



## **ANNEX** - SECOND PARTY OPINION

# TOKYO GAS CO., LTD. TRANSITION BOND (#2)

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

Date: November 24, 2022

Ref. Nr.: PRJN-460515-2022-AST-JPN-1

This opinion is prepared based on the Tokyo Gas Transition Finance Framework Second Party Opinion (hereinafter, "Master SPO") (Ref. Nr.: PRJN-326328-2021-AST-JPN-01-rev1 \*November 24, 2022), which was assessed against to the Tokyo Gas Transition Finance Framework (hereinafter, "Framework").

\*For more information on the ANNEX - Second Party Opinion, see following DNV website https://www.dnv.jp/news/page-227965 Release of a new evaluation service (Master SPO + ANNEX)



#### **Executive Summary**

DNV Business Assurance Japan K.K. (hereinafter, "DNV") confirmed that the Tokyo Gas Transition Bond (#2) issued by Tokyo Gas Co., Ltd. (hereinafter, "Tokyo Gas"), meets the various principles and guidelines requirements for such bond issuance and is planned to be issued and managed through appropriate internal processes, based on the Framework $^{*1}$ which has been assessed its eligibility\*2.

- \*1: Tokyo Gas Transition Finance Framework Second Party Opinion
- \*2: Tokyo Gas Transition Finance Framework

Table-1 shows an outline of the Tokyo Gas Transition Bond (#2) and ANNEX - Second Party Opinion. The additional items to be assessed in the ANNEX - Second Party Opinion are Element-1 (Use of Proceeds) and Element-4 (Reporting) which are under the use of proceeds bond (response to the four elements). The conformances against to the criteria for the other elements has already been assessed its eligibility in accordance with Framework.

Table-1 Tokyo Gas Transition Bond (#2) ANNEX - Second Party Opinion

Table-1 Tokyo Gas Transition Bond (#2) ANNEX - Second Party Opinion				
Target finance	okyo Gas Transition Bond (#2)			
Target organization	okyo Gas Co., Ltd.			
Target framework	Tokyo Gas Transition Finance Framework			
Targeted external review	Tokyo Gas Transition Finance Framework Second Party Opinion Ref. Nr.: PRJN-326328-2021-AST-JPN-01-rev0 *Issued February 10, 2022			
Target criteria	iteria for Climate Transition Finance  - Climate Transition Finance Handbook (ICMA, 2020)  - Basic Guidelines on Climate Transition Finance (FSA, METI, and MoE, 2021).  iteria for the use of proceeds bond  - Green Bond Principles (ICMA, 2021)  - Green Bond Guidelines (MoE, 2020)			
Climata Transition	Disclosure element-1 (Transition strategy and governance)  - Confirmed reliance on Framework			
Climate Transition Finance (response	Confirmed reliance on Framework			
the four disclosure elements)	Disclosure element-3 (Science-based strategy)  - Confirmed reliance on Framework			
	Disclosure element-4 (Transparency of implementation)  - Confirmed reliance on Framework			
	- Confirmed reliance on the Framework. Additional			

Bonds with specific use of proceeds Element-1 (response to the four (Use of proceeds) elements)

- assessment was implemented as follows:
  - Development project of a water electrolysis cell stack (Tsurumi Ward, Yokohama, Kanagawa)
  - Methanation demonstration testing (Tsurumi Ward, Yokohama, Kanagawa)
  - Danish onshore wind power project (Denmark)



I	okyo Gas Co., Ltd. Transition Bond (#2) Second Party Opinion ANNEX
	Biomass power generation projects (Fushiki     Manyofuto Biomass Power Plant, Ichihara     Yawatafuto Biomass Power Plant)
Element-2 (Process for project evaluation and selection)	- Confirmed reliance on Framework
Element-3 (Management of proceeds)	- Confirmed reliance on Framework
Element-4 (Reporting)	<ul> <li>Confirmed reliance on the Framework. Additional assessment was implemented as follows:</li> <li>Allocation of proceeds: items and categories</li> <li>Environmental benefits: Annual CO<sub>2</sub> reduction (t-CO<sub>2</sub>/year)</li> </ul>

DNV, as an external reviewer, evaluated the eligibility of the use of proceeds and reporting for the Tokyo Gas Transition Bond (#2), based on an assessment of the Framework and other relevant documents and information provided by Tokyo Gas. DNV also confirmed that there were no changes to the other items (in accordance with the framework).



#### Contents

Executive Summary	2
I. Scope and Objectives	5
${\rm I\hspace{1em}I}$ . Responsibilities of Tokyo Gas and DNV	6
Ⅲ. Basis of DNV's Opinion	6
IV. Work Undertaken	9
V. Findings and DNV's Opinion	10
VI. Assessment Conclusion	22
Schedule-1 Tokyo Gas Transition Bond (#2) Eligible Projects	24

#### Revision history

Date of issue	Remarks
24/11/2022	Prepared and issued as Tokyo Gas Transition Bond (#2) ANNEX - Second Party Opinion

#### Disclaimer

Our assessment relies on the premise that the data and information provided by Issuer to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per Scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

#### Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct1 during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

<sup>&</sup>lt;sup>1</sup> DNV Code of Conduct is available from DNV website (www.DNV.com)





#### I. Scope and Objectives

DNV has been commissioned by Tokyo Gas to provide a pre-issuance assessment on the Transition Bond. Our objective has been to implement an assessment on whether Tokyo Gas meet the criteria established on CTFH·CTFBG and GBP·GBGLs, which are the criteria for bonds with the specific use of proceeds, to provide ANNEX - Second Party Opinion regarding the eligibility of the Transition Bond.

DNV, as an independent external reviewer, has identified no real or perceived conflict of interest associated with the delivery of this ANNEX - Second Party Opinion for Tokyo Gas.

In this report, no assurance is provided regarding the financial performance of the BOND, the value of any investments in the BOND, or the long-term environmental benefits of the transaction.

#### (1) Scope of review\*

(T)	Scope of review				
The review assessed the following elements and confirmed their alignment with the gist of GBP/GLP:					
$\boxtimes$	Use of proceeds		Process	for project evaluation and selection	
	Management of proceeds	$\boxtimes$	Reportir	ng	
*	* The scope of review is to be applied as a part of the evaluation of the transition finance with use of proceeds.				
*	* DNV has already reviewed the four disclosure elements of CTFH/CTFBG, "Process for Project Evaluation and Selection", and "Management of Proceeds" and has exposed our opinion below. DNV also confirmed through our assessment with Tokyo Gas that there were no changes in the Transition Bond to be implemented this time or additional assessments required.				
	"Tokyo Gas Transition Finance Framework Second Party Opinion"				
	Ref. Nr.: PRJN-326328-2021-AST-JPN-01-rev0 *Issued February 10, 2022				
(2) Role(s) of review provider					
$\boxtimes$	Consultancy (incl. #2 opinion)			Certification	
	Verification			Ratings	
	Other (please specify):				



#### (3) Standards/guidelines to be applied

No.	Standards/guidelines	Scheme owner
1.	Climate Transition Finance Handbook (CTFH)*1	International Capital Market Association (ICMA), 2020
2.	Basic Guidelines on Climate Transition Finance (CTFBG)*1	Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021
3.	Green Bond Principles (GBP)*2	International Capital Market Association (ICMA), 2021
4.	Green Bond Guidelines (GBGLs)*2	Ministry of the Environment, 2020

<sup>\*1</sup> Climate transition: The concept of climate transition focuses principally on the credibility of an issuer's climate change-related commitments and practices (quoted from CTFH and CTFBG).

#### II. Responsibilities of Tokyo Gas and DNV

Tokyo Gas has provided the information and data used by DNV during the delivery of this review. DNV's ANNEX - Second Party Opinion represents an independent opinion and is intended to inform Tokyo Gas and other interested stakeholders in the Tokyo Gas Transition Bond (#2) as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by Tokyo Gas. DNV is not responsible for any aspect of the nominated projects and assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by Tokyo Gas's management and used as a basis for this assessment were not correct or complete.

#### **III.** Basis of DNV's Opinion

To provide a more flexible ANNEX - Second Party Opinion for the issuer, Tokyo Gas, DNV identified the key assessment targets and carried out assessments in accordance with its procedures.

DNV, as an independent external reviewer, provides ANNEX - Second Party Opinion according to the protocol.

Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the Climate Transition Finance with an use of proceeds bond as the basis for the opinion are as follows:

"provide an investment opportunity with transparent sustainability credentials"

<sup>\*2</sup> It confirms compliance with the four core elements (use of proceeds, process for project evaluation and selection, management of proceeds, and reporting) that must be met when implementing as a bond/loan that meets the four elements of transition and has a specific use of proceeds (quoted from CTFBG).



"enable capital-raising and investment for new and existing projects with environmental benefits"

As per our Protocol, the criteria against which the Tokyo Gas Transition Bond (#2) has been grouped into common elements bellow.

The additional assessment for this ANNEX - Second Party Opinion covers Element 1 and Element 4 out of the four common elements of (2) GBPs/GBGLs.



Part of (1) and (2) has already been assessed for eligibility. Detailed results of the eligibility assessment for such parts of (1) and (2) can be found in the "Tokyo Gas Transition Finance Framework Second Party Opinion (hereinafter, "Master SPO")" (Ref. Ref. Nr.: PRJN-326328-2021-AST-JPN-01-rev1 \*November 24, 2022).

#### (1) Four elements of CTFH/CTFBG (disclosure elements)

#### Principle One: Issuer's climate transition strategy and governance

The financing purpose should be for enabling an issuer's climate change strategy.

#### Principle Two: Business model environmental materiality

The planned climate transition trajectory should be relevant to the environmentally-material parts of the issuer's business model.

#### Principle Three: Transition is science-based including targets and pathway

Issuer's climate strategy should reference science-based targets and transition pathways.

#### **Principle Four: Implementation transparency**

Market communication in connection with the offer of a financing instrument which has the aim of funding the issuer's climate transition strategy should also provide transparency of the underlying investment program.

#### (2) Four elements of GBP/GBGLs

# Principle One: Use of Proceeds \*Subject to additional assessment of ANNEX - Second Party Opinion

The Use of Proceeds criteria are guided by the requirement that an issuer of a transition finance with specific use of proceeds must use the funds raised to bond eligible activities. The eligible activities should produce clear environmental benefits.

#### Principle Two: Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a transition finance should outline the process it follows when determining eligibility of an investment using the proceeds from transition finance, and outline any impact objectives it will consider.

#### **Principle Three: Management of Proceeds**

The Management of Proceeds criteria are guided by the requirements that a transition finance should be tracked within the issuing organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.

#### Principle Four: Reporting \*Subject to additional assessment of ANNEX - Second Party Opinion

The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the bond investors should be made of the use of bond proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.



#### IV. Work Undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that this information was provided to us by the issuer in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

The assessment work that forms DNV's opinion includes

#### i. Pre-funding assessment (ANNEX - Second Party Opinion)

- Assessment of additional documentary evidence provided by Tokyo Gas on the Tokyo
  Gas Transition Finance and supplemented assessment by a comprehensive desktop
  research. These checks refer to current assessment best practice and standards
  methodologies;
- Discussions with Tokyo Gas, and review of relevant documentation;
- Documentation of findings against each element of the criteria to be additionally assessed.

#### ii. Post-funding assessment (periodic review) (\*not included in this report)

- Interviews with fundraiser managers and review of relevant documentation.
- Site surveys and inspections (if required).
- Documentation of post-issuance assessment results.





#### V. Findings and DNV's Opinion

DNV's findings and opinion are as described below.

Please see Schedule-1 and Schedule-2 for details.

#### **GBP/GBGLs-1.** Use of Proceeds

Tokyo Gas has defined the criteria applied to eligible projects as transition projects which meet Tokyo Gas transition strategy and related handbook, principle and guidelines (CTF-H and CTF-BG).

The proceeds of the Tokyo Gas Transition Bond (#2) will be used for the following five projects (MFR-01, MFR-02, WE-01, BE-01, and BE-02). Please see Schedule-1 for details.

All five projects are eligible projects that are aligned with either or both of the Technology Roadmap in Gas Sector (METI, February 2022) and the Transition Roadmap for Power Sector, in addition to the Tokyo Gas Transition Finance Framework.

The amount of proceeds of the Tokyo Gas Transition Bond (#2) will be disclosed in future documents relating to the bond issuance. DNV confirmed at the time of this assessment that the proceeds will be used for new investments. The actual allocation results will be reported on an annual basis in accordance with GBP/GBGLs-4.Reporting.



#### Project MFR-01: Development of a low-cost water electrolysis cell stack

- Through this development project, Tokyo Gas aims to rapidly establish a technology for low-cost mass production of water electrolysis cell stacks by combining the technologies and insights of Tokyo Gas and SCREEN Holdings Co., Ltd. on production methods of fuel cells and their cell stacks, which have been developed over many years.
- In conjunction with this development, Tokyo Gas will also develop technology for the systemization of water electrolysis equipment to reduce the cost of green hydrogen production and aim to achieve the Japanese government's hydrogen supply cost target of 30 yen/Nm³-H₂ by 2030 at the early stage and to further reduce the cost of hydrogen production.
- From the above perspective, DNV has confirmed that the development of a low-cost water electrolysis cell stack is a transition project that is consistent with the "Tokyo Gas Roadmap for Transitioning to Carbon Neutrality", carbon recycling in the Transition Roadmap in Gas Sector, hydrogen and ammonia utilization in the Transition Roadmap for Power Sector, and the basic energy plan, which aims to establish and implement hydrogen production technology to ensure a stable and large-volume supply of low-cost hydrogen in the long term.

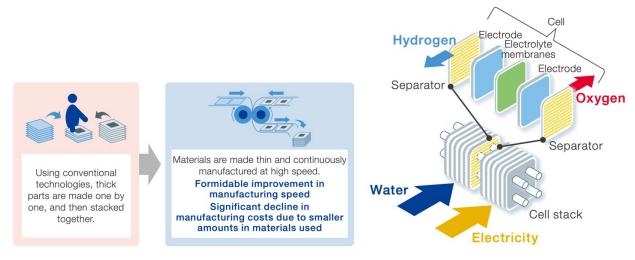


Figure-1 MFR-01 Development of a low-cost water electrolysis cell stack



### Table-2 Project MFR-01 Outlines of development of a low-cost water electrolysis cell stack

Project name:	Development of a low-cost water electrolysis cell stack
Location:	Tsurumi Ward, Yokohama City, Kanagawa Prefecture
Capacity:	Further expansion has been considered after the developed capacity $1\text{m}^3/\text{hr}$ .
Operation started:	2021: Started joint development with SCREEN
	(By 2023: aim to establish manufacturing technology within two years)
Other:	Decarbonization of gas and electricity / green hydrogen production by water electrolysis
	Contribution to reducing the cost of hydrogen production as set out in Compass 2030



#### Project MFR-02: Methanation demonstration testing

- Tokyo Gas conducts the methanation demonstration testing with the aim of acquiring a range of technologies and know-how, from the procurement of electricity from renewable energy sources to the production and utilization of e-methane (synthetic methane), grasping the competence values and issues of each equipment, and gaining insights on the efficiency of the system as a whole.
- In addition to the demonstration of the Sabatier method, which is an existing methanation technology, Tokyo Gas is also developing innovative methanation technologies such as Hybrid Sabatier, which is expected to achieve higher efficiency and lower costs, in collaboration with various organizations including national research institutes, universities and companies, with the aim of practical application. The demonstration facility has started operation in March 2022 and the testing is progressing as planned.
- From the above perspective, DNV has confirmed that the methanation demonstration testing is a transition project that is consistent with the "Tokyo Gas Roadmap for Transitioning to Carbon Neutrality", the Transition Roadmap in Gas Sector, etc. as a technological development to accelerate social implementation, including carbon recycling, with a view to the era of carbon neutrality.



Image-1 Project MFR-02 Methanation demonstration testing



### Table-3 Project MFR-02 Outlines of methanation demonstration testing

Project name:	Methanation demonstration testing
Location:	Tokyo Gas Yokohama Techno Station (Tsurumi Ward, Yokohama City)
Capacity:	e-methane (synthetic methane) production: 12.5 m³/hr.
Operation started:	March 2022: Started operation of demonstration facility
Other:	Decarbonization of gas and electricity / innovative methanation, etc.
	Initiatives for methanation as set out in Compass 2030, and for technological development & demonstration testing to ensure that synthetic methane accounts for $1\%$ of the city gas supply by 2030





#### Project WE-01: Danish onshore wind power project

- DNV has confirmed that the development and operation project in collaboration with the Danish company EWII S/I, is classified as an onshore wind power project, negative environmental factors were considered and resulted no significant issues were found, and that there are no fossil fuel-based back-up power sources.
- Tokyo Gas defines the expansion of wind power and other renewable energy sources as a key initiative (transition eligibility project categories and eligibility criteria) to achieve the "Tokyo Gas Roadmap for Transitioning to Carbon Neutrality" and transition targets in its own Tokyo Gas Transition Finance Framework.
- The annual CO<sub>2</sub> reduction is estimated to be approximately 78,561 t-CO<sub>2</sub>/year (calculated by multiplying the planned annual power generation with interest by the average CO<sub>2</sub> emission factor (974.7 g-CO<sub>2</sub>/kWh) for thermal power generation in Denmark).

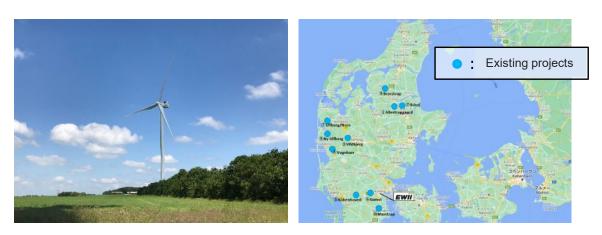


Photo-2 Project WE-01 Danish onshore wind power project

Table-4 Project WE-01 Danish onshore wind power project

Name of power plant (project name):	Danish onshore wind power project
Location:	Denmark
Capacity:	54.5 MW, 10 sites & 22 units (Project total: 0.85 - 3.6 MW scale/unit)
Operation started:	Started operation gradually since 2000
Other:	Acquisition of a 50% stake in EWII Production, a developer and operator of renewable energy projects, and approximately 27 MW of EWII Production's interest on onshore wind power
Estimated environmental benefits:	Approx. 78,561 t-CO₂/year





#### Project BE-01: Fushiki Manyofuto Biomass Power Plant (Takaoka, Toyama)

- The Fushiki Manyofuto Biomass Power Plant is classified as a renewable energy expansion project in the Tokyo Gas's framework.
- DNV has confirmed that negative environmental factors were considered and resulted no significant issues were found, wood pellets produced from properly managed forests (suppliers are required FSC certification) are used as biomass fuel, and that the life cycle CO<sub>2</sub> emitted from transportation of the biomass fuel, etc. is less than that emitted from thermal power generation in Japan.
- Tokyo Gas defines the expansion of biomass power and other renewable energy sources as a key initiative (transition eligibility project categories and eligibility criteria) to achieve the "Tokyo Gas Roadmap for Transitioning to Carbon Neutrality" and transition targets in its own Tokyo Gas Transition Finance Framework. In the power generation sector, biomass power generation is a decarbonized power source that has currently been put to practical use and is also consistent with the Transition Roadmap for Power Sector, which calls for promoting a steady decarbonization. The biomass power plant started commercial operation in July 2022 and is running as planned.
- The annual CO<sub>2</sub> reduction is estimated to be approximately 140,000 t-CO<sub>2</sub>/year (calculated by multiplying the planned annual power generation by the average CO<sub>2</sub> emission factor (0.60 kg-CO<sub>2</sub>/kWh) for thermal power generation in Japan minus the life cycle CO<sub>2</sub> associated with biomass power generation).



Image-3 Project BE-01 Fushiki Manyofuto Biomass Power Plant



#### Table-5 Project BE-01 Outlines of Fushiki Manyofuto Biomass Power Plant

Name of power plant (project name):	Fushiki Manyofuto Biomass Power Plant
Location:	Takaoka City, Toyama Prefecture
Capacity:	51.5 MW (Circulating fluidized bed, wood pellets (FSC certified), PKS (suppliers are required to obtain third-party certification))
Operation started:	July 2022
Other:	Acquisition of biomass projects owned by funds managed by the Equis Group. Together with project BE-02, approximately 126,000 kW is accumulated towards Tokyo Gas's target of 6 million kW of renewable energy transaction volume in 2030.
Estimated environmental benefits:	Approx. 140,000 t-CO <sub>2</sub> /year (provisional)





#### Project BE-02: Ichihara Yawatafuto Biomass Power Plant (Ichihara, Chiba)

- The Ichihara Yawatafuto Biomass Power Plant is classified as a renewable energy expansion project in the Tokyo Gas's framework.
- Specifically, DNV has confirmed that negative environmental factors were considered and resulted no significant issues were found, wood pellets produced from properly managed forests (suppliers are required FSC certification) are used as biomass fuel, and that the life cycle CO<sub>2</sub> emitted from transportation of the biomass fuel, etc. is less than that emitted from thermal power generation in Japan.
- Tokyo Gas defines the expansion of biomass power and other renewable energy sources as a key initiative (transition eligibility project categories and eligibility criteria) to achieve the "Tokyo Gas Roadmap for Transitioning to Carbon Neutrality" and transition targets in its own Tokyo Gas Transition Finance Framework. In the power generation sector, biomass power generation is a decarbonized power source that has currently been put to practical use and is also consistent with the Transition Roadmap for Power Sector, which calls for promoting a steady decarbonization.
- The annual CO<sub>2</sub> reduction is estimated to be approximately 130,000 t-CO<sub>2</sub>/year (calculated by multiplying the planned annual power generation by the average CO<sub>2</sub> emission factor (0.60 kg-CO<sub>2</sub>/kWh) for thermal power generation in Japan minus the life cycle CO<sub>2</sub> associated with biomass power generation).

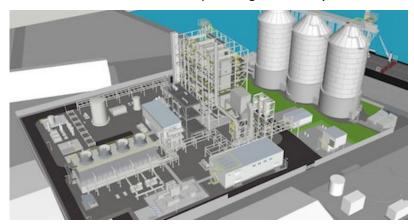


Image-4 Project BE-02 Ichihara Yawatafuto Biomass Power Plant



#### Table-6 Project BE-02 Outlines of Ichihara Yawatafuto Biomass Power Plant

Name of power plant (project name):	Ichihara Yawatafuto Biomass Power Plant
Location:	Ichihara City, Chiba Prefecture
Capacity:	75.0 MW (Circulating fluidized bed, wood pellets (FSC certified))
Operation started:	Scheduled to start operation in January 2024 (currently under construction)
Other:	Acquisition of biomass projects owned by funds managed by the Equis Group. Together with project BE-01, approximately 126,000 kW is accumulated towards Tokyo Gas's target of 6 million kW of renewable energy transaction volume in 2030.
Estimated environmental benefits:	Approx. 130,000 t-CO <sub>2</sub> /year (provisional)



#### GBP/GBGLs-4. Reporting

DNV confirms that Tokyo Gas will report on the Transition Bond (#2) until the proceeds are allocated, and disclose information on the status of the allocation, the projects to which the proceeds have been allocated or the environmental benefits. DNV also confirmed that environmental benefits will be reported until the completion of the redemption or repayment of the Transition Bond.

