

TOHO GAS Co., Ltd. | Overview

TOHO GAS Co., Ltd. : Transition Bond

■ Corporate Profile

Industry	Gas/Electric Power
Location	Japan
Business	Manufacture, supply and sale of city gas mainly in Chubu region, LPG and other energy business, electric power business and others.

■ Bond Outline

Issuer	TOHO GAS Co., Ltd.
Structuring Agency	Daiwa Securities Co. Ltd.
Evaluation Agency	DNV BUSINESS ASSURANCE JAPAN K.K.
Issue Amount	10 Billion Yen (Planned)
Issue Date	November 2022 (Planned)

Alignment with the Four Elements in the Guideline*

Element 1

- Strategy: Through “Toho Gas Group 2050 Carbon Neutral Initiative” TOHO GAS aims to contribute to the realization of a sustainable society and the development of Chubu region with gas, hydrogen and electricity. Further consideration will be made for just transition including its supply chain.
- Governance: Addressing environmental issues, including climate change measures, is an important issue, and the Board of Directors supervises the status of execution. TOHO GAS has set up a Group Environment Committee to discuss, examine, and manage the progress of policies, goals, and various measures for our activities.

Element 2

- Through the analysis of various international standards and corporate analysis, TOHO GAS has specified 6 material issues based on GRI standards. Promotion of carbon neutrality is included as one of them.
- In addition, the use of proceeds includes technological development for the decarbonization of gas to reduce Scope 3, accounting for approximately 99% of emissions.

Element 3

- The pathway illustrated in the “Toho Gas Group 2050 Carbon Neutral Initiative” is consistent with the gas sector roadmap and the power sector roadmap formulated by METI.

Element 4

- Of the 230 billion yen investment, the amount put towards core businesses that generate cash flow and the amount for strategic businesses that drive medium- to long-term growth is planned at a ratio of 1:1.
- The funds raised through this bond will mainly be used for investments in strategic businesses.

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Potential Use of Proceeds ※Orange : Use of Proceeds for this bond

	Eligible project	Project overview
GAS	Reductions of carbon and decarbonization at customer locations	
	Fuel conversion to gas	Expenditures/investments related to supporting customers' fuel conversion from coal/oil to city gas
	Development of gas supply network	Capital investment related to expansion or maintenance of gas pipelines
	Energy saving related to gas	Capital investment related to cogeneration, introduction of high-efficiency gas equipment, and district heating and cooling
	Carbon recycling	
	CCUS	R&D or capital investment related to CO2 separation, capture, utilization, and storage
	Decarbonization of gas itself	
	Methanation	R&D or capital investment related to the practical application of methanation technology
	Carbon neutral LNG	Expenditures and investments related to the procurement and supply of carbon-neutral LNG
	Biogas (renewable energy)	R&D or capital investment related to biogas introduction
HYDROGEN	Mobility	
	Hydrogen station	Capital investment related to hydrogen station development
	Further expansion of usage	
	Hydrogen combustion equipment, etc	R&D related to hydrogen combustion, co-firing with city gas, etc.
	Distributed energy system	Capital investment related to building a smart town that combines various technologies such as hydrogen and renewable energy
	Supply chain construction	
	Hydrogen production, CCUS	R&D or capital investment related to hydrogen production through natural gas reforming and carbon recycling etc.
Local hydrogen network	R&D or capital investment related to hydrogen pipeline supply by local network	
ELECTRICITY	Reductions of carbon and decarbonization at customer locations	
	Distributed energy system, Renewable energy, clean transportation	R&D or capital investment related to the promotion of various distributed energy resources including solar power generation, storage batteries , electric vehicles, etc., and their integration and control using digital technology
	Decarbonization of power sources	
	Renewable energy	Capital investment or financing related to the development of renewable energy power sources such as solar power, biomass, wind power (including offshore wind power), and small hydro power generation Investments on local new electric power

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Transition Strategy and Governance (Element 1)

Targets

2030

- Amount of contribution to CO2 reduction* : reduce 3 million tons
*Including 0.5 million tons of Scope 3 reduction
- Gas carbon neutrality ratio : 5% and over
- Handled amount of renewable energy power sources : 500,000kW

