

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

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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.

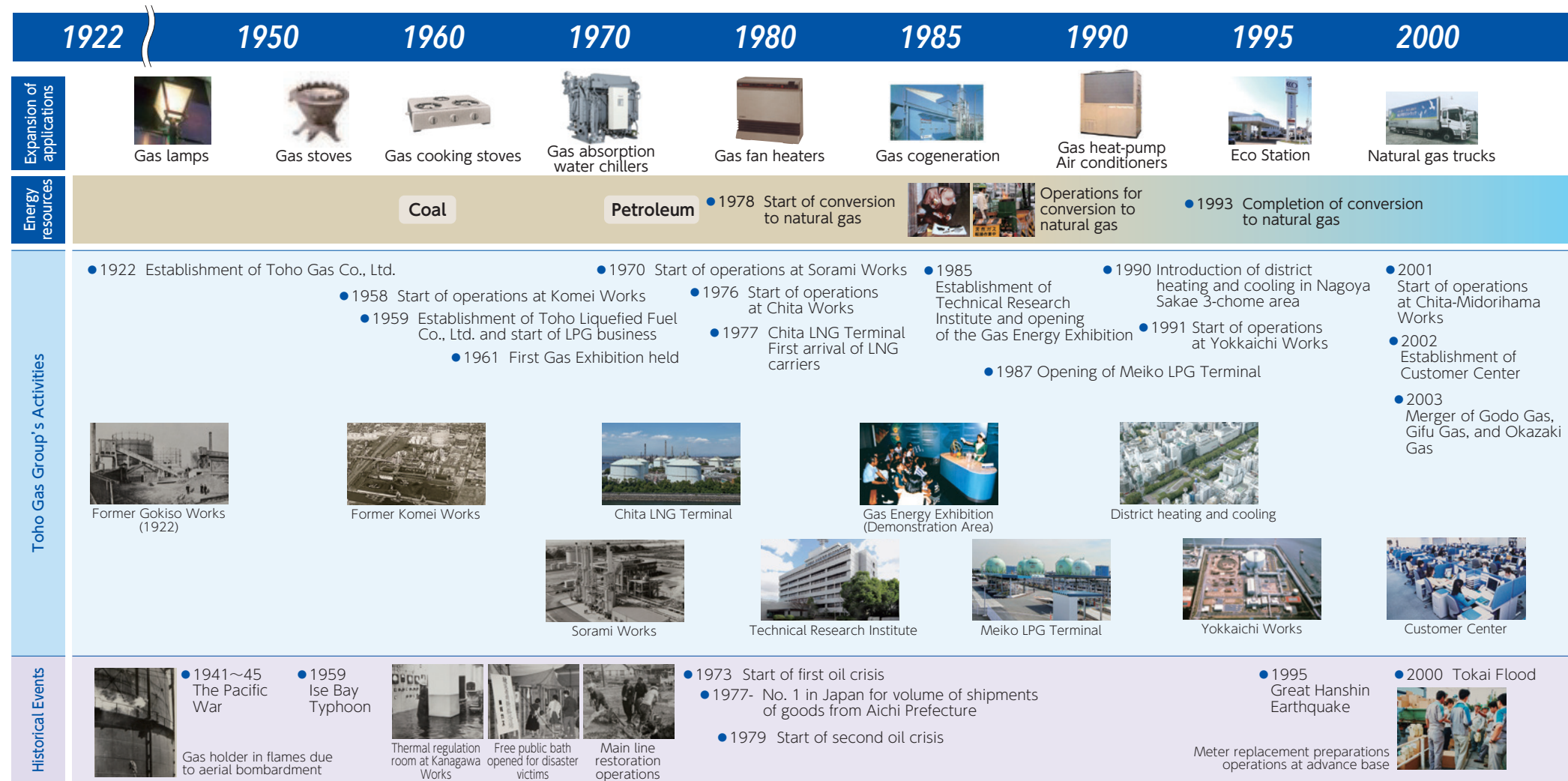


History of Toho Gas Group

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.



Number of customers
End of FY2022

^{*1} 2.92 million

^{*1} Total number of customer accounts
of City Gas, LPG, and Electricity.

2005

2010

2015

2020



Eco-JOES

Suzu-chu[®]*2

^{*2} Suzu-chu[®] is a registered trademark of Osaka Gas Co., Ltd.



ENE FARM



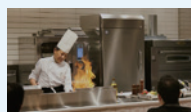
Hydrogen station

Natural gas

- 2005 Name changed to Toho Liquefied Gas Co., Ltd.
- 2009 Completion of circularization of transportation trunk pipeline
- 2013 Completion of Cross-Ise Bay Gas Pipeline
- 2016 Entry into retail electricity business
- 2017 Start of operations at Yokkaichi Power Generation
- 2018 Opening of Minato AQUUS smart town/Pro Kitchen OISIS commercial kitchen showroom
- 2019 Start of HOME REFORM by TOHO GAS, a store devoted exclusively to renovation.
- 2022 Toho Gas Network Co., Ltd. Takes on general gas pipe business, etc.



Cross-Ise Bay Gas Pipeline



Pro Kitchen OISIS commercial kitchen showroom



Transportation trunk line work



Yokkaichi Power Plant

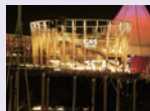


Minato AQUUS



My House Meister, a store devoted exclusively to renovation

- 2005 Expo 2005 Aichi, Japan world exposition/Opening of Chubu Centrair International Airport
- 2008 Global financial crisis
- 2011 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



Gas Pavilion (Expo 2005 Aichi, Japan)

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

Life and business partner beyond the boundary of energy services

Corporate group that leads the realization of a sustainable society

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



— 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 pursuing 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

01 Promote carbon neutrality

03 Create diverse value

02 Evolve as an energy operator

04 Contribute to the SDGs

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 CO₂. 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 CO₂ separation and capture, which is essential for CO₂ 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-Midorihamma 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



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

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 as 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)

*1 Consolidated ordinary income for FY2025 is approximately 25 billion yen.

*2 WACC = Cost of capital: Mid 2% range

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

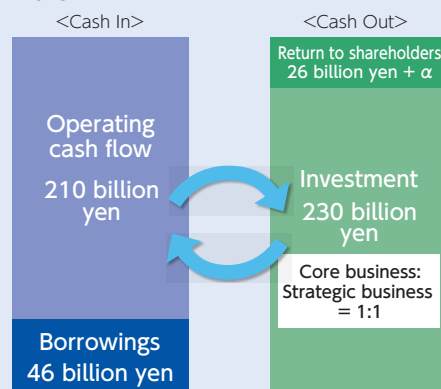
yen, and the impact of the situation in Ukraine, the volatility of energy prices increased significantly, creating a challenging financial management situation. Despite these challenges, through thoroughgoing cash flow management while focusing on stable LNG procurement, particularly through long-term 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.

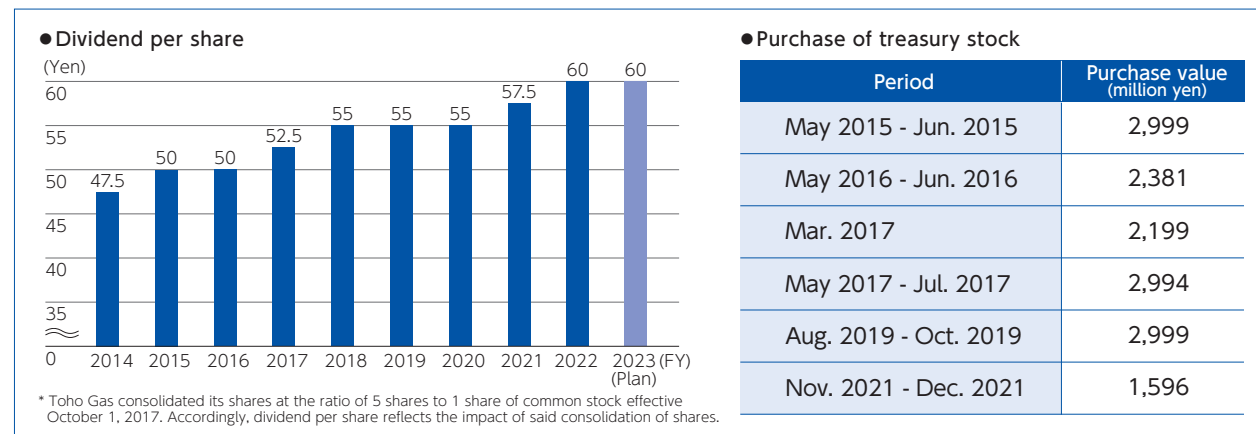
—Managing the balance sheet and investment profitability is a key financial challenge in the Medium-Term Management Plan.