DNV also confirmed that Tokyo Gas plans to disclose in a timely manner any significant events, such as major changes in the allocation plan of proceeds.

The report will be disclosed on the issuer's website.

#### <Allocation status>

- Allocated amount per project
- Unallocated amount of proceeds
- Amount of allocated proceeds as existing expenditure

#### <Environmental benefits>

- Environmental benefits will be disclosed on the issuer's website to the extent practicable, including an overview of each project and the impacts.
  - \*Report the calculation results of environmental benefits based on planned power generation.



use o	f Proce	eds reporting:			
$\boxtimes$	Project	-by-project		On a project portfolio basis	
	Linkage	e to individual bond(s)		Other (please specify):	
Information reported:					
	$\boxtimes$	Allocated amounts		GB refinanced share of total investment	
		Other (please specify):			
	Frequ	iency:			
	$\boxtimes$	Annual		Semi-annual	
		Other (please specify):			
Impa	ct repo	rting (Environmental Impac	t):		
$\boxtimes$	Project	-by-project		On a project portfolio basis	
	Linkage to individual bond(s)		☐ Other (please specify):		
Frequency:					
		Every year		☐ Every six months	
		Other (please specify):			
	Info	rmation reported (expected or	ex-po	st):	
		GHG Emissions / Savings		☐ Energy savings	
		Other ESG indicators (please specify Equipment completion of installation size, year of operation, etc.	-		
Mean	s of Dis	sclosure			
		ation published in financial report ated Report)		Information published in sustainability report	
		ation published in ad hoc documents	$\boxtimes$	Other (please specify): on Tokyo Gas web site	
	Reporti review)		ich part	s of the reporting are subject to external	



#### **VI.** Assessment Conclusion

On the basis of the information provided by Tokyo Gas and the work undertaken, it is DNV's opinion that the Tokyo Gas Transition Bond (#2) meets the criteria established in the Protocol, and that it is aligned with the following stated definition or purpose of the bonds that specify the use of proceeds within the CTFH/CTFBG and GBP/GBGLs:

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

DNV Business Assurance Japan K.K.

November 24, 2022

**Mark Robinson** 

Manager, Sustainability Services

DNV Business Assurance, Australia

M konedone.

Naoki Maeda

Managing Director

DNV Business Assurance Japan K.K.

**Masato Kanedome** 

Project Leader

DNV Business Assurance Japan K.K.

**Masahito Seiwa** 

Assessor

DNV Business Assurance Japan K.K.



#### **About DNV**

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

#### Disclaimer

Responsibilities of the Management of the Issuer and the Second-Party Opinion Providers, DNV: The management of Issuer has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform the Issuer management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by the Issuer. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by the Issuer's management and used as a basis for this assessment were not correct or complete.



## Schedule-1 Tokyo Gas Transition Bond (#2) Eligible Projects

Eligible Criteria (partly extracted from the framework)			cted from the	No.	Project Overview	
1)	Technol ogical develop	Hydrogen production	(Development of low-cost technology for green hydrogen production by water electrolysis)	MFR- 01	R&D and demonstration jointly with SCREEN of the core components "water electrolysis cell stack" and "manufacturing equipment for water electrolysis cell stack" towards building a water electrolysis system that contributes to low-cost green hydrogen production.  *New allocation (look back) <estimated benefits="" environmental=""> (Contribute to medium- to large-scale demonstration and commercial expansion of zero-emissions electricity and gas decarbonization through the use of hydrogen)</estimated>	Development of a low-cost water electrolysis cell stack Location: Tsurumi Ward, Yokohama City, Kanagawa Prefecture Capacity: Further expansion has been considered after the already-developed 1m³/hr. (By 2023: aim to establish manufacturing technology within two years)
2)	ment toward decarbo nization of gaseous energy	Methanation	(Development of innovative methanation technology)	MFR- 02	Methanation demonstration testing with the aim of acquiring a range of technologies and knowhow, from the procurement of electricity from renewable energy sources to the production and utilization of synthetic methane, grasping the competence values and issues of water electrolysis and methanation equipment, and gaining insights on the efficiency of the system as a whole.  *New allocation (look back) <estimated benefits="" environmental=""> (Contribute to medium- to large-scale demonstration and commercial expansion towards gas decarbonization through the development of an entire methanation system)</estimated>	



Tokyo Gas Co., Ltd. Transition Bond (#2) Second Party Opinion ANNEX

Eligible Criteria (partly extracted from the			cted from the	No.	Project Overview	
	framework)					
3)			(Expenditure on development, construction, operation and renovation of onshore wind power plants and acquisition of interests)	WE-01	A joint project with the Danish company EWII on renewable energy development projects in the Nordic countries.  Acquisition, through a Tokyo Gas subsidiary, of a 50% stake in EWII's sub-subsidiary EWII Production, which develops and operates renewable energy projects, and approximately 27 MW of EWII Production's interests in onshore wind power.  *New allocation (look back) <estimated benefits="" environmental=""> 78,561 t-CO<sub>2</sub>/year *Interests only</estimated>	Danish onshore wind power project Location: Denmark Capacity: 54.5 MW, 10 sites & 22 units (Project total: 0.85 - 3.6 MW scale/unit) Planned: Start operation gradually since 2000 (currently in operation)
4)	Expansion of renewable energy sources	Renewable energy sources	(Expenditure on development, construction, operation and renovation of biomass power plants and acquisition of interests)	BE-01	Acquisition of two biomass projects (Fushiki Manyofuto Biomass Power Plant and Ichihara Yawatafuto Biomass Power Plant) owned by funds managed by the Equis Group. FIT projects.  Approximately 126,000 kW is accumulated towards Tokyo Gas's target of 6 million kW of renewable energy transaction volume in 2030.  *New allocation (look back) <estimated benefits="" environmental=""> BE-01: Approx. 140,000 t-CO<sub>2</sub>/year (provisional) BE-02: Approx. 130,000 t-CO<sub>2</sub>/year (provisional)</estimated>	Fushiki Manyofuto Biomass Power Plant Location: Takaoka City, Toyama Prefecture Capacity: 51.5 MW (Circulating fluidized bed, wood pellets (FSC certified), PKS (suppliers are required to obtain third-party certification)) Planned: Start operation in July 2022 (currently in operation)  Ichihara Yawatafuto Biomass Power Plant Location (planned): Ichihara City, Chiba Prefecture Capacity: 75.0 MW (Circulating fluidized bed, wood pellets (FSC certified)) Planned: Start operation in January 2024 (currently under construction)



Eligible Criteria (partly extracted from the framework)	No.	Project Overview		
Other transition-eligible project categories: *No allocation for this time				
Advanced utilization of natural gas (fuel conversion to city gas, introduction of high-efficiency equipment), power generation and CHP, area energy use, carbon-neutral LNG, utilization of CCS technology, zero-emissions for own thermal power				





## **SECOND PARTY OPINION**

# TOKYO GAS CO., LTD. TRANSITION FINANCE FRAMEWORK

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

Date: 24 Nobember 2022

Ref. Nr.: PRJN-326328-2021-AST-JPN-02



#### **Executive Summary**

Tokyo Gas Co., Ltd. (hereinafter, Tokyo Gas, including Tokyo Gas Group) was established in October 1885 as Tokyo Gas Company. Currently, Tokyo Gas and its 200 subsidiaries and affiliates are engaged in the gas businesses, electric power businesses, overseas businesses, energy-related businesses and community development service (real estate) businesses.

Tokyo Gas has formulated "Compass 2030" as the Tokyo Gas Group's management vision in 2019. Based on "Compass 2030," Tokyo Gas will strengthen its efforts to lead the transition to a decarbonized society, including the challenge of achieving net-zero CO₂ emissions, and Tokyo Gas has formulated a medium-term management plan (FY2020-2022) in 2020 that will lay the foundation for future growth and expansion in recognition of changes in the market environment over the medium to long term. Tokyo Gas has also formulated a medium-term management plan (2020-2022).

In promoting these efforts, Tokyo Gas issued the Tokyo Gas Green Bond in 2020, and then in November 2021, set forth the transition efforts "Compass Action" as a roadmap for the transition to carbon neutrality. These efforts are also consistent with the technology roadmap for the gas sector developed by the Japan Gas Association and the Ministry of Economy, Trade and Industry (METI) in January 2022 with the aim of promoting transition finance.

Tokyo Gas raised investment capital as transition finance to contribute to the transition strategy to lead the efforts for the transition to a decarbonized society, and also engaged in dialogue with investors and a wide range of marked participants. Tokyo Gas has established the Tokyo Gas Transition Finance Framework (hereinafter, "Framework") in order to carry out funds for in a manner that conform to the internationally recognized frameworks.

DNV Business Assurance Japan K.K. (hereinafter, "DNV"), as an external reviewer, evaluated the eligibility of the framework (issued in February 2022) and the Tokyo Gas Transition Bond (issued in March 2022). This time, DNV updated the eligibility assessment of the framework along with the revision for the year 2022 of the Green Bond Guidelines (Ministry of the Environment) and Green Loan Guidelines (Ministry of the Environment).

Specifically, DNV provided the eligibility evaluation for frameworks against the following handbook, principle and guidelines which are widely recognized:

- Climate Transition Finance Handbook (International Capital Market Association, 2020, hereinafter CTFH)
- Basic Guidelines on Climate Transition Finance (Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021 hereinafter, CTFBG)
- **Green Bond Principles** (International Capital Market Association, 2021 hereinafter GBP)
- **Green Bond Guidelines** (Ministry of the Environment, 2022, hereinafter GBGLs) \*updated
- **Green Loan Principles** (Loan Market Association (LMA) and others, 2021 hereinafter GLP)





- **Green Loan Guidelines** (Ministry of the Environment, 2022, hereinafter GLGLs) \*updated

The following is a summary of the assessment results for each common element indicated in the above framework. Followings (CTF-1  $\sim$  CTF-4) are findings and opinions of DNV against the four common elements of the CTFH and CTFBG (disclosure elements); Followings (GBP/GLP-1  $\sim$  GBP/GLP-4) are findings and opinions of DNV against the four common elements of GBP/GBGLs and GLP/GLGLs as a transition finance with Use of Proceeds.

#### <CTF eligibility assessment results>

#### CTF-1. fundraiser's Climate Transition Strategy and Governance:

The transition strategy of the fundraiser Tokyo Gas sets net-zero CO<sub>2</sub> emissions by 2050 as a long-term goal consistent with the goals of the Paris Agreement in its management vision "Compass 2030", and in line with the pathway of the Japan Gas Association's Action Plan for the challenge for 2050 gas carbon neutral and the Ministry of Economy, Trade and Industry's Technology Roadmap for the Gas Sector. In addition, Tokyo Gas's transition strategy will contribute to the realization of supply-side and demand-side carbon neutrality as a key initiative presented in various plans and strategies for decarbonization in Japan. In terms of governance and disclosure related to implementation of the finance, an internal structure and information disclosure process based on TCFD\*1 have been established. These are disclosed within the framework and other documents, and meet the disclosure elements of CTF-1. \*1: Task Force on Climate-related Financial Disclosures

#### CTF-2. Business model environmental materiality:

Tokyo Gas cites "climate change" under the theme of "leading net-zero  $CO_2$  emissions as leading company dealing with natural gas", and the environmental materiality of Tokyo Gas's business model is closely related to its efforts to contribute to the transformation of energy supply, including its core business of gas supply. The identification of materiality is based on analysis and evaluation methods that take into account the positive and negative aspects of their business, using  $GRI^{*1}$ , ISO 26000, TCFD, etc. As part of Tokyo Gas's efforts to address environmental materiality, Tokyo Gas has included activities that not only reduce emissions from their own business activities, but also contribute to the reduction of SCOPE3 and other companies. Furthermore, the contribution to the SDGs (see below) is also taken into account. These are disclosed within the framework and other documents, and meet the disclosure elements of CTF-2. \*1: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis tools)

# CTF-3. Climate transition strategy to be 'science-based' including targets and pathways:

Tokyo Gas's Transition Strategy is defined by science-based targets and pathways. Specifically, it is consistent with the technology roadmap in the gas sector of the Japan



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Gas Association and the Ministry of Economy, Trade and Industry described in CTF-1, and in addition to reducing CO<sub>2</sub> emissions from the company's own activities, long-term and short-to-medium-term goals that take into account SCOPE3 and contribution to reduction are indexed and quantified, and the process of achieving these goals is clarified. These are disclosed within the framework and this second party opinion and meet the disclosure elements of CTF-3.

#### CTF-4. Implementation transparency:

Tokyo Gas has outlined its basic investment plan for the implementation of its transition strategy, as well as the outcomes and impacts of the implementation. Specifically, under the "Compass Action", Tokyo Gas plans to invest approximately 2 trillion yen in growth areas, including decarbonization, by 2030, and it includes projects to be implemented through transition finance. For future overall and individual investment plans, it was confirmed that the investment required to implement the transition strategy is planned to be implemented based on the internal management system and process in consideration of CTF-1 to CTF-3. These are disclosed in the framework, other documents and this second party opinion, and meet the disclosure elements of CTF-4.

#### <GBP/GLP eligibility assessment results>

#### **GBP/GLP-1. Use of Proceeds:**

Tokyo Gas defines the eligibility criteria for the use of proceeds as transition projects, which contribute directly or indirectly to the realization of transition strategies and goals. Specifically, transition projects are indicated by the eligible project categories of ① to ④, which are classified into the following initiatives 1) to 2) below, and the proceeds will be allocated to finance or refinance for one or more these R&D, business development, construction, operation, refurbishment, and other related expenditures. DNV has confirmed that these transition projects are consistent with the elements of CTF-1 to 4. The transition projects have been evaluated by Tokyo Gas as having a clear environmental benefit on the transition strategy and are expected to contribute directly and indirectly to the SDGs. These processes are in line with GBP-1.

The following is an overview of the three projects for which the proceeds by the transition bond are planned to be used.

Table Tokyo Gas Transition Finance Eligible Project Category

Low and decarbonization initiatives*		Eligible project categories
1)	Low carbonization with natural gas	①Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience) ② Introduction of carbon-neutral LNG and use of CCUS technology
2)	Decarbonization of gas and electricity	<ul> <li>③Decarbonization of gaseous energy</li> <li>④ Expansion of renewable energy sources and achieving zero emission of gasfired power</li> </ul>



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

\*In addition to 1) and 2), Tokyo Gas is committed to "reducing its own  $CO_2$  emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and carbon-neutral LNG into its facilities, as well as converting its company-owned vehicles to HEVs, FCVs and EVs.

#### **GBP/GLP-2.** Process for Project Evaluation and Selection:

Tokyo Gas will confirm that the transition project meets the GBP-1 eligibility project categories and does not conflict with the exclusion criteria set out in the framework in advance. Specifically, the accounting department and the business unit responsible for the project will comprehensively evaluate and select the project, and the final decision will be made by the accounting officer. These processes are in line with implement GBP-2.

#### **GBP/GLP-3.** Management of Proceeds:

The proceeds are managed by the accounting department using an internal system to manage the allocation of proceeds to each project on a quarterly basis. Even if the proceeds are allocated through an affiliate or subsidiary, there is a system in place to track the fact that the proceeds have been allocated. The proceeds are managed in cash or cash equivalents in an amount equal to the unallocated proceeds until the full amount of the proceeds has been allocated.

#### **GBP/GLP-4.** Reporting:

Until the full amount of the proceeds is allocated, Tokyo Gas will disclose the status of the allocation (allocated/unallocated amount, new/refinancing) on the Tokyo Gas website. In addition, the outline of the projects and their environmental benefits will be disclosed on the Tokyo Gas website to the extent practicable (in the case of projects under construction, the progress and expected environmental benefits will be included). Furthermore, any changes in transition strategy or pathways, or significant changes in allocation plans or results will be reported in a timely manner or in reporting.

Based on an assessment of the framework and other relevant documents and information provided by Tokyo Gas, DNV has confirmed that the framework meets the criteria required by the relevant framework and eligibility as transition finance.



#### Table of Contents

Executive Summary	2
I. Introduction	7
II. Scope and Objectives	17
III. Responsibilities of Tokyo Gas and DNV	18
IV. Basis of DNV's Opinion	18
V. Work Undertaken	20
VI. Findings and DNV's Opinion	21
VII. Assessment Conclusion	31
Schedule-1 Tokyo Gas Transition Finance Nominated Project	33
Schedule-2 Climate Transition Finance Eligibility Assessment Protocol	35
Schedule-3 Green Bond (Transition Finance with specific use of proceeds) Eligibility Assessment	
Protocol	42
Schedule-4 Basic Guidelines on Climate Transition Finance Eligibility Checklist	48
Schedule-5 Green Bond Guidelines (Transition Finance with specific use of proceeds) Eligibility Assessment	75
Schedule-6 Green Loan Guidelines (Transition Finance Loan with specific use of proceeds) Eligibility	
Assessment	89
list of reference documents	105

#### Revision history

Revision number	Date of issue	Remarks
0	10/2/2022	Initial
1	24/11/2022	Updated the eligibility assessment along with the revision for the year 2022 of GBGLs and GLGLs

#### Disclaimer

Our assessment relies on the premise that the data and information provided by Issuer to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

#### **Statement of Competence and Independence**

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct1 during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

 $<sup>^{1}\,</sup>$  DNV Code of Conduct is available from DNV website (www.DNV.com)





#### I. Introduction

#### i. About the Fundraiser

Tokyo Gas Co., Ltd. (hereinafter, Tokyo Gas, including Tokyo Gas Group) was established in October 1885 as Tokyo Gas Company. Tokyo Gas is developing the following five businesses\*1 with 200 subsidiaries and affiliates including Tokyo Gas.

\*1: Compiled by DNV based on the Tokyo Gas website

**Gas business** : Supply of city gas for domestic, commercial, industrial

and power generation. And procurement and sales of

LNG, which is the raw material for city gas.

**Electricity business** : Conducts from fuel procurement to power generation

and sales. Ownership, wholesale, large-lot and small-lot sales of various power plants including renewable energy sources as a new electric power

company.

**Overseas Business**: Business development focusing on overseas resource

development, renewable energy business, and LNG infrastructure business to realize the goals set forth

in the management vision "Compass 2030".

**Energy-related business**: Providing solutions such as LNG terminals, pipelines,

district heating and cooling, and energy services by leveraging Tokyo Gas's technological expertise and

know-how in the LNG value chain

**Community development services**: Real estate (office and residential) rental

business, mainly in cities. Through joint projects with business partners, Tokyo Gas is actively involved in community-based energy proposals and urban

development.



#### ii. Fundraiser's Initiatives for ESG/SDGs

The Tokyo Gas's approach to promoting sustainability is "to contributes to the achievement of a sustainable society by creating social and financial value from the solution of social issues through its business activities, and by engaging in enduring corporate management". Based on this concept, Tokyo Gas aims to contribute to the achievement of the Sustainable Development Goals (SDGs) set by the United Nations by addressing materiality (key sustainability issues) through its business activities.

Of these, the sustainability issue (materiality) primarily relevant to Transition Finance is "Leading net-zero CO<sub>2</sub> emissions as leading company dealing with natural gas".

Table-1 Relationship between materiality (key sustainability issues) and SDGs

Sustainability issues (Materiality)	·	uting to the SDGs through the efforts
	Climate change	7
Leadership in the effort to achieve Net-Zero CO <sub>2</sub> as a	Access to energy	9 secretary 9 secretary 11 secretary 17 secretary 17 secretary 18 secretary 19 secr
leading company in natural gas	Safety and disaster preparedness	7 serveden 9 serveden 11 serveden 13 served 17 minutes.
_	Creation of customer value	3 ####################################
	Resource efficiency and recycling society	6 Canada 12 See 14 Canada 14 Canada 15 Canada 15 Canada 16 Canada 16 Canada 16 Canada 17 Canada 16 Canada 17 Canada
Sound relations with society	Establishment of relationships with communities	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
With society	Diversity	4 mm. 5 mm. 5 mm. 10 mm. 17 mm. 17 mm. 17 mm. 17 mm. 18 mm. 17 mm. 17 mm. 18 mm. 17 mm. 18 m
	Satisfaction through work and labor productivity	4 man. 8 manusara 17 manusara 20 mm. 17 manusara 20 mm. 18
Actions	Supply chain management	5 mm   8 mm reads   10 mm reads   12 mm reads   13 mm   14 mm reads   15 mm   15 mm reads   17 mm reads   17 mm reads   18 mm r
Actions as a responsible company	Information security	17 minutes.
J	Governance and compliance	5 mm 10 mm



#### iii. Fundraiser's Environmental Initiatives

Tokyo Gas formulated its management vision, "Compass 2030" in November 2019, and announced "Compass Action" in November 2021 as a concrete pathway to realize Compass 2030. "Compass 2030" and the "Compass Action" provide an overall picture of the initiatives and measures to achieve a balance between the environment and business management. In this document, Tokyo Gas presents a roadmap for the transitioning to carbon neutrality (Figure-1).

The roadmap for transitioning to carbon neutrality calls for an accelerated transition period ending in 2030, with global business activities contributing 17 million tons of  $CO_2$  emission reduction by 2030, and a period of carbon neutrality ending in 2050, with the challenge of achieving net zero  $CO_2$  emissions by 2050.

Tokyo Gas's roadmap for transitioning to carbon neutrality includes not only its own  $CO_2$  emissions from its business activities (SCOPE 1 and 2), but also the  $CO_2$  emission reduction of society as a whole through approaches to both raw material procurement and the  $CO_2$  emission reduction contributions of its customers (SCOPE 3) (Figure-2).

In addition, Tokyo Gas clearly states in its "Compass Action" that it will "lead the way in responsible transitions" and is actively addressing "climate change" as a sustainability issue (materiality) by participating in various external initiatives as shown in Table-2.