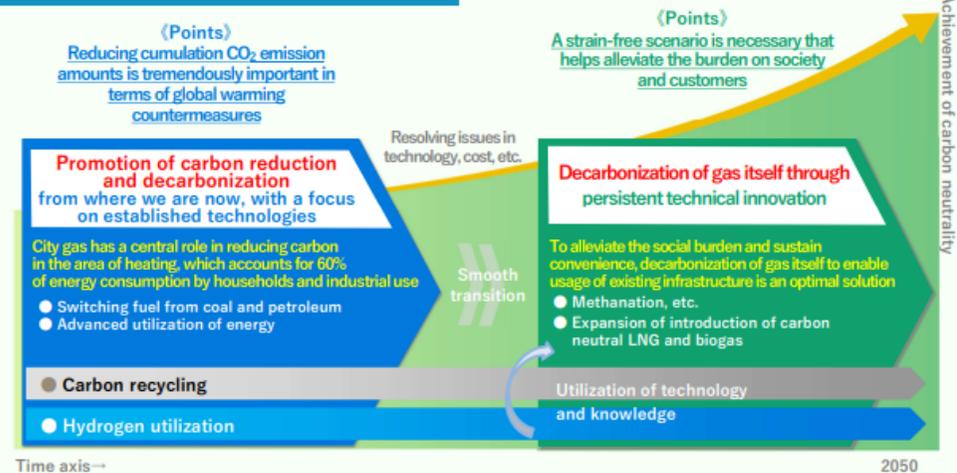
2050

Carbon Neutrality

Transition Strategy

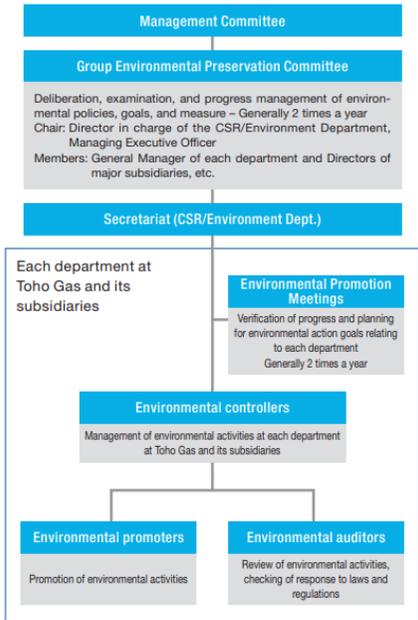
- Achieve carbon neutrality by the decarbonization of the gas itself in the long term. In the short term aims a steady progress in low and decarbonization through established technologies.

Scenario for Achieving Carbon Neutrality



Governance

- Response to climate change: Regarded as an important management issue and established the Environmental Action Principles and the Environmental Action Guidelines
- Important matters related to climate change: Reported to the Board of Directors via the Management Committee, execution supervised by the Board of Directors
- Governance of transition strategies: Established the Group Environmental Preservation Committee, consisting of TOHO GAS and major affiliated companies. It examines and manages the progress of policies, targets, and various measures.
- Established of Environmental Promotion Meetings within each business division to check progress and plans together with Group Environmental Preservation Committee



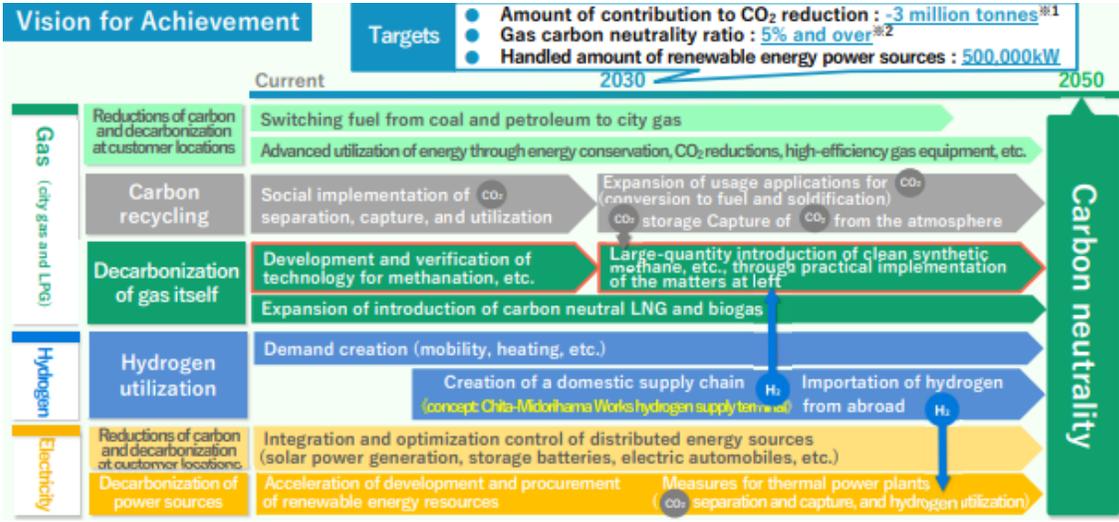
Key Points

- Gas demand is expected to increase due to fuel conversion from coal, petroleum, etc. to natural gas being supported, and hence CO₂ emissions (especially Scope 3) are expected to increase toward 2030.
- In addition to efforts on avoided emission, the Toho Gas Group aims to promote reduction of Scope 3 emissions, which accounts for approximately 99% of the Group's GHG emissions, though the use of existing technologies in the short term and ultimately decarbonizing the gas itself in the long term.
- More specifically, 500,000 tons of Scope 3 emissions reductions is expected through "introducing highly efficient gas facilities" and "making gas carbon neutral".
- Main efforts on avoided emissions : Scope 3 reduction, support for fuel conversion, renewable energy sources → expectation : 3 million tons