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

● Cash Flow in the Medium-Term Management Plan 2022-2025



Shareholder Return Trends (Last 10 Years)



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 mid2% 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 CO₂ 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

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	Manufacturing capital	Human capital
Total assets 693.5 billion yen	Domestic bases City gas plants 4 Works	Number of consolidated employees 6,080
Equity ratio (%) 58.0 %	Pipeline length Approx. 30,000 km	Engagement rating*1 BB
Financial ratio (R&I) AA	LPG supply network Meiko LPG Terminal (secondary terminal), gas-filling and delivery bases 21	Female total managerial hiring ratio 32.8 %
Natural capital	Power generation equipment Yokkaichi Works 16.5 MW	Society and related capital
LPG purchase volume 2.66 million tonnes	Tsu Power Storage Station 11.4 MW	City gas service area (in three Tokai prefectures) 54 cities, 21 towns, and 1 village
LPG purchase volume 0.63 million tonnes	Capital expenditures (Inc. investment) 60.1 billion yen	Intellectual capital
		Research and development costs 1.57 billion yen

(FY2022)

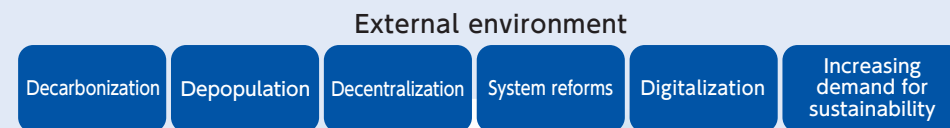
Strengths acquired through 100 years of business management

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

*1 Engagement survey results according to Link and Motivation Inc.



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

Toho Gas Group Vision ▶P.15

Materiality ▶P.13

Promote carbon neutrality

Provide various kinds of energy and services

Supply safe, secure and stable energy

Contribute to the region through the resolution of social issues

Improve work satisfaction and ease of work and promote diversity

Strengthen compliance and governance

Corporate Philosophy
▶P.1

Corporate Mission

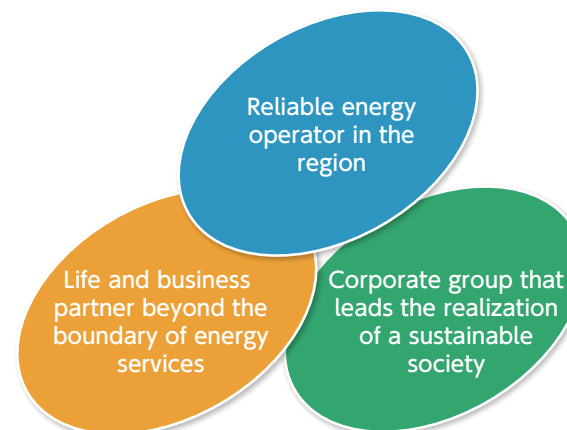
We, together with our Group companies, are dedicated to the creation of a rich and exciting life and the development of attractive and vital communities by setting our greatest value on the trust placed in us.

Input

Business Model

Achievement of the Toho Gas Group Vision

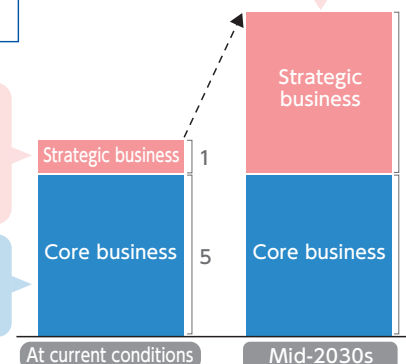
What we aim to be in the mid-2030s

Image of expansion
of business scale

Drive medium- to long-term growth by expanding business in fast-growing areas and by providing added value through the focused investment of management resources

Enhance our ability to generate cash flow through business restructuring to maintain a stable, long-term earnings base

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



*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%

	FY2022 results	Change from previous year
Number of customers ^{*2}	2.92 million	(+50 thousand)
City gas sales volume ^{*3}	3.55 billion m ³	(-0.16 billion m ³)
LPG sales volume	475 thousand tonnes	(-10 thousand tonnes)
Electricity sales volume	2.37 billion kWh	(+0.24 billion kWh)
Digital contact ^{*4}	0.9 million	(+0.2 million)
New service launches ^{*5}	11/year	(-)
CO ₂ reduction contribution volume	307 thousand tonnes	(-)
Volume of renewable energy sources handled ^{*6}	93 thousand kW	(+29 thousand kW)
Operating cash flow	56.4 billion yen	(+20.9 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)

Output

Outcome

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

STEP
1

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.

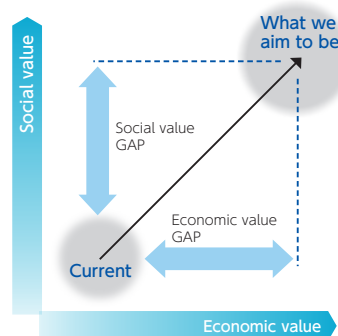
STEP
2

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



STEP
3

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	Action Issues
Promote carbon neutrality 	<ul style="list-style-type: none"> ● Reductions of carbon and decarbonization at gas customer locations ● Contribute to the reduction in CO₂ emissions from society as a whole <hr/> <ul style="list-style-type: none"> ● Develop technologies to decarbonize gas itself <hr/> <ul style="list-style-type: none"> ● Establish a foundation to expand the use of hydrogen <hr/> <ul style="list-style-type: none"> ● Low-carbonize/decarbonize electricity
Provide various kinds of energy and services 	<ul style="list-style-type: none"> ● Development into a Total Energy Provider ● Expansion of domestic and overseas energy-related business ● Provide value through services that enrich life and services that support business
Supply safe, secure and stable energy 	<ul style="list-style-type: none"> ● Advancing security measures and disaster measures ● Stable procurement at a reasonable price
Contribute to the region through the resolution of social issues 	<ul style="list-style-type: none"> ● Strengthen initiatives for coexistence with local communities <hr/> <ul style="list-style-type: none"> ● Promotion of CSR procurement ● Promoting resource recycling <hr/> <ul style="list-style-type: none"> ● Biodiversity conservation
Improve work satisfaction and ease of work and promote diversity 	<ul style="list-style-type: none"> ● Human resource management ● Diversity and inclusion ● Realizing flexible workstyles ● Safety and health management
Strengthen compliance and governance 	<ul style="list-style-type: none"> ● Promote risk management and strengthen information security <hr/> <ul style="list-style-type: none"> ● Compliance promotion