# TOKYO GAS GROUP "ROADMAP FOR TRANSITIONING TO CARBON NEUTRALITY". (EXTRACT FROM COMPASS ACTION)

1.	Use natural gas as low-carbon solution	1., 2.: Contribute to CO <sub>2</sub> reduction at customers		
2.	Decarbonize gas & electricity			
3.	Reduce in-house CO <sub>2</sub> emissions	3.: Net zero in-house emissions		



\*1: A type of LNG that is deemed carbon neutral as greenhouse gas emissions generated by the proc \*2: Carbon capture & utilization \*3: Hybrid electric vehicles, fuel cell vehicles & electric vehicles

Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

#### Roadmap for transitioning to carbon neutrality We will achieve a carbon reduction contribution of 17 million tons by 2030° across all our business activities worldwide We will lead the transition to carbon neutrality by developing strengths in gas/electricity decarbonization technologies and expanding the deployment at customer sites 2050 Accelerate transition Growth of the potential and role of LNG/natural gas statility stemming from increased use of solar & other switching needs to gas) customers Sophisticated Develop & expand CCU<sup>\*2</sup> reduction at Carbon-neutral methane: Transition to large-scale & high-efficiency methanation and con Implement medium-/large-scale Launch small-scale pilot projects Hydrogen: Establish practical, affordable hydrogen product Contribute to CO<sub>2</sub> Develop technologies for low-cost hydrogen production Creation of Develop low-cost technologies for constructing floating offshore wind power strenaths Achieve zero emissions in our thermal power generation Explore use of hydrogen & ammonia (including procurement) Net-zero in-house

Figure 1: Tokyo Gas Group Compass Action "Roadmap for Transitioning to Carbon Neutrality

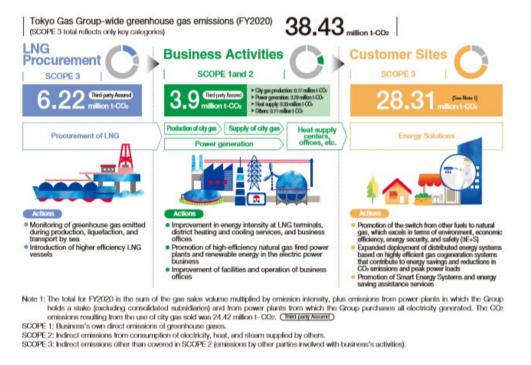


Figure-2 Greenhouse gas emissions in Tokyo Gas LNG value chain (FY2020)



Table-2 Tokyo Gas's Participation in External Initiatives and Efforts

External Initia	atives	Tokyo Gas's Efforts		
UN Global Compact	WE SUPPORT	In March 2016, Tokyo Gas announced its support for the United Nations Global Compact to promote sustainability from a global perspective as a good member of the international community.		
Sustainable Development Goals (SDGs)	SUSTAINABLE DEVELOPMENT GALS	(See Table-1) Based on the concept of promoting sustainability, which is "to contributes to the achievement of a sustainable society by creating social and financial value from the solution of social issues through its business activities, and by engaging in enduring corporate management", Tokyo Gas aims to make a broad contribution to the achievement of the SDGs through its business activities.		
Task Force on Climate- related Financial Disclosures (TCFD)	TCFD MAN FOREST	Tokyo Gas has decided to support the TCFD recommendations in May 2019. Tokyo Gas discloses information in line with TCFD recommendations from FY2020 and plans to continue to disclose appropriate information on the impact of climate change on the Tokyo Gas Group's business activities and efforts to address it.		
Challenge Zero	Challenge Zero	Tokyo Gas has decided to support "Challenge Zero (Challenge Net-Zero Carbon Innovation)", which is a new initiative of Nippon Keidanren (Japan Business Federation) that strongly promotes and encourages the innovation actions that companies and organizations are taking on, both domestically and internationally, with the aim of realizing a "decarbonized society," which is the long-term goal of the Paris Agreement, the international framework for combating climate change. Also, Tokyo Gas has announced the its specific innovation initiatives (listed in the "Companies Taking on the Zero-Emission Challenge" by the Ministry of Economy, Trade and Industry).		

#### iv. About the Transition Finance Framework

In advancing the environmental initiatives "Leading the Transition to 'CO<sub>2</sub> Net Zero'" which set forth in "Compass 2030", Tokyo Gas issued transition finance for transition activities to realize the Carbon Neutral Challenge  $2050^{*1}$  set forth by the Japan Gas Association (JGA) and the sector-specific technology roadmap<sup>\*2</sup> set forth by the Ministry of Economy, Trade and Industry (METI). Also, Tokyo Gas engaged in dialogue with investors and a wide range of marked participants and has established the Tokyo Gas Transition Finance Framework (hereinafter, "Framework") in order to carry out funds for in a manner that conform to the internationally recognized frameworks.

The criteria which this framework specifically referred to is described in (3) of Section II below.

<sup>\*1:</sup> Japan Gas Association: Carbon Neutral Challenge 2050 on 24<sup>th</sup> November 2020

<sup>\*2:</sup> Ministry of Economy, Trade and Industry (METI): Technology roadmap for the gas sector on "Transition Finance" on February 2022.



#### v. Fundraiser's Transition Strategy for Decarbonization

#### (1) Strategies by sector (industry) at the international/national/regional level

Figure-3 shows the scenarios for gas carbon neutrality set out in the "Carbon Neutral Challenge 2050" developed by the Japan Gas Association in November 2020. The Japan Gas Association's scenario (Figure-3) and Tokyo Gas's roadmap (Figure-1) are well aligned, and it is designed to reduce emissions throughout the gas supply chain, including demand-side, supply-side, CCUS and overseas contributions. Figure-4.2 shows the Ministry of Economy, Trade and Industry (METI) technology roadmap by sector.

One of the main contributions of the gas sector to the reduction of CO<sub>2</sub> emissions in society as a whole is the conversion of coal, heavy oil and petroleum fuels to



Figure-3 Scenarios for achieving gas carbon neutral (Japan Gas Association)

- Shift to natural gas and advanced use of natural gas (demand side)
- Conversion from coal and oil to natural gas
- Introducing cogeneration, fuel cell
- Introducing high efficient equipment
- 2 Decarbonization of Gas (supply side)
  - Synthetic Methane and hydrogen utilization
  - Decarbonization of Gas by innovation by supplier
- 3 CCUS and global avoided emission
- R&D and installation of CCUS.
- Expand innovative gas technology and engineering to global, use of carbon neutral LNG

natural gas, which is widely recogzised as a typical transition project. The METI's gas sector roadmap shows that, as society as a whole progresses with fuel switching, gas demand-side (consumption and sales) will increase, and supply-side (gas utility) CO<sub>2</sub> emissions will increase (Scope 3 increase) in the short to medium term (Figure-4.1).

In other words, while Tokyo Gas is working to reduce  $CO_2$  emissions in its gas business through the introduction of high-efficiency gas appliances and other measures, Tokyo Gas's Scope 3  $CO_2$  emissions are expected to increase temporarily due to the relatively high volume of natural gas supplied for fuel conversion. Tokyo Gas is committed to reducing  $CO_2$  emissions for society as a whole through the supply of gas for fuel conversion, etc. (contributing to the reduction of  $CO_2$  emissions), and the voluntary reduction of  $CO_2$  emissions through the introduction of high-efficiency gas appliances

and other measures (introduction of technologies and equipment that will contribute to the reduction of the supply of low-carbon gas in the future) will also contribute to the reduction of Scope 3 emission reductions. It is considered to be strategies and initiatives that are closely related to the initiatives of METI and the Japan Gas Association.

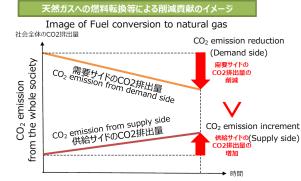
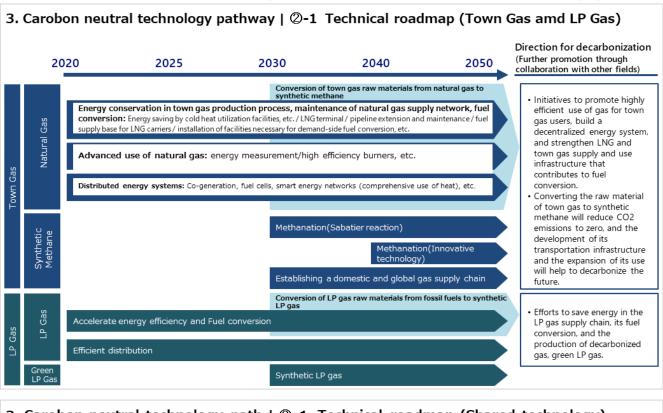


Fig-4.1 METI Transition Finance Technical Roadmap (Gas sector) Demand/Supply side



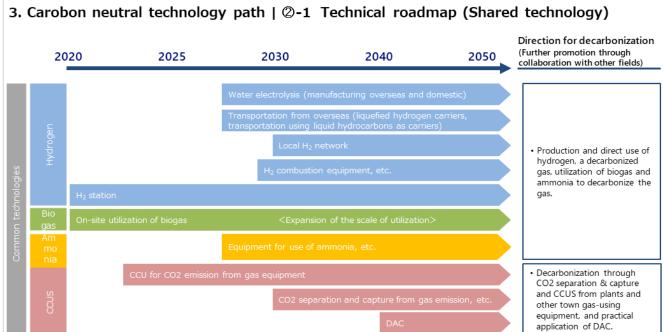


Fig-4.2\* METI Transition Finance Technical Roadmap (Gas sector) Town Gas, LP Gas(above) and Shared Technology(below)

\*: Fig-4.2 is a provisional translation by DNV based on the Japanese version



#### (2) Fundraiser's transition strategies

Tokyo Gas has positioned its efforts to achieve its short-, medium- and long-term targets as transition strategy by embodying the transition initiatives outlined above by the Japan Gas Association and the Ministry of Economy, Trade and Industry, as well as the efforts to achieve Net-Zero CO<sub>2</sub> emissions by 2050 outlined in its management vision "Compass 2030" and "Compass Action".

These targets will contribute to (and support) the implementation of supply-side and demand-side carbon neutrality as a key initiative outlined in Japan's various decarbonization plans and strategies.

Table-3 shows the Tokyo Gas's transition targets. In addition, Table-4 shows the low and decarbonization initiatives towards Net-Zero CO₂ emissions, and Figure-5 shows the roadmap for the transitioning to carbon neutrality, including an overview of the transition strategy, specific initiatives and timelines.

Although the Transition Strategy of the Japan Gas Association and the Ministry of Economy, Trade and Industry does not set clear interim targets (base year, specific quantified reduction targets, etc.), Tokyo Gas has set the short-, mid- and long-term targets required by the Transition Strategy from the perspective of its own activities and contribution to society, together with specific management strategies and business plans.

#### **TABLE-3 TOKYO GAS TRANSITION TARGETS**

MEDIUM-TERM TARGETS	Contribution to CO₂ reduction by 2030: ▲17 million tonnes*
LONG-TERM TARGETS	Challenge to achieve Net-Zero CO₂ towards 2050

Reference: Short-term target: Achieve Net-Zero  $CO_2$  and contribute to  $CO_2$  reduction of  $\blacktriangle 6.5$  million tonnes in 2020-2022 (for domestic emissions)\*

\*Compared to 2013. Includes in-house emissions (Scope 1 and 2), Scope 3 and reductions at customers.

Of the  $\triangle$  17 million tonnes (target for the global business as a whole), Net-Zero CO<sub>2</sub> emissions from city gas production, company-owned buildings, and company vehicles in Scope 1 and 2 (approx. 300,000 tons in FY2020); the decrease in Scope 3 emissions is  $\triangle$ 750,000 tonnes.



#### Table-4 Low and decarbonization efforts towards Net Zero CO<sub>2</sub> of Tokyo Gas

	Low and		Project category			
	decarbonization initiatives					
1)	Low carbonization with natural gas		Advanced use of natural gas  (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)			
		2	Introduction of carbon-neutral LNG and use of CCUS technology			
	Decarbonization of gas and electricity	3	Development of technology for decarbonization of gaseous energy			
2)		4	Expansion of renewable energy sources and achieving zero emission of gas-fired power			
3)	Reduce in-house CO <sub>2</sub> emissions		We are introducing ultra high-efficiency fuel cells, photovoltaics, CCUs and carbon-neutral LNG in our own facilities, and are converting our company vehicles to HEVs, FCVs and EVs.			

#### Roadmap for transitioning to carbon neutrality

- We will achieve a carbon reduction contribution of 17 million tons by 2030\* across all our business activities worldwide
- \*\*Compass 2030's original target was 10 million lors in Japan of We will lead the transition to carbon neutrality by developing strengths in gas/electricity decarbonization technologies

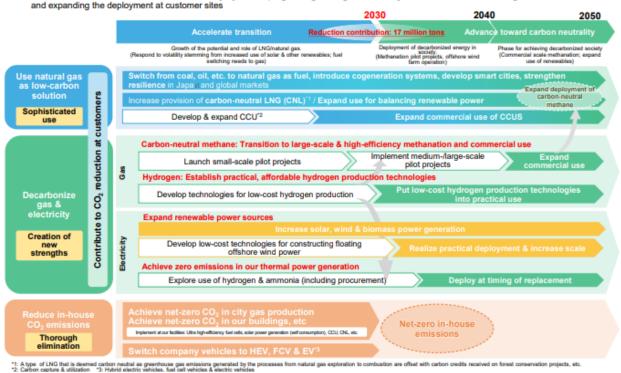


Figure-5 (Figure-1 reprinted) Tokyo Gas Group Compass Action
"Roadmap for Transitioning to Carbon Neutrality



#### (3) Governance of the fundraiser (sustainability promotion system)

Figure-6 and Figure-7 show Tokyo Gas's sustainability promotion system and its

approach to sustainability promotion.

Tokyo Gas recognizes that the implementation of the Transition Strategy is one of the ways to promote sustainability, and as an important management issue, it is deliberated and decided by a committee that supports the rational decision-making of the executive officers, and the implementation of business. These bodies are responsible for dealing with the environmental and social issues associated with the implementation of the transition strategy,

Representative Corporate Executive Officer,
President and CEO

Committee supporting rational decision-making by Corporate Executive Officers

Sustainability Committee Chair President

Tokyo Gas business departments

Subsidiaries

(as of June 29, 2021)

Figure-6 Tokyo Gas Sustainability Promotion Structure

and for monitoring, evaluating and managing transition initiatives. In addition, the Sustainability Committee, chaired by the President, has been established as a meeting body for the promotion of sustainability, and is promoting efforts to address sustainability issues (materiality) including climate change.



Figure-7 Tokyo Gas's approach to sustainability promotion

Issuer Name: Tokyo Gas Co., Ltd.

**Framework Name:** Tokyo Gas Transition Finance Framework **Review provider's Name:** DNV Business Assurance Japan K.K.

Date of report: 24 November 2022



### II. Scope and Objectives

DNV has been commissioned by Tokyo Gas to provide a pre-issuance assessment on Tokyo Gas's Transition Finance Framework and the Transition Bonds. Our objective has been to implement an assessment on whether the Tokyo Gas's Transition Bonds meet the criteria established on CTFH·CTFBG, GBP·GBGLs and GLP·GLGLs to provide a second party opinion on the eligibility of the Tokyo Gas's Transition Finance Framework and the Transition Bond to be implemented.

DNV, as an independent external reviewer, has identified no real or perceived conflict of interest associated with the delivery of this second-party opinion for Tokyo Gas.

In this report, no assurance is provided regarding the financial performance of the finance, the value of any investments in the finance, or the long-term environmental benefits of the transaction.

## (1)Scope of review\*

The review assessed the following elements and confirmed their alignment with the gist of GBP/GLP:

 $\boxtimes$ . Use of Proceeds

☑. Process for Project Evaluation and Selection

oximes. Management of Proceeds

#### (2)Role(s) of review provider

$\boxtimes$	Consultancy (incl. 2 <sup>nd</sup> opinion)	Certification
	Verification	Rating
	Other (please specify):	

#### (3)Standards/guidelines to be applied

No.	Standards/guidelines	Scheme owner
1.	Climate Transition Finance Handbook (CTFH)*1	International Capital Market Association (ICMA), 2020
2.	Basic Guidelines on Climate Transition Finance (CTFBG) *1	Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021
3.	Green Bond Principles (GBP) *2	International Capital Market Association (ICMA), 2021
4.	Green Bond Guidelines (GBGLs) *2	Ministry of the Environment, 2022
5.	Green Loan Principles (GLP) *2	Loan Market Association (LMA) and others, 2021
6.	Green Loan Guidelines (GLGLs) *2	Ministry of the Environment, 2022

<sup>\*</sup>The scope of review is to be applied as a part of the evaluation of the transition finance with use of proceeds

<sup>\*</sup>The four disclosure elements of CTFH and CTFBG are included in the scope of review



- \*1 Climate transition: The concept of climate transition focuses principally on the credibility of an issuer's climate change-related commitments and practices. (Quoted from CTFH and CTFBG)
- \*2 It confirms compliance with the four core elements (use of proceeds, process for project evaluation and selection, management of proceeds, and reporting) that must be met when implementing as a bond/loan that meets the four elements of transition and has a specific use of proceeds (quoted from CTFBG).

#### **III.** Responsibilities of Tokyo Gas and DNV

Tokyo Gas has provided the information and data used by DNV during the delivery of this review. DNV's second party opinion represents an independent opinion and is intended to inform Tokyo Gas and other interested stakeholders in the Tokyo Gas's Transition Finance as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by Tokyo Gas. DNV is not responsible for any aspect of the nominated projects and assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by Tokyo Gas's management and used as a basis for this assessment were not correct or complete.

## IV. Basis of DNV's Opinion

To provide as much flexibility for the fundraiser, Tokyo Gas as possible, we have adapted our Tokyo Gas Transition Finance assessment methodologies, which incorporates the requirements of the CTFH, CTFBG, GBP, GBGLs, GLP and GLGLs, to create a Tokyo Gas Transition Finance Eligibility Assessment Protocol (hereinafter, "Protocol"). Please refer to Schedule-2. The Protocol is applicable to Tokyo Gas Transition Finance under the CTFH, CTFBG, GBP, GBGLs, GLP and GLGLs.

DNV, as an independent external reviewer, provides second party opinion according to the protocol.

Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the Climate Transition Finance of Bond and Loan with a specific use of proceeds as the basis for the opinion are as follows:

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

As per our Protocol, the criteria against which the Tokyo Gas Transition Finance has been reviewed are grouped into common elements bellow, represented by CTFH, CTFBG, GBP, GBGLs, GLP and GLGLs.



#### (1) Four elements of CTFH/CTFBG (disclosure elements)

#### Principle One: Fundraiser's climate transition strategy and governance

The financing purpose should be for enabling a fundraiser's climate change strategy.

#### Principle Two: Business model environmental materiality

The planned climate transition trajectory should be relevant to the environmentally-material parts of the fundraiser's business model.

#### Principle Three: Transition is science-based including targets and pathway

Fundraiser's climate strategy should reference science-based targets and transition pathways.

#### Principle Four: Implementation transparency

Market communication in connection with the offer of a financing instrument which has the aim of funding the fundraiser's climate transition strategy should also provide transparency of the underlying investment program.

#### (2) Four elements of GBP/GBGLs and GLP/GLGLs

#### · Principle One: Use of Proceeds

The Use of Proceeds criteria are guided by the requirement that a fundraiser of a transition finance must use the funds raised to eligible activities. The eligible activities should produce clear environmental benefits.

#### Principle Two: Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that a fundraiser of a transition finance should outline the process it follows when determining eligibility of an investment using transition finance proceeds, and outline any impact objectives it will consider.

#### Principle Three: Management of Proceeds

The Management of Proceeds criteria are guided by the requirements that a transition finance should be tracked within the fundraising organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.

#### · Principle Four: Reporting

The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the bond investors and loan lenders should be made of the use of proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

<sup>\*</sup>The GLGLs set out requirements for loan-specific elements (internal reviews). This is identified in the green loan requirements check in Schedule-6.



#### V. Work Undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that this information was provided to us by the fundraiser in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

#### i. Pre-funding assessment (Transition Finance Framework and Transition Bonds)

- Creation of a Tokyo Gas-specific Protocol, adapted to the purpose of the Tokyo Gas Transition Finance, as described above and in Schedule-2 to this assessment;
- Assessment of documentary evidence provided by Tokyo Gas on the Tokyo Gas
   Transition Finance and supplemented assessment by a comprehensive desktop
   research. These checks refer to current assessment best practice and standards
   methodologies;
- Discussions with Tokyo Gas, and review of relevant documentation;
- Documentation of findings against each element of the criteria.

#### ii. Post-funding assessment (\*not included in this report)

- Interview with Tokyo Gas management, and review of the relevant documentation;
- Field research and inspection (if necessary);
- Document creation of post-issuance assessment results



#### **VI. Findings and DNV's Opinion**

DNV's findings and opinion are as described in (1) and (2) below.

From the CTF-1 to 4 in (1) below are the findings and opinions of DNV against the disclosure elements of the CTFH and CTFBG.

Please see Schedule-2 for details.

From the GBP 1 to 4 in (2) below are the findings and opinions of DNV against the requirement of the four common disclosure elements of GBP/GBGLs and GLP/GLGLs.

Please see Schedule-3 for details.

# (1) Findings and opinions of DNV against the four common elements (disclosure elements) of CTFH and CTFBG

#### CTF-1. Fundraiser's Climate Transition Strategy and Governance

- Tokyo Gas formulated its management vision, "Compass 2030," in November 2019 and "Compass Action" in November 2021 as specific actions to implement Compass 2030. In the Compass Action, Tokyo Gas has set a long-term targets of Net-Zero CO<sub>2</sub> by 2050, which is the goal of the Paris Agreement, and has set short-term and medium-term targets to achieve that long-term target. Tokyo Gas disclosed its strategic plan to achieve the above target as a roadmap for transitioning to carbon neutrality in Compass Action.
- Based on the science-based long-term targets quantified by Tokyo Gas, DNV
  has reviewed and confirmed that Tokyo Gas's targets correspond to achieving
  the goals of the Paris Agreement. Tokyo Gas sets environmental corporate
  strategies that are important to its business model, based on the identification
  of risks and opportunities and scenario analysis using TCFD guidance.
- Specifically, Tokyo Gas's Transition Strategy incorporates the environmental targets of the Japan Gas Association and the Ministry of Economy, Trade and Industry (METI), as well as its action plan to achieve a target of limiting the increase in average temperature below 2°C using the TCFD. In addition, if it becomes necessary to review Tokyo Gas's efforts in order to achieve continuous emission reductions in the future, Tokyo Gas plans to implement them as appropriate according to the timeline.
- Tokyo Gas recognizes that the implementation of the Transition Strategy is one of the ways to promote sustainability, and has established a system and framework to promote the initiatives specified in "Compass 2030" and "Compass Action" at the management level.
- The Tokyo Gas's approach to promoting sustainability is "to contributes to the achievement of a sustainable society by creating social and financial value from the solution of social issues through its business activities, and by engaging in enduring corporate management". Based on this concept, Tokyo



Gas aims to contribute to the achievement of the Sustainable Development Goals (SDGs) set by the United Nations by addressing materiality (key sustainability issues) through its business activities.

Of these, the sustainability issue (materiality) primarily relevant to Transition Finance is "Leading net-zero  $CO_2$  emissions as leading company dealing with natural gas".

- Based on an assessment of the Framework, "Compass 2030", "Compass Action" and the Implementation Plan, DNV has confirmed that they are well aligned with Tokyo Gas's Transition Strategy. Through the assessment, DNV has confirmed that the implementation plan based on the Transition Strategy is reliable, ambitious and achievable.

