with high oil or water content, because of excellent flow characteristics, no heat-induced alteration, and low oxidative deterioration.



Low-temperature grinding plant

## TOPIC

#### Chita Cool Salmon Land-Based Aquaculture

Land-based aquaculture of Chita Cool Salmon (second stage) began in November 2022, using unused cryogenic energy from LNG at the Chita Midorihama Plant.

Approximately 9,000 fish, almost three times as many as during the first phase from November 2021 to June 2022, were introduced and sold at major supermarkets

from May to June 2023. The feasibility of commercialization is being evaluated based on the results of these trial operations.



Catch of salmon trout

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

#### **Business Report**

City Gas Business

Technical and **Product Development** 

LPG and Other Energies

**Electricity Business** 

**Business Development** 

**External Opinion and Evaluation** 

# External Opinion and Evaluation

## **Expert Opinion**



— Major External Awards

**Expectations** for transition planning

Eiichiro Adachi

Senior Counselor. The Japan Research Institute, Limited

Last year, Toho Gas Group published its Medium-Term Management Plan 2022-2025. Pages 21 & 22 of this document were titled "Progress Report for Year One," indicating where in this document the

reader could find the information needed to understand specific initiatives and demonstrating a sincere and honest approach to disclosure of information. We also noted the disclosure on page 77 of "Technological Developments Leading to the Promotion of Carbon Neutrality."

On the other hand, the term "transition plan" is becoming well known to Japanese companies. It is used to refer to the process of transitioning from current business realities to the future business reality of carbon neutrality. At the present time, most countries have instituted policies that make substantive achievement of carbon neutrality a nationally mandated contribution. Private enterprise can no longer simply declare that achieving carbon neutrality is a future goal; we have entered an era in which companies must now actually plan the steps that

CDP Climate Change 2022

CDP Water Security 2022

Nikkei SDGs Management Survey 2022

Certified Health & Productivity Management Outstanding Organization (White 500)

Recognized by the Ministry of Health, Labour and Welfare with *Eruboshi* certification for

excellence in promoting women's participation and advancement in the workplace

will lead to that goal, publicize that process to the

during the coming fiscal year, this diagram will be fleshed out further and refined with the goal of formulating and publishing a transition plan. I can well imagine that many of the individual measures have already been discussed. The task of integrating these measures into a timeline and combining them with a roadmap of technological development in the creation of a convincing narrative will not be an easy one, but that is precisely the kind of effort needed to make Toho Gas Group's narrative a persuasive one.

Received an A-rank evaluation (8-rank evaluation from D- to A)

Received an A- rank evaluation (8-rank evaluation from D- to A)

Acquisition of 4-star★★★★ overall rating

Continues to be certified since 2020

Certified since 2021

### — Major ESG assessments from external organizations

FTSE4Good Index Series	Continues to be selected as constituent since 2022
FTSE Blossom Japan Index	Continues to be selected as constituent since 2022
FTSE Blossom Japan Sector Relative Index	Continues to be selected as constituent since 2022
MSCI Japan ESG Select Leaders Index*	Continues to be selected as constituent since 2017
MSCI Japan Empowering Women (WIN) Select Index	Continues to be selected as constituent since 2017
Morningstar Japan ex-REIT Gender Diversity Tilt Inde	Newly selected as constituent in 2023
S&P/JPX Carbon Efficient Index	Continues to be selected as constituent since 2018
SOMPO Sustainability Index	Continues to be selected as constituent since 2012

<sup>\*</sup> MSCI ESG Indexes : THE INCLUSION OF TOHO GAS Co., Ltd. IN ANY MSCI INDEX, AND THE USE OF MSCI LO SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMO GAS Co., Ltd. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

in 2023	Recognized by the Ministry of Health, Labour and Welfare with <i>Kurumin</i> Mark certification as a company that supports childcare	Certified since 2018
uent since 2018	Recognized by the Ministry of Health, Labour and Welfare with <i>Platinum Kurumin</i>	Certified since 2023
uent since 2012	Mark certification as a company that supports childcare	A :::: (5 : 1.1.1.1.1 II ::
OGOS, TRADEMARKS,	Energy Conservation Communication Ranking System city gas retailers FY2022	Acquisition of 5-star★★★★★ overall rating
MOTION OF TOHO	Energy Conservation Communication Ranking System electric power retailers FY2022	Acquisition of 5-star★★★★ overall rating