Target (FY2025)	FY2022 Results	Main related pages
<ul style="list-style-type: none"> Amount of contribution to CO₂ reduction 1 million tonnes Reduction of CO₂ emission intensity in business activities -2% CO₂ emission intensity/year 	<ul style="list-style-type: none"> Amount of contribution to CO₂ reduction 307 thousand tonnes CO₂ emission intensity in business activities +3.4% CO₂ emission intensity compared to the previous year 	<p>P.25 Initiatives for Carbon Neutrality P.35 Management of Environmental Preservation P.39 Global Warming Countermeasures P.80 Electricity Business</p>
<ul style="list-style-type: none"> Promote development and verification of technology for CO₂ capture and utilization and methanation 	<ul style="list-style-type: none"> 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. 	<p>P.25 Initiatives for Carbon Neutrality</p>
<ul style="list-style-type: none"> Establish firm position as a hydrogen supplier in the region 	<ul style="list-style-type: none"> Began construction of hydrogen production facilities at the Chita-Midorihamma Works Launched sales of industrial furnace burners capable of switching between city gas and hydrogen combustion 	<p>P.25 Initiatives for Carbon Neutrality P.77 Technical and Product Development</p>
<ul style="list-style-type: none"> Amount handled of renewable energy power sources 250,000 kW*1 	<ul style="list-style-type: none"> Amount handled of renewable energy power sources 93,000 kW 	<p>P.25 Initiatives for Carbon Neutrality P.80 Electricity Business</p>
<ul style="list-style-type: none"> Numbers of city gas, LPG, and electricity customers 3 million*2 	<ul style="list-style-type: none"> Number of energy customers reached 2.92 million (city gas: 1.74 million, LPG: 0.60 million, electricity: 0.58 million) 	<p>P.71 City Gas Business P.79 LPG and Other Energies P.80 Electricity Business</p>
<ul style="list-style-type: none"> Digital contact membership 1.3 million New service launches About 10 services a year 	<ul style="list-style-type: none"> 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 	<p>P.81 Business Development</p>
<ul style="list-style-type: none"> Maintain zero serious accidents Advancing Security Measures and Disaster Measures 	<ul style="list-style-type: none"> Zero serious accidents Advanced measures against aging (LNG plant control system updates, aging pipeline countermeasures) 	<p>P.71 City Gas Business</p>
<ul style="list-style-type: none"> Diversify procurement sources 	<ul style="list-style-type: none"> Configured a LNG procurement portfolio resilient to environmental changes Decision to implement system-connected batteries to contribute to stable power supply 	<p>P.71 City Gas Business P.80 Electricity Business</p>
<ul style="list-style-type: none"> Strengthen efforts for coexistence with local communities to solve social issues and improve resilience 	<ul style="list-style-type: none"> Minato AQUIS selected as a Decarbonization Leading Area by the Ministry of the Environment Signed comprehensive cooperation agreements with six municipalities Established three new regional Shin-denryoku companies in collaboration with municipalities and other entities 	<p>P.45 Contribution to the Local Communities</p>
<ul style="list-style-type: none"> Conduct initiatives that contribute to SDGs and education related to SDGs for the next generation in collaboration with local communities 	<ul style="list-style-type: none"> School-education support activities (special classes at schools, Toho Gas Energy Exhibition Hall), hosted EPOC environmental education classes 	<p>P.45 Contribution to the Local Communities</p>
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Developed and published CSR procurement policy and guidelines Maintained our partnership-building declaration 	<p>P.55 Initiatives for Respect of Human Rights</p>
<ul style="list-style-type: none"> Sustenance and recovery of biodiversity through business activities and regional contribution activities, satoyama and forest conservation, and contribution to protection of local species 	<ul style="list-style-type: none"> 99.7% recycling rate for waste materials generated by gas pipeline construction 	<p>P.41 Resource Recycling</p>
	<ul style="list-style-type: none"> Maintained and managed biotopes, implemented satoyama and forest conservation activities in collaboration with municipalities Recognized as a certified enterprise under Aichi Biodiversity Company Certification Program 	<p>P.43 Biodiversity Conservation</p>
<ul style="list-style-type: none"> Improve employee engagement Ensure diversity in appointing managers 	<ul style="list-style-type: none"> 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 	<p>P.49 Promotion of Personnel Policies</p>
	<ul style="list-style-type: none"> Conducted training presuming anticipating the occurrence of a cyber-attack against core systems Held workplace meetings focused on close-at-hand job-related risks 	<p>P.49 Promotion of Personnel Policies</p>
<ul style="list-style-type: none"> Share and raise awareness about compliance and risk detection in the entire organization 	<ul style="list-style-type: none"> 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 	<p>P.53 Initiatives for Occupational Health and Safety</p>
		<p>P.61 Internal Control P.63 Compliance</p>
		<p>P.63 Compliance</p>

*1 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.

*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

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.

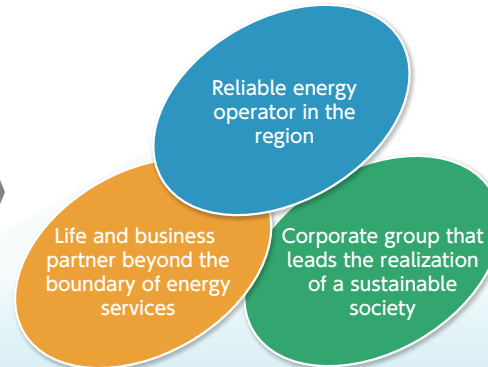
Strengths acquired through 100 years of business management

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



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.

- | | |
|--------------------|---|
| Gas | <ul style="list-style-type: none"> •Promote fuel conversion, etc. to achieve low-carbon/decarbonization •Concurrently, develop and implement technologies to decarbonize gas itself |
| Hydrogen | <ul style="list-style-type: none"> •Build a hydrogen supply chain in the region •Create demand for hydrogen in the fields of mobility, heat sector, etc. |
| Electricity | <ul style="list-style-type: none"> •Develop various renewable energy power supplies •Build a system that integrates distributed resources and provides supply capacity |

Expansion of energy share

Deliver various kinds of energy in an optimal form according to customer needs and usage status of equipment and facilities

Safety and security Fulfill our responsibilities as an energy operator Stable gas supply

Expand our energy market share in the region, and also expand the activity area and related businesses

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.

Source of Value Creation

- | | | | | |
|---|---|--|---|---|
| Physical contact
Bases such as sales channels scattered in the region | Digital contact
Service platform, EC site | Co-creation with other industries and customers | Know-how
Expertise in engineering, O&M*, etc. | Technology Development
Technology for carbon neutrality |
|---|---|--|---|---|

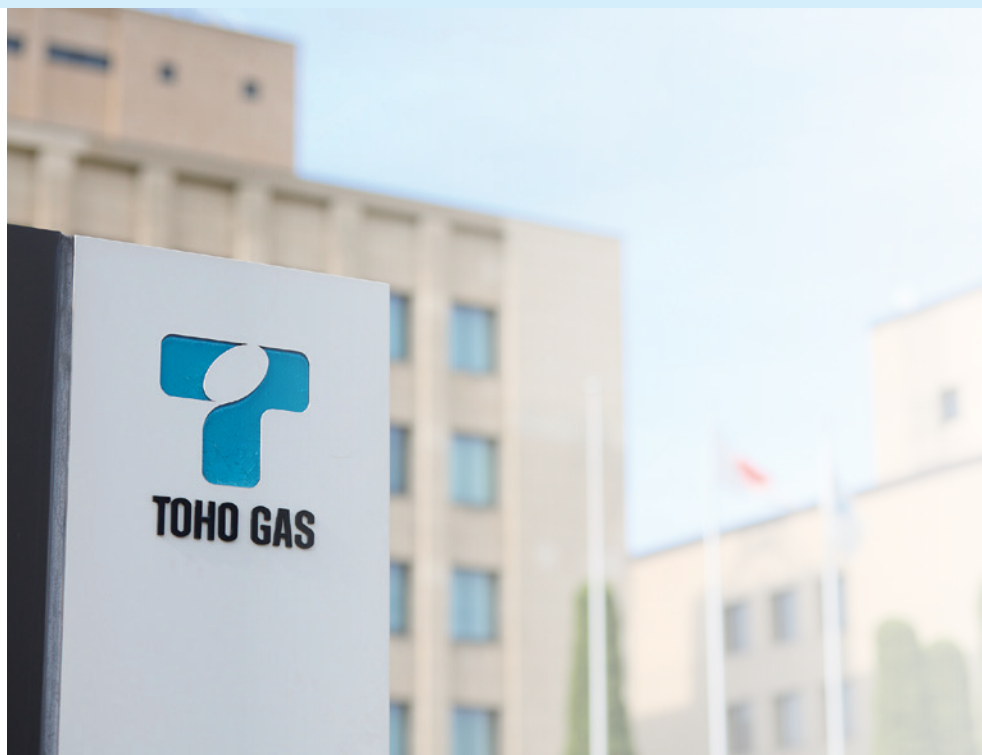
* Operations and Maintenance

Value Creation in Everyday Life B to C

- Housing Food Health, long-term care Energy Service
- Create diverse value according to customer lifestyles and life stages to realize an affluent life

