

# Environmental Management

## Basic Concept

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

## Environmental Action Principles

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

### Environmental Action Principles

#### Basic Policy

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

#### Principles

- Principle 1** The Group will contribute to reducing the impacts of its business activities on the environment related to customers.
- Principle 2** The Group will reduce the impacts of its business activities on the overall environment.
- Principle 3** The Group will contribute to environmental preservation in collaboration with local communities and the global community.
- Principle 4** The Group will step up research and development regarding environmental preservation technologies.

## Environmental Action Guidelines

Our Environmental Action Guidelines, established in 2011 and last updated in 2022, outline the concept and action details of the environmental activities implemented by the Group.

### Environmental Action Guidelines

#### Global Warming Countermeasures

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

#### Resource Recycling

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

#### Biodiversity Conservation

The Group recognizes the importance of biodiversity, which is the foundation of society and the economy, and will work to grasp and analyze the impact of business activities on biodiversity as well as promoting biodiversity-friendly activities.

#### Environmental Social Contribution

The Group will contribute to the resolution of social issues by participating in environmental activities/projects in collaboration with local communities and the global community.

#### Technology Development

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

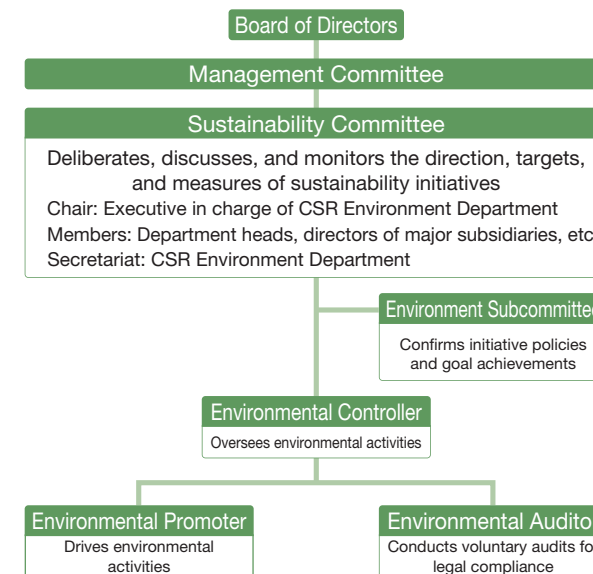
#### Environmental Management

Recognizing the impact of its business activities on the overall environment, the Group will rigorously enforce environmental management, and develop human resources who are environmentally conscious and can act on their own initiative. We comply with the demands of laws, ordinances and agreements relating to the environment.

## Environmental Management System

The Sustainability Committee, comprised of Toho Gas and major affiliates, deliberates, discusses, and monitors the direction, targets, and various measures of key environmental activities to reduce the environmental impact and comply with environmental laws and regulations. The Environment Subcommittee confirms the policies of initiatives for environmental action goals and the achievements of each department. In addition, each department and affiliate has specific roles to promote environmental activities, including an environmental promoter responsible for driving specific activities, an environmental auditor responsible for voluntary audits for compliance with environmental laws and regulations, and an environmental controller responsible for overseeing these roles.

### ● Organization structure for environmental management



## Environmental Management

### Environmental Action Goals (FY2022 to FY2025)

Toho Gas Group set the following environmental action goals for FY2022 to FY2025 and is promoting initiatives to achieve these goals. The progress of these initiatives in FY2023 is outlined below. Due to a temporary increase in the final disposal rate, we were unable to achieve our goal for zero emissions of industrial waste at city gas plants, but through continued efforts to separate and recover waste and by improving our sludge resource recycling rate, we expect to achieve our goal for the total period of FY2022 to FY2025. We are making steady progress to achieve our other action goals.