#### CTF-2. Business model environmental materiality

- Tokyo Gas's Transition efforts include not only emission reductions from its own business activities (SCOPE 1 and 2), but also SCOPE 3 and activities that contribute to the reduction at customers. This will contribute to the implementation of supply-side and demand-side carbon neutrality as an important initiative indicated in the various plans and strategies for decarbonization in Japan. In other words, as a natural gas company, Tokyo Gas's transition efforts directly support the transition of society as a whole, including its own.
- Tokyo Gas's Transition Roadmap is well aligned with the Gas Roadmaps of the Japan Gas Association and the Ministry of Economy, Trade and Industry, and their specific implementation plans and targets have been set and quantified in the absolute sense that they must be the optimization to achieve them and the possibility of further improvement.
- DNV confirmed that Tokyo Gas's plan to implement its Transition Strategy is closely linked to the activities of Tokyo Gas's core business and to activities that contribute to the CO<sub>2</sub> reduction of in society as a whole, thus, contributing to the environmental aspects of society as a whole and supporting commercial drive. Tokyo Gas's planned Transition Strategy and Transition Pathway will be associated with the materiality that Tokyo Gas has achieved through GRI\*1, ISO 26001, TCFD, etc., and will contribute to significant environmental benefits in both qualitative and quantitative terms.
  - \*1: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis methods)

#### CTF-3. Transition is science-based including targets and pathways

- Tokyo Gas has set a transition plan that is consistent with the Paris Agreement based on science-based evidence, and a transition trajectory that is consistent



with the goals of the Japan Gas Association and the Ministry of Economy, Trade and Industry.

DNV has confirmed that Tokyo Gas's Transition Strategy is quantified in terms
of emission intensity and absolute values based on a consistent measurement
methodology with prescribed assumptions. Transition targets are set
voluntarily based on initiatives using TCFD and other methods to achieve
sustainable CO<sub>2</sub> emission reductions, and they are consistent with the policies
of the benchmarking of the Japan Gas Association and the Ministry of
Economy, Trade and Industry.

#### TABLE TOKYO GAS TRANSITION TARGETS

MEDIUM-TERM TARGETS	Contribution to CO₂ reduction by 2030: ▲17 million tonnes*
LONG-TERM TARGETS	Challenge to achieve Net-Zero CO <sub>2</sub> towards 2050

Reference: Short-term target: Achieve Net-Zero CO<sub>2</sub> and contribute to CO<sub>2</sub> reduction of ▲6.5 million tonnes in 2020-2022 (for domestic emissions)\*

- \*Compared to 2013. Includes in-house emissions (Scope 1 and 2), Scope 3 and reductions at customers. Of the ▲ 17 million tonnes (target for the global business as a whole), Net-Zero CO<sub>2</sub> emissions from city gas production, company-owned buildings, and company vehicles in Scope 1 and 2 (approx. 300,000 tons in FY2020); the decrease in Scope 3 emissions is ▲750,000 tonnes.
  - Tokyo Gas's CO<sub>2</sub> reduction focuses not only on reducing emissions from its own business activities (SCOPE 1 and 2), but also on SCOPE 3 and activities that contribute to the reduction at customers. This will contribute to the implementation of supply-side and demand-side carbon neutrality as an important initiative indicated in various plans and strategies for decarbonization in Japan. In other words, as a natural gas company, Tokyo Gas's transition initiatives directly support the transition of society as a whole, including its own.





#### **CTF-4.** Implementation Transparency

- DNV has confirmed that the investment and deployment plans associated with Tokyo Gas's Transition Strategy include agreement on future investment and expenditure. Specifically, under Compass Action, Tokyo Gas plans to invest approximately 2 trillion yen by 2030 in growth areas including decarbonization, projects to be implemented through transition finance.
- DNV confirmed that the overall investment plan (investment amount) for the future considers CTF-1 to CTF-3 for the investment required to implement the transition strategy and also confirmed plans to be implemented according to the appropriate timelines, based on internal management system and process.



# (2) Findings and opinions of DNV against the four common elements of GBP/GBGLs and GLP/GLGLs

\*The four elements are used as criteria for transition finance to specify the use of proceeds, and some green bonds/loans below can be read as transition finance (bond/loan).

#### GBP/GLP-1. Use of Proceeds

Tokyo Gas has defined the criteria applied to eligible projects as transition projects which meet Transition Strategy and related handbook, principle and guidelines (CTF-H and CTF-BG).

Table-5 shows the eligible project categories for transition finance.

Table-5 Tokyo Gas Transition Finance Eligible Project Category

L	ow and decarbonization initiatives <sup>*</sup>	Eligible project categories
1)	Low carbonization with natural gas	①Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)
	_	② Introduction of carbon-neutral LNG and use of CCUS technology
	Decarbonization of gas	③Decarbonization of gaseous energy
2)	and electricity	④ Expansion of renewable energy sources and achieving zero emission of gas- fired power

<sup>\*</sup>In addition to 1) and 2), Tokyo Gas is committed to "reducing its own CO<sub>2</sub> emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and carbon-neutral LNG into its facilities, as well as converting its company-owned vehicles to HEVs, FCVs and EVs.

DNV has confirmed that Tokyo Gas plans to allocate the net proceeds from Transition Finance, excluding expenses, as new investment and refinancing for capital investment, operating expenses, and R&D related expenses for transition eligible projects that meet Tokyo Gas's investment plan for implementing its transition strategy.

These are projects that contribute to business transformation projects as exemplified by CTFH/CTFBG, GBP/GBGLs and GLP/GLGLs, that directly or indirectly support fuel switching, and that contribute to achieving the goals of the Japan Gas Association and METI. These projects have been evaluated as having a clear environmental improvement effect on the Transition Strategy, and are expected to contribute to the SDGs. These processes are in compliance with the GBP-1.

Table-6 shows the candidate projects and eligibility criteria for transition finance. Also,





# Table-6 Transition Finance Eligible Project Candidates and Eligibility Criteria

Eligible project candidates			andidates	Eligibility Criteria								
	Initiatives	Categories		(Overview of Transition Project)								
	Use natural gas as Low-carbon solution		Advanced use of natural gas  Installation of high-efficiency gas appliances		<ul> <li>New LNG terminal</li> <li>Gas production facilities at satellites</li> <li>Pipeline extension/maintenance</li> <li>Support for the installation of gas appliances for industrial, commercial and domestic use</li> </ul>							
1)		<u>1</u>	Power generation and cogeneration (Combined heat and power)		<ul> <li>Conventional fuel cell (ENE-FARM)</li> <li>Development and introduction of ultra high-efficiency fuel cells</li> <li>Gas cogeneration (including non-in-building use), district heating and cooling</li> <li>VPP in the household and commercial sectors</li> <li>Construction, maintenance and renewal of high-efficiency LNG-fired power stations</li> </ul>							
			Area energy use		Smart Energy Networks, etc.							
		2	Carbon-neutral LNG		Procurement and supply of carbon- neutral LNG							
			Use of CCUS technology		CCU systems at the customer's site							
					CCS (development of large scale CO <sub>2</sub> storage technology using micro-bubble)							
											Use of hydrogen and biogas	<ul> <li>New hydrogen stations</li> <li>Hydrogen pipeline installation</li> <li>Maintenance and renewal of hydrogen production and CCUS</li> <li>Procurement of biogas</li> </ul>
2)	Decarbonize gas and electricity	3	Decarbonization of gaseous energy	Development of technology for decarbonization of gaseous energy	<ul> <li>Development of low-cost green hydrogen production technology by water electrolysis</li> <li>Development of innovative methanation technologies</li> </ul>							
		<b>A</b>	Expansion of renewable energy sources		<ul><li>Expansion of renewable energy sources</li><li>Renewable electricity procurement</li></ul>							
		4	Zero emission of own gas-fired power		Co-firing and exclusive use of hydrogen and ammonia in gas- fired power plants							



#### GBP/GLP-2. Process for Project Evaluation and Selection

Tokyo Gas confirms that the transition projects contribute to the achievement of the Transition Strategy and do not conflict with the pre-defined exclusion criteria (see below) in the Framework. Specifically, the Accounting Department and the Business Units will select projects for appropriation from the eligible project candidates, and the final decision on the selected projects will be made by the Accounting Officer.

DNV confirmed that these processes had been established as an internal document of Tokyo Gas and that the plan will be implemented in accordance with the appropriate processes.

DNV has also confirmed that the transition projects implemented by Tokyo Gas are in line with its management and environmental policies, as well as the transition strategies, goals and pathways.

#### < Exclusion Criteria>

- Inappropriate relationships such as unfair trade, bribery, corruption, extortion, embezzlement, etc. that do not comply with the laws of the country of residence
- Transactions that can cause social problems such as human rights and the environment

#### **Evaluation and selection**

- ☑. Conforms to the issuer's achievement of environmental contribution goals
- ☑. The project is eligible for use of proceeds by green bond and transparency is ensured.
- ☑. Documented process to determine that projects fit within defined categories
- ☑. Documented process to identify and manage potential ESG risks associated with the project
- $\Box$  Other (please specify):

#### **Information on Responsibilities and Accountability**

- ☑. Evaluation / Selection criteria subject to external advice or verification
- $\Box$  Other (please specify):

oximes. In-house assessment



#### GBP/GLP-3. Management of Proceeds

The proceeds will be deposited into Tokyo Gas's common account, and the accounting department will manage the allocation for each project by allocating them to affiliates and subsidiaries using an integrated accounting management system.

This integrated accounting management system and other systems will be traceable over the redemption or repayment period, and the allocation status will be reviewed by the accounting department on a quarterly basis. Vouchers relating to the management of the proceeds will be kept in accordance with document control regulations.

The net proceeds is planned to be allocated within two years of the issue. If the proceeds are to be used to refinance existing expenditure, it is planned to be allocated within approximately three years from the time of the financing, and the projects that are determined to be eligible as transition projects at the time of allocation are eligible in accordance with the process set out in GBP/GLP-2.

The amount of proceeds will be managed in cash or cash equivalents in the same amount as the unallocated proceeds until the allocation.

If transition financing is to be implemented under this framework in the future, it will be disclosed in legal documents prior to implementation.

#### **Tracking of Proceeds:**

$\boxtimes$ .	Some or all of the proceeds by green bonds that are planned to be allocated are systematically							
	distinguished or tracked by the issuer.							
	Disclosure of intended types of tempora	ry invest	ment instruments for unallocated proceeds					
$\boxtimes$ .	Other (please specify): Unallocated proc	ceeds are	managed in cash or cash equivalents					
Additio	nal disclosure:							
	Allocations to future investments only	⊠.	Allocations to both existing and future					
			investments					
$\boxtimes$ .	Allocation to individual disbursements		Allocation to a portfolio of disbursements					
	Disclosure of portfolio balance of	$\boxtimes$ .	Other (please specify): includes allocations					
	unallocated proceeds		through affiliates and subsidiaries.					





#### GBP/GLP-4. Reporting

DNV confirms that the fundraiser will report on the transition finance until the proceeds are allocated, and disclose information on the status of the allocation, the projects to which the proceeds have been allocated or the environmental benefits. DNV also confirmed that environmental benefits will be reported until the completion of the redemption or repayment of the transition financing. DNV confirmed that the fundraiser will disclose information on a timely basis in the event of a significant change in the allocation plan or other material event.

The report will be disclosed on the fundraiser's website.

#### <Allocation Status>

- Allocated Amount
- Unallocated amounts (including when they will be allocated and its management)
- Amount of proceeds to be used for refinancing

•

#### <Environmental benefit>

• Environmental benefits are disclosed within the scope of confidentiality, to the extent practicable, and in consideration of the characteristics of the project, including an overview of the project (including progress, completion, operation, etc.) and the expected environmental benefits (e.g., t-CO<sub>2</sub>/year).



東京ガス株式会社 トランジション・ファイナンス・フレームワーク セカンド・パーティ・オピニオン 改訂-1

## **Use of Proceeds reporting:**

$\boxtimes$	Project-	by-project	$\boxtimes$	On a project portfolio basis
	Linkage	to individual bond(s)		Other (please specify):
	Inforr	mation reported:		
	$\boxtimes$	Allocated amounts		GB financed share of total investment
		Other (please specify):		
	Frequ	ency:		
	$\boxtimes$	Annual		Semi-annual
		Other (please specify):		
Impa	ct repo	rting (Environmental benefit)	):	
<b>.</b> ⊠	_	by-project		On a project portfolio basis
	_	to individual bond(s)		Other (please specify):
	Frequ	ency:		
	$\boxtimes$	Annual		□ Semi-annual
		Other (please specify):		
	Info	rmation reported (expected or e	x-po	st):
	$\boxtimes$	GHG Emissions / Savings		☐ Energy savings
	⊠	Other ESG indicators (please specify): Equipment completion of installation, size, year of operation, etc.		
Means	s of Dis	closure		
		tion published in financial report		Information published in sustainability report
	Informa	tion published in ad hoc documents	$\boxtimes$	Other (please specify): Tokyo Gas web site
	Reportir review)	ng reviewed (if yes, please specify whic	ch par	ts of the reporting are subject to external



#### **VII.** Assessment Conclusion

On the basis of the information provided by Tokyo Gas and the work undertaken, it is DNV's opinion that the Tokyo Gas Transition Finance Framework and Transition Bond issued by Tokyo Gas meets the criteria established in the Protocol, and that it is aligned with the following stated definition or purpose of climate transition finance for bonds and loans that specify the use of proceeds within the CTFH/CTFBG, GBP/GBGLs, GLP/GLGLs.

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

DNV Business Assurance Japan K.K.

24 Nov. 2022

**Mark Robinson** 

Manager, Sustainability Services DNV Business Assurance, Australia

M konedone.

Naoki Maeda

Managing Director

DNV Business Assurance Japan K.K.

**Masato Kanedome** 

Project Leader

DNV Business Assurance Japan K.K.

**Masahito Seiwa** 

Assessor

DNV Business Assurance Japan K.K.



東京ガス株式会社 トランジション・ファイナンス・フレームワーク セカンド・パーティ・オピニオン 改訂-1

#### **About DNV**

Driven by our purpose of safeguarding life, property and the environment, DNV enables organizations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

#### **Disclaimer**

Responsibilities of the Management of the Fundraiser and the Second-Party Opinion Providers, DNV: The management of Fundraiser has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform the Fundraiser management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by the Fundraiser. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by the Fundraiser's management and used as a basis for this assessment were not correct or complete



# DNV

## **Schedule-1 Tokyo Gas Transition Finance Nominated Project**

The projects listed in the table are transition finance candidates that have been evaluated for eligibility at the time of pre-issue eligibility assessment (as of February 2022). In the future, bonds or loans issued under the Tokyo Gas Transition Finance Framework will be selected from one or more of the eligible project candidates and reported in the pre-financing or post-financing reports. If additional transition projects are included, eligibility will be evaluated in advance by Tokyo Gas in accordance with the Tokyo Gas Transition Finance Framework and, if necessary, DNV will evaluate them in a timely manner.

	Eligible Project Candidates			dates		CO <sub>2</sub> emission reduction targets	
	Initiatives Category		Category	Eligible Criteria tar (Transition Project Overview) Scope 1 to 3	Reduction contribution		
			Advanced use of	Fuel conversion to gas	<ul> <li>New LNG terminal</li> <li>Gas production facilities at satellites</li> <li>✓</li> <li>Pipeline extension/maintenance</li> </ul>	<b>√</b>	
			natural gas	Installation of high-efficiency gas appliances	Support for the installation of gas appliances for industrial, commercial and domestic use	✓	
1)	Use natural gas as Low-carbon solution	1	Power generation (Combined heat ar		<ul> <li>Conventional fuel cell (ENE-FARM)</li> <li>Gas cogeneration (including non-in-building use), district heating and cooling</li> <li>Construction, maintenance and renewal of high-efficiency LNG-fired power stations</li> <li>VPP in the household and commercial sectors</li> <li>Development and introduction of ultra highefficiency fuel cells</li> </ul>	<b>√</b>	
				Area energy use		◆ Smart Energy Networks, etc.  ✓	
				Carbon-neutral LNG		Procurement and supply of carbon-neutral LNG	✓
		2			◆ CCU systems at the customer's site       ✓		
			Use of CCUS technology		CCS (development of large-scale CO2 storage technology using micro-bubble)		
2)		3		Use of hydrogen and biogas	<ul><li>New hydrogen stations</li><li>Hydrogen pipeline installation</li></ul>	✓	



			Decarbonization		•	Maintenance and renewal of hydrogen production and CCUS Procurement of biogas		
	Decarbonize gas and electricity		of gaseous energy	Development of technology for decarbonization of gaseous energy	•	Development of low-cost green hydrogen production technology by water electrolysis Development of innovative methanation technologies	<b>~</b>	
			Expansion of renev	wable energy sources	•	Expansion of renewable energy sources Renewable electricity procurement	<b>✓</b>	✓
		Zero emission of own gas-fired po	wn gas-fired power	•	Co-firing and exclusive use of hydrogen and ammonia in gas-fired power plants	<b>~</b>		



# **Schedule-2 Climate Transition Finance Eligibility Assessment Protocol**

The checklists (1-4) below are DNV evaluation procedures created for Tokyo Gas Transition Finance Framework and Transition Bond Eligibility Evaluation based on the disclosure requirements of CTFH and CTFBG.

The "confirmed documents" in the Work Undertaken include public or private documents (internal documents of the issuer or borrower), etc., and are provided by Tokyo Gas as evidence of eligibility judgment for DNV.

\*Please replace "Issuer", "Investor" to "Borrower/Fundraiser", "Lender" in the context in the following requirements.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1	Issuer's Climate Transition Strategy and Governance	The financing purpose should be for enabling an issuer's climate change strategy. A 'transition' label applied to a debt financing instrument should serve to communicate the implementation of an issuer's corporate strategy to transform the business model in a way which effectively addresses climaterelated risks and contributes to alignment with the goals of the Paris Agreement.	Confirmed documents - Framework - Compass 2030 - Compass Action - Carbon neutral by 2050 of the Japan Gas Association - Gas roadmap of Ministry of Economy, Trade and Industry Tokyo Gas Integrated report 2021	Tokyo Gas has established a framework and has introduced a range of plans and initiatives to manage and enhance the environmental sustainability and related performance of the organization against its wider environmental strategy.  Based on the science-based long-term targets quantified by Tokyo Gas, DNV has reviewed and confirmed that Tokyo Gas's targets correspond to achieving the goals of the Paris Agreement. Tokyo Gas sets environmental corporate strategies that are important to its business model, based on the identification of risks and opportunities and scenario analysis using TCFD guidance.
		<ul> <li>Suggested information and indicators</li> <li>A long-term target to align with the goals of the Paris Agreement (e.g. the objective of limiting global warming ideally to 1.5℃ and, at the very least, to well below 2℃);</li> <li>Relevant interim targets on the trajectory towards the long-term goal;</li> </ul>	Interviews with stakeholders	Tokyo Gas formulated its management vision, "Compass 2030," in November 2019 and "Compass Action" in November 2021 as specific actions to implement Compass 2030. In the Compass Action, Tokyo Gas has set a long-term goal of Net-Zero CO <sub>2</sub> by 2050, which is the goal of the Paris Agreement, and has set short-term and medium-term goals to achieve that long-term goal. Tokyo Gas disclosed its strategic plan to achieve the above goal as a roadmap for transitioning to carbon neutrality in Compass Action.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul> <li>Disclosure on the issuer's levers towards decarbonization, and strategic planning towards a long-term target to align with the goals of the Paris Agreement;</li> <li>Clear oversight and governance of transition strategy and,</li> <li>Evidence of a broader sustainability strategy to mitigate relevant environmental and social externalities and contribute to the UN Sustainable Development Goals.</li> </ul>		Specifically, Tokyo Gas's Transition Strategy incorporates the environmental targets of the Japan Gas Association and the Ministry of Economy, Trade and Industry (METI), as well as its action plan to achieve a target of limiting the increase in average temperature below 2°C using the TCFD. In addition, if it becomes necessary to review Tokyo Gas's efforts in order to achieve continuous emission reductions in the future, Tokyo Gas plans to implement them as appropriate according to the timeline.  Tokyo Gas recognizes that the implementation of the Transition Strategy is one of the ways to promote sustainability, and has established a system and framework to promote the initiatives specified in "Compass 2030" and
				"Compass Action" at the management level.  The Tokyo Gas's approach to promoting sustainability is "to contributes to the achievement of a sustainable society by creating social and financial value from the solution of social issues through its business activities, and by engaging in enduring corporate management". Based on this concept, Tokyo Gas aims to contribute to the achievement of the Sustainable Development Goals (SDGs) set by the United Nations by addressing materiality (key sustainability issues) through its business activities. Of these, the sustainability issue (materiality) primarily relevant to Transition Finance is "Leading net-zero CO2 emissions as leading company dealing with natural gas".  Based on an assessment of the Framework, "Compass 2030", "Compass Action" and the Implementation Plan, DNV has confirmed that they are well aligned with Tokyo Gas's Transition Strategy. Through the assessment, DNV has



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				confirmed that the implementation plan based on the Transition Strategy is reliable, ambitious and achievable.
2	Business model environmental materiality	The planned climate transition trajectory should be relevant to the environmentally-material parts of the issuer's business model, taking into account potential future scenarios which may impact on current determinations concerning materiality.	Confirmed documents  - Framework  - Compass 2030  - Compass Action  - Carbon neutral by 2050 of the Japan Gas Association  - Gas roadmap of Ministry of Economy, Trade and Industry.  - Tokyo Gas Integrated report 2021  - Tokyo Gas Group Sustainability report 2021  Interviews with stakeholders	DNV evaluated whether the key activities associated with Tokyo Gas's business activities corresponded to the Tokyo Gas's Transition Strategy, which was evaluated as contributing to the environment.  Tokyo Gas's greenhouse gas emissions (FY2020) are shown below.  SCOPE 1,2: 3.9 million t-CO2 (City gas production, power generation, heat supply, etc.)  SCOPE 3:34.53 million t-CO2 (Raw material procurement: 6.22 million tonnes,  At customers: 28.31 million tonnes)  Greenhouse Gas Emissions (Business Activities (SCOPE 1) and 2), but also SCOPE 3 and activities that contribute to the reduction at customers. This will contribute to the implementation of supply-side and demand-side carbon neutrality as an important initiative indicated in the various plans and strategies for decarbonization in Japan. In other words, as a natural gas company, Tokyo Gas's transition



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				efforts directly support the transition of society as a whole, including its own.
				The Tokyo Gas's Transition Roadmap is well aligned with the Gas Roadmaps of the Japan Gas Association and the Ministry of Economy, Trade and Industry, and their specific implementation plans and targets have been set and quantified in the absolute sense that they must be the optimization to achieve them and the possibility of further improvement.
				DNV confirmed that Tokyo Gas's plan to implement its Transition Strategy is closely linked to the activities of Tokyo Gas's core business and to activities that contribute to the CO2 reduction of in society as a whole, thus contributing to the environmental aspects of society as a whole and supporting commercial drive. Tokyo Gas's planned Transition Strategy and Transition Pathway will be associated with the materiality that Tokyo Gas has achieved through GRI*1, ISO 26001, TCFD, etc., and will contribute to significant environmental benefits in both qualitative and quantitative terms.  *2: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis methods)
3	Climate transition strategy to be science-based including	Issuer's climate strategy should reference science-based targets and transition pathways. The planned transition trajectory should:	Confirmed documents - Framework - Compass 2030 - Compass Action	Tokyo Gas has set a transition plan that is consistent with the Paris Agreement based on science-based evidence, and a transition trajectory that is consistent with the goals of the Japan Gas Association and the Ministry of Economy, Trade and Industry.



