



SECOND PARTY OPINION

The Government of Japan

Climate Transition Bond Framework

June 2025 Revision

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Contents

Executive Summary	4
I. Introduction	17
II. Scope and Objectives	22
III. Responsibilities of the Issuer and DNV	23
IV. Basis of DNV's Opinion	24
V. Work Undertaken	26
VI. Findings and DNV's Opinion	27
VII. Assessment Conclusion	73
Schedule-1 Climate Transition Bond Eligibility Criteria and Representative Nominated Use of Proceeds (Eligible Projects)	75
Schedule-2 Climate Transition Finance Eligibility Assessment Protocol	77
Schedule-3 Green Bonds Principles (for Climate Transition Bonds with Use of Proceeds) Eligibility Assessment Protocol	87
Schedule-4 Basic Guidelines on Climate Transition Finance Eligibility Assessment Protocol	94
Schedule-5 Green Bond Guidelines (Transition Bonds with Specific Use of Proceeds) Eligibility Assessment Protocol	128
Appendix-1 List of Reference Materials	146

Revision history

Revision number	Date of Issue	Remarks
0	7 November 2023	Initial
1	3 July 2025	<p>In conjunction with the update of the Climate Transition Bond Framework (hereinafter, the "Framework"), the Second Party Opinion (hereinafter, the "SPO") has been revised and updated as Revision-1.</p> <p>The main updates to the SPO are as follows.</p> <ul style="list-style-type: none"> - Update of applicable standards: Updated to the 2025 Edition of the Basic Guidelines on Climate Transition Finance (Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment) and the Green Bond Guidelines 2024 (Ministry of the Environment) - Addition of greenhouse gas reduction targets: Revised the Plan for Global Warming Countermeasures, added GHG reduction targets for 2035 and 2040 in conjunction with the formulation and cabinet approval of the 7th Strategic Energy Plan and the GX 2040 Vision - Addition of eligibility criteria and use of proceeds (eligible projects): Added new projects as required based on the progress of each project

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.

¹ DNV Code of Conduct is available from DNV website (www.DNV.com)

Executive Summary

Environmental initiatives of the Government of Japan:

The Government of Japan regards the actions against climate change, which includes extreme weather on a global scale and increasing large-scale natural disasters, as a challenge common to all humankind and announced in April 2021 an ambitious target consistent with carbon neutrality^{*1} by 2050 to reduce GHG emissions by 46% in FY2030 (compared to FY2013) and to take up the challenge of achieving a further 50% reduction, which was determined as Japan's NDC (Nationally Determined Contribution) in October 2021.

Furthermore, the Government of Japan updated the framework described below in June 2025, revised the Plan for Global Warming Countermeasures and added GHG reduction targets for 2035 and 2040 as shown in the table below, in conjunction with the formulation and cabinet approval of the 7th Strategic Energy Plan and the GX 2040 Vision.

^{*1} This means subtracting the “absorptions”^{*} of CO₂ and other greenhouse gases through afforestation, forest management, etc. from the “emissions”^{*} to bring the total to virtually zero. ^{*}Artificial amount (from the Ministry of the Environment's Decarbonization Portal)

Target year	GHG reduction targets (compared to FY2013)	Remarks
FY2030	46% reduction (challenge to achieve further 50% reduction)	Conventional target
FY2035	60% reduction	Added
FY2040	73% reduction	Added
Carbon neutrality by 2050		Conventional target

The Government of Japan has positioned its actions against climate change as Green Transformation (hereinafter, “GX”), a shift in industrial and social structures from dependence on fossil energy since the Industrial Revolution to a focus on clean energy. The Government and private sector are now cooperating to achieve decarbonization. In particular, the Government of Japan is working towards an early transition to a decarbonized society by supporting investments that lead to decarbonization in the power generation, industrial, transport and household sectors.

Issuance of Climate Transition Bond:

In pursuing these environmental initiatives, the Government of Japan (hereinafter, the “Issuer”), as the issuer of the Green Transformation Economy Transition Bond and the Climate Transition Bond (hereinafter, the “GX Economy Transition Bonds” or “Climate Transition Bond”), intends to create new demand and market in the decarbonization sector, including stable supplies of clean energy by making maximum use of decarbonization- related technologies in Japan, in order to strengthen Japan's industrial competitiveness and achieve economic growth.