Type		Goal	FY2025 target value	FY2023 results
Environmental impact reduction	Global warming countermeasures	Contribution to CO <sub>2</sub> reduction volume	1 million tonnes compared to FY2020 levels	390 thousand tonnes
		Volume of renewable energy sources handled	250 thousand kW	120 thousand kW
		Reduction of CO <sub>2</sub> emissions intensity in business activity	CO <sub>2</sub> emissions intensity: -2%/year	-2.4% YoY
	Resource recycling	Zero emissions of industrial waste at city gas plants	Maintain current level (final disposal rate of 1% or less)	Final disposal rate of 1.2% (total for FY2022 to FY2023)
		Recycling rate of waste generated from gas pipeline construction	99% or more	99.6%
		Promotion of 3Rs in business activities		<ul style="list-style-type: none"><li>• Reduced emissions through 3Rs initiatives including resource recycling of industrial waste</li><li>• Promoted recycling</li><li>• Appropriately complied with industrial waste regulations such as the Act on Promotion of Resource Recycling Related to Plastics</li></ul>
Biodiversity conservation		Reduction of use of natural sand and crushed rock in gas pipeline construction	15% or less compared to conventional construction methods	9.9% compared to conventional construction methods
		Contribution to maintaining and restoring biodiversity through business activities and regional activities, conserving satoyama and forests, and protecting local species		<ul style="list-style-type: none"><li>• Chita Peninsula Greenbelt acquired certification as a nature-friendly site</li><li>• Continued certification from Aichi Biodiversity Company Certification Program</li><li>• Maintained and managed biotopes, and implemented satoyama and forest conservation activities in collaboration with local governments</li><li>• Planted flower seedlings in the Western-style garden at Higashiyama Botanical Gardens</li><li>• Conducted volunteer forest conservation activities at Nagoya Higashiyama Forest and Toho Gas Forests (Odai, Mitake, and Seto)</li></ul>
Environmental and social contribution		Environmental contribution activities in collaboration with local communities, and contribution to resolving regional and social issues		<ul style="list-style-type: none"><li>• Implemented company-wide cleaning activities</li><li>• Conducted beautification activities surrounding offices</li><li>• Provided environmental learning opportunities at the Gas Energy Exhibition Hall</li><li>• Provided special classes at schools and environmental education classes</li></ul>
Technological development		Promotion of technological development for advanced use of energy and carbon neutrality		<ul style="list-style-type: none"><li>• Agreement reached on the establishment of e-NG Coalition, an international alliance for e-methane</li><li>• Signed various contracts and memorandums of understanding for CCS and the commercialization of e-methane</li><li>• Constructed a hydrogen production plant at Chita-Midorihamma Works (operation to begin in June 2024)</li><li>• Began operation of e-methane production demonstration using biogas-derived CO<sub>2</sub> in collaboration with the city of Chita</li></ul>