Ref. Criteria		Requirements	Work Undertaken	DNV Findings	Framework Second Party Opinion Rev-1
targets a pathways	nd S	<ul> <li>be quantitatively measurable (based on a measurement methodology which is consistent over time);</li> <li>be aligned with, benchmarked or otherwise referenced to recognized, science-based trajectories where such trajectories exist;</li> <li>be publicly disclosed (ideally in mainstream financing filings), include interim milestones, and;</li> <li>be supported by independent assurance or verification</li> <li>Suggested information and indicators</li> <li>Short, medium, and long-term greenhouse gas reduction targets aligned with Paris Agreement;</li> <li>Baseline</li> <li>Scenario utilised, and methodology applied (e.g. ACT, SBTi, etc.);</li> <li>Greenhouse gas objectives covering all scopes (Scope 1, 2 and 3<sup>11</sup>); and,</li> <li>Targets formulated both in intensity and absolute terms</li> </ul>	<ul> <li>Carbon neutral by 2050 of the Japan Gas         Association</li> <li>Gas roadmap of Ministry of Economy, Trade and Industry.</li> <li>Tokyo Gas Integrated report 2021</li> <li>Tokyo Gas Group Sustainability report 2021</li> <li>Tokyo Gas Project List &amp; CO<sub>2</sub> Reduction Results</li> <li>Interviews with stakeholders</li> </ul>	The plan sets out realistic CO <sub>2</sub> emissions in absolut (total) CO <sub>2</sub> emissions to future.  DNV has confirmed that quantified in terms of enbased on a consistent mprescribed assumptions.  Transition targets are secusing TCFD and other memission reductions, and policies of the benchmar and the Ministry of Econ Specifically, Tokyo Gas has transitions  TABLE: TOKYO COMEDIUM-TERM TARGETS  LONG-TERM TARGETS  Reference: Short term to contribute to CO <sub>2</sub> reduction 2022 (for domestic emis Compared to 2013. This 1 and 2), Scope 3 emissions	t voluntarily based on initiatives ethods to achieve sustainable CO <sub>2</sub> If they are consistent with the sking of the Japan Gas Association omy, Trade and Industry.  The set the following targets for its  EAS TRANSITION TARGETS  Contribution to CO <sub>2</sub> reduction by 2030: \$\textstyle{17}\$ million tonnes *  Challenge to achieve Net-Zero CO <sub>2</sub> towards 2050  Target: Achieve net-zero CO <sub>2</sub> and the style on the set of the se



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				Tokyo Gas' CO <sub>2</sub> reduction focuses not only on reducing emissions from its own business activities (SCOPE 1 and 2), but also on activities that contribute to the reduction of SCOPE 3 and other companies. This will contribute to the implementation of supply and demand side carbon neutrality as an important initiative that will be presented in various plans and strategies for decarbonization in Japan. In other words, as a natural gas company, Tokyo Gas' transition initiatives directly support the transition of society as a whole, including its own.  Transition initiatives and respective scope emissions are disclosed in the Compass2030, Compass Action, Tokyo Gas Sustainability Report, etc.
4	Implementatio n transparency	Market communication in connection with the offer of a financing instrument which has the aim of funding the issuer's climate transition strategy should also provide transparency to the extent practicable, of the underlying investment program including capital and operational expenditure. This may include R&D-related expenditure where relevant, and details of where any such operating expenditure is deemed 'non-Business as Usual', as well as other relevant information indicating how this program supports implementation of the transition strategy, including details of any divestments, governance and process changes.	Confirmed documents  - Framework  - Compass 2030  - Compass Action  - Carbon neutral by 2050 of the Japan Gas Association  - Gas roadmap of Ministry of Economy, Trade and Industry.  - Tokyo Gas Integrated report 2021  - Tokyo Gas Group Sustainability report 2021  - Tokyo Gas Project List & CO <sub>2</sub> Reduction Results	DNV has confirmed that the investment and deployment plans associated with Tokyo Gas's Transition Strategy include agreement on future investment and expenditure. Specifically, under Compass Action, Tokyo Gas plans to invest approximately 2 trillion yen by 2030 in growth areas including decarbonization, projects to be implemented through transition finance.  DNV confirmed that the overall investment plan (investment amount) for the future considers CTF-1 to CTF-3 for the investment required to implement the transition strategy and also confirmed plans to be implemented according to the appropriate timelines, based on internal management system and process.  Tokyo Gas plans to allocate to capital investment, operating expenses, running cost, and R & D-related expenditures for transition eligible project candidates shown in Schedule-1.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul> <li>Suggested information and indicators</li> <li>Disclosure on the percentage of assets/revenues/ expenditures/divestments aligned to the various levers outlined in Element 1 above;</li> <li>Capex roll-out plans consistent with the overall strategy and climate science</li> </ul>	Interviews with stakeholders	Through the assessment, DNV concluded that Tokyo Gas's transition strategy can be seen as a non-Business as Usual concept in terms of directly and indirectly supporting the decarbonization of society as a whole.



# Schedule-3 Green Bond (Transition Finance with specific use of proceeds) Eligibility Assessment Protocol

The checklist below (GBP/GLP-1 to GBP/GLP-4) is a DNV evaluation procedure created for Tokyo Gas Transition Finance (Bond & Loan) Eligibility Assessment (Bond & Loan with specific use of proceeds) based on the requirements of GBP/GBGLs and GLP/GLGLs. "Confirmed documents" in the "Work Undertaken" includes documents inside the issuer and is provided by Tokyo Gas as evidence of eligibility judgment for DNV.

In Schedule-3, it is referred to as GBP or GLP according to the practice, but this is the standard to be referred to in the case of financing that specifies the use of proceeds such as transition projects in transition finance (bonds and loan) that specifies the use of proceeds based on CTFH and CTFBG, so please read as the meaning of the transition as appropriate.

## **GBP/GLP-1** Use of proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Types of funds	The types of green bonds are classified into one of the following types defined by GBP.  · (Standard) Green/transition Bond  · Green/transition Revenue Finance  · Green/transition Project Finance  · Other	Confirmed documents - Framework  Interviews with stakeholders	Through the evaluation work, DNV confirmed that Tokyo Gas Transition Finance (bond/loan) fall into the following categories.  · (Standard) Green/transition Bond
1b	Green/transition Project Classification	The key to a green/transition bond is that the proceeds will be used for a green project, which should be properly stated in the legal documents relating to the security.	Confirmed documents - Framework - Tokyo Gas Project List & CO2 Reduction Results - Amendment Shelf Registration Statement Interviews with stakeholders	DNV confirmed that Tokyo Gas Transition Finance aims to fund a wide range of transition projects focused on Tokyo Gas's environmental goals and transition strategy, as described in the Framework and Schedule-1.  Specifically, all Transition Finance Eligible Project Candidates listed in Schedule-1 are evaluated as conforming to the Transition Strategy, and the proceeds through Transition Finance are planned to be financed one or more of the Transition Finance Eligible Project Candidates. If a transition



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				project is pre-selected before the financing is implemented, this will be disclosed in legal documents.  Through the assessment, DNV concludes that the Transition eligible projects candidates will bring concrete and actual environmental benefits.
				Table: Tokyo Gas Transition Finance Eligible Project Candidates
				Low and Eligible project categories decarbonization initiatives*
				1) Low carbonization with natural gas with natural gas  1) Advanced use of natural gas (Fuel conversion to natural gas, highefficiency gas appliances, area energy use, strengthening resilience) 2 Introduction of carbon-neutral LNG and use of CCUS technology
				Decarbonization of gaseous energy of gas and electricity  3 Decarbonization of gaseous energy 4 Expansion of renewable energy sources and achieving zero emission of gas-fired power
				*In addition to 1) and 2), Tokyo Gas is committed to "reducing its own CO <sub>2</sub> emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and carbon-neutral LNG into its facilities, as well as converting its company-owned vehicles to HEVs, FCVs and EVs.
1c	Environmental benefits	All green projects to which the funds are used should have clear environmental benefits, the effects of which should be	Confirmed documents - Framework	Transition projects will contribute to goals based on Tokyo Gas's Transition Strategy, and to low and decarbonized emissions through the two initiatives and four project categories indicated



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		assessed by the issuer and, where possible, quantitatively demonstrated.	- Tokyo Gas Project List & CO2 Reduction Results Interviews with stakeholders	in 1b. The environmental benefit is the reduction of CO <sub>2</sub> emissions, which has been quantitatively evaluated by the issuer.  It was confirmed that, prior to the implementation of the transition finance, only the evaluation method (calculation method) of the environmental improvement effect of the project to be allocated by the subject finance will be disclosed, and that it will be evaluated and reported quantitatively as CO <sub>2</sub> emission reductions in the annual report.
1d	Refinancing rate	If all or part of the proceeds are used or may be used for refinancing, the issuer will indicate the estimated ratio of the initial investment to the refinancing and, if necessary. Therefore, it is recommended to clarify which investment or project portfolio is subject to refinancing.	Confirmed documents - Framework - Tokyo Gas Project List & CO2 Reduction Results  Interviews with stakeholders	The Issuer plans to use all proceeds for new investments, refinancing, or both for eligible project candidates included in Schedule-1. If it is clear in advance whether to make new investment or refinance before implementing financing, it will be disclosed in legal documents. DNV confirmed that if it is not yet clear, the Issuer plans to disclose the estimated amount (or ratio) of the proceeds which was allocated to refinancing through reporting (annual report).



# **GBP/GLP-2** Process for Project Evaluation and Selection

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Project selection process	Green bond issuers should provide an overview of the process of qualifying projects for which green bond funding will be used. This includes (but is not limited to):  •The process by which the issuer determines that the project in question is included in the business category of a qualified green project.  • Creation of criteria for eligibility of projects for which green bond funding will be used  • Environmental sustainability goals	Confirmed documents	DNV confirmed that the issuer has a process of determining the eligibility of projects for which the transition finance, and that the outline is specified in the framework.
2b	Issuer's Environment al and Social Governance Framework	In addition to criteria and certifications, the information published by issuers regarding the green bond process also considers the quality of performance of the issuer's framework and environmental sustainability.	Confirmed documents	The issuer complies with environment-related laws, ordinances and regulations, and considers that the effects of environmental improvement such as CO <sub>2</sub> reduction are clear in the entire life cycle or each process when selecting transition projects to be implemented.  In the operation and implementation of the project, each of the departments involved is committed to the preservation of the surrounding environment.  DNV has confirmed that the transition projects implemented by the issuer are consistent with issuer's management and environmental policies, as well as with the transition strategy, goals and pathways.





# **GBP/GLP -3 Management of Proceeds**

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Tracking procedure-1	The net proceeds from of Green bonds should be managed in sub-accounts, included in sub-portfolio, or otherwise tracked. It should also be certified by the issuer in a formal internal process related to the issuer's investment and financing operations for the Green Project.	Confirmed documents - Framework - Accounting management rules - Document handling regulations  Interviews with stakeholders	DNV has confirmed that the proceeds by the transition financing can be tracked in line with the issuer's accounting integration system and other systems, and confirmed the systems and related document actually used through the assessment, and confirmed that the management status of the proceeds was proved.
3b	Tracking procedure-2	During the green bond redemption period, the balance of funds raised that is being tracked should be adjusted at regular intervals to match the amount allocated to eligible projects undertaken during that period.	Confirmed documents - Framework - Accounting management rules - Document handling regulations  Interviews with stakeholders	DNV confirmed that the issuer plans to periodically (quarterly) review the balance of the transition finance by the accounting integration system and other systems described in 3a during the period from the implementation of the transition finance to its redemption or repayment.
3c	Temporary holding	If no investment or payment has been made in a qualified green project, the issuer should also inform the investor of the possible temporary investment method for the balance of unallocated proceeds.	Confirmed documents - Framework - Accounting management rules - Document handling regulations  Interviews with stakeholders	DNV has confirmed that the confirmation process through the issuer's accounting integration system and other systems is structured to ensure that the balance of unallocated proceeds are recognized sequentially.  DNV confirmed through the framework and assessment that the balance of unallocated proceeds will be managed in cash or cash equivalents. DNV has also confirmed that the balance of unallocated proceeds will be disclosed through reporting on the allocation status of funds.



## **GBP/GLP-4 Reporting**

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Periodical Reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, the issuer will consider each project at least once a year for projects to which the Green bond proceeds have been allocated, taking into account the following: A list of each project should be provided.  -Confidentiality and competitive considerations  -Outline of each project, expected sustainable environmental and social effects	Confirmed documents  - Framework  - Tokyo Gas Project List & CO2 Reduction Results  - Information on projects to be allocated  Interviews with stakeholders	DNV confirmed that the issuer will carry out annual reporting of the transition finance until the proceeds are allocated and disclose information on the status of the allocation of proceeds, the projects to which the proceeds have been allocated and the environmental benefits. DNV also confirmed that the issuer will report on the environmental benefits until the redemption or repayment of the transition finance is completed.  DNV also confirmed that, even after the allocation plan or allocation has been completed, the issuer plans to report in a timely manner or in its reporting on any changes in transition strategy or pathways, or any major changes in the allocation plan or project implementation status (e.g. interruption of a project for which allocation has been started, significant postponement on an annual basis, sale or retirement, etc.). This was confirmed.  The report will be disclosed on the website. <allocation status="">  • Allocated amount  • Unallocated amounts (including when they will be allocated and its management)  • Amount of proceeds to be used for refinancing  <environmental (e.g.,="" (including="" an="" and="" are="" benefits="" characteristics="" completion,="" confidentiality,="" consideration="" currently="" described="" disclosed="" document.<="" environmental="" etc.)="" expected="" extent="" for="" gbp="" glp-4.="" in="" including="" is="" of="" operation,="" overview="" planned="" practicable,="" progress,="" project="" project,="" reporting="" scope="" section="" t-co2="" td="" the="" this="" to="" transition="" within="" year).="" •=""></environmental></allocation>



#### Schedule-4 Basic Guidelines on Climate Transition Finance Eligibility Checklist

The following checklist (from CTF-1 to CTF-4) are based on four "disclosure elements "which indicated in the "Basic Guidelines on Climate Transition Finance (CTF)" established by the Financial Services Agency, Ministry of Economy, Trade and Industry, and Ministry of the Environment in May 2021.

According to the CTF, "disclosure elements" are classified into the following three categories. Should:  $\odot$  recommend:  $\bigcirc$  be considered/possible:  $\triangle$  These expressions are used in the following context.

- Items described with the word "should" are basic elements that financial instruments labeled as transition finance are expected to have.
- Items described with the word "recommended" are elements that financial instruments labeled as transition finance are optimally recommended to have under these Guidelines although instruments which do not have these items can also be labeled as "transition".
- Items described with the word "be considered" or "possible" are elements that these Guidelines provides as examples and interpretations although it is not considered problematic even if financial instruments labeled as transition finance do not have them.

There is a supplementary explanation in the margin of each checklist for the annotations in the disclosure elements.

The number  $/01/.../02/\sim/19/$  listed in the "Work Undertaken" are documents confirmed through the eligibility evaluation work. Details (document name) are shown in Appendix. In addition to the confirmed documents, the "Work Undertaken" includes the case where the information obtained through discussions and interviews with the issuer is used as evidence.

#### **CTF-1 Fundraiser's Climate Transition Strategy and Governance**

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
	1-a)	Financing through transition finance should aim to implement or incentivize the achievement of transition strategies <sup>9</sup> . Such strategies should incorporate a long-term target to align with the goals of the Paris Agreement, relevant interim targets on the trajectory towards the long-term goal, disclosure on the levers towards decarbonization, and fundraiser's strategic planning.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	The financing that Tokyo Gas implements by utilizing transition finance is aimed at achieving the Tokyo Gas transition strategy which is in line with the low-carbon decarbonization strategy set by the Japan Gas Association and the Ministry of Economy, Trade and Industry's technology roadmap, which aims to align with the goals of the Paris Agreement.  Tokyo Gas has developed its Transition Strategy as a transition roadmap, which incorporates short-term goals, medium-term goals, and a strategic plan for decarbonization (a plan to introduce technologies that



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings	
					Transition Strategy  TABLE: TOKYO	cion). Each goal based on Tokyo Gas's is disclosed as follows.  GAS TRANSITION TARGETS
					contribute to CO2 rd 2020-2022 (for dor * Compared to 201 1 and 2), Scope 3 a Of the ▲ 17 millior business as a who gas production, co company vehicles	3. Includes in-house emissions (Scope and reductions at customers. In tonnes (target for the global alle), Net-Zero CO2 emissions from city ompany-owned buildings, and in Scope 1 and 2 (approx. 300,000 the decrease in Scope 3 emissions is
<ul><li>(△)</li></ul>	1-b)	A transition strategy should serve to explicitly communicate the implementation of an issuer's strategy to transform the business model in a way which effectively addresses climate-related risks and contributes to achieving the goals of the Paris Agreement <sup>10</sup> . Transformation of a business model is not limited to initiatives as an extension of existing businesses but can also be transformation based on various other	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05//06//07//08/ /09/ Interviews with stakeholders	scenarios that make Tokyo Gas's Transit achieve significant r is its core business, is the policy of the r contribution to the	ansition Strategy takes into account e use of the TCFD guidance. The ion Strategy includes efforts to reductions in the gas business, which regarding its role as a supplier which national government and its demand side.



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings		
		perspectives. It includes fuel conversion that achieves significant carbon and GHG reduction benefits, introduction of innovative technologies, improvement of / changes in manufacturing processes and products, and development and provision of products and services in new fields.			Table: Tokyo Gas Transition Finance Eligible Project Category  Low and decarbonization initiatives*  Low 1) carbonization with natural gas  Low 1) carbonization with natural gas  Decarbonizatio 2) n of gas and electricity  *In addition to 1) and 2), Tokyo Gas is committed to "reducing its own CO2 emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and carbon-neutral LNG into its facilities, as well		
					as converting its company-owned vehicles to HEVs, FCVs and EVs.		
0	1-c)	The implementation of a transition strategy assumes cases where it affects society and environment other than climate change, such as employment or stable provision of products and services, through transformation of a	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/	DNV confirmed that there are no additional significant social or environmental benefits on the implementation of Tokyo Gas's Transition Strategy at this time. DNV also confirmed that the procedures to ensure that the project evaluation and selection process does not conflict with		



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		business model. In such cases, it is recommended that the fundraiser also takes into consideration the impact of business innovations to society and environment other than climate change.		Interviews with stakeholders	the exclusion criteria (e.g. human rights, environmental and other social issues) will be implemented. However, in the implementation of the project, consideration and countermeasures for social and environmental benefits based on laws, regulations, ordinances and the company's own standards will be implemented under Tokyo Gas's standard business and operational management processes.
<ul><li>(△)</li></ul>	1-d)	Climate change-related scenarios <sup>11</sup> should be referenced in developing transition strategies. The pathway to transition should be planned for respective sector and regions of individual fundraiser, who may generally be placed in a different starting point and pathway to transition.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05//08//09/ Interviews with stakeholders	Tokyo Gas's transition strategy is built on the Japan Gas Association, the Ministry of Economy, Trade and Industry, and the use of TCFD guidance.  Tokyo Gas has developed a transition strategy that embodies the roadmaps of the Japan Gas Association and the Ministry of Economy, Trade and Industry, to which we refer as the gas industry, and which identifies the criteria, pathways and targets for reducing CO <sub>2</sub> emissions.
0	1-e)	Transition strategies and plans must be highly credible in terms of their effectiveness.  Therefore, it is recommended that a transition strategy and plan are linked to management strategy and business plan, including mediumterm management plans.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05//08//09//10/ Interviews with stakeholders	Tokyo Gas has formulated "Compass 2030" as the Tokyo Gas Group's management vision, and one of the main points of the vision is to lead the transition to "CO <sub>2</sub> Net Zero". In addition, the Tokyo Gas Group has established Compass Action as a concrete roadmap for realizing Compass 2030, and has drawn up a transition strategy and plan as a roadmap for the transition to CO <sub>2</sub> net zero. In other words, the transition strategy and plan of Tokyo Gas is closely related to the management plan, and its effectiveness can be judged to be highly reliable.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
Δ	1-f)	However, because such strategies and plans run for a long period of time, it is possible that the content may be modified or adjusted in the event of a major change in the assumed external environment and so on.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05//06//07/ Interviews with stakeholders	Tokyo Gas has included a range of technology options in the implementation of its Transition Strategy. DNV also confirmed through the assessment that Tokyo Gas plans to implement changes and modifications to the Transition Strategy and Plan in a flexible manner in response to revisions to the Japan Gas Association and national guidelines.
Δ	1-g)	In the initial phase of developing a transition strategy by the fundraiser, it is considered as an option for the fundraiser to indicate a plan for future implementation of items described with the words "recommended" and "be considered/ possible" in these Guidelines.	Yes No Not Applicable	Confirmed documents: /01/  *Confirmation through this assessment	DNV confirmed that Tokyo Gas's transition strategy is generally implemented for the "recommend" and "be considered/possible" items in this basic guideline.
©	1-h)	In order to secure the effectiveness of the transition strategy, the fundraiser should establish an organizational structure <sup>12</sup> for the board of directors and/or other such committee to oversee the activities addressing climate change and for management to play a role in assessing and managing such climate-related activities.	Yes No Not Applicable	Confirmed documents: /01//02//08//09/ Interviews with stakeholders	<ul> <li>Tokyo Gas has established the following organizational structure.</li> <li>The Board of Directors has established a sustainability promotion system to promote sustainability throughout the Group, including its subsidiaries.</li> <li>The establishment of an organizational structure to deal with the environmental and social issues associated with the implementation of the transition strategy, and to monitor, evaluate and manage the transition initiatives.</li> </ul>



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					The Sustainability Committee, chaired by the President, has been set up to address sustainability issues (materiality), including climate change.  Board of Directors  Representative Corporate Executive Officer, President and CEO  Committee Supporting  Sustainability  Committee  Officers  Tokyo Gas Sustainability Promotion Structure
Δ	1-i)	While a transition strategy shall be basically developed by a company in need of finance, it is possible for entities to utilize the strategy of companies that are wholly or partially responsible for the initiatives to establish or explain their own strategy, given that the finance supports GHG emissions reduction initiatives of not just a single company but its supply chain.	Yes No Not Applicable	Confirmed documents: /01//02//06//07/ Interviews with stakeholders	Tokyo Gas is building a transition strategy as the Tokyo Gas Group with Tokyo Gas at its core. In building the transition strategy, in addition to the strategy for the gas supply side, in accordance with the policies set by the government and other organizations, Tokyo gas has included activities to contribute to the reduction of CO2 <sub>2</sub> emissions in Japan and abroad, as well as in society as a whole, by providing technologies, products and services that contribute to low-carbon and decarbonization on the demand side.
0	1-j)	Transition strategies should be disclosed in advance in a company's integrated report, sustainability report, statutory documents and other materials for investors (including such	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09//10/	Tokyo Gas's transition strategy (and environmental initiatives in general) is explained to stakeholders and disclosed to the public in advance through the Tokyo Gas Group Medium-Term Management Plan, Integrated