The Issuer has been working with international sustainable finance initiatives. Specifically,



the Issuer has developed and updated various guidelines (e.g., Green Bond Guidelines, Basic Guidelines on Climate Transition Finance) and provided various types of support to develop sustainable finance in Japan, utilizing international sustainable finance principles, etc. As a result, the private sector's initiatives in sustainable finance are steadily expanding, and the desired outcomes are being achieved.

The Issuer issued the first Climate Transition Bond in February 2024 and plans to issue continuously in order to promote initiatives to meet the international commitments described above. The proceeds from the Climate Transition Bond are planned to be used mainly for the private sector's projects related to new technologies and businesses that will lead to innovations contributing to decarbonization. The Issuer has established the Climate Transition Bond Framework (hereinafter, the "Framework") in November 2023 to ensure that the Climate Transition Bond is issued in a manner consistent with internationally recognized principles and guidelines. This time, the Issuer updated the Framework in June 2025 and added new projects as required based on the progress of each project, along with new mid-term goals.

External review by an independent evaluation body:

DNV Business Assurance Japan K.K. (hereinafter, "DNV") assessed the eligibility of the Framework as an independent third-party evaluation body to provide an external review recommended in the following principles and guidelines. The relevant books recommended to be referenced in each framework were cited as appropriate to provide the eligibility assessment.

- Climate Transition Finance Handbook (CTFH), International Capital Market Association (ICMA), 2023
- Basic Guidelines on Climate Transition Finance (CTFBG), Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2025
- Green Bond Principles (GBP), International Capital Market Association (ICMA), 2021
- Green Bond Guidelines (GBGL), Ministry of the Environment, 2024

A summary of the eligibility assessment against the common elements set out in the above principles and guidelines, etc., is presented below separately for CTF (CTFH/CTFBG) and GBP (GBP/GBGL Transition Bonds with use of proceeds).

<CTF eligibility assessment results>

DNV has identified the following based on the materials and information provided by the Issuer. CTF-1 to CTF-4 below are the findings and DNV's opinion on the four common elements of CTFH and CTFBG (disclosure elements) required by the Issuer's transition strategy etc.

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

Climate Transition Strategy:

The Issuer's Climate Transition Strategy (hereinafter, the "Transition Strategy") is consistent with the Paris Agreement^{*2}, which sets a long-term goal of carbon neutrality by 2050 and mid-term goals of 1) 46% reduction in GHG emissions by FY2030 (compared to FY2013), 2) 60% reduction by FY2035, and 3) 73% reduction by FY2040, and is scientifically based. Each mid-term goal is set with FY2013 as the base year and 2050 as a linearly interpolated carbon-neutral trajectory.

The Transition Strategy has been established and updated based on the revisions etc. of the Plan for Global Warming Countermeasures^{*3} updated in February 2025, Japan's NDC (Nationally Determined Contribution)^{*4}, the Strategic Energy Plan^{*5} and the long-term strategy as a growth strategy based on the Paris Agreement^{*6}, etc. and has specific actions to realize the above-mentioned long-term and mid-term goals. In addition, the Sector-Specific Investment Strategies^{*7} were updated in December 2024 and the GX 2040 Vision^{*8} was formulated in February 2025, and outlined a longer-term direction for 2030 and beyond to enhance the predictability of investments towards GX. The fact that the direction for 2030 and beyond is outlined, which was recommended in the SPO for the previous Framework, is evaluated as progress in addressing the disclosure elements required by the CTFH. These initiatives contribute to the SDGs^{*9} and a Just Transition^{*10}.

In addition, the Government of Japan has committed to contributing to and promoting the decarbonization of not only Japan but also Asia and the rest of the world in its GX 2040 Vision. Amid growing global demand for transition finance, promoting transition in collaboration with various stakeholders is also valued from the perspective of building the technology and financial value chains necessary for implementing transition strategies.