Name	Main sponsor	Target	Joint award winner
The 60th SHASE Award for Distinguished Technologies	The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan (SHASE)	Achieving a low-carbon urban space through mutual co-creation between suppliers and consumers. Local production for local consumption smart energy network at Minato AQULS.	Mitsui Fudosan Co., Ltd./Mitsui Fudosan Residential Co., Ltd./ Toho Real Estate Co., Ltd./Nikken Sekkei Ltd./ Nikken Sekkei Research Institute,/Takenaka Corporation
2022 Technology Grand Prize	The Japan Gas Association	SGP M450, 450 kW High-efficiency, gas cogeneration system	Mitsubishi Heavy Industries Engine & Turbocharger, Ltd.
2022 Japan Subscription Business Awards Honorable Mention	Japan Subscription Business Association	Franomista, a single-drink subscription service	_

outside	world,	and	accept	various	forms	of
engagem	ent as th	en refi	ne their p	lans and v	vork to g	gain
the trust	and supp	ort of	their stak	eholders.		
Page 2	4 of this	docum	ent includ	les a diagi	am entit	led
"Scenario	s for Ca	rbon [	Neutrality	," and we	hope t	hat
during th	ne comir	g fisc	al vear i	his diagr	am will	he

**Contents** 

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

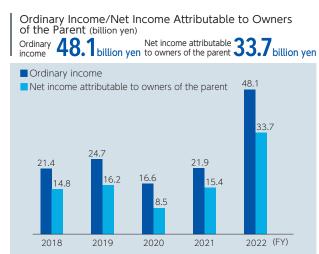
**External Opinion and Evaluation** 

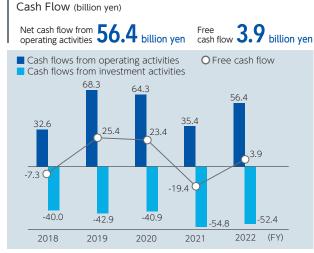
# Financial and Non-financial Highlights

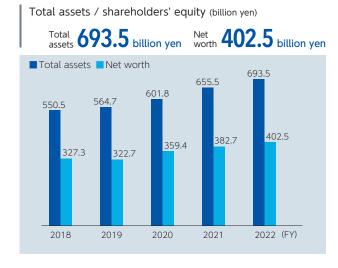
ROA (Return on Asset)/

## Financial Information

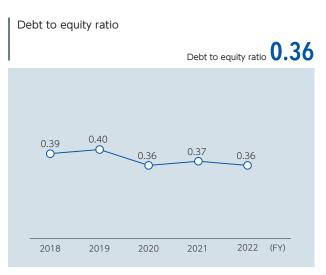












#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

**Data Section** 

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

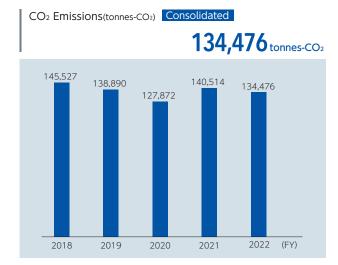
**Consolidated Balance Sheets** 

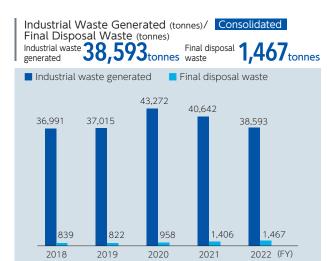
Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

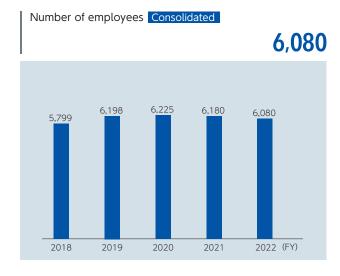
Consolidated Statements of Cash Flows

Stock Information

## Non-financial Information

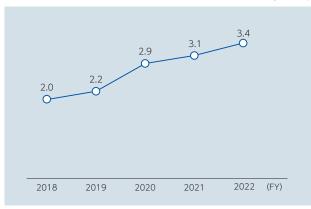






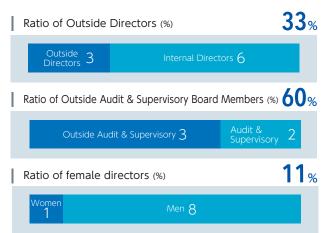
Percent of management positions held by women

