

Actions for Environmental Preservation

◆ Environmental Preservation Policy

As an energy service provider, the Toho Gas Group aims to play a leading role in building an environmentally harmonious society. For that purpose, the Group has formulated environmental action principles, one of its management policies through which the Group's basic stance toward the environment is clarified. The Group

has also worked out environmental action guidelines as a way of showing its important philosophy and policy direction regarding environmental activities. In line with the guidelines, the Group has set environmental action goals (2014–2018), which it is striving to achieve.

Environmental action principles

Basic policy		Toho Gas and its Group companies recognize the importance of preserving the environment on regional and global basis. By giving priority to supplying clean energy, the Group will do its utmost to create an environmentally harmonious society through all its business activities.
Principles	1	The Group will contribute to reducing the impacts of its business activities on the environment related to customers.
	2	The Group will reduce the impacts of its business activities on the overall environment.
	3	The Group will contribute to environmental preservation in collaboration with local communities and the global community.
	4	The Group will step up research and development regarding environmental preservation technologies.

Environmental action goals and progress on their implementation

The key philosophy regarding environmental preservation and its policy direction are shown in the environmental action guidelines in line with six themes set under the guidelines (measures to combat global warming, recycling of natural resources, biodiversity conservation, social

contribution through environmental preservation activities, development of environmental preservation technologies, and management of environmental preservation). Below are specific environmental preservation goals set based on the guidelines.

Field	Company	Environmental Preservation Goal(s) (FY 2014–2018 average yearly goal)	2009 base	2014–2018 goal	2014–2016 result	progress
Measures to combat global warming*1	Toho Gas	CO ₂ emissions per unit production regarding city gas business (factories, offices, etc.) (g-CO ₂ /m ³ N gas sales volume)	16.5	-10%	-10% (14.9)	○
	Toho Gas	CO ₂ emissions per unit production regarding heat-supply business (5 major service areas) (kg-CO ₂ /GJ heat and electricity sales volume)	86.8	-2%	-7% (79.1)	○
	Group companies	Average per-square meter of CO ₂ emissions per unit production for a certain period is cut compared with CO ₂ emissions for the base year. (kg-CO ₂ /m ²)	93.6	-6%	-15% (79.0)	○
Recycling of natural resources	Toho Gas	Average paper use (measured in number of sheets) for a certain period is cut. (million sheets)	39	-5%	-9% (35.6)	○
		Asphalt and concrete slabs generated after gas pipe installation work are recycled.	100%	100%	100%	○
		Use of natural mountain sand and detritus in gas pipe installation work is cut compared with use under conventional engineering methods.	—	15% or lower	10%	○
		All kinds of gas pipelines used previously and that are usually scrapped after gas pipe installation work (cast-iron pipes, steel pipes and polyethylene pipes) are recycled.	100%	100%	100%	○
		Zero emission (3% or lower final disposal rate) is maintained at city gas plants.	Upheld	Upheld	Upheld	○
	Group companies	Paper waste is recycled at all Group company offices.	—	100%	100%	○
Green procurement	Toho Gas	Average rate of green procurement of office supplies in a certain period (Percentage rate of procurement from BIZNET in value terms)	—	90% or more	83%	×
Environmental effects index*2	Toho Gas	CO ₂ emissions on the customer side are cut through efforts to diffuse natural gas use. (total emissions in a certain period)	—	0.4 million tons	0.2 million tons	△

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

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

◆ Organizational Structure for Promoting Environmental Preservation

We have set up the Group Environmental Preservation Committee to discuss the Toho Gas Group's policy on environmental preservation. Consisting of Toho Gas and its major affiliates, the committee aims to reduce impacts of Group activities on the environment and promote the Group's compliance with laws and regulations related to environmental preservation. Specifically, the committee is designed to formulate the Group's basic policy on environmental preservation activities while setting goals regarding such activities. It is also intended to discuss and study measures aimed at achieving these goals, and manage implementation of the measures.

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

◆ Specific Actions for Environmental Preservation

As an energy service provider, the Toho Gas Group has undertaken numerous environmental preservation activities while considering its overall value-chain networks. Explained

below are the Group's specific actions for environmental preservation. One is efforts to curb global warming and the other is activities aimed at conserving biodiversity.

Efforts to curb global warming

•Efforts to cut CO₂ emissions on the customer side

As part of its efforts to combat global warming, Toho Gas is working on reducing CO₂ emissions on the customer side by diffusing the use of natural gas, and highly efficient gas equipment and systems (household fuel-cell systems and cogeneration systems). In FY2016, CO₂ emissions by our customers due to city gas consumption totaled 8.57 million tons, a decrease of 60,000 tons from the previous year.

•Efforts to cut CO₂ emissions through business activities

Toho Gas has reduced CO₂ emissions significantly by switching fuels for city gas production from coal to petroleum and then to LNG. In FY2016, CO₂ emissions through our business activities came to 114,000 tons, achieving the CO₂ emission target per unit production, set under our environmental action goals, following the implementation of energy-saving measures including the introduction of boil off gas (BOG) re-liquefying facilities.

Efforts to conserve biodiversity

•Efforts to conserve biodiversity on the customer side

The Toho Gas Group is making efforts to curb global warming by, for example, diffusing the use of natural gas by customers. The Group is also promoting resource recycling by encouraging the reuse of gas appliances.

•Efforts to conserve biodiversity through business activities

The Toho Gas Group is curbing the use of mountain sand and preventing environmental destruction by employing a trenchless pipe installation method, promoting shallow-layer pipe installation, and recycling excavated soil. In addition, the Group is redoubling its efforts to help preserve the environment in regional areas by promoting greenery activities and setting up biotopes at its business offices.

•Environmental activities in collaboration with local communities

The Toho Gas Group is working on promoting the preservation of *sato-yama*, sustainable human-influenced natural environments, through "Toho Gas-no-Mori," forest-preservation activities in designated areas that the Group is undertaking in collaboration with local communities. The Group is also developing human resources who will play important roles for local preservation of biodiversity—through energy and environmental education.

◆ Independent Verification

The Toho Gas Group has obtained independent verification of its environmental data. Since the first verification report was issued for the Group in FY2002, the scope of verification and environmental data

covered has expanded. This illustrates the Group's efforts to increase the reliability of its data. For detailed environmental data, please visit the Toho Gas website.

Independent organization: Deloitte Tohmatsu Sustainability Co., Ltd.