Governance:

The above plans and strategies, which form the basis for strategy implementation, will be updated annually or through regular follow-up and revision. In particular, in the event of major changes to the Plan for Global Warming Countermeasures, which is part of the fundamental elements of the strategy, or to the Strategic Energy Plan, the Transition Strategy and initiatives for its realization will be reviewed based on discussions between the GX Implementation Council chaired by the Prime Minister, relevant ministers, and experts, etc.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-1 that it "should be directed towards achieving a GHG reduction strategy in line with the goals of the Paris Agreement."

^{*2} New international framework for GHG emission reduction etc. since 2020, adopted at the 2015 United Nations Climate Change Conference (COP21) and entered into force in 2016, replacing the Kyoto Protocol; https://www.mofa.go.jp/mofaj/ic/ch/page1w_000119.html

- *3 Government's comprehensive plan based on the Act on Promotion of Global Warming Countermeasures;
<https://www.env.go.jp/earth/ondanka/domestic.html>
- *4 GHG emission reduction targets set by each country under the Paris Agreement, which must be submitted and updated every five years; <https://www.env.go.jp/earth/ondanka/ndc.html>
- *5 Formulated by the Government in accordance with the Basic Act on Energy Policy to set the basic direction of energy policy; <https://www.enecho.meti.go.jp/category/others/index.html>
- *6 The strategy is developed by the Government as a long-term low emission development strategy based on the provisions of the Paris Agreement (Article 4.19) and presents the basic approach, vision, etc. towards carbon neutrality in 2050; <https://www.env.go.jp/earth/ondanka/keikaku/chokisenryaku.html>
- *7 "Sector-Specific Investment Strategies" as Effort for Specifying Investment Promotion Measures for the Realization of GX; https://www.meti.go.jp/english/press/2024/1227_001.html
- *8 Revision of GX 2040 Vision *"Strategy for Promoting the Transition to a Decarbonized Growth Economy" (GX Promotion Strategy); <https://www.meti.go.jp/press/2024/02/20250218004/20250218004.html>
- *9 Sustainable Development Goals (SDGs) is an international goal consisting of 17 goals and 169 targets to be achieved by 2030, when a pledge was made to "leave no one behind" on the planet;
<https://www.mofa.go.jp/mofaj/gaiko/oda/sdgs/about/index.html>
- *10 As defined by ICMA, "Just Transition" aims to ensure that the substantial benefits of the transition to a green economy are widely shared, while supporting those who stand to suffer economic disadvantages (including countries, regions, industries, communities, workers and consumers). The concept is tied to the United Nation's SDGs; https://www.fsa.go.jp/news/r2/singi/20210507_2/03.pdf

CTF-2. Business Model Environmental Materiality:

Environmental materiality:

The Issuer recognizes that the manufacturing sector accounts for approximately 20% of Japan's GDP and is a key sector of the economy, that Japan's energy self-sufficiency rate is 13.3% (FY2021) and the country is still dependent on energy resources from overseas, though it has gradually increased (recovered) since the Great East Japan Earthquake and reached 15.2% in FY2023, and that changes in the international energy situation since 2022 is making energy security challenges in business activities and people's lives more apparent.

In this context, DNV believes that the GX can be positioned as an important industrial and energy policy, which is environmental materiality, to shift the industrial and social structure to focus on clean energy, making maximum use of decarbonization-related technologies owned by Japanese companies, in order to achieve a stable energy supply, promote decarbonization and economic growth.

Scenario considerations:

In advancing the GX, the Issuer classifies the sectors mainly related to GHG^{*11} emissions into "energy supply side (energy conversion sectors such as power generation)" and "energy demand side (household and industrial sectors)." The Issuer has further developed GHG (CO₂) emission reduction image etc. for major emission sectors (11 sectors in total, including power generation, industrial and transport sectors) by making the roadmap for the promotion of transition finance^{*12} consistent with various governmental measures and scenarios (e.g., IEA^{*13}, IPCC^{*14}, SBTi^{*15}).

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-2 that "the transition strategy should relate to the environmentally material aspects of the issuer's business model and take into account several future scenarios that could influence the decision on current materiality."