3.4%









As of June 30, 2023 Current

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

**Data Section** 

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

**Consolidated Balance Sheets** 

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

# Financial Highlights (Consolidated 10-years)

	FY2013	FY2014	FY2015	FY2016	FY2017
Net sales (million yen)	560,462	580,984	479,870	390,433	428,868
Operating income (million yen)	15,751	28,760	60,725	23,188	23,984
Ordinary income (million yen)	17,053	29,516	61,132	24,490	25,208
Net income attributable to owners of the parent (million yen)	11,241	19,053	43,008	17,749	18,022
Net cash flow from operating activities (million yen)	37,809	62,320	114,923	37,264	57,047
Free cash flow (million yen)	4,792	24,480	72,727	△20,703	13,702
Total assets (million yen)	509,760	543,286	555,217	532,931	541,087
Equity capital (million yen)	245,890	282,827	285,186	306,801	326,279
ROA (%)	2.2	3.6	7.8	3.3	3.4
ROE (%)	4.7	7.2	15.1	6.0	5.7
Total asset turnover (times)	1.10	1.07	0.86	0.73	0.79
Equity ratio (%)	48.2	52.1	51.4	57.6	60.3
Interest-bearing debt (million yen)	164,517	149,703	127,163	114,954	112,199
Debt to Equity ratio (times)	0.67	0.53	0.45	0.37	0.34
EPS (yen)	103.05	174.72	397.06	164.87	169.28
BPS (yen)	2,254.58	2,593.74	2,634.72	2,865.00	3,068.29
PER (times)	27.27	20.06	10.06	23.87	19.32
PBR (times)	1.25	1.35	1.52	1.37	1.07
Number of issued shares at the end of the term (excluding treasury stock)(thousand shares)	109,062	109,042	108,241	107,086	106,339
Dividend per share (yen)	45.0	47.5	50.0	50.0	52.5
Investments and loans (million yen)	33,093	36,570	40,101	49,298	39,629
Depreciation and amortization (million yen)	35,780	33,950	32,987	35,482	35,973

<sup>\*</sup> Figures for Number of issued shares at the end of the term and Dividend per share are on an individual basis.

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation

**Data Section** 

Financial and
Non-financial Highlights

Financial Highlights (Consolidated)

**Consolidated Balance Sheets** 

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

<sup>\*</sup> 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.

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

<sup>\*</sup> Investments and Loans only for capital investment before FY2020

FY2018	FY2019	FY2020	FY2021	FY2022	
461,199	485,623	434,776	515,313	706,073	Net sales (million yen)
17,831	21,351	13,515	17,858	43,743	Operating income (million yen)
21,485	24,763	16,622	21,912	48,171	Ordinary income (million yen)
14,820	16,266	8,592	15,459	33,721	Net income attributable to owners of the parent (million yen)
32,615	68,376	64,397	35,436	56,414	Net cash flow from operating activities (million yen)
△7,396	25,426	23,424	△19,439	3,979	Free cash flow (million yen)
550,599	564,756	601,835	655,593	693,519	Total assets (million yen)
327,339	322,768	359,492	382,751	402,502	Equity capital (million yen)
2.7	2.9	1.5	2.5	5.0	ROA (%)
4.5	5.0	2.5	4.2	8.6	ROE (%)
0.84	0.86	0.72	0.79	1.02	Total asset turnover (times)
59.5	57.2	59.7	58.4	58.0	Equity ratio (%)
127,298	128,495	129,922	140,830	146,683	Interest-bearing debt (million yen)
0.39	0.40	0.36	0.37	0.36	Debt to Equity ratio (times)
139.37	153.62	81.37	146.66	320.80	EPS (yen)
3,078.37	3,056.42	3,404.33	3,641.75	3,828.97	BPS (yen)
35.66	31.90	83.94	18.58	7.68	PER (times)
1.61	1.60	2.01	0.75	0.64	PBR (times)
106,335	105,603	105,598	105,100	105,120	Number of issued shares at the end of the term (excluding treasury stock)(thousand shares)
55.0	55.0	55.0	57.5	60.0	Dividend per share (yen)
34,610	33,566	34,305	60,381	60,196	Investments and loans (million yen)
36,075	37,557	37,463	36,510	36,268	Depreciation and amortization (million yen)