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Science Based Targets and Pathways (Element 3)

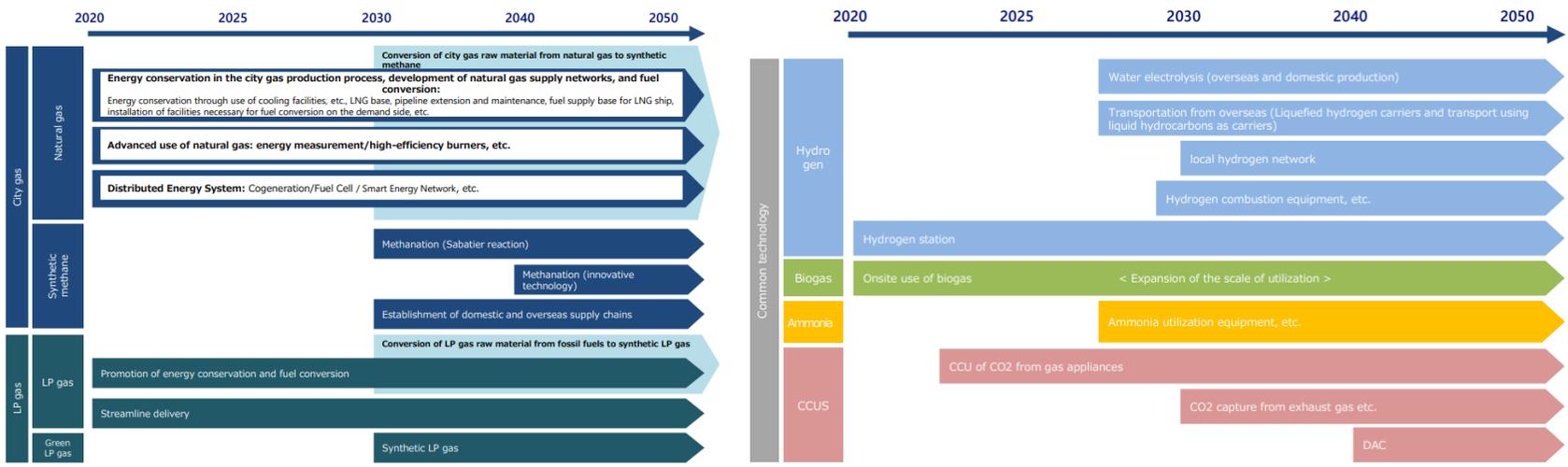
Toho Gas Group
2050 Carbon Neutrality Initiative



Initiatives aligned with the roadmap

- Related to **Natural Gas**
- Related to **LP Gas**
(promotion of energy conservation and fuel conversion)
- Related to **CCUS**
- Related to **Synthetic methane**
- Related to **Biogas**
- Related to **Hydrogen**
- (Aligned with Technology Roadmap for Power Sector)

Technology Roadmap for Gas Sector
METI



Committee | Results

TOHO GAS Co., Ltd. : Transition Finance

RESULTS:

Approved for Climate Innovation Finance Promotion Grants Scheme

Main Opinions

Transition Strategy

- Sufficiently meets the requirements of transition.
- Efforts related to hydrogen are operated in cooperation with local governments and business companies and is highly commendable.
- Utilization of gray hydrogen in the early stages is appropriate based on practicality, however transition to blue and green hydrogen is expected in the relatively near future.
- Setting 2030 interim targets for absolute Scope 1 and 2 emissions is recommended.

Others

- Since transitions are often accompanied by uncertainty on the probability of realization, backup plans and risk hedging measures, as well as a technology outlook is suggested.
- Clarification of the effects through the obtained funds of this bond is desirable.

This document focuses on the contribution of transition finance to the realization of Japan's carbon neutrality by 2050 and the Paris Agreement and does not cover any of the risks associated with transition finance as a financial instrument. It should be noted that even the approved cases of this scheme, there are credit risks and other risks (in the case of bonds, price fluctuation risks, liquidity risks, etc.) as in ordinary financing.