*11 GHG: Green House Gas

*12 A specific direction of transition towards achieving carbon neutrality in 2050 for GHG and other emitting industries, developed by the Ministry of Economy, Trade and Industry;
https://www.meti.go.jp/english/policy/energy_environment/transition_finance/index.html

*13 The International Energy Agency (IEA) was established in 1974 as an autonomous agency within the OECD;
<https://www.iea.org/>

*14 IPCC: Intergovernmental Panel on Climate Change; <https://www.ipcc.ch/>

*15 SBTi: Science Based Targets initiative

CTF-3. Climate Transition Strategy to be Science-based Including Targets and Pathways:

Science-based strategies, targets, and pathways:

The Issuer's Transition Strategy is defined by scientifically-based CO₂ reduction targets and pathways consistent with the Paris Agreement. Specifically, the Issuer has set targets and pathways based on the strategies and plans described in CTF-1, and index and quantify mid-term (FY2030, FY2035, and FY2040) and long-term (FY2050) goals for (total) GHG emission reduction in Japan, together with the base year (FY2013).

In particular, the means to achieve the mid-term (FY2030 and FY2040) goals are published for each industrial sector in the global warming countermeasures. These targets, pathways and means of achieving the targets have been discussed through a number of meetings consisting of experts and academics, and the results have been disclosed in detail in official documentation and information.

In addition, the Government is also working on a strategy to invest more than JPY 150 trillion to achieve the GX targets by incentivizing GX promotion through the future introduction of carbon pricing^{*16} and through blended finance that combines public and private investments, including the GX Economy Transition Bonds.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-3 that "the issuer's transition strategy should be based on science-based targets and pathways towards transition."

^{*16} A policy instrument putting a price on carbon in order to change the behavior of emitters. Broadly speaking, there are five typologies: carbon taxes, domestic emissions trading, credit trading, market mechanisms by international organizations and internal carbon pricing; <https://www.env.go.jp/earth/ondanka/cp/index.html>

CTF-4. Implementation Transparency:

Investment plan:

The Issuer discloses the basic investment program for the implementation of the Transition Strategy. Specifically, the investment plan is to provide upfront investment support^{*17} (GX Economy Transition Bonds) in the amount of approximately JPY 20 trillion as government support over the next 10 years in order to lead to an overall public-private investment of over JPY 150 trillion over the same period starting in 2023. The Issuer has issued a total of six Climate Transition Bond in FY2023-2024, worth approximately JPY 3 trillion.

The main investment destinations of the Climate Transition Bond are the “promotion of non-fossil energy (JPY 6-8 trillion),” “industrial restructuring and radical energy conservation in a combination of supply and demand (approximately JPY 9-12 trillion),” and “resource recycling and carbon fixation technologies (approximately JPY 2-4 trillion).” These investment programs are disclosed in the Framework, the “Basic Policy for the Realization of GX,” etc. as necessary information for dialogue with the market.

The investment destinations of the GX Economy Transition Bonds (approximately JPY 20 trillion) include capitals for subsidies, investments, debt guarantees, tax credits, etc. according to the business risk (technical risk, market risk, etc.) of each field/technology from research and development to social implementation for green projects classified mainly under the GBP/GBGL (e.g., renewable energy sector, energy conservation (energy efficiency) sector and activities that should be undertaken at present for future carbon neutrality (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power). In addition, these supports may include not only capital expenditures (CapEx) but also operating expenses (OpEx).

Just transition, mitigation of negative impact, avoidance of lock-in:

The Issuer plans to ensure that Just Transition, mitigation of negative impacts^{*18} and avoidances of lock-in^{*19} are in place in the “Basic Policy for the Realization of GX” and the selection process of investment destinations (eligible projects). Specifically, the policy for Just Transition is set out in the “Basic Policy for the Realization of GX” as “Promoting GX for entire society (section 5).” In addition, with regard to mitigation of negative impacts and avoidance of lock-in, it is to be confirmed in the selection process of investment destinations (eligible projects) that they do not fall under the pre-defined exclusion criteria and that they are consistent with the GHG reduction roadmap.

In addition, as part of those initiatives to ensure a just transition under the GX 2040 Vision, the Issuer will continue to address various impacts arising from industrial restructuring accompanying the promotion of GX.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-4 that “the dialogue with the market on the provision of green, sustainability and sustainability-linked finance intended to finance the issuer's transition strategy should, as far as possible, also have transparency with regard to the investment program including capital and operating costs.”