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)  $\times 100$ Total asset turnover rate = Net sales / Total assets (end of the term)

Equity ratio = Equity capital / Total assets (end of the term)  $\times 100$ Debt to Equity ratio = Interest-bearing debt outstanding /Equity capital (end of the term) EPS = Net income attributable to owners of the parent related to common shares / Average number of common shares during the term BPS = Total net assets at the end of the term related to common shares / Number of issued common shares at the end of the term

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

Business Report

External Opinion and Evaluation

**Data Section** 

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

Consolidated Balance Sheets

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

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

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

## **Consolidated Balance Sheets**

(million yen)

		(million yen)
	End of FY2021 (March 31,2022)	End of FY 2022 (March 31,2023)
Assets		
Non-current assets		
Property, plant and equipment		
Production facilities	64,266	59,734
Distribution facilities	145,329	135,897
Service and maintenance facilities	26,879	31,106
Other facilities	48,155	47,797
Construction in progress	20,989	29,864
Total property, plant and equipment	305,619	304,400
Intangible assets		
Other	10,894	12,937
Total intangible assets	10,894	12,937
Investments and other assets		
Investment securities	112,444	129,425
Long-term loans receivable	14,042	12,350
Net defined benefit asset	23,206	26,346
Deferred tax assets	4,015	2,567
Other	14,899	16,488
Allowance for doubtful accounts	(84)	(75)
Total investments and other assets	168,524	187,101
Total non-current assets	485,038	504,439
Current assets		
Cash and deposits	32,298	34,013
Trade notes, accounts receivable, and contract assets	73,093	87,750
Lease receivables and investment assets	13,675	15,092
Inventories	21,942	37,549
Other	29,965	15,530
Allowance for doubtful accounts	(420)	(857)
Total current assets	170,555	189,079
Total assets	655,593	693,519

Liabilities		
Non-current liabilities		
Bonds payable	50,000	67,500
Long-term loans payable	48,716	47,962
Deferred tax liabilities	9,750	2,305
Provision for gas holder repairs	1,291	1,000
Provision for safety measures	19,045	21,628
Provision for gas appliance warranties	620	1,964
Net defined benefit liability	5,919	5,942
Other	10,579	10,563
Total non-current liabilities	145,922	158,867
Current liabilities		
Current portion of non-current liabilities	35,664	24,306
Notes and accounts payable-trade	36,822	40,400
Short-term loans payable	2,935	2,680
Income taxes payable	5,949	15,016
Other	45,549	49,745
Total current liabilities	126,919	132,148
Total liabilities	272,842	291,016
Net assets		
Shareholders' equity		
Capital stock	33,072	33,072
Capital surplus	8,387	8,387

Retained earnings

Total liabilities and net assets

Total shareholders' equity

Valuation difference on available-for-sale

Deferred gains or losses on hedges

Total other comprehensive income

Foreign currency translation adjustment

Remeasurement of defined benefit plans

Other comprehensive income

Treasury stock

securities

Total net assets

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

(million yen)

End of FY 2022

295,428

336.453

44,071

3,184

7,582

11,210

66,049

402,502

693.519

(435)

End of FY2021

268,374

309,335

43,731

15,511

10,920

73,416

382,751

655.593

3,252

(499)

(March 31, 2022) (March 31, 2023)

Governance

**Business Report** 

External Opinion and Evaluation

**Data Section** 

Financial and
Non-financial Highlights

Financial Highlights (Consolidated)