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		disclosures on the website). This also applies to the other three elements.		Interviews with stakeholders	Report, Compass Action, etc, based on its management vision "Compass 2030" which was formulated and disclosed in 2019.
Δ	1-k)	It is possible to disclose transition strategies and elements concerning the governance guaranteeing that the execution of transition strategies is in alignment with the reporting frameworks such as the Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD; Final Report) <sup>13</sup> .	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09/ Interviews with stakeholders	Tokyo Gas's Transition Strategy takes into account the TCFD recommendations and the governance of the Transition Strategy and TCFD recommendations are aligned. Tokyo Gas discloses governance-related items in its Integrated Report and Framework. Relevant information is provided in 1-d), 1-h) and 1-j).
0	1-1)	If the implementation of a transition strategy assumes impacts on society and environment other than climate change, it is recommended that the fundraiser explain the view underlying its approach <sup>14</sup> , etc. to address such impacts and disclose how the strategy on the whole contributes to achieving the Sustainable Development Goals (SDGs) so that the effects can be appropriately evaluated by the financier.	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09//11/ Interviews with stakeholders	DNV confirmed that there are no additional significant social or environmental benefits on the implementation of Tokyo Gas's Transition Strategy at this time.  DNV also confirmed that the procedures to ensure that the project evaluation and selection process does not conflict with the exclusion criteria (e.g. human rights, environmental and other social issues) will be implemented. However, in the implementation of the project, consideration and countermeasures for social and environmental benefits based on laws, regulations, ordinances and the company's own standards will be implemented under Tokyo Gas's standard business and operational management processes.  In addition, the contribution to the achievement of the SDGs in the implementation of the Transition Strategy has been incorporated into the relationship between Tokyo Gas's materiality (key sustainability issues) and the



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
©	1-m)	Considering the length of application and other factors, there may be instances when a transition strategy and plan will need to be modified due to major changes in the external environment and relevant conditions that were assumed at a planning phase. In this case, the contents of the modification should be disclosed together with the underlying reason in a timely manner.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	SDGs as "leading net-zero CO2 emissions as leading company dealing with natural gas".  Reference (in Table-1 of the main text): Climate change  Goal 7: Affordable and clean energy Goal 9: Industry, innovation and infrastructure Goal 11: Sustainable cities and communities Goal 13: Climate action Goal 17: Partnerships for the goals  Tokyo Gas has included a range of technology options in the implementation of its Transition Strategy. DNV also confirmed through the assessment that Tokyo Gas plans to implement changes and modifications to the Transition Strategy and Plan in a flexible manner in response to revisions to the Japan Gas Association and national guidelines.  Tokyo Gas plans to disclose any material changes to its transition strategy and plans in a timely manner, together with the reasons for such changes.
0	1-n)	In terms of governance, it is recommended that disclosures include an organizational structure for overseeing the implementation of a transition strategy and for assessing and managing related initiatives. It is also recommended that disclosures include the specific roles of the constituent organizations	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09//10/ Interviews with stakeholders	<ul> <li>Tokyo Gas has established the following organizational structure.</li> <li>The Board of Directors has established a sustainability promotion system to promote sustainability throughout the Group, including its subsidiaries.</li> <li>The establishment of an organizational structure to deal with the environmental and social issues</li> </ul>



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		and the management and the process by which the content of deliberations is reflected in management.			associated with the implementation of the transition strategy, and to monitor, evaluate and manage the transition initiatives.  • The Sustainability Committee, chaired by the President, has been set up to address sustainability issues (materiality), including climate change.  Tokyo Gas links the governance of the Transition Strategy to the governance of the TCFD recommendations as a sustainability promotion framework, and discloses the process as follows (Tokyo Gas Group Integrated Report 2021).  "Tokyo Gas Group considers the promotion of sustainability to be an important business implementation matter, and works to achieve accurate and prompt decision-making and efficient business implementation by deliberating the matter at meetings that support rational decision-making by executive officers. In addition, the directors are requested to report on the status of business implementation based on the decisions of the Board of Directors as appropriate, and to hold discussions as necessary. Furthermore, the Sustainability Committee, chaired by the President, has been established to promote sustainability, and important matters are reported to the Board of Directors."
0	1-0)	In cases where the fundraiser determines the need for an objective assessment regarding the transition strategy, it is recommended that a	Yes No Not Applicable	Confirmed documents: /01/~/11/	Tokyo Gas uses a review by DNV, an external body, for an objective assessment of the eligibility of its transition finance, including its transition strategy.



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings	ince Framework Second Party Opinion Rev-1
		review, assurance and verification by an external organization for its transition strategy.		Interviews with stakeholders		
	1-p)	It is recognized useful to obtain a review particularly concerning the following in connection with the transition strategy:  - Alignment of short-term, mid-term and long-term targets (for targets, refer to Element 3) with the overall scenario  - Credibility of the fundraiser's strategy to reach the targets  - Appropriateness of the management process and governance for the transition strategy	Yes No Not Applicable	Confirmed documents: /01/~/11/ Interviews with stakeholders  * Confirmation through this assessment	Tokyo Gas's trai  Tokyo Gas's trai  the scenari shown in the The transiti one of the cand vision, supported I The Transiti manageme Transition S the Sustain	ned the following about the review of ensition strategy is consistent with os (specific action plans) and targets ne table below. It is is not strategy of Tokyo Gas is positioned as core elements of its management plan and its credibility is considered to be be on strategy is a plan in which the int processes and governance of the other strategy are properly implemented under ability Promotion Structure.
					MEDIUM- TERM TARGETS	Contribution to CO2 reduction by 2030: ▲17 million tonnes*
					LONG- TERM TARGETS	Challenge to achieve Net-Zero CO2 towards 2050
					contribute to CC 2020-2022 (for	t-term target: Achieve Net-Zero CO2 and D₂ reduction of ▲6.5 million tonnes in domestic emissions) *
					•	2013. Includes in-house emissions (Scope 3 and reductions at customers.



Tokyo Gas Co., I	td. Transition	Finance Framewor	k Second	d Party C	)pinion R	lev-1
------------------	----------------	------------------	----------	-----------	-----------	-------

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Of the ▲ 17 million tonnes (target for the global business as a whole), Net-Zero CO2 emissions from city gas production, company-owned buildings, and company vehicles in Scope 1 and 2 (approx. 300,000 tons in FY2020); the decrease in Scope 3 emissions is ▲750,000 tonnes.

- 9 Transition finance is available for not only entities with strategies and plans for reducing emissions associated with their corporate economic activities, but also entities that plan to take initiatives that enable others to implement transition strategies through their own products and services. In such cases of financial institutions, a financier should articulate how the underlying projects or activities themselves fit into the fundraiser's strategy while, similarly, a subsidiary or an SPC to make use of its group's or its sponsors' strategy. However, doing so they should explain how their strategy will contribute to the strategy as a whole. In addition, it can be considered that parent company or the group who established the strategy would explain the transition elements as the main fundraiser.
- 10 The Paris Agreement sets out a goal to Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.
- 11 Climate-related scenarios are listed in the "Task Force on Climate-related Financial Disclosures (TCFD) Technical Supplement" and the document issued by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations". In addition, Principles for Responsible Investment (PRI) disclose a set of climate scenario tools.
- 12 Assumes matters provided for under "governance" in the TCFD Recommendations.
- 13 As for the approach to disclosure aligned with TCFD Recommendations, refer to "Guidance on Climate-related Financial Disclosures (TCFD Guidance) 2.0", "Guidance for Utilizing Climate-related Information to Promote Green Investment (Green Investment Guidance)" (both published by the TCFD Consortium), and the document published by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations".
- 14 An example of the approach may be to identify, eliminate, reduce, and manage potential negative effects.



# **CTF-2 Business Model Environmental Materiality**

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
	2-a)	Initiatives for achieving the transition strategy should be such that contribute to transforming core business activities that are environmentally material parts today and in the future. 15	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09//10/ Interviews with stakeholders	The Tokyo Gas's Transition Strategy includes efforts to achieve significant reductions in the gas business, which is its core business, regarding its role as a supplier which is the policy of the national government and its contribution to the demand side.  The following (table below) are listed as specific initiatives.  Table: Tokyo Gas Transition Finance Eligible Project Category  Low and decarbonization initiatives*  Low carbonization with natural gas  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  [Advanced use of natural gas (Fuel conversion to natural gas, high-e
					initiatives*  Low carbonization with natural gas  Decarbonization of gas and electricity  *In addition to 1) and 2), Tokyo Gas is committed "reducing its own CO2 emissions", and is introducing is a natural gas  (Fuel conversion to natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy us strengthening resilience)  (2) Introduction of carbonneutral LNG and use of CO technology  (3) Decarbonization of gaseous energy (4) Expansion of renewable energy sources and achieving zero emission of gas-fired power



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					converting its company-owned vehicles to HEVs, FCVs and EVs.
0	2-b)	When identifying business activities that are environmentally material parts, it is recommended that the fundraiser consider multiple climate change-related scenarios that may possibly impact its judgment on the identification <sup>16</sup> .	Yes No Not Applicable	Confirmed documents: /01//02//03//08// 09//10/ Interviews with stakeholders	Tokyo Gas discloses climate change-related information in line with the recommendations of the TCFD. Specifically, Tokyo Gas discloses information on governance, strategy (transitions, natural gas demand projections), risk management (limiting the increase in average temperature below 2°C, risks and opportunities for 4°C scenarios, and actions towards 2030), indicators and targets. Tokyo Gas' Transition Strategy is linked to this TCFD initiative.
Δ	2-c)	In terms of considering materiality, it is possible to apply existing guidance provided by an organization that creates standard criteria concerning sustainability reporting <sup>17</sup> .	Yes No Not Applicable	Confirmed documents: /01//02//03//08// 09//10/ Interviews with stakeholders	In identifying materiality, Tokyo Gas has used analysis and evaluation methods that take into account the positive and negative aspects of its business, using GRI*1, ISO 26000, TCFD, etc. In addition, efforts to address environmental materiality include not only the reduction of emissions from the company's own business activities, but also activities that contribute to the reduction of the scope3 and other companies. Furthermore, the contribution to the SDGs (see below) is also taken into account. These are disclosed in the framework and other documents. *1: Global Reporting Initiative
©	2-d)	The fundraiser should indicate that climate change is an environmentally material part of business activities <sup>18</sup> .	Yes No Not Applicable	Confirmed documents: /01//02//03//08// 09//10/	One of the materialities defined for the Tokyo Gas Group, "leading net-zero CO <sub>2</sub> emissions as leading company dealing with natural gas", includes "climate change" as a key environmental issue. These are disclosed in the integrated report, on the website and through the framework.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
				Interviews with stakeholders	
0	2-e)	It is recommended that disclosures include the contents of climate change-related scenarios used in identifying business activities that are environmentally material parts along with the underlying reasons (e.g., regional and industrial characteristics) for selecting such scenarios.	Yes No Not Applicable	Confirmed documents: /01//02//03//08// 09//10/ Interviews with stakeholders	Tokyo Gas, through its work on the TCFD, has explained the importance of transitions using the IEA's multiple forecast scenarios. In this context, the company's efforts to contribute to the transition by using its natural gas business are explained.

- 15 They include activities that are environmentally material parts are considered to be business activities of the fundraiser that identifies climate change as part of its materiality.
- 16 Scenario analysis using multiple climate-related scenarios is similar to that required by the TCFD Recommendations, and it is considered useful to refer to relevant guidelines and such like for implementation methods. An example is the document issued by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations".
- 17 "The SASB Materiality Map" issued by the Sustainability Accounting Standards Board serves as a guidance concerning materiality.
- 18 As for the approach to identifying environmentally material business activities, it is possible to use the materiality map and such like and outline the level of materiality of climate change for one's entity.



## **CTF-3 Climate Transition Strategy to be Science-based Including Targets and Pathways**

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
©	3-a)	The fundraiser should reference science-based targets in developing its transition strategies.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	Tokyo Gas' transition strategy and targets are in line with the initiatives and Technology Roadmap of the Japan Gas Association and the Ministry of Economy, Trade and Industry (METI), which aims to align with the goals of the Paris Agreement.  The Technology Roadmap of the Ministry of Economy, Trade and Industry is based on the scientific-based required to achieve the goals of the Paris Agreement, and therefore Tokyo Gas's Transition Strategy is considered to be a science-based goal.
©	3-b)	This should include mid-term targets (short- to mid-term targets) in addition to long-term targets for 2050 and be quantitatively measurable based on a measurement methodology which is consistent over a long period of time.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	Tokyo Gas has developed its Transition Strategy as a transition roadmap, which incorporates short-term goals, medium-term goals, and a strategic plan for decarbonization (a plan to introduce technologies that contribute to transition). Each goal based on Tokyo Gas's Transition Strategy is disclosed as follows.  TABLE: TOKYO GAS TRANSITION TARGETS  MEDIUM-TERM TARGETS  Contribution to CO2 reduction by 2030: ▲17 million tonnes *
					LONG-TERM TARGETS  Challenge to achieve Net- Zero CO2 towards 2050  Reference: Short-term target: Achieve Net-Zero CO2 and contribute to CO2 reduction of ▲6.5 million tonnes in 2020- 2022 (for domestic emissions) * *Compared to 2013. Includes in-house emissions (Scope 1 and 2), Scope 3 and reductions at customers.



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Of the ▲ 17 million tonnes (target for the global business as a whole), Net-Zero CO2 emissions from city gas production, company-owned buildings, and company vehicles in Scope 1 and 2 (approx. 300,000 tons in FY2020); the decrease in Scope 3 emissions is ▲750,000 tonnes.
	3-c)	In addition, it is recommended that GHG reduction targets, which could be formulated either in intensity and absolute terms, should consider environmental materiality and cover Scopes 1 through 3 of GHG Protocol, the international standard on supplychain emissions. It is recommended that targets covering Scope 3 be set using a practical calculation method when it could be subject to significant reduction in the fundraiser's business model <sup>19</sup> . It is also possible to disclose the avoided emissions as necessary.	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09/  Interviews with stakeholders	Tokyo Gas's CO <sub>2</sub> emissions are assessed in absolute terms, covering Scope 1, Scope 2 and Scope3 (main items), and taking into account reductions in emissions from society as a whole.  Scope 3 is an important target for reduction in Tokyo Gas's supply chain and business model, and targets have been set as far as practicable. In addition, the Compass Action indicates a reduction of 17 million tonnes by 2030 (compared to 2013) as a contribution to reduction.  *See 3-b) for details.
<ul><li>(△)</li></ul>	3-d)	Science-based targets are GHG reduction targets required for achieving the goals of the Paris Agreement and should be set while taking into account differences in regional characteristics and industries. In so doing, it is possible to refer to the following trajectories.	Yes No Not Applicable	Confirmed documents: /01//02//03//08/ /09/ Interviews with stakeholders	<ul> <li>Tokyo Gas's transition strategy targets refer to the following</li> <li>A widely recognied international scenario     ⇒Refer to IEA's analysis to TCFD with reference to     multiple scenarios</li> <li>Tokyo Gas's transition roadmap and targets, such as the     Science Based Targets Initiative (SBTi), have not been</li> </ul>



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		- Scenarios widely recognized in the international community (Examples include the Sustainable Development Scenario (SDS) outlined by the International Energy Agency (IEA) <sup>20</sup> ) - Objectives verified under the Science Based Targets Initiative (SBTi) and such like - Nationally Determined Contributions (NDC) of countries aligned with the goals of the Paris Agreement, roadmaps by industry sector <sup>21</sup> , industries set out plans that are science-based achieving the Paris Agreement <sup>22</sup> and so on.			<ul> <li>verified, but the dealing validity of the plan has been confirmed through assessment.</li> <li>Targets consistent with the Paris Agreement targets (e.g. NDC, roadmaps by sector, scientific evidence set by industry etc.)</li> <li>⇒See the gas industry roadmap developed by the Ministry of Economy, Trade and Industry and the Japan Gas Association's Carbon Neutral Challenge 2050.</li> </ul>
©	3-e)	Short- to mid-term targets (with a term of three to fifteen years) should be set by referencing the aforesaid trajectories or on the pathway toward the long-term targets planned as benchmarks <sup>23</sup> .	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	Tokyo Gas's short-term targets (2022 year) and medium-term targets (2030 year) are based on the asset deployment and technology development plans set out in the pathway (transition roadmap) towards the long-term target of 2050.  *See 3-b) for details.
	3-f)	In doing so, since short- to mid-term targets will likely be set in consideration of various factors (including the starting point and track records of the issuer, timing of capital	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	In developing the transition roadmap set out in the Compass Action, Tokyo Gas has taken into account a range of issues (short term initiatives, medium- and long-term technology development and implementation) and plans to achieve its targets through multiple technology options. Tokyo Gas is planning a non-linear pathway towards CO <sub>2</sub> net zero in 2050,



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		investments, economic rationality, cost-benefit analysis, and availability of technology necessary to achieve the targets), it is possible that the pathway may not necessarily be linear with the same slope at all times but may be nonlinear.			implementing the conversion of fuels used in society until 2030 and the decarbonization of gaseous after 2030.
0	3-g)	The fundraiser should disclose the short- to mid-term and long-term targets they have set, including the base years etc.	Yes No Not Applicable	Confirmed documents: /01//02//03/ Interviews with stakeholders	Tokyo Gas's Transition Strategy sets 2013 as the base year, with 2020-2022 as the short-term target, 2030 as the medium-term target, and 2050 as the long-term target, and these are disclosed through Compass Action and the Framework.
•	3-h)	In order to show that long-term targets are science-based, disclosures should explain the methodology or trajectory used to define target, including the underlying reasons (e.g., characteristics specific to a region or industry). In particular, when reference is made to plans and industry roadmaps established by an industry, etc., the explanation should include that they are grounded in scientific basis.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ /05/ Interviews with stakeholders	The long-term targets in Tokyo Gas' Transition Strategy are consistent with those of the Japan Gas Association and the Ministry of Economy, Trade and Industry.  The Ministry of Economy, Trade and Industry (METI) targets (technology roadmap of gas sector) refer to various Japanese policies and international scenarios aimed at achieving carbon neutrality in 2050, and are clearly consistent with the Paris Agreement.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings				
Δ	3-i) It is possible that disclosures explain the pathway toward a long-term target and the alignment between the short- to mid-term targets on the pathway and the transition strategy,  3-i) It is possible that disclosures explain Yes Confirmed documents: /01//02//03/ Interviews with stakeholders		Tokyo Gas has set forth the following specific initiatives as examples of typical projects (eligible project categories) that may be eligible for investment among the initiatives toward the long-term goal.						
		based on the investment plan (refer to Element 4) and other plans.			Low and Eligible project categories decarbonization initiatives*				
						(Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience) (2) Introduction of carbon-neutral LNG and use of CCUS technology			
							Decarbonization of gas and electricity  3Decarbonization of gaseous energy  4 Expansion of renewable energy sources and achieving zero emission of gas-fired power		
						DNV confirmed that Tokyo Gas has an overall investment plan (investment amount) in line with the timeline, with a planned investment of around 2 trillion yen in growth areas including decarbonization by 2030.			



Ref.	No.	Disclosure elements	Requirement	Work Undertaken	DNV Findings
Δ	3-j)	Concerning targets and trajectories, obtaining expert reviews on the following is considered to be particularly useful:  - Whether the long-term target is aligned with science-based targets  - Whether the disclosed information explains the alignment with the Paris Agreement  - Whether the short- to mid-term targets are determined using a GHG emissions forecast calculated based on a climate change scenario analysis  - Whether scenarios, etc. widely recognized in the international community are used or referenced  - Whether the actual values of the indicators used for the targets are quantitatively measured using consistent measurement methods  - Whether a specific GHG emissions reduction measure has been developed to achieve short- to midterm targets aligned with long-term goals	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ Interviews with stakeholders *Confirmation through this assessment	Based on the documentation and information provided by Tokyo Gas, DNV has reviewed the following and confirmed that Tokyo Gas's targets and trajectories are science-based.  Whether the long-term target is aligned with science-based targets  ➤ Targets and trajectories based on the Transition Strategy of Tokyo Gas are based on METI's targets (Gas Sector Technology Roadmap), which refer to various Japanese policies, international scenarios, etc. aimed at achieving carbon neutrality in 2050, and METI's targets are clearly consistent with the Paris Agreement.  Whether the short- to mid-term targets are determined using a GHG emissions forecast calculated based on a climate change scenario analysis  ➤ Tokyo Gas is conducting an analysis using TCFD based on IEA's sub-2°C and 4°C scenarios. Tokyo Gas also provides a global natural gas demand forecast (forecast year: ~2030 year). This is closely related to Tokyo Gas's greenhouse gas  Whether the actual values of the indicators used for the targets are quantitatively measured using consistent measurement methods  ➤ The indicator used for the target is CO₂ emissions (absolute value), and Tokyo Gas has established a method for calculating the reduction effect based on the amount of LNG supplied and the number of products supplied. Through the review, DNV confirmed that the CO₂ reduction effect is estimated based on the actual amount of LNG supplied and the number of products supplied. For some projects, it is difficult to calculate the



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					direct $CO_2$ reduction benefits, therefore it will be disclosed as the project progresses.

- 19 Since an appropriate method for calculating Scope 3 emissions for specific industrial sectors is under development, it is possible to estimate Scope 3 emissions on a provisional "best effort" basis. When disclosing, it is recommended that boundaries, calculation methods and other relevant factors be also reported. "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain" (METI, MoE; 2017 Japanese only. Related information in English) can be used for calculation references.
- 20 In addition to benchmarks indicated by the IEA, there are those referenced by the IPCC, such as RCP 2.6 (keep global warming to below 2°C), RCP 1.9 (keep global warming to below 1.5°C) and other related Transition Pathway Initiative (TPI) benchmarks. Meanwhile, scenario listings are available in the TCFD Technical Supplement and in the document published by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations".
- 21 An example of a sector-specific roadmap formulated by a public organization is the "Roadmap to Zero Emission from International Shipping" (Ministry of Land, Infrastructure, Transport and Tourism; 2020). The Ministry of International Trade and Industry also plans to formulate a roadmap for high emission industries.
- 22 In utilizing a plan formulated at a sector level, it is necessary to have a credible proposition that the alignment with the Paris Agreement can be explained with scientific grounds.
- 23 While it is possible to set short- to mid-term targets by determining the standard based on an assumed use of best available technologies (BAT), consideration should be made as to whether the use of such technologies might make it difficult to achieve long-term targets.