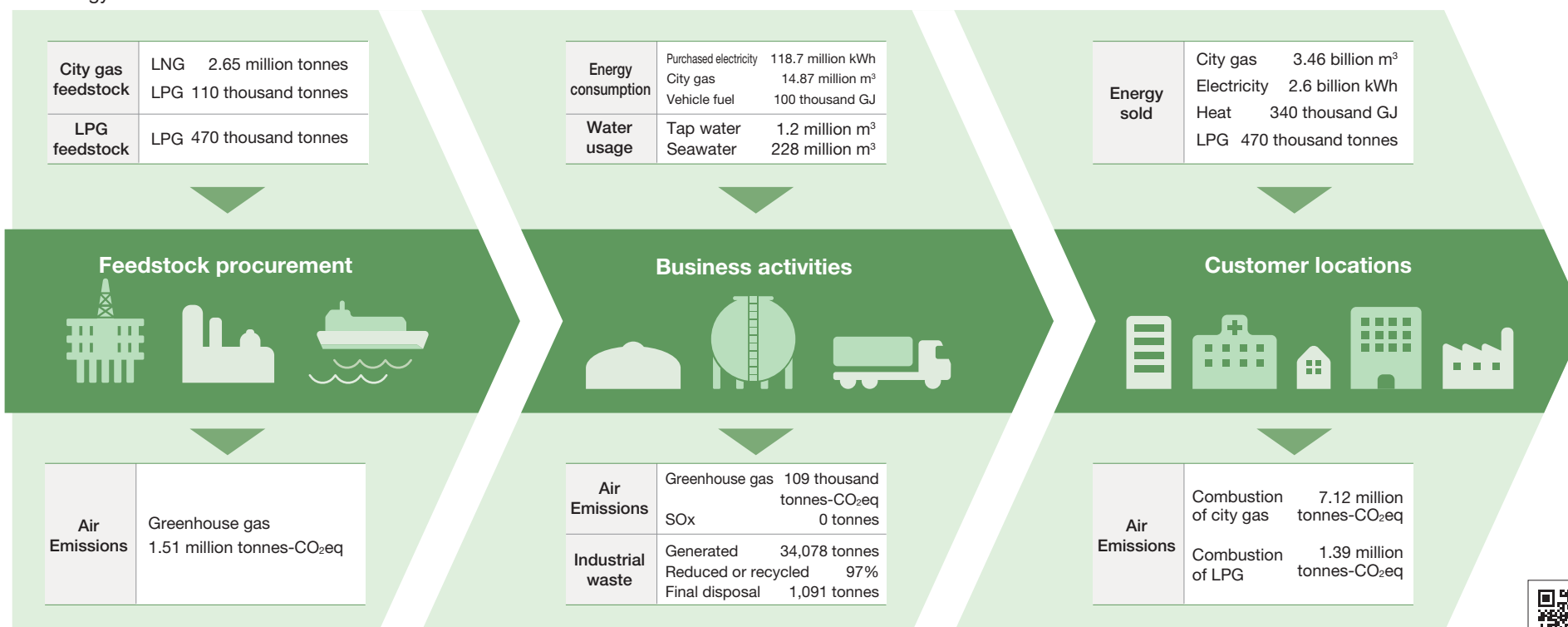
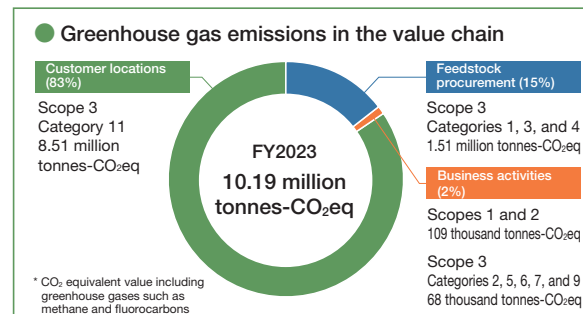
## Environmental Management

### Environmental Impact of Value Chain

Throughout the entire value chain, environmental impacts such CO<sub>2</sub> and other greenhouse gas emissions occur in business activities, including the production and supply of city gas, LPG, and electricity, as well as at every level of feedstock procurement and at customer locations.

In the gas business, much of the greenhouse gas emissions are accounted for by customer locations, and the Group is working on reducing these. We are also working to identify the status of greenhouse gas emissions in feedstock procurement and evaluate the impact on the environment.

Regarding our business activities, we are reducing greenhouse gas emissions by improving energy use efficiency and energy conservation efforts.



To increase the reliability of environmental data, the Group has received third-party assurance for environmental data every year since FY2002. The assured data, calculation standards, assurance report, and more information can be found in "Sustainability Factbook 2024" on the Toho Gas website.

Sustainability Factbook 2024  
<https://www.tohogas.co.jp/lang/en/approach/eco/eco10>



## Environmental Management

### Environmental Management System (EMS) Certification

To improve the level of environmental management, we have been actively working to obtain environmental management system (EMS) certification. All city gas plants received ISO 14001 certification, the international standard for environmental management. Meanwhile, some affiliates have received Eco Action 21 certification from the Ministry of the Environment. In addition, Toho Gas and its affiliates have received environmental certification from local governments, such as Nagoya SDGs Green Partners.

Type	Certified companies (offices)
ISO 14001	Toho Gas (Chita-Midorihamma Works, Chita LNG Terminal, Chita Calorific Value Adjustment Center, and Yokkaichi Works)
Eco Action 21	Toho Gas Engineering Co., Ltd.
Certification from local governments, etc.	<ul style="list-style-type: none"> <li>Toho Gas (head office, Minato AQUUS Energy Center, etc.)</li> <li>Toho Liquefied Gas Co., Ltd. (Nagoya branch office, etc.)</li> <li>Toho Gas Real Estate Development Co., Ltd. (Imaie Gas Building, etc.)</li> <li>Toho Gas Engineering Co., Ltd.</li> <li>Toho Gas Techno Co., Ltd. (head office, etc.)</li> </ul>

### Environmental Education

Toho Gas Group provides environmental education at various levels. For senior management, we hold environmental seminars on topics such as environmental policy and social trends. For managers and working-level staff, we hold annual events such as environmental law and regulation seminars as well as e-learning courses to raise employees awareness and knowledge of environmental laws and regulations and strengthen our response capabilities.