**Consolidated Balance Sheets** 

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

## **Data Section**

## Consolidated Statements of Income/ Consolidated Statements of Comprehensive Income

## Consolidated Statements of Income

Consolidated Statements of Income (million		
	FY2021 (April 1, 2021 to (March 31, 2022)	FY2022 (April 1, 2022 to (March 31, 2023)
Net sales	515,313	706,073
Cost of sales	361,612	525,882
Gross profit	153,701	180,191
Selling, general and administrative expenses	135,843	136,447
Operating income	17,858	43,743
Non-operating income		
Interest income	210	499
Dividend income	2,228	2,331
Rent income	693	683
Equity in earnings of affiliated companies	247	818
Miscellaneous income	1,872	2,350
Total non-operating income	5,252	6,683
Non-operating expenses		
Interest expenses	726	955
Loss on valuation of loans receivable	_	641
Miscellaneous expenses	471	658
Total non-operating expenses	1,198	2,255
Ordinary income	21,912	48,171
Extraordinary loss		
Impairment loss	583	767
Total extraordinary loss	583	767
Net income before income taxes	21,329	47,403
Income taxes-current	4,895	14,864
Income taxes-deferred	975	(1,182)
Total income taxes	5,870	13,682
Net income	15,459	33,721
Net income attributable to owners of the parent	15,459	33,721

## **Consolidated Statements of** Comprehensive Income

(million yen)

	FY2021 (April 1, 2021 to (March 31, 2022)	FY2022 (April 1, 2022 to (March 31, 2023)
Net income	15,459	33,721
Other comprehensive income		
Valuation difference on available-for-sale securities	(1,448)	340
Deferred gains or losses on hedges	9,275	(12,458)
Foreign currency translation adjustment	1,680	3,810
Remeasurement of defined benefit plans	4,090	301
Share of other comprehensive income of entities accounted for using equity method	595	640
Total other comprehensive income	14,193	(7,366)
Comprehensive income	29,653	26,354
Comprehensive income attributable to		
Owners of the parent	29,653	26,354
Non-controlling interests	_	_

#### Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation

#### **Data Section**

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

**Consolidated Balance Sheets** 

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

## Consolidated Statements of Cash Flows

(million yen)

		(million yen)
	FY2021 (April 1, 2021 to March 31, 2022)	FY2022 (April 1, 2022 to (March 31, 2023)
Cash flows from operating activities		
Net income before income taxes	21,329	47,403
Depreciation and amortization	36,510	36,268
Impairment loss	583	767
Increase (decrease) in provision	500	4,063
Interest and dividend income	(2,438)	(2,831)
Interest expenses	726	955
Decrease (increase) in notes and accounts receivable-trade	(21,709)	(14,637)
Decrease (increase) in inventories	(3,583)	(15,584)
Increase (decrease) in notes and accounts payable-trade	6,696	3,542
Other	(1,740)	1,002
Subtotal	36,874	60,951
Interest and dividend income received	2,438	2,829
Interest expenses paid	(720)	(894)
Income taxes paid	(3,156)	(6,471)
Net cash provided by (used in) operating activities	35,436	56,414
Cash flows from investment activities		
Purchases of non-current assets	(39,032)	(39,729)
Proceeds from sales of non-current assets	25	228
Purchase of investment securities	(4,486)	(13,717)
Proceeds from sales of investment securities	320	42
Purchase of subsidiaries accompanying change of scope of consolidation	(5,920)	(655)
Payments of loans receivable	(5,715)	_
Other	(68)	1,396
Net cash provided by (used in) investment activities	(54,876)	(52,435)

(million yen)

	FY2021 (April 1, 2021 to (March 31, 2022)	FY2022 (April 1, 2022 to (March 31, 2023
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(1,774)	(435)
Proceeds from long-term loans payable	2,781	12,511
Repayment of long-term loans payable	(2,889)	(5,605)
Proceeds from issuance of bonds	9,947	27,378
Payments for redemption of corporate bonds	_	(30,000)
Purchase of treasury stock	(1,608)	(8)
Cash dividends paid	(5,809)	(6,305)
Other	(12)	(476)
Net cash provided by (used in) financing activities	635	(2,939)
Effect of exchange rate change on cash and cash equivalents	370	674
Net increase (decrease) in cash and cash equivalents	(18,432)	1,714
Cash and cash equivalents at beginning of year	50,543	32,110
Cash and cash equivalents at end of year	32,110	33,825

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation

**Data Section** 

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

Consolidated Balance Sheets

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

**Consolidated Statements of** Cash Flows

Stock Information

## **Stock Information**

## Stock Information

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 Prime Market, Nagoya Stock Exchange Premier Market	
Administrator of Shareholders' Register and Special Account Management Institution	Mitsubishi UFJ Trust and Banking Corporation	
Contact	Corporate Agency Division, Mitsubishi UFJ Trust and Banking Corporation1-1 Nikko-cho, Fuchu, Tokyo, Japan	
Number of Shares per Unit	100 shares	
Number of Shares Authorized to Be Issued	160,000,000 shares	
Number of Issued Shares	105,256,285 shares(including treasury stock 135,913 shares)	
Number of Shareholders	28,780	