# **CTF-4 Implementation Transparency**

Re	. No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
©	4-a)	In implementing transition strategies, the fundraiser should provide transparency of the basic investment plan to the extent practicable.	Yes No Not Applicable	Confirmed documents: /01//02//03/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to invest around 2 trillion yen in growth areas, including decarbonization, by 2030, and that it has investment plans in line with the timeline.
	4-b)	The investment plan includes not only capital expenditure (Capex) but also capital and operational expenditure (Opex). Therefore, costs related to research and development, M&A, and dismantling and removal of facilities are also subject to the investment plan. In other words, it is recommended that the investment plan incorporate, to the extent possible, expenditure and investment necessary for implementing the transition strategy.	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/ Interviews with stakeholders	The investment plan includes one or more of the following capitals, operational and running costs necessary to implement the following strategies that contribute to the necessary efforts to implement the Transition Strategy.  Table: Tokyo Gas Transition Finance Eligible Project Candidates  Low and decarbonization initiatives*  Low carbonization with natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  (2) Introduction of carbon-neutral LNG and use of CCUS technology  2) Decarbonizat ion of gas ion of gaseous energy



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					and electricity energy sources and achieving zero emission of gas-fired power  *In addition to 1) and 2), Tokyo Gas is committed to "reducing its own CO <sub>2</sub> emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and carbon-neutral LNG into its facilities, as well as converting its company-owned vehicles to HEVs, FCVs and EVs.
	4-c)	It is recommended that the investment plan outline the assumed climate-related outcomes and impacts <sup>24</sup> in a quantitative fashion where possible, along with the calculation methods and prerequisites <sup>25</sup> . If quantification is difficult, the use of external certification systems can be considered as a substitute for qualitative assessment.	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/ Interviews with stakeholders	The climate-related outcomes and impacts assumed by the investment plan are reductions in CO <sub>2</sub> emissions for society as a whole (both domestically and internationally) through "reduction of CO2 emissions by the company" and "low-carbonization by natural gas" and "decarbonization of gas and electricity" (including contributions to reductions by suppliers). All of them use CO <sub>2</sub> reduction as an indicator, with the goal of CO <sub>2</sub> reducing 17 million tons by 2030 (compared to the base year of 2013). Through the assessment, DNV confirmed that Tokyo Gas has established calculation methods and prerequisites for each project category as appropriate. However, Tokyo Gas has not planned to disclose such informatio to the public, and DNV confirmed the appropriatenes of that.
0	4-d)	In particular, when outlining the assumed climate-related outcomes and impacts, it is recommended that the disclosure include not only GHG emission	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/	Any critical factors that would impede a "just transition" through the implementation of Tokyo Gas's Transition Strategy have not identified. As for the procurement and introduction of carbon-neutral methane, for example, it is



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		reduction and other initiatives to ease climate change but also report how consideration of a "just transition" <sup>26</sup> is incorporated into the transition strategy.		Interviews with stakeholders	possible to utilize assets related to the existing LNG supply chain when it is transported from overseas, and it is considered possible to make the transition while limiting the impact* on employment in the existing value chain and the increase in social costs.  * Upstream projects such as natural gas mining will remain affected by the procurement and introduction of carbon-neutral methane, which will have an impact on business and employment.  In addition, through the assessment, it was confirmed that Tokyo Gas will take appropriate measures and disclose information when necessary, if any negative impacts on "just transition" or SDGs are considered in future projects to be implemented by Tokyo Gas.
0	4-e)	If implementing the transition strategy has the potential of having a negative impact on employment or the environment and communities other than climate change, it is recommended that any expenditures to mitigate such negative impacts be added to the plan.	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/ Interviews with stakeholders	DNV confirmed that there are no additional significant social or environmental benefits on the implementation of Tokyo Gas's Transition Strategy at this time. However, consideration and countermeasures for social and environmental benefits based on laws, regulations, ordinances and the company's own standards will be implemented under Tokyo Gas's standard business and operational management processes.
0	4-f)	Moreover, the outcomes arising from investments included in the investment plan should align with the targets.	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/	Tokyo Gas quantitatively evaluates the results (CO <sub>2</sub> reduction effects) of each eligible project candidate (see (3-b)) included in the investment plan are consistent with the targets (see (3-c)).



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
				Interviews with stakeholders	
O (△)	4-g)	Transition finance is a means to financially support the implementation of a transition strategy, and it is recommended that financing be provided for new initiatives. However, in the case of transition finance in the format of Use of Proceeds instruments, refinancing for a reasonably set lookback period (the period during which refinancing is to be applied for projects that have already started) is considered to be eligible.	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/ Interviews with stakeholders	Tokyo Gas plans to allocate its transition finance to fund both new initiatives and refinancing of existing ones (amounts and ratio are expected to vary for each project and bond).  Where refinancing is targeted, DNV confirmed that a reasonable look-back period should be set (e.g. the transitional nature of the target asset should be maintained at the time of refinancing and the environmental improvement benefits should be realized during the redemption or repayment period).
0	4-h)	It is recommended that investment plans be disclosed by linking the outcomes and impacts with the expenditures to the extent practicable <sup>27</sup> .	Yes No Not Applicable	Confirmed documents: /01//02//03//11//16/ /17//18//19/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to invest around 2 trillion yen in growth areas, including decarbonization, by 2030, and that it has investment plans in line with the timeline.  For each financing, the amount of the project to be invested, the amount to be allocated (new or refinanced), and the environmental improvement benefits (calculation method or results) will be disclosed to the extent practicable in the evaluation of the specific use of proceeds.
0	4-i)	It is recommended that the fundraiser, after securing financing, reports any deviations between the initial plan and	Yes No	Confirmed documents: /01//02//03//11//16/	Tokyo Gas will include in its post-funding reporting any significant variances in expenditure, outcomes or impact



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		the actual expenditure, outcomes and impacts. For any deviations, it is recommended that the underlying reasons be explained.	Not Applicable	/17//18//19/ Interviews with stakeholders	from the original plan, as well as the reasons for such variances.
0	4-j)	In cases where the Use of Proceeds bonds include refinancing, the fundraiser should provide an explanation on the lookback period set under the framework or other relevant methods along with the underlying reasons and factors.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	Tokyo Gas has set a look-back period of approximately three years. This is a standardised period of time during which Tokyo Gas's environmental business is likely to remain transitional in the short term. In the event that the look-back period exceeds three years in the future, DNV has confirmed that Tokyo Gas will explain the period and the reasons for it at an appropriate time (e.g. in legal documents or reports prior to the bond issue).
<ul><li>(△)</li></ul>	4-k)	While there are differences in business practices, such as the fact that loans are traditionally made based on the bilateral relationship between a borrower and a lender, it is recommended that disclosure on the above be made to the extent possible in order to ensure transparency and credibility of transition finance. However, if it is difficult to disclose such information to the public from the standpoint of confidentiality and competition, it is possible to report such information only to lenders or external evaluation organizations without disclosing it to the public.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders *This report	When Tokyo Gas implements transition financing using loans, it will explain that the loans are based on this Framework and the results of this external assessment, and will disclose the requirements set out in the Green Loan related standards to the extent practicable.



Ref	. No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
	4-1)	Similarly, in cases where the fundraiser is a small-to-medium-sized enterprise and it is difficult to disclose to the public the same content as that reported to the financier or an external evaluation institution, it is possible for the fundraiser to simplify the content of disclosure, for example, by limiting disclosure to a summary of h) to j) of this section.	Yes No Not Applicable	Interviews with the people involved	Tokyo Gas is not a small business.

- 24 The Ministry of the Environment, in its "Concept Paper on Impact Finance", refers to impact as "a positive or negative change to the environment, society or economy caused by an organization and is not a direct deliverable or output but an outcome as a change brought about in terms of the environment, society or economy."
- 25 In disclosing impacts, outlining the amount of contribution to reducing CO<sub>2</sub> emissions in the global value chain on the whole and the entire lifecycle, including the consumption phase, can be considered. For the amount of contribution to the reduction, it is possible to reference the "Guideline for Quantifying GHG Emission Reduction Contribution" (METI, 2018). Furthermore, as for outcomes on research and development, it is possible to reference the IEA Measuring Innovation by Technology Readiness Level (TRL) or Importance for Net-Zero Emission, among others, and outline the progress in the R&D phase or the potential of reducing CO<sub>2</sub> emissions with the relevant technology by highlighting the importance of net-zero emissions.
- 26 A just transition is an attempt to ensure the wide sharing of virtual profits created through a transition to a green economy, as well as to support any party who will experience an adverse economic impact (be it a country, a region, an industry, a community, a worker, or a consumer). The concept of a just transition corresponds to several SDGs.
- 27 In particular, disclosure of investment plans is expected to be required for projects applicable to Use of Proceeds.



# Schedule-5 Green Bond Guidelines (Transition Finance with specific use of proceeds) Eligibility Assessment

Following check list (GBGLs-1 ~ GBGLs-4) is prepared based on the Green Bond Guidelines (GBGLs, MOE, 2020).

According to the GBGLs, Requirements/Work Undertaken are divided into following two terms, Should: Recommend: O

The numbers /01/,  $/02/ \sim /19/$  listed in the Work Undertaken column are the confirmed documents, and the details (document name) are shown in Appendix. In addition to the confirmed documents, the Work Undertaken includes the case where the information obtained through discussions and interviews with the publishers is used as evidence.

This assessment applies as a requirement for Use of Proceeds based on CTFH and CTFBG, so any term "green" and "bond" in Schedule-5 should be read as "transition" or "finance (bond)".

#### **GBGLs-1** Use of proceeds

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	1-①	Green Bond proceeds should be allocated to Green Projects that state the clear environmental benefits, which should be assessed by the issuer	Yes No Not Applicable	Confirmed documents: /01//02//03//11//1 6//17//18//19/ Interviews with stakeholders	The proceeds from transition finance will be allocated to Tokyo Gas Group's projects that contribute to low and decarbonization through the business related to climate change, which is a materiality issue for Tokyo Gas. Specific environmental improvements have been evaluated by the issuer as leading to a CO <sub>2</sub> reduction.
0	1-①	Environmental benefit of Green Bond proceeds, where feasible, quantification is recommended.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/  Interviews with stakeholders	Tokyo Gas has quantified the environmental improvement effects of the Transition Project. Specifically, Tokyo Gas has established a calculation formula in advance for the CO <sub>2</sub> reduction effect, and quantified the effects. (Some projects involve research and development or installation of equipment for future environmental improvements, which may make it difficult to disclose or quantify results.)



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	1-④	In advance, issuers should provide investors with information regarding the use of Green Bond proceeds through legal documentation (such as a prospectus) or other documents.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19//20/ Interviews with stakeholders	Tokyo Gas plans to explain the use of proceeds to investors in advance through the Framework and the Amended Shelf Registration Statement, etc.
	1-⑤	The provision of the information regarding the use of proceeds should specify the Green Project categories.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19//20/ - This report  Interviews with stakeholders	The proceeds will be allocated to one or more of the following projects, which will be explained to investors through the framework, the Amended Shelf Registration Statement and other documents and the results of external reviews.  Table: Tokyo Gas Transition Finance Eligible Project Candidates  Low and decarbonization initiatives*  Low carbonization (Fuel conversion to natural gas (Fuel conversion to natural gas, high-efficiency gas appliances, area energy use, strengthening resilience)  natural gas (Introduction of carbon-neutral LNG and use of CCUS technology)  Decarboni ation of gas and electricity (Expansion of gas-fired power)  *In addition to 1) and 2), Tokyo Gas is committed to "reducing its own CO2 emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
					carbon-neutral LNG into its facilities, as well as converting its company-owned vehicles to HEVs, FCVs and EVs.
0	1-⑤	In the cases where individual Green Projects have been specified, it is recommended that issuers clearly present the projects to investors.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19//20/ - This report  Interviews with stakeholders	The explanations given to investors, taking into account confidentiality and other considerations, clearly outline the transition projects through the disclosure of the framework and the results of the external review. Details of the specific eligible project candidates and projects to be funded are provided to the external review body to confirm eligibility.
©	1-⑥	In cases where Green Projects have incidental negative environmental impacts along with the alleged environmental benefits, the issuers should include information regarding these negative impacts (e.g., how they are assessed, what the issuers do to curb them) to investors so that the investors and market participants can appropriately evaluate these impacts.	Yes No Not Applicable	Confirmed documents: /01//11//16//17//1 8//19//20/ Interviews with stakeholders	Negative impacts of the project implementation are taken into account, such as compliance with environmental laws, ordinances and various regulations, and clear environmental improvement effects such as CO <sub>2</sub> reduction in the entire life cycle or in each process. In the operation and implementation of the project, the relevant departments are committed to the preservation of the surrounding environment.
0	1-⑦	(In case of where a part of Green Bond proceeds is used to refinance existing Green Projects,) it is recommended that the issuers provide information to the investors regarding (1) the amount (or the share) of the bond	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19//20/	DNV confirmed that Tokyo Gas plans to disclose the estimated amount (or ratio) of the portion of the proceeds allocated to refinancing in the integrated report published on an annual basis or website. If the inclusion of refinancing and the nature of the refinancing is determined prior to the issue of the bond, Tokyo Gas plans to disclose



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		proceeds being allocated for refinancing, and (2) which Green Projects (or Green Project categories) may be refinanced.		Interviews with stakeholders	the necessary information in legal documents in accordance with CTF 4-g).
0	1-⑦	When Green Bonds are issued multiple times to refinance an asset that requires long-term maintenance, the issuer should clearly disclose the asset's age and remaining useful life and the amount to be refinanced as at the time of the bond issuance, evaluate the long-term sustainability of environmental benefits and obtain an assessment from an external reviewers for verification.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	At present, there are no plans to allocate to refinancing to projects that are long overdue.

## **GBGLs-2** Process for Project Evaluation and Selection

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	2-①	In advance, issuers should provide investors with information regarding the following: The environmental sustainability objectives that the issuers intend to achieve through Green Bonds.	Yes No Not Applicable	Confirmed documents: /01//02//03/ Interviews with stakeholders	The financing that Tokyo Gas implements by utilizing transition finance is aimed at achieving the Tokyo Gas transition strategy which is in line with the low-carbon decarbonization strategy set by the Japan Gas Association and the Ministry of Economy, Trade and Industry's technology roadmap, which aims to align with the goals of the Paris Agreement.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	
					roadmap, which incorposals, and a strategic introduce technologies based on Tokyo Gas's These are planned to through the Framework Shelf Registration State  TABLE TOKYO GAMEDIUM-TERM TARGETS LONG-TERM TARGETS Reference: Short-term contribute to CO2 redicates and contribute to 2013. 2), Scope 3 and reductionnes (target for the emissions from city gasts.	AS TRANSITION TARGETS  Contribution to CO₂ reduction by 2030: ▲17 million tonnes* Challenge to achieve Net-Zero CO₂ towards 2050  n target: Achieve Net-Zero CO2 and uction of ▲6.5 million tonnes in 2020-
					1	e in Scope 3 emissions is ▲750,000
©	2-①	In advance, issuers should provide investors with information regarding the following: The criteria for determining the appropriateness of Green Projects	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ /20/	the eligibility of the To	ugh the Framework and Assessment that bkyo Gas Transition Project is described on lluation criteria (standards). Specifically, ows



Tokyo Gas Co., Ltd. Transition Finance Framework Second Party Opinion Rev-1

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	
		based on the environmental sustainability objectives described above		Interviews with stakeholders	<ul> <li>Climate Transition Finance Handbook         International Capital Market Association (ICMA), 2020</li> <li>Basic Guidelines on Climate Transition Finance         Financial Services Agency, Ministry of Economy, Trade         and Industry, Ministry of the Environment, 2021</li> <li>Green Bond Principles         International Capital Market Association (ICMA), 2021</li> <li>Green Bond Guidelines         Ministry of the Environment, 2020</li> <li>Green loan principles         Loan Market Association and others (LMA and others), 2021</li> <li>Green Loan Guidelines         Ministry of the Environment, 2020</li> <li>These will be specified in the Framework and will be explained to investors in advance, through the Amended Shelf Registration Statement.</li> </ul>	
0	2-①	In advance, issuers should provide investors with information regarding the following: The process for determining how Green Projects fit the criteria for the achievement of the environmental sustainability objectives (The process for the determination refers to the reason why issuers determine that Green Projects can provide environmental benefits appropriately in light of the objectives and criteria for the use of	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ /20/ Interviews with stakeholders	DNV confirmed that there is a description of the process by which decisions on the selection of transition projects were made in the framework. Specifically, the accounting department and the business unit responsible for the project will comprehensively evaluate and select the project, and the final decision will be made by the accounting officer. These processes have been established as an internal document of Tokyo Gas and DNV has confirmed that the plan will be implemented in accordance with the appropriate processes.	



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		Green Bond proceeds, how and by whom are the criteria applied and used to determine whether Green Projects are appropriate in light of the objectives, and the like)			
0	2-⑥	It is recommended that the issuers explain to investors in advance any environmental standards or certifications that the issuers will refer to in evaluating and selecting a Green Project to be financed.	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ /20/ Interviews with stakeholders	The transition strategy, which forms the basis for the evaluation and selection of transition finance, is Tokyo Gas's transition roadmap based on the technology roadmap of the Japan Gas Association and the Ministry of Economy, Trade and Industry, with specific targets (short, medium and long term) and plans. These will be explained to investors through the framework and second party opinions.  There are no project-specific environmental standards or certifications. Some activities are carried out through subsidised projects or alliances.
0	2-⑦	If an issuer intends to establish an exclusion standard to identify and control such potentially material environmental and social risks of Green Projects, the issuer should explain it to investors in advance as one of the criteria it applies.	Yes No Not Applicable	Confirmed documents: /01//02//03//11/ /14//16//17//18// 19//20/ Interviews with stakeholders	Tokyo Gas has set out the following common exclusion criteria for transition finance.  • Inappropriate relationships such as unfair trade, bribery, corruption, extortion, embezzlement, etc. that do not comply with the laws of the country of residence  • Transactions that can cause social problems such as human rights and the environment
0	2-9	It is recommended that internal groups who have expertise, such as the environment related group, or external institutions check whether the determination process is suitable from an environmental point of view.	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ Interviews with stakeholders	DNV confirmed that there is a description of the process by which decisions on the selection of transition projects were made in the framework. Specifically, the accounting department and the business unit responsible for the project will comprehensively evaluate and select the project, and the final decision will be made by the accounting officer. These processes have been established as an internal document of Tokyo Gas and DNV has confirmed that the plan will be implemented in accordance with the appropriate processes.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	2-11)	It is recommended that issuers position their environmental objectives, criteria and information on their processes in the context of their comprehensive environmental sustainability objectives, strategy, policies and so on (e.g., mediumterm management plan, sustainability strategy, CSR strategy) when explaining them to investors.	Yes No Not Applicable	Confirmed documents: /01//02//03//08// 09//10//14/ Interviews with stakeholders	The transition strategy, which forms the basis for the evaluation and selection of transition finance, is Tokyo Gas's transition roadmap based on the technology roadmap of the Japan Gas Association and the Ministry of Economy, Trade and Industry, with specific targets (short, medium and long term) and plans. These will be explained to investors through the framework and second party opinions.  Tokyo Gas's transition strategy is closely linked to its management vision "Compass 2030", its medium-term management plan (2020-2022) and its initiatives under the TCFD.



# **GBGLs-3 Management of proceeds**

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	3-①	Issuers should track and manage the net Green Bond proceeds in an appropriate manner. These tracking and managing activities should be controlled by the issuer's internal process.	Yes No Not Applicable	Confirmed documents: /01//12//15/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to manage the proceeds in its accounting system or in individual internal documents to ensure that the total amount of transition-eligible projects is not less than the amount of transition finance issued.  DNV also confirmed through the interviews that there is an operation (system) that can track the proceeds in the above management.
•	3-②	As long as the Green Bonds are outstanding, issuers manage the amount of the allocation to the Green project is equal to or more than proceed, or issuers should periodically adjust to match the amount of the total Green Bond proceeds to the sum of the amount of the proceeds allocated to Green Projects and the amount of the unallocated proceeds.	Yes No Not Applicable	Confirmed documents: /01//12//13//15/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to monitor the allocation status of proceeds on a regular (quarterly) basis, based on data extracted from its accounting system, to ensure that the requirements are met.
©	3-@	If any of the proceeds remains temporarily unallocated, the issuer should explain to investors how it intends to manage the balance of such unallocated funds and endeavour to promptly allocate such funds to Green Projects.	Yes No Not Applicable	Confirmed documents: /01//12//13//15/ Interviews with stakeholders	DNV confirmed that Tokyo Gas will identify the balance of unallocated proceeds by means of a transition finance procurement fund management chart, etc., and explain to investors how the funds will be managed (by cash and cash equivalents). In addition, DNV confirmed that Tokyo Gas plans to allocate the funds (including refinancing) to eligible projects in a timely manner. DNV also confirmed that the unallocated funds are scheduled to be allocated



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	
					within two years, and if there is a large excess, Tokyo Gas plans to report it along with the reason.	
©	3-⑤	In advance, issuers should provide investors with information on how Green Bond proceeds will be tracked and managed.	Yes No Not Applicable	Confirmed documents: /01//12//15//20/ Interviews with stakeholders	DNV confirmed that the issuer has internal processes in place to enable it to track and control the proceeds. DNV confirmed that these are planned to be explained to investors in a framework, etc.	
0	3-⑥	It is recommended that issuers keep evidenced documents appropriately that demonstrate how they tracked and managed Green Bond proceeds.	Yes No Not Applicable	Confirmed documents: /01//12//13//15/ Interviews with stakeholders	DNV has confirmed that there are internal processes in place to ensure that documents relating to the management of proceeds are properly retained throughout the reimbursement period in accordance with Tokyo Gas's accounting and document management regulations.	
©	3-8	In advance, issuers should provide investors with information on how unallocated Green Bond proceeds will be managed when the Green Projects that will receive the Green Bond proceeds have not been determined, or when such Green Projects have been determined but the proceeds have not been allocated because the allocation timing has not yet arrived.	Yes No Not Applicable	Confirmed documents: /01//12//15//20/ Interviews with stakeholders	DNV confirmed through the framework that Tokyo Gas describes how the pre-allocation equivalent of funds is to be managed (in cash or cash equivalents).	



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	3-9	It is recommended that issuers manage unallocated Green Bond proceeds as an asset with high liquidity and safety such as cash, cash equivalents, or short-term financial assets	Yes No Not Applicable	Confirmed documents: /01//12//15//20/ Interviews with stakeholders	Cash or cash equivalents as specified in the Framework are highly secure assets and comply with the requirements.