Value Creation in Business B to B

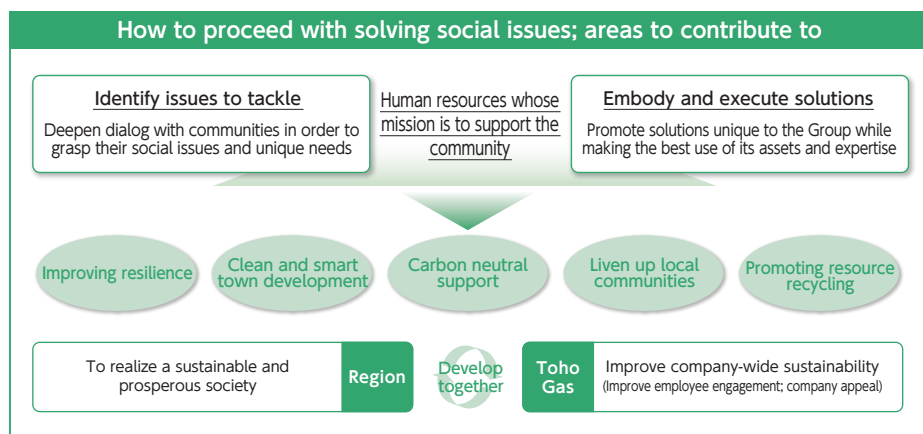
- Engineering Carbon neutral support Business support (support to attract customers and optimize business, etc.)
- Contribute to solving various business issues for customers, such as carbon-neutrality support



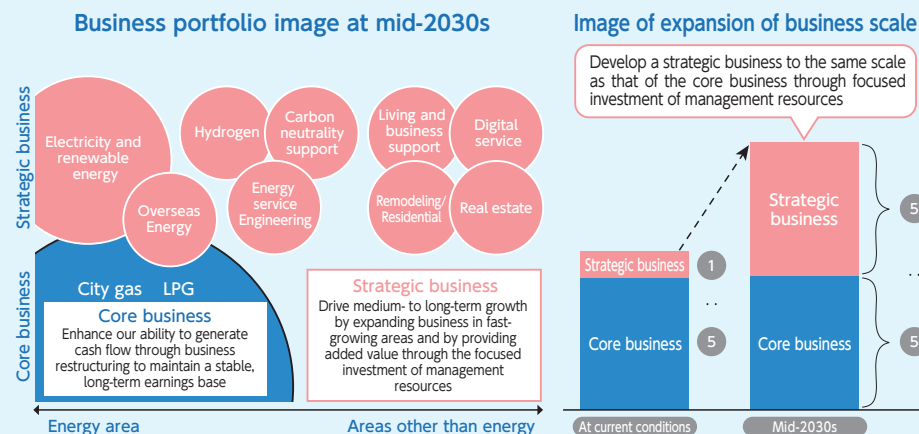
Direction of efforts ③ Promote social issue solutions

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.



Transformation of business portfolio



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



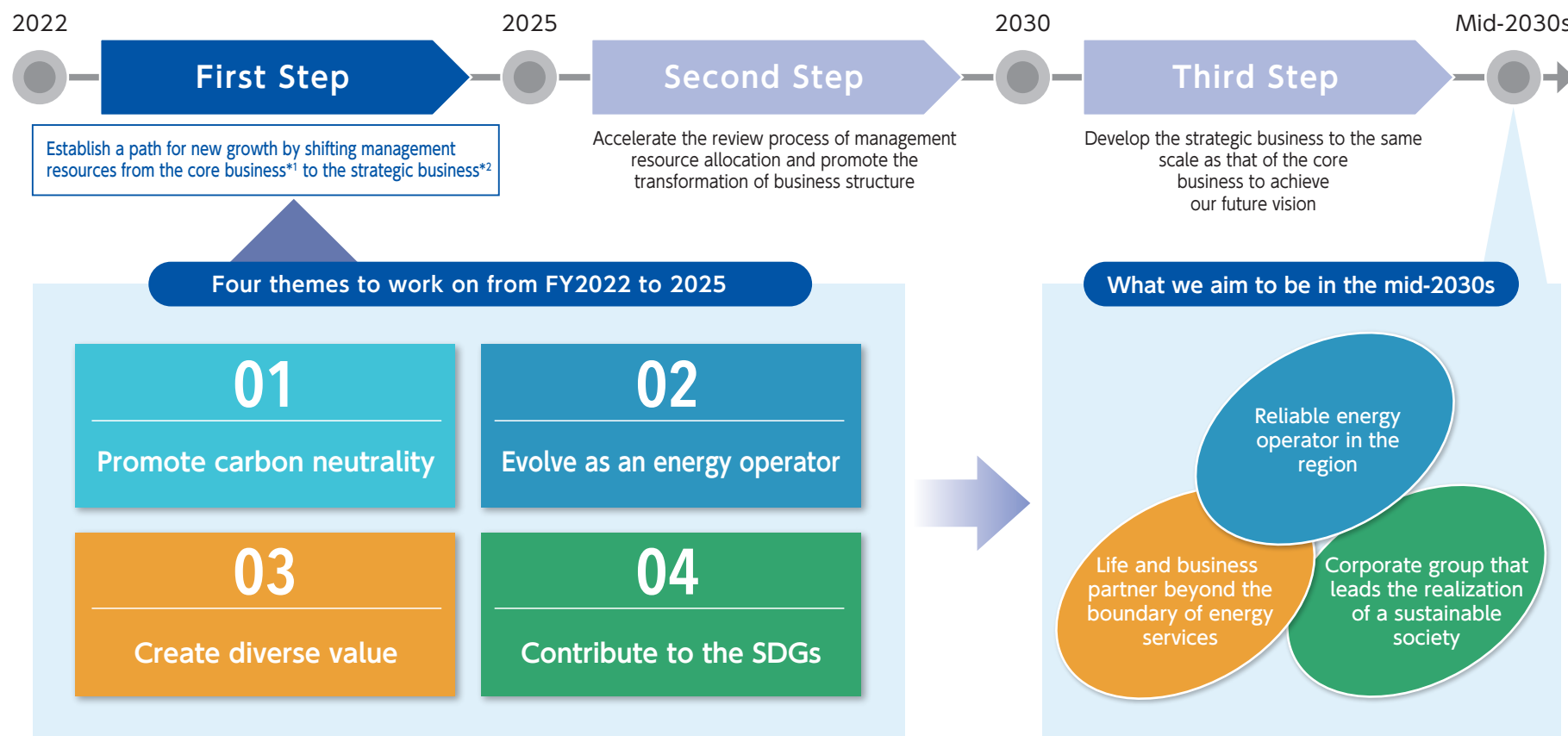
Employees

- 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

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.

Positioning of Medium-Term Management Plan



*1 Business to create cash flow as a long-term stable earnings base (e.g., city gas, LPG) *2 Business that drives medium- to long-term growth (e.g., electricity, energy services, living/business support)

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.

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

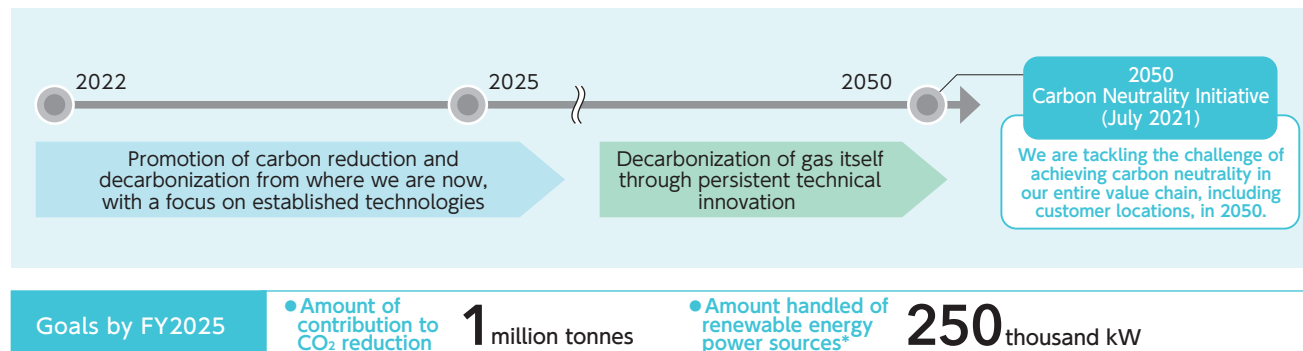
- Procure carbon-neutral LNG in a flexible manner
- Investigate and study overseas projects on CO₂ absorption and fixation and on procurement of zero emission fuels, etc.

●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 CO₂ separation/capture and methanation, which are some of the key technologies to achieve 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.