## Major Shareholders

Name of Shareholder	Number of Shares Held (Thousand)	Percentage of Share Ownership (%)
The Master Trust Bank of Japan, Ltd. (Trust a/c)	12,314	11.71
Nippon Life Insurance Co.	5,506	5.23
Custody Bank of Japan, Ltd. (Trust a/c)	3,518	3.34
Sumitomo Mitsui Banking Corp.	3,304	3.14
MUFG Bank, Ltd.	2,872	2.73
Toho Gas Group Employees Shareholding Association	2,187	2.08
The Dai-ichi Life Insurance Co., Ltd.	2,143	2.03
Meiji Yasuda Life Insurance Co.	1,841	1.75
BNYM AS AGT/CLTS NON TREATY JASDEC	1,638	1.55
Toho Gas Kyoei Shareholding Association	1,542	1.46

<sup>\*</sup> Percentage of share ownership is calculated by the number of shares excluding treasury stock (135,913 shares).



<sup>\*</sup> 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.

#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**External Opinion and Evaluation** 

**Data Section** 

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

Consolidated Balance Sheets

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

# Company Overview (as of March 31, 2023)

Gifu

Okayama

Overview of Major Pipeline Networks

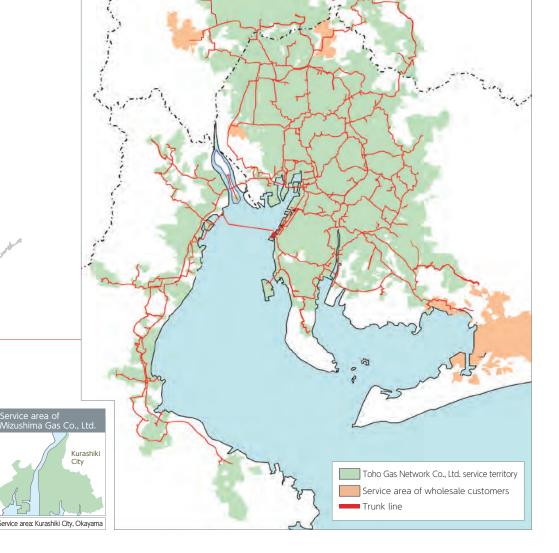
and City Gas Service Area

As an energy operator based in the three-prefecture Tokai region, which enjoys a concentration of manufacturing industries, Toho Gas has succeeded in growing and developing together with the region.

Name	TOHO GAS CO., LTD.	
Date of Foundation	June 26, 1922	
Head Office	19 -18, Sakurada-cho, Atsuta-ku, Nagoya, Aichi 456-8511, Japan	
Main Businesses	<ul> <li>Gas business</li> <li>Heat supply business</li> <li>Electricity business</li> <li>Acquisition and purchasing of energy resources, such as natural gas</li> </ul>	
Capital stock	33,072 million yen	
Number of employees	1,638 (6,080 on a consolidated basis)	

### Major Business Sites and Plants

Name	Location
Head Office	Nagoya, Aichi
Technical Research Institute	Tokai, Aichi
Okazaki Office	Okazaki, Aichi
Gifu Office	Gifu, Gifu
Tsu Office	Tsu, Mie
Chita Production Department	Chita, Aichi
Yokkaichi Works	Yokkaichi, Mie



#### **Contents**

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

**Data Section** 

Financial and Non-financial Highlights

Financial Highlights (Consolidated)

**External Opinion and Evaluation** 

**Consolidated Balance Sheets** 

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information

#### — Consolidated subsidiaries

(million yen)