### Compliance with Environmental Laws and Regulations

The main environmental laws and regulations pertaining to the Group are outlined below. We hold environmental law and regulation seminars and implement voluntary environmental audits based on our environmental management system to ensure proper compliance. There were no accidents or violations of regulations that significantly impacted the environment.

Type	Main environmental laws and regulations
General	Basic Environment Act
Global warming countermeasures	Act on Rationalization of Energy Use and Shift to Non-fossil Energy, Building Energy Efficiency Act, Act on Promotion of Global Warming Countermeasures, Act on Rational Use and Proper Management of Fluorocarbons, Act on the Protection of the Ozone Layer
Resource recycling	Waste Management Act, Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes, Act on Recycling of Construction Materials, Act on Recycling of Specified Kinds of Home Appliances, Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, Act on Promotion of Recycling and Related Activities for Treatment of Cyclical Food Resources, Act on Promotion of Resource Recycling Related to Plastics
Pollution prevention	Air Pollution Control Act, Pollution Prevention Act, Noise Regulation Act, Vibration Regulation Act, Soil Contamination Countermeasures Act, Mercury Pollution Control Act, Law concerning Pollutant Release and Transfer Register (PRTR)

### Voluntary Environmental Audits

Toho Gas Group has implemented voluntary environmental audits since FY1994. We perform annual audits under a dual-audit system of primary audits at workplaces of Toho Gas and affiliates that are related to environmental laws and regulations and secondary audits at individual departments and affiliates.

#### Implementation of Voluntary Environmental Audits

Implementation period:	July to September, 2023
Audit target:	Workplaces of Toho Gas and affiliates related to environmental laws and regulations
Environmental auditors:	Individuals appointed to each department and affiliate who have been confirmed to have sufficient knowledge of environmental laws and regulations through environmental law and regulation seminars and e-learning

Applicable laws and regulations	Key confirmation points during audits
Waste Management Act	Compliance with internal rules before outsourcing industrial waste disposal (including confirmation of contractor's permits, concluding contracts, conducting on-site inspections, etc.), proper management of storage facilities, issuing and keeping manifests, status on submission of regular reports, etc.
Act on Rational Use and Proper Management of Fluorocarbons	Use of equipment management ledgers for regulated equipment such as gas heat pumps, conducting mandatory inspections, ensuring compliance with internal rules during equipment disposal
Air Pollution Control Act	Compliance with prior surveys on asbestos before demolishing buildings and performing renovations
Other environmental laws and regulations	Organizational checks on requirement of filing for Act on Recycling of Construction Materials

Name	Target
Environmental seminars	Senior management
Environmental law and regulation seminar	Managers and working-level staff
New employee training	New employees

## Environmental Management

### Proper Management of Chemicals (Pollution and Resources)

#### Handling of Hazardous Waste

For PCB waste, Toho Gas carries out the disposal of used PCB-containing equipment in a planned manner after conducting thorough inspections.

The equipment in question is properly managed and disposed of by the disposal deadline in compliance with the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes.

Regarding asbestos, Toho Gas conducts surveys on the use of asbestos-containing building materials in our Group factories and offices, and takes appropriate measures to manage them when necessary. We also ensure thorough education on legal regulations.

#### Handling of Class I Designated Chemical Substances

In FY2023, Toho Gas monitored the handling of newly designated Class I specified chemical substances following the revision of the target substances under the PRTR system (enforced in April 2023).

#### Handling of Volatile Organic Compounds (VOC)

VOCs are organic solvents found in paints and adhesives, and they are considered one of the causes of photochemical smog. Toho Gas keeps track of the usage of paint and other materials in gas tanks and gas holders.