●CO₂ separation and capture

- With the aim of separating and capturing CO₂ 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 CO₂ from the atmosphere/exhaust gas by using LNG cold energy

●Methanation (e-methane)

- Start with a small-scale demonstration using biogas-derived CO₂ 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.

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.

Goals by 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

Group Vision
What we aim
to be

Reliable energy
operator in the
region

●Electricity procurement

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

Management Index

- 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)	About 0.6 (FY2025)

*1 Consolidated ordinary income for FY2025 is approximately 25 billion yen *2 WACC=Cost of capital: Mid 2%

03 Create diverse value

We will expand our services to meet diversifying customer needs and solve their problems and also broaden our business domains by utilizing our assets and expertise.

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
FY2025

●Digital contacts Membership **1.3** million

●Number of new service launches About **10** 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
boundary of energy
services

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

Group Vision
What we aim
to be

Corporate
group that leads
the realization of
a sustainable
society

04 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 AQUUS (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

Medium-Term Management Plan 2022-2025

Report on Progress in the First Year

Four themes to work on from FY2022 to 2025

01 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 CO₂ 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.

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	P.25
	Initiatives for ESG [Environment] – Global Warming Countermeasures Climate Change Mitigation at Customer Locations	P.39
	Business Report: City Gas Business – "Responding to Diverse Customer Needs"	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 to decarbonize gas itself

CO ₂ 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

Building the Chita Midorihama Factory-based hydrogen supply chain	Initiatives for Carbon Neutrality ④Use of hydrogen: Building a hydrogen supply chain	P.29
Use of hydrogen	Initiatives for Carbon Neutrality ④Use of hydrogen: Development of hydrogen combustion technology	P.29
	④Use of hydrogen: Implementation of hydrogen technology at Minato AQUUS	P.30
	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.76 P.77

Low-carbonize/decarbonize electricity

Expansion of renewable energy power sources	Initiatives for Carbon Neutrality ⑤Electricity: Decarbonization of power sources Business Report: Electricity Business – "Expansion of Renewable Energy Power Sources"	P.30 P.80
Utilization of renewable energy power supply	Initiatives for Carbon Neutrality ⑤Electricity: Initiatives toward VPP commercialization	P.30
Expansion of electricity services	Business Report: Electricity Business – "Electricity Services"	P.80

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 ①Reductions of carbon and decarbonization at customer locations: CNxP business, carbon-neutral LNG	P.25
	Business Report: City Gas Business – "Expansion of services that enrich people's lives"	P.73
	Business Report: City Gas Business – "Expanding Services to Support Business"	P.76
Strengthening sales proposals, alliances	Business Report: City Gas Business – "Improving customer service"	P.74

Ensuring safe, secure, 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

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"	P.73
	Business Report: City Gas Business – "Improving customer service"	P.74
Expansion of service menu	Business Report: City Gas Business – "Expansion of services that enrich people's lives"	P.73
	Business Report: Business Development – "Expanding Services and Contact Points with Customers"	P.82
Expansion of services to support business		
Expand products and services	Business Report: City Gas Business – "Expansion of services to support business"	P.76
Broaden business domains 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"	P.77
	Business Report: Business Development – "TOPIC: Chita Cool Salmon Land-Based Aquaculture"	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.

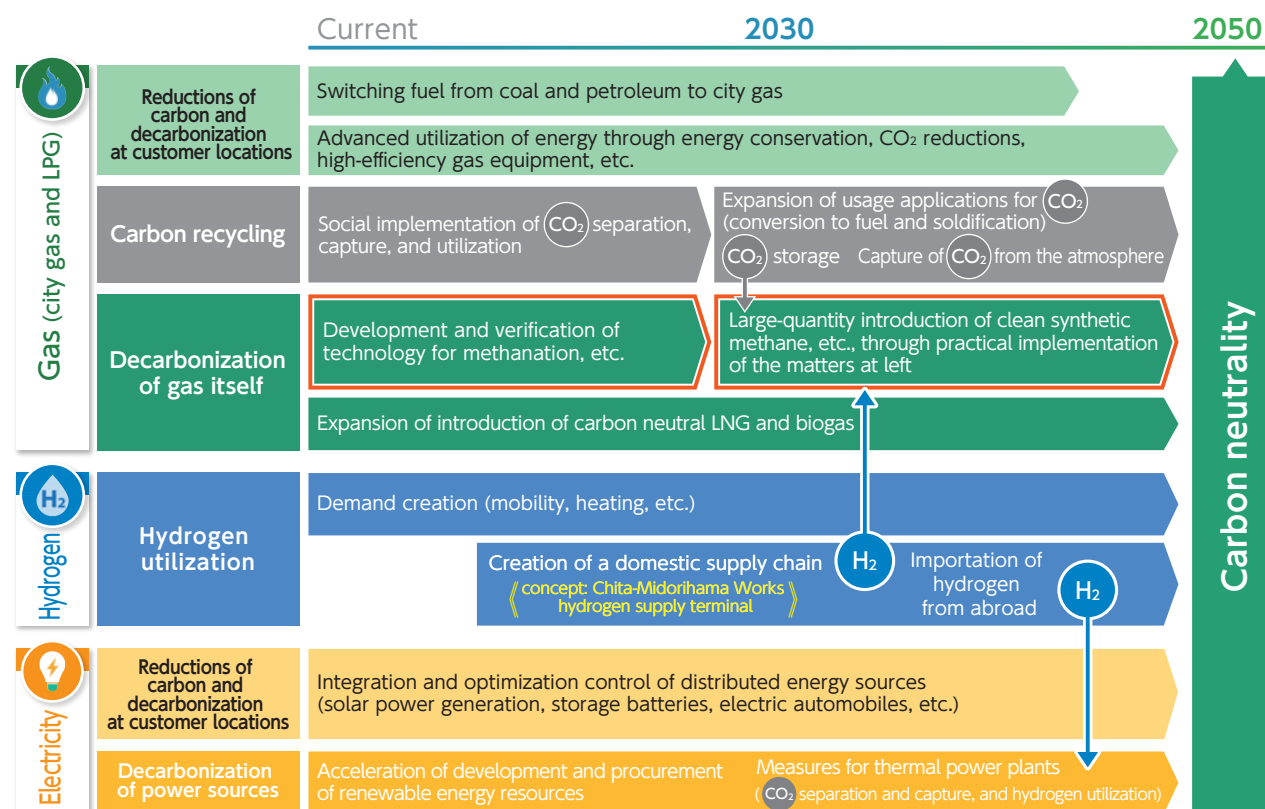
Strengthen initiatives for coexistence with local communities		
Promote solutions for social issues by collaborating with local governments	Initiatives for ESG [Society]: Contribution to the Local Communities "Signing Comprehensive Collaboration Agreements with Municipalities" "Regional Revitalization Through Regional New Power Generation"	P.45 P.45
Improve local resilience	Initiatives for ESG [Society]: Contribution to the Local Communities "Basic Agreement on Technical Cooperation with Municipalities"	P.46
Minato AQULS (Second stage development)	Initiatives for ESG [Society]: Contribution to the Local Communities "Contributing to the Regional Community Through Minato AQULS"	P.46
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 satisfaction 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"	P.50
Flexible working style	Initiatives for ESG [Society]: Promotion of Personnel Policies "Improving Ease of Work"	P.51
Safety and health management	Initiatives for ESG [Society]: Initiatives for Occupational Health and Safety	P.53

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

CO₂ 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 CO₂ emissions for our customers. In addition, we strive to reduce our own CO₂ emissions and contribute to CO₂ reduction through our business activities.

Amount handled of renewable energy power sources

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

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.