Company name		Capital stock	Major Businesses
Gas Business	Toho Gas Network Co., Ltd.	3,000	Gas Appliance Sales and Related Construction
	Toho Gas Customer Service Co., Ltd.	50	Trustee business of reading gas meter and collecting charges in gas business
	Toho Gas Techno Co., Ltd.	45	Construction of gas pipes, paving and road repair Sales and installation of gas equipment etc.
	Mizushima Gas Co., Ltd.	225	Gas and LPG business in Kurashiki City, Okayama
	Toho Liquefied Gas Co., Ltd.	480	LPG business, sales of coke and petroleum products
	TOEKI CUSTOMER SERVICE Co., Ltd.	75	Trustee business of reading gas meter and collecting charges in LPG business
LPG and	Toeki Kyokyu Center Co., Ltd.	50	Trustee business of delivery and maintenance service in LPG business
Other Energies	Waseda Gas Co., Ltd.	10	LPG business
	Yamasa Sohgyou Co., Ltd.	96	LPG business, design and construction of residential extension and alteration, residential equipment sales, manufacturing and sales of home delivery water
	Inuyama Gas Service, Co., Ltd.	10	LPG business, design and construction of residential extension and alteration, residential equipment sales
Electricity business	Sirius Solar Japan 63 GK	0	Electricity business
	Toho Real Estate Co., Ltd.	821	Leasing and management of real estate, management of sports facilities etc.
	Toho Gas Engineering Co., Ltd.	100	Design, construction, and maintenance of gas production plant equipment and comprehensive utility service business
	Toho Gas Living Co., Ltd.	85	Sales of housing equipment, design and construction of residential buildings, expansion and renovation
	Toho Gas Information System Co., Ltd.	80	System engineering and management and data processing services
	Toho Service Co., Ltd.	48	Car sales, lease and maintenance, leasing of equipment item, insurance agency, and travel agency
	Toho LNG Shipping Co., Ltd.	300	Lending of LNG ships
	Toho Reinetsu Co., Ltd.	90	LNG cooling/high-pressure gas sales, trustee business of low-temperature grinding treatment
	Toho Gas Safety Life Co., Ltd.	40	Trustee business of gas equipment safety management, management of ENEDO, Toho Gas stores
Other Businesses	Gas Living Mie Co., Ltd.	10	Design and construction of residential extension and alterations, management of ENEDO, Toho Gas stores, and sales of residential equipment
	Yokkaichi Air Conditioning Engineering Co., Ltd.	50	Installation and O&M of air-conditioning equipment
	Yamasa yu-land Ltd.	5	Managing of bathing facilities
	Toho Gas Australia Pty Ltd	192 million USD	Development and investment in natural gas in Australia
	Toho Gas Ichthys Pty Ltd	94 million USD	Natural gas related development and investment
	Toho Gas Ichthys Development Pty Ltd	87 million USD	Natural gas related development and investment
	Toho Gas Canada Ltd.	81 million USD	Natural gas related investment

## Our Websites

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



Initiatives for ESG https://www.tohogas.co.jp/lang/en/approach/eco/



## Editorial Policy

initiatives to provide stakeholders with a deeper understanding of Toho Gas Group. We will continue to reflect your comments and opinions in our efforts to further enhance the content of this report so that it will be a useful tool for communicating with our stakeholders.

#### Reporting Period

FY2022 (April 1, 2022-March 31, 2023) Some activities covered took place in FY2023.

#### Reporting Scope

In principle, Toho Gas Co., Ltd., consolidated subsidiaries and equity-method subsidiaries (as of March 31, 2023) are described as "Toho Gas Group." Information about some part of the Group will be indicated in individual reports for specific organizations.

## 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.

#### Reference Guidelines

International Integrated Reporting Council (IIRC) Framework

Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation

GRI Standards

ISO26000

Environmental Reporting Guidelines (2018 version) Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

## **Publishing Department**

CSR / Environment Dept. Finance Dept.

#### Published

August 2023 (Next edition: scheduled for August 2024)

Our Integrated Report introduces specific

Financial and Non-financial Highlights

Contents Toho Gas Group's Value Creation Initiatives for ESG

Environment Society

Governance

**Business Report** 

**Data Section** 

Financial Highlights (Consolidated)

**Consolidated Balance Sheets** 

External Opinion and Evaluation

Consolidated Statements of Income/ ConsolidatedStatements of Comprehensive Income

Consolidated Statements of Cash Flows

Stock Information





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

## Contents

Toho Gas Group's Value Creation

Initiatives for ESG

Environment

Society

Governance

**Business Report** 

External Opinion and Evaluation