^{*17} This is the very positioning of the “GX Economy Transition Bonds,” which are designed to boost private investments in order to realize GX investments over JPY 150 trillion in a coordinated public-private partnership.

- *18 Adverse environmental and social impacts associated with the implementation of eligible projects (e.g., adverse impacts on the surrounding area, such as noise and vibration associated with construction, adverse impacts on ecosystems due to land modification, changes in marine ecosystems)
- *19 Lock-in refers to carbon lock-in, a measure that avoids the continuation of systems that use large amounts of fossil fuels or delay or hinder the transition to alternative energy sources that lead to low-carbon and decarbonization; https://www.smfg.co.jp/sustainability/materiality/environment/business/pdf/tfp_j.pdf

<GBP eligibility assessment results (transition bonds with use of proceeds)>

DNV has identified the following based on the materials and information provided by the Issuer. GBP-1 to GBP-4 below are the findings and DNV's opinion on the four elements (including GBGL) required to properly manage transition bonds with use of proceeds.

GBP-1. Use of Proceeds:

The Issuer classifies the use of proceeds into eligibility criteria and defines projects that directly or indirectly contribute to the realization of the Transition Strategy and targets as eligible projects. Specifically, the eligibility criteria are categorized as shown in Table-1 and the proceeds are allocated to the support required for these economic activities as a new expenditure, such as capital investment and research and development expenditures required for the implementation of eligible projects, or refinance^{*20} to existing expenditure. DNV, through its assessment of the Issuer, has confirmed that eligible projects based on these eligibility criteria are consistent with the elements of CTF-1 to CTF-4. Eligible projects are assessed by the Issuer to have clear environmental benefits on the Issuer's Transition Strategy and are expected to make a direct or indirect contribution to the SDGs.

Eligible projects include green projects classified mainly under the GBP (e.g., renewable energy sector, energy conservation (energy efficiency) sector) and activities that should be undertaken at present for future carbon neutrality (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power).

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-1 that "the issuer must use the proceeds for eligible projects that provide clear environmental benefits^{*21}."

*20 Refers to the reforming or refinancing of loans. In the event of allocating to refinancing, it is recommended to indicate the period covered by the eligible project (look-back period).

*21 Proceeds from transition bonds are also allowed to be allocated to related projects necessary to realize Just Transition and the transition strategy.

Table-1 Climate Transition Bond Eligibility criteria classification

Categories (GBP classification)		Sub-categories Eligibility Criteria	
1	Energy efficiency	Promotion of thorough energy efficiency improvement	<ul style="list-style-type: none"> - Houses and buildings - Restructuring the manufacturing industry (fuel and feedstocks transition) - Digital investment aimed at decarbonization
		- Battery industry	
2	Renewable energy	<ul style="list-style-type: none"> - Making renewable energy a major power source - Infrastructure 	
3	Low-carbon and decarbonized energy *Category set out in the Issuer's Climate Transition Bond	<ul style="list-style-type: none"> - Utilization of nuclear power - Establishing electricity and gas markets to achieve carbon neutrality 	
4	Clean transportation	<ul style="list-style-type: none"> - Clean transportation (GX in transport sector) - Infrastructure 	
5	Circular economy adapted products, production technologies and processes	<ul style="list-style-type: none"> - Restructuring the manufacturing sector (fuel and feedstocks transition) - Facilitating introduction of hydrogen and ammonia - Carbon Recycling and CCS 	
6	Environmentally sustainable management of living natural resources and land use, Circular economy	<ul style="list-style-type: none"> - Food, agriculture, forestry, and fisheries - Resource circulation 	

GBP-2. Process for Project Evaluation and Selection:

The Issuer will ensure that the project meets the GBP-1 eligibility criteria and the criteria required for eligible projects and has clear environmental benefits at present or in the timeline required by the roadmap, as well as that negative environmental and social impacts have been or will be appropriately considered (including necessary procedures in the area where the project is to be implemented).

Specifically, eligible projects to which the proceeds will be allocated will be confirmed by the "Intergovernmental Committee on the Issuance of GX Economy Transition Bonds"^{*22}, "consisting of Director-Generals, to be consistent with the "GX Promotion Strategy" and conform to the selection criteria set out for each eligibility criterion shown in