# **GBGLs-4 Reporting**

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	4-①	Issuers should publicly disclose the latest information on the use of Green Bond proceeds after issuance	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	From the year following the issuance of the transition finance, it was confirmed that the status of allocation of the proceeds from the issuance of the transition finance to the use of proceeds and the environmental improvement effect are planned to be reported annually at least until the year following the completion of the allocation.  The annual report will be disclosed on the Tokyo Gas's website.
©	4-2	Issuers should disclose the latest information at least once a year until full allocation of the proceeds and as necessary thereafter in the event of new developments.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	Same as 4-(1). In addition, if there is a significant change in the transition strategy or pathway, allocation plan or project implementation status (e.g., interruption of the project that started allocation, significant postponement on a yearly basis, sale or retirement, etc.), Tokyo Gas will report the change in a timely manner or in reporting.
©	4-③	Disclosed information should include the following contents: <contents>  A list of the Green Projects to which Green Bond proceeds have been allocated  A brief description of each Green Project (including up-to-date progress)  The amount allocated to each Green Project  The expected environmental benefits of each Green Project</contents>	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	The disclosed information will include the following contents in consideration of confidentiality.  The planned allocation period will be within two years after fund procurement, and the operation method will be managed in cash or cash equivalents.  The report will be disclosed on the website. <allocation status=""></allocation>



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		☐ Information regarding unallocated Green Bond proceeds (the amount of the unallocated proceeds or the share of the unallocated proceeds to the total amount of the proceeds, when the unallocated proceeds are expected to be allocates to Green Projects, and how the unallocated proceeds are managed until allocation)			Environmental proceeds impacts are disclosed within the scope of confidentiality, to the extent practicable, and in consideration of the characteristics of the project, including an overview of the project (including progress, completion, operation, etc.) and the expected environmental benefits (e.g., t-CO2/year).
0	4-④	If Green Bond proceeds have been allocated to the refinancing of existing projects, it is recommended that disclosed information include: 1) the approximate amount (or the share) of the allocated proceeds used for refinancing, and 2) a list of the Green Projects (or the project categories) refinanced.	Yes No Not Applicable	Confirmed documents: /01//11//16//17// 18//19/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to disclose the estimated amount (or ratio) of the portion of the proceeds allocated to refinancing in the integrated report published on an annual basis or website.
0	4-⑤	While it is recommended to disclose 4-③ and 4-④ on a project-by-project basis, if there are confidentiality agreements, competitive considerations, or a large number of underlying projects that limit the disclosure of details, it is considered that information is presented in generic terms or in an aggregated portfolio.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	It was confirmed that the disclosure of information is based on the disclosure of information for each transition project, but may take place in an aggregated format depending on the circumstances, taking into account confidentiality agreements.
0	4-⑦	When disclosing information regarding the expected environmental benefits of projects, issuers should use appropriate indicators while ensuring consistency with the "environmental sustainability objectives," the "criteria" for Green Projects specified in Section 2, "Process for Project Evaluation and Selection," and	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	The environmental improvement effect will be based on the CO <sub>2</sub> reduction effect, but Tokyo Gas will use an appropriately described indicator depending on the nature of the project to be allocated for transition finance.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		the characteristics of Green Projects.			
0	4-8	When disclosing the expected environmental benefits of projects, it is recommended that issuers, where feasible, use quantitative indicators and disclose information on methodologies and/or assumptions as well as these indicators.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/  Interviews with stakeholders	The environmental improvement effect will be disclosed using quantitative indicators, but it will be implemented for each transition project or each transition project classification in consideration of confidentiality and rationality of the evaluation process. In addition, the calculation method will be disclosed to the extent necessary.



# Schedule-6 Green Loan Guidelines (Transition Finance Loan with specific use of proceeds) Eligibility Assessment

The following check list (GLGLs-1 to GLGLs-6) is prepared based on the Green Loan Guidelines (GLGLs, MOE, 2020).

According to the GLGLs, Requirements/Evaluation aspects are divided into following two terms, Should: Recommend:O

The numbers /01/,  $/02/ \sim /19/$  listed in the Work Undertaken column are the confirmed documents, and the details (document name) are shown in Reference dcoument-1 (See the Attachment).

In addition to the confirmed documents, the Work Undertaken includes the case where the information obtained through discussions and interviews with the publishers is used as evidence.

This assessment applies as a requirement for Use of Proceeds based on CTFH and CTFBG, so any term "green" and "bond" in Schedule-6 should be read as "transition" or "finance (bond)".

#### **GLGLs-1** Use of proceeds

Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings
0	1-①	Proceeds of Green Loans should be used for Green Projects that have clear environmental benefits. The borrowers should assess such environmental benefits.	Yes No Not Applicable	Confirmed documents:  /01//02//03//11//16  //17//18//19/  Interviews with stakeholders	The proceeds from transition finance will be allocated to Tokyo Gas Group's projects that contribute to low and decarbonization through the business related to climate change, which is a materiality issue for Tokyo Gas. Specific environmental improvements have been evaluated by the issuer as leading to a CO <sub>2</sub> reduction.
0	1-①	The borrowers is recommended to quantify them where possible.	Yes No Not Applicable	Confirmed documents:	Tokyo Gas has quantified the environmental improvement effects of the Transition Project. Specifically, Tokyo Gas has



Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings	
				/01//11//16//17//18 //19/  Interviews with stakeholders	established a calculation formula in advance for the CO2 reduction effect, and quantified the effects. (Some projects involve research and development or installation of equipment for future environmental improvements, which may make it difficult to disclose or quantify results.)	
©	1-④	Borrowers should explain in advance the use of proceeds in documents including contracts exchanged between parties involved.	Yes No Not Applicable	Confirmed documents:  /01//11//16//17//18  //19//20/  Interviews with stakeholders	Tokyo Gas will explain the use of the proceeds to the lenders in advance through the framework and the loan agreement.	
©	1-⑤	The provision of the information regarding the use of proceeds should specify the Green Project categories.	Yes No Not Applicable	Confirmed documents:  /01//11//16//17//18  //19//20/  - This report  Interviews with stakeholders	The proceeds will be allocated to one or more of the followir projects, which will be explained to lenders through the framework, the Amended Shelf Registration Statement are other documents and the results of external reviews.  Table: Tokyo Gas Transition Finance Eligible Project Candidates  Low and decarbonization initiatives*  Eligible project categories	



Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings	
					1) Low carbonization with natural gas  Decarboniza tion of gas and tion of gas and electricity  *In addition to 1) and 2), Tokyo Gas is committed to "reducing its own CO <sub>2</sub> emissions", and is introducing ultra high-efficiency fuel cells, solar power generation, CCUs and carbon-neutral LNG into its facilities, as well as converting its company-owned vehicles to HEVs, FCVs and EVs.	
0	1-⑤	In cases where individual Green Projects have been specified, it is recommended that issuers clearly present the projects to lenders.	Yes No Not Applicable	Confirmed documents:  /01//11//16//17//18  //19//20/  - This report  Interviews with stakeholders	The explanations given to investors, taking into account confidentiality and other considerations, clearly outline the transition projects through the disclosure of the framework and the results of the external review. Details of the specific eligible project candidates and projects to be funded are provided to the external review body to confirm eligibility.	



Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings
©	1-⑥	In cases where Green Projects have incidental negative environmental impacts along with the alleged environmental benefits, borrowers should include information regarding these negative impacts (e.g., how they are assessed, how borrowers intend to address them) so that lenders and market participants can appropriately evaluate these impacts.	Yes No Not Applicable	Confirmed documents:  /01//11//16//17//18  //19//20/  Interviews with stakeholders	Negative impacts of the project implementation are taken into account, such as compliance with environmental laws, ordinances and various regulations, and clear environmental improvement effects such as $CO_2$ reduction in the entire life cycle or in each process. In the operation and implementation of the project, the relevant departments are committed to the preservation of the surrounding environment.
0	1-⑦	In cases where Green Loan proceeds are used to refinance existing Green Projects, it is recommended that borrowers provide information to the lenders regarding (1) the amount (or the share) of the loan proceeds being allocated for refinancing, and (2) which Green Projects (or Green Project categories) may be refinanced. Furthermore, when using proceeds for refinancing Green Projects, the borrower is recommended to indicate the applicable period of the Green Project refinanced (Lookback Period).	Yes No Not Applicable	Confirmed documents:  /01//11//16//17//18  //19//20/  Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to disclose the estimated amount (or ratio) of the portion of the proceeds allocated to refinancing in the integrated report published on an annual basis or website. If the inclusion of refinancing and the nature of the refinancing is determined prior to the issue of the bond, Tokyo Gas plans to disclose the necessary information in legal documents in accordance with CTF 4-g).
©	1-⑦	When Green Loans are used multiple times to refinance an asset that requires long-term maintenance, the borrower should clearly disclose the	Yes No Not Applicable	Confirmed documents: /01//11//16//17//18 //19/	At present, there are no plans to allocate to refinancing to projects that are long overdue.



Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings
		asset's age, remaining life and the amount to be refinanced as of the time of procurement, evaluate the long-term sustainability of environmental benefits and receive an assessment from an outside agency for verification as necessary.		Interviews with stakeholders	



## **GLGLs-2 Process for Project Evaluation and Selection**

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	
•	2-①	Borrowers should provide lenders with information in advance regarding the following: the environmental sustainability objectives that the borrowers intend to achieve through the Green Loans;	Yes No Not Applicable	Confirmed documents: /01//02//03/ Interviews with stakeholders	The financing that Tokyo Gas implements by utilizing transition finance is aimed at achieving the Tokyo Gas transition strategy which is in line with the low-carbon decarbonization strategy set by the Japan Gas Association and the Ministry of Economy, Trade and Industry's technology roadmap, which aims to align with the goals of the Paris Agreement.  Tokyo Gas has developed its Transition Strategy as a transition roadmap, which incorporates short-term goals, medium-term goals, and a strategic plan for decarbonization (a plan to introduce technologies that contribute to transition). Each goal based on Tokyo Gas's Transition Strategy is disclosed as follows.  These are planned to be explained to investors in advance through the Framework, the external review and the Amendment Shelf Registration Statement.  TABLE TOKYO GAS TRANSITION TARGETS  MEDIUM-TERM Contribution to CO₂ reduction by 2030: ▲17 million tonnes * Challenge to achieve Net-Zero CO₂ towards 2050	
				Reference: Short-t contribute to CO2 2020-2022 (for do *Compared to 20 and 2), Scope 3 ar Of the 17 million	reduction of \$\( \begin{align*} \text{Achieve Net-Zero CO2} \) and reduction of \$\( \beta \).5 million tonnes in smestic emissions (**) *  13. Includes in-house emissions (Scope 1 and reductions at customers.  1 tonnes (target for the global business as a CO2 emissions from city gas production,	



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
					company-owned buildings, and company vehicles in Scope 1 and 2 (approx. 300,000 tons in FY2020); the decrease in Scope 3 emissions is ▲750,000 tonnes.
	2-①	Borrowers should provide lenders with information in advance regarding the following: the criteria for determining the appropriateness of Green Projects based on the environmental sustainability objectives described above;	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ /20/ Interviews with stakeholders	It was confirmed through the Framework and Assessment that the eligibility of the Tokyo Gas Transition Project is described on the basis of which evaluation criteria (standards). Specifically, the criteria are as follows  - Climate Transition Finance Handbook



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
©	2-①	Borrowers should provide lenders with information in advance regarding the following: the process for determining how Green Projects fit the criteria for the achievement of the environmental sustainability objectives.	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ /20/ Interviews with stakeholders	DNV confirmed that there is a description of the process by which decisions on the selection of transition projects were made in the framework. Specifically, the accounting department and the business unit responsible for the project will comprehensively evaluate and select the project, and the final decision will be made by the accounting officer. These processes have been established as an internal document of Tokyo Gas and DNV has confirmed that the plan will be implemented in accordance with the appropriate processes.
0	2-⑥	It is recommended that the borrower explains to lenders in advance any environmental standards or certification that the borrower will refer to in evaluating and selecting a Green Project to be financed.	Yes No Not Applicable	Confirmed documents: /01//02//03//14/ /20/ Interviews with stakeholders	The transition strategy, which forms the basis for the evaluation and selection of transition finance, is Tokyo Gas's transition roadmap based on the technology roadmap of the Japan Gas Association and the Ministry of Economy, Trade and Industry, with specific targets (short, medium and long term) and plans. These will be explained to investors through the framework and second party opinions. There are no project-specific environmental standards or certifications. Some activities are carried out through subsidised projects or alliances.
©	2-⑦	If the borrower intends to establish exclusion criteria to identify and control such potentially material environmental and social risks of Green Projects, the borrower should explain them to lenders in advance as part of the criteria it applies.	Yes No Not Applicable	Confirmed documents: /01//02//03//11/ /14//16//17//18//19// 20/ Interviews with stakeholders	Tokyo Gas has set out the following common exclusion criteria for transition finance.  • Inappropriate relationships such as unfair trade, bribery, corruption, extortion, embezzlement, etc. that do not comply with the laws of the country of residence  • Transactions that can cause social problems such as human rights and the environment
0	2-9	It is recommended that internal departments who have expertise, such as the environment related department, or external institutions	Yes No Not Applicable	Confirmed documents: /01//02//03//14/	DNV confirmed that there is a description of the process by which decisions on the selection of transition projects were made in the framework. Specifically, the accounting department and the business unit responsible for the project



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		are involved in the evaluation and selection process of Green Projects to ensure suitability from an environmental point of view.		Interviews with stakeholders	will comprehensively evaluate and select the project, and the final decision will be made by the accounting officer. These processes have been established as an internal document of Tokyo Gas and DNV has confirmed that the plan will be implemented in accordance with the appropriate processes.
0	2-11)	It is recommended that borrowers position their environmental objectives and criteria and information on their processes in the context of their comprehensive objectives, strategy, policies concerning environmental sustainability (e.g. medium-term management plan, sustainability strategy, CSR strategy) and provide an explanation to lenders.	Yes No Not Applicable	Confirmed documents: /01//02//03//08//09// 10//14/ Interviews with stakeholders	The transition strategy, which forms the basis for the evaluation and selection of transition finance, is Tokyo Gas's transition roadmap based on the technology roadmap of the Japan Gas Association and the Ministry of Economy, Trade and Industry, with specific targets (short, medium and long term) and plans. These will be explained to investors through the framework and second party opinions.  Tokyo Gas's transition strategy is closely linked to its management vision "Compass 2030", its medium-term management plan (2020-2022) and its initiatives under the TCFD.



# **GLGLs-3 Management of proceeds**

Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings
©	3-①	Borrowers should track and manage the entire amount of Green Loan proceeds. These tracking and managing activities should be controlled by the borrower's internal processes.	Yes No Not Applicable	Confirmed documents: /01//12//15/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to manage the proceeds in its accounting system or in individual internal documents to ensure that the total amount of transition-eligible projects is not less than the amount of transition finance issued.  DNV also confirmed through the interviews that there is an operation (system) that can track the proceeds in the above management.
•	3-②	As long as the Green Loans are outstanding, borrowers should conduct periodic checks (at least yearly) to ensure that the amount used for Green Projects is equal to, or greater than, the amount raised by the procurement of Green Loans or the sum of the amount used for Green Projects and the amount of the unallocated proceeds match the total amount of Green Loan proceeds.	Yes No Not Applicable	Confirmed documents: /01//12//13//15/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to monitor the appropriation of procurement funds on a regular (quarterly) basis, based on data extracted from its accounting system, to ensure that the requirements are met.
©	3-2	If any of the proceeds remain temporarily unallocated, the borrower should explain to lenders how it intends to invest the balance of such unallocated funds and endeavor to promptly use such funds for Green Projects.	Yes No Not Applicable	Confirmed documents: /01//12//15/ Interviews with stakeholders	DNV confirmed that Tokyo Gas will identify the balance of unallocated proceeds by means of a transition finance procurement fund management chart, etc., and explain to investors how the funds will be managed (by cash and cash equivalents). In addition, DNV confirmed that Tokyo Gas plans to allocate the funds (including refinancing) to eligible projects in a timely manner. DNV also confirmed that the unallocated funds are scheduled to be allocated



Ref.	Sectio n	Requirements	Requirement check	Work Undertaken	DNV Findings
					within two years, and if there is a large excess, Tokyo Gas plans to report it along with the reason.
©	3-④	In advance, borrowers should provide lenders with information on how Green Loan proceeds will be tracked and managed.	Yes No Not Applicable	Confirmed documents: /01//12//15//20/ Interviews with stakeholders	DNV confirmed that the issuer has internal processes in place to enable it to track and control the proceeds. DNV confirmed that these are planned to be explained to investors in a framework, etc.
0	3-⑤	It is recommended that borrowers keep evidenced documents appropriately that demonstrate how they tracked and managed Green Loans proceeds.	Yes No Not Applicable	Confirmed documents: /01//12//13//15/ Interviews with stakeholders	DNV has confirmed that there are internal processes in place to ensure that documents relating to the management of proceeds are properly retained throughout the reimbursement period in accordance with Tokyo Gas's accounting and document management regulations.



# **GLGLs-4 Reporting**

Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
0	4-①	Borrowers should report the latest information on the use of Green Loan proceeds to the financial institutions who are lenders and took part in the Green Loans after the procurement.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	From the year following the issuance of the transition finance, it was confirmed that the status of allocation of the proceeds from the issuance of the transition finance to the use of proceeds and the environmental improvement effect are planned to be reported annually at least until the year following the completion of the allocation.  The annual report will be disclosed on the Tokyo Gas's website.
0	4-②	For a borrower to gain public acceptance by expressing that the procured loans are Green Loans, they need to ensure transparency. For this reason, if a borrower expresses that the procured loans are Green Loans, it should publicly disclose the latest information on the use of Green Loan proceeds after the procurement.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	In the event that the transition financing is to be funded by a loan, Tokyo Gas will state that it is a transition loan and will disclose updated information on the use of proceeds to the public on its website.
©	4-④	Borrowers should report or disclose the usage status of funds at least once a year until all the proceeds are used. Borrowers should report or disclose such information in a timely manner even after all the proceeds are allocated if there has been any major change in the situation.	Yes No Not Applicable	Confirmed documents: /01//11//16//17// 18//19/ Interviews with stakeholders	Same as 4-①. In addition, if there is a significant change in the transition strategy or pathway, allocation plan or project implementation status (e.g., interruption of the project that started allocation, significant postponement on a yearly basis, sale or retirement, etc.), Tokyo Gas will report the change in a timely manner or in reporting.
0	4-⑤	Reported or disclosed information should include the following contents: <matters or<="" pertaining="" reporting="" td="" to=""><td>Yes No</td><td>Confirmed documents: /01//11//16//17/</td><td>The disclosed information will include the following contents in consideration of confidentiality.</td></matters>	Yes No	Confirmed documents: /01//11//16//17/	The disclosed information will include the following contents in consideration of confidentiality.



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
		disclosure> - A list of the Green Projects to which Green Loan proceeds have been allocated - A brief description of each Green Project (including up-to-date progress) - The amount allocated to each Green Project - The expected environmental benefits of each Green Project - Information regarding unallocated Green Loan proceeds (the amount of the unallocated proceeds or the share of the unallocated proceeds to the total amount of the proceeds, and when the unallocated proceeds are expected to be allocated to Green Projects) A borrower is small-medium, reported and disclosed information can be simplified, if it is difficult to disclose the same contents which a borrower reports to a lender.	Not Applicable	/18//19/ Interviews with stakeholders	The planned allocation period will be within two years after fund procurement, and the operation method will be managed in cash or cash equivalents.  The report will be disclosed on the website. <allocation status="">  Allocated Amount  Unallocated amounts (including when they will be allocated and its management)  Amount of proceeds to be used for refinancing  Environmental benefit&gt;  Environmental proceeds impacts are disclosed within the scope of confidentiality, to the extent practicable, and in consideration of the characteristics of the project, including an overview of the project (including progress, completion, operation, etc.) and the expected environmental benefits (e.g., t-CO2/year).</allocation>
0	4-⑥	If Green Loan proceeds have been allocated to the refinancing of existing projects, it is recommended that disclosed information include: (1) the approximate amount (or the share) of the allocated proceeds used for refinancing, and (2) a list of the Green Projects (or the project categories)	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	DNV confirmed that Tokyo Gas plans to disclose the estimated amount (or ratio) of the portion of the proceeds allocated to refinancing in the integrated report published on an annual basis or website.



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
0	4-⑦	refinanced.  While it is recommended to disclose (v) and (vi) on a project-by-project basis, if there are confidentiality agreements, competitive considerations, or a large number of underlying projects that limit the disclosure of details, it is considered that information is presented in generic terms or in an aggregated portfolio.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	It was confirmed that the disclosure of information is based on the disclosure of information for each transition project, but may take place in an aggregated format depending on the circumstances, taking into account confidentiality agreements.
©	4-100	When disclosing information regarding the expected environmental benefits of projects, borrowers should use appropriate indicators, while ensuring consistency with the characteristics of Green Projects.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	The environmental improvement effect will be based on the $CO_2$ reduction effect, but Tokyo Gas will use an appropriately described indicator depending on the nature of the project to be allocated for transition finance.
0	4-⑪	When disclosing the expected environmental benefits of projects, it is recommended that borrowers, where feasible, use quantitative indicators and disclose information on methodologies and/or assumptions as well as these indicators.	Yes No Not Applicable	Confirmed documents: /01//11//16//17/ /18//19/ Interviews with stakeholders	The environmental improvement effect will be disclosed using quantitative indicators, but it will be implemented for each transition project or each transition project classification in consideration of confidentiality and rationality of the evaluation process. In addition, the calculation method will be disclosed to the extent necessary.



### **GLGLs-5: Internal reviews**

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
•	5-(3)②	If the borrower performs self-certification, it should inform the lenders in advance and explain with sufficient transparency its internal expertise upon formulation of the self-certification process pertaining to the green loan framework.	Yes No Not Applicable	Confirmed documents: /01//11//14//15/ Interviews with stakeholders	Tokyo Gas uses reviews by external bodies as an objective assessment. In the future, when conducting self-certification, Tokyo Gas plans to explain to borrowers that it follows the Framework and internal processes.
•	5-(3)③	Borrowers are recommended to document their internal expertise. This documentation should be communicated to the lenders on request. The self-certification results should also be reported to the lenders on request.	Yes No Not Applicable	Confirmed documents:  /01//11//14//15/ Interviews with stakeholders	Tokyo Gas has established documented internal processes for the evaluation and selection process of projects and for the management of proceeds. Tokyo Gas will report on the results of these processes when requested by the lenders.
©	5-(3)4	When appropriate, and taking into account confidentiality and competitive considerations, borrowers should make publicly available, via their website or otherwise, their decision to review the Green Loan based on self-certification as well as the parameters based on which they assess Green Projects and the internal expertise they have to assess such parameters.	Yes No Not Applicable	Confirmed documents:  /01//11//14//15/ Interviews with stakeholders	Tokyo Gas plans to disclose to the public that it has conducted its self-certification in accordance with the internal processes set out in the Framework in advance when using loans for transition financing and the results of the assessment.



Ref	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	5-(3)4	For a borrower to gain public approval by expressing that the procured loans are Green Loans, they need to ensure transparency. It is therefore recommended that they make the self-certification results publicly available via their website or otherwise.	Yes No Not Applicable	Confirmed documents:  /01//11//14//15/ Interviews with stakeholders	Tokyo Gas plans to disclose the results of its self-certification to the general public through its website and other means when using loans for transition finance based solely on self-certification.



## **List of reference documents**

/01/	Tokyo Gas Co., Ltd Transition Finance Framework
/02/	Tokyo Gas Group Management Vision Compass 2030
/03/	Tokyo Gas Group Compass Action
/04/	Japan Gas Association Carbon Neutral Challenge 2050
/05/	Ministry of Economy, Trade and Industry (METI) Technology roadmap for the gas sector on "Transition Finance".
/06/	Green growth strategy with carbon neutrality in 2050
/07/	Basic Energy Plan (October 2021)
/08/	Tokyo Gas Integrated Report 2021
/09/	Tokyo Gas Group Sustainability Report 2021
/10/	Tokyo Gas Group Medium-Term Management Plan
/11/	Tokyo Gas Project List & CO <sub>2</sub> Reduction Results
/12/	Tokyo Gas Accounting Management Regulations
/13/	Tokyo Gas Document Management Regulations
/14/	Tokyo Gas Project Evaluation and Selection Process
/15/	Tokyo Gas Procurement Fund Management Chart (Management Flow & Management Sheet)
/16/	Project Related Information - Niihama LNG Project (New LNG Terminal)
/17/	Project related information - Smart Energy Network
/18/	Project Related Information - Harumi Hydrogen Project (New Hydrogen Station, Hydrogen Pipeline)
/19/	Amendment Shelf Registration Statement