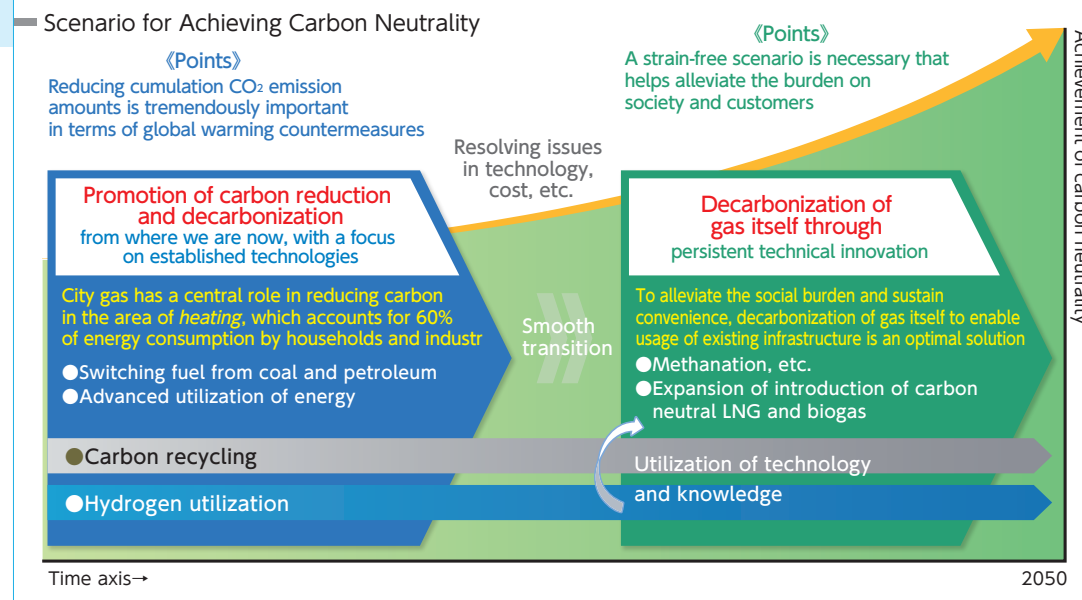
To achieve carbon neutrality, innovative technical development is a requirement, and tremendous time and costs become necessary to overcome this. Consequently, we believe that if we first steadily press ahead with reducing carbon and decarbonization using established technology, it will become possible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

Portrait of the future

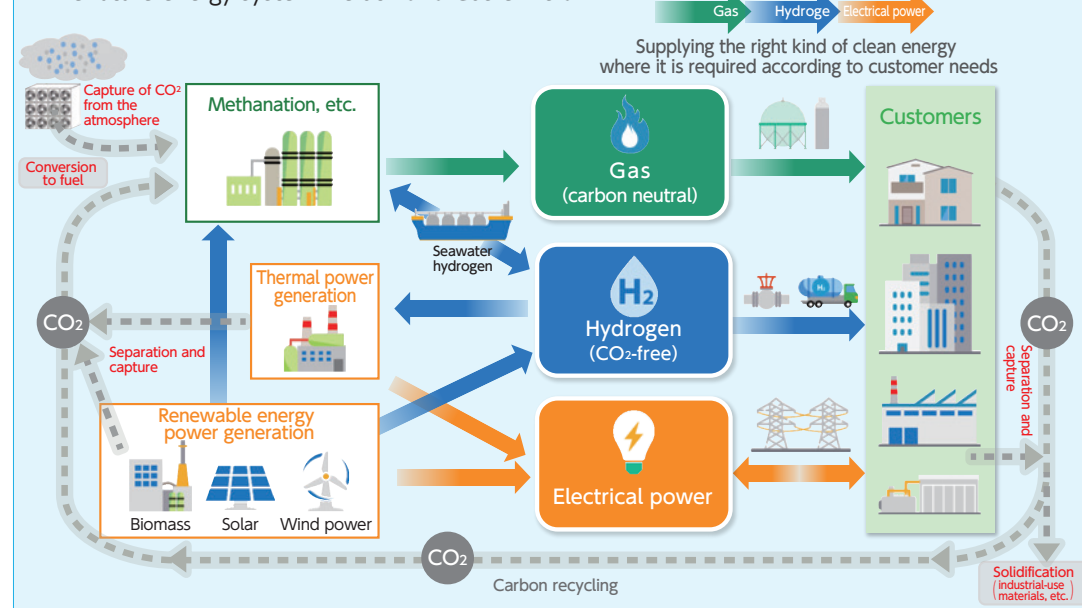
Through broad-based collaboration with all concerned, Toho Gas aims to create an energy system that contributes to carbon neutrality, with the pivot being the three types of energy of gas (city gas and LPG), hydrogen, and electricity.

〈Points〉

Gas, city gas, LPG	<ul style="list-style-type: none"> •In the short to medium term, we will strive to suppress overall societal CO₂ emissions <u>in a substantial way by maximizing the use of gases of superior environmental friendliness</u> while promoting energy conservation and sophisticated use of energy. •Toho Gas will also lead the decarbonization efforts of our customers through technological advancements, including <u>enhancing our existing carbon recycling technology</u>. •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 CO₂. Through the widespread adoption of clean substances such as e-methane produced in this way, <u>we aim to achieve the decarbonization of gas itself and ensure a smooth transition to carbon neutrality</u>.
Hydrogen	<ul style="list-style-type: none"> •Taking into consideration the characteristics of the Chubu region, a hub for industries centered around the automotive sector, we will focus on initiatives <u>to create demand for hydrogen in mobility, heat requirements, and related areas</u>. •Simultaneously, to meet the rapidly increasing demand for hydrogen, <u>we will solidify plans to establish a hydrogen supply hub at the Chita-Midorihamma Factory and take on the challenge of building a hydrogen supply chain in the Chubu region</u>.
Electricity	<ul style="list-style-type: none"> •In addition to effectively utilizing distributed energy resources (solar panels, battery storage, electric vehicles, and the like) we will work on <u>the decarbonization of energy sources with a focus on the expansion of renewable energy sources</u>.



The future energy system we at Toho Gas envision

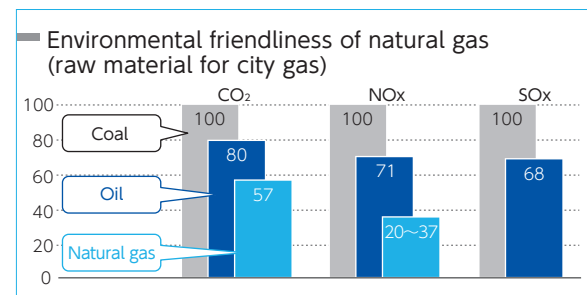


Initiatives for Carbon Neutrality

① Reductions 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 CO₂ 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 NO_x and SO_x: Natural Gas Prospects to 2020 (1986), IEA

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

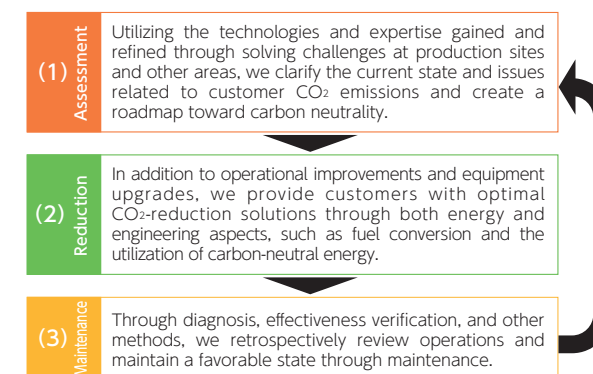
We are carrying out CNxP Business operations, which support achievement of carbon neutrality by customers through such means as visualizing data, assisting in formulating execution plans, and adopting renewable energy sources and high-efficiency equipment.

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



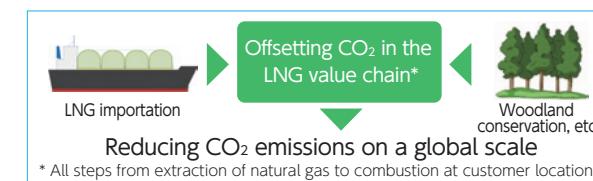
together with customers as **Partners** aiming for carbon neutrality.

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.



Carbon-neutral LNG

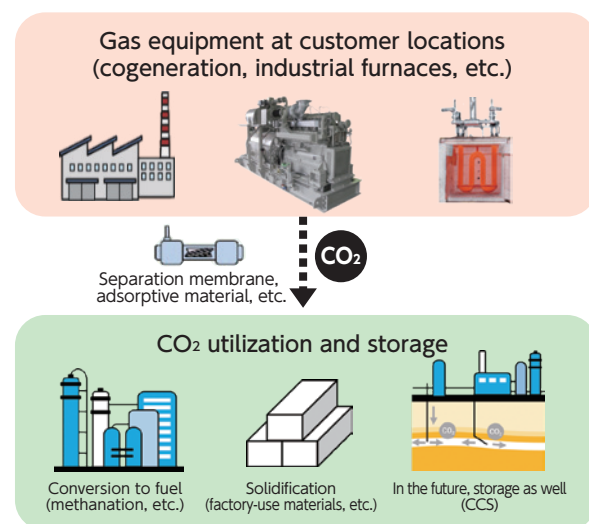
Toho Gas introduced carbon-neutral LNG in April 2021 and began supplying it in August 2021. As a means of carbon neutrality for city gas that can be implemented from the grassroots level, we have received diverse industrial customer demands for it, and the amounts handled are expanding. To ensure transparency 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 CO₂ reductions.



② Carbon recycling

Toho Gas was quick to focus on developing CO₂ separation and capture technology. In the future, we will further enhance our technological capabilities from the perspective of CO₂ 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 CO₂ is separated and captured at customer locations for utilization. Alongside the development of CO₂ separation and capture technologies, we are conducting studies to achieve actual CO₂ 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 CO₂ concentration, capture volume, energy consumption, and the like, and working toward achieving higher performance and lower costs.

CO₂ separation and capture demonstration facility (membrane separation methods, physical adsorption method, etc.)



- Exploration of new materials (membranes and adsorbents) that yield high CO₂ concentrations and large capture volumes, with installation in the demonstration facility for evaluation and enhancement
- Optimization using simulation technology

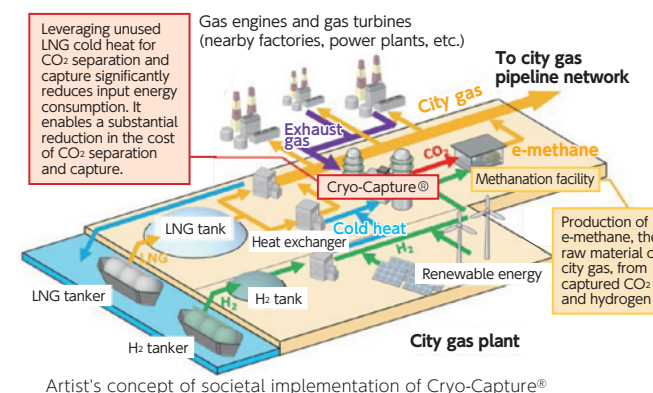
Technical development for the future

As a technology for cost-effective CO₂ 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 CO₂ from the atmosphere in the future.

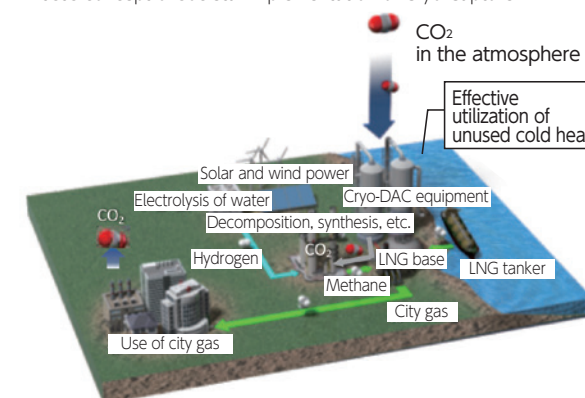
Conventional technology	System driven by heat (high-cost CO ₂ capture)
Innovative technology	System driven by unused LNG cold heat (enables reduction of CO ₂ recovery costs)

For CO₂ 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 CO₂ captured by Cryo-Capture® at an LNG base for the production of e-methane.

The separation and capture of CO₂ 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

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.

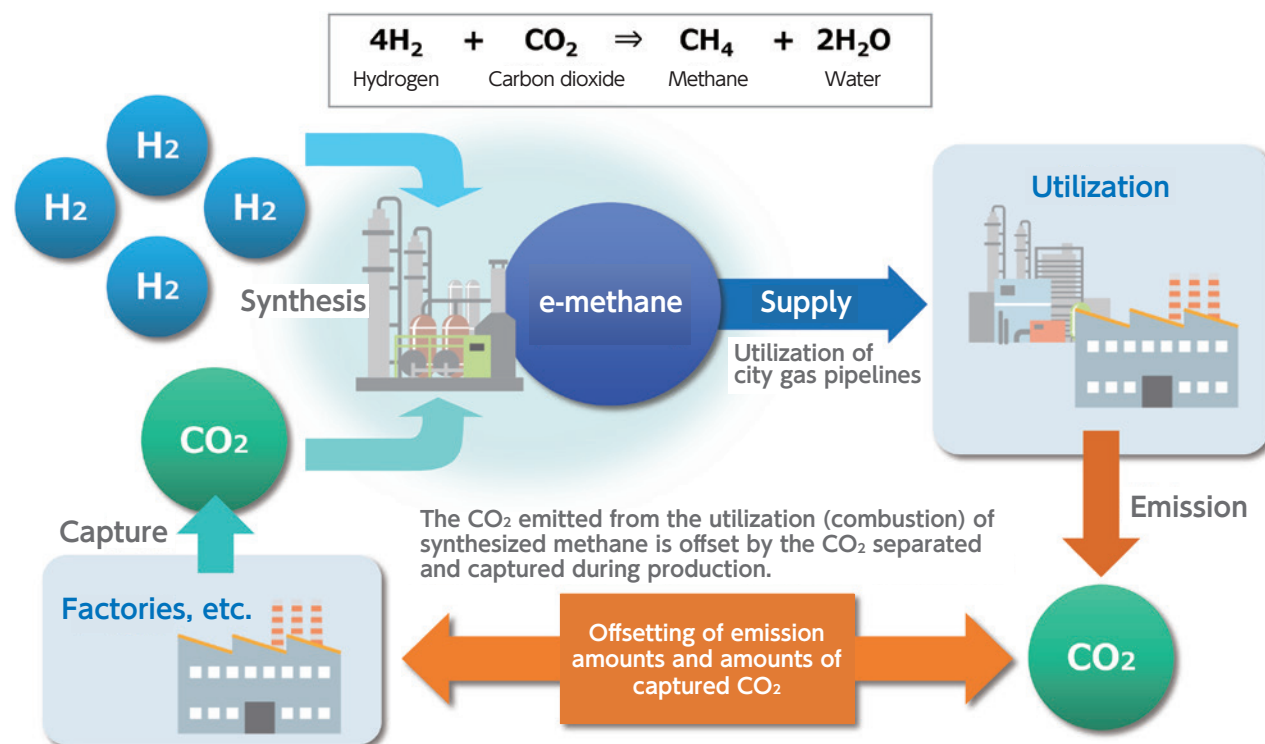
Toward the societal implementation of e-methane by 2030, we are conducting business feasibility studies for e-methane production both domestically and internationally.

Benefits of e-methane

Methanation is a technology that synthesizes methane (e-methane) by reacting hydrogen and CO₂, and is expected to be a potential means for the future decarbonization of gas itself.

E-methane produced from captured CO₂ and hydrogen is a decarbonized fuel, and when used in the same way as hydrogen or ammonia, does not contribute to increased atmospheric CO₂.

e-methane イーメタン



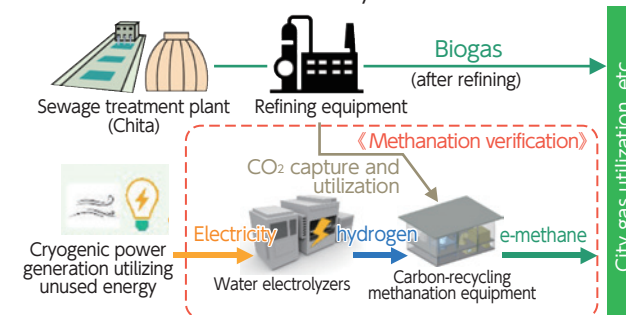
The utilization of e-methane can also effectively leverage existing city gas infrastructure and consumer devices. As it facilitates efficient energy transportation, it contributes to reducing societal costs and sustaining customer convenience.

Methanation verification utilizing CO₂ 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 CO₂ 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



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 CO₂ 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.

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.

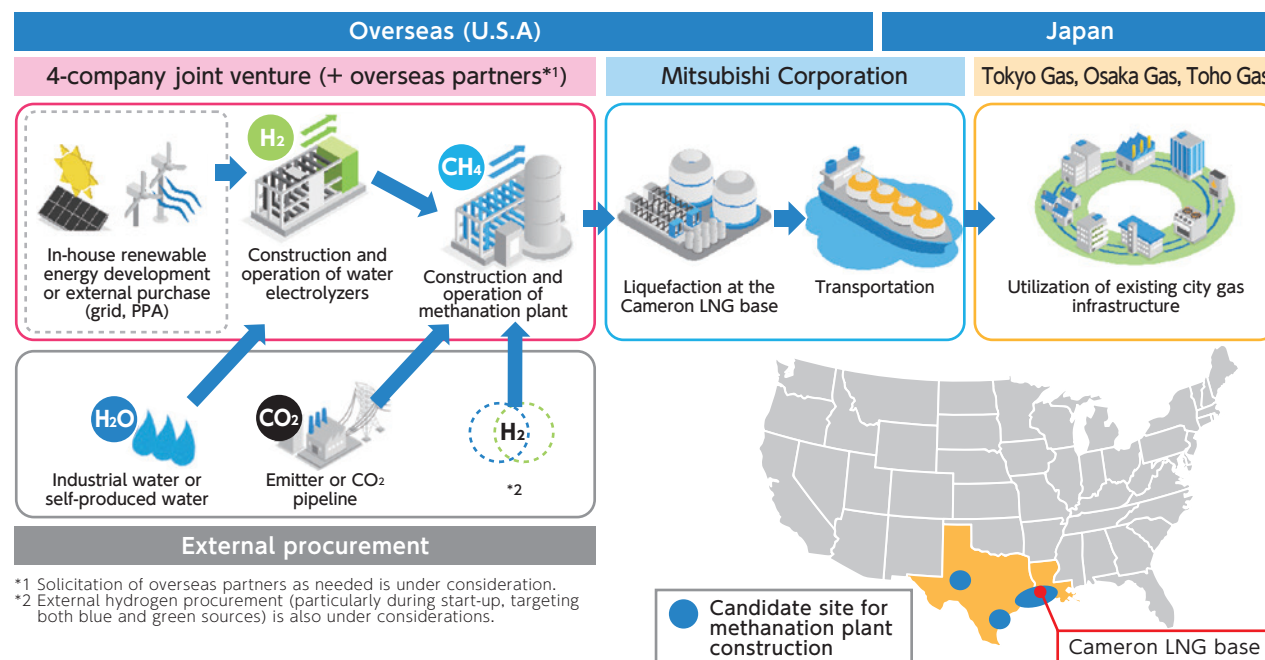
By combining the expertise of Toho Gas in the LNG value chain, the knowledge of Toyota Tsusho Corporation in decarbonized fuel business, and Total Energies's global fuel supply portfolio, Toho Gas is conducting business feasibility studies in Australia and other locations for creating an optimal value 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 CO₂.

With the goal of early achievement of a carbon-neutralization method for heat demand, we are investigating a model case where CO₂ emitted from inland factories is captured, transported to city gas production facilities, and subjected to methanation. This model envisions the circulation of CO₂ within domestic and regional areas.



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)



Toyota Hoen Hydrogen Station



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

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

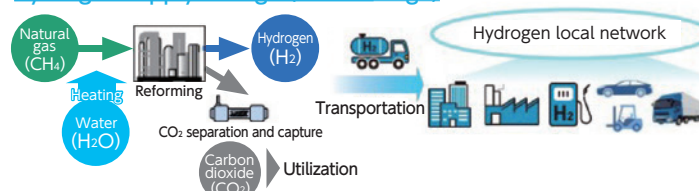
Transportation and supply

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

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

Hydrogen supply chain (future image)



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

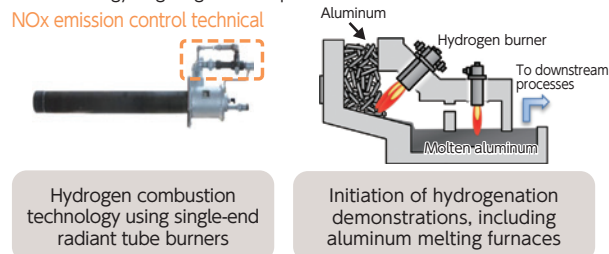
also aim to position Chita Midorihama Works as a receiving hub for imported hydrogen.

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.

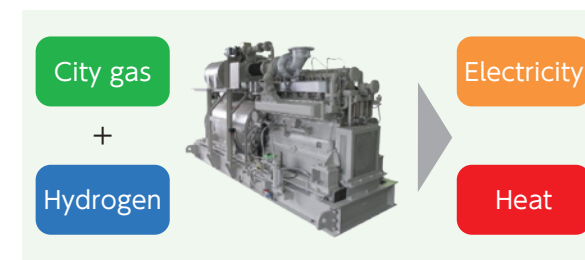
Hydrogen combustion

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



Hydrogen co-combustion cogeneration

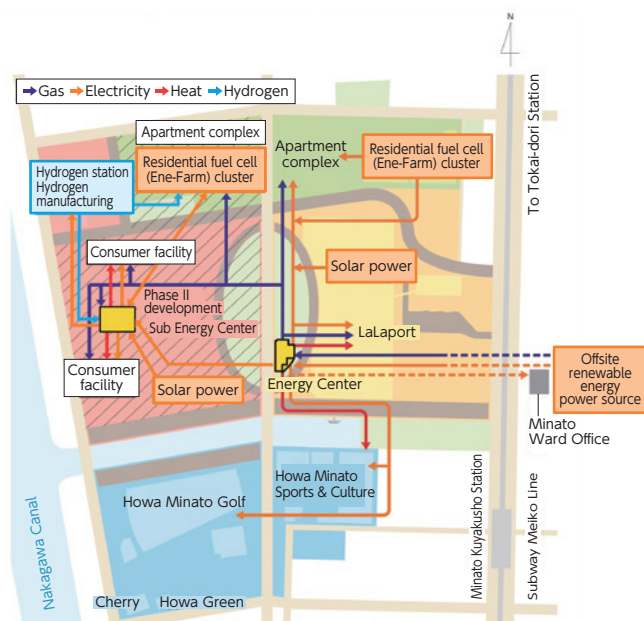
For the first time in Japan, Toho Gas successfully engaged in test operation of city gas and hydrogen combustion using gas engine cogeneration units, making use of rated power generation output and achieving a hydrogen mixing rate of 35% (by volume).



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

⑤ Electricity

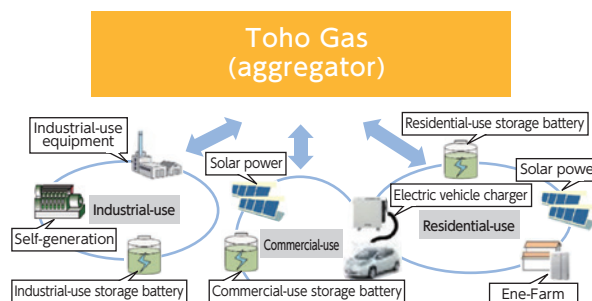
Reductions of carbon and decarbonization at customer locations

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.

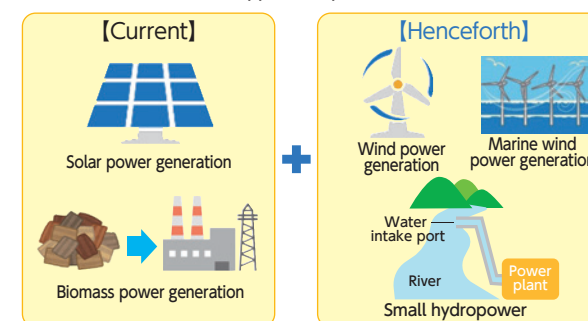


Decarbonization of power sources

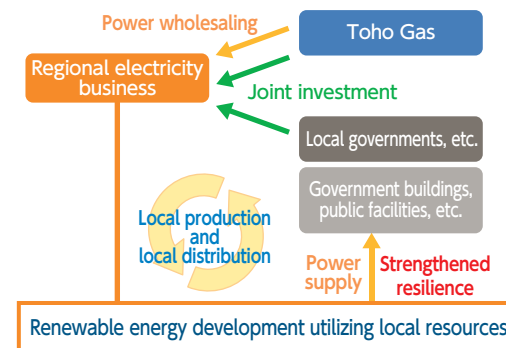
To decarbonize Toho Gas's own power sources, we are devoting effort to developing and procuring renewable energy sources, and to their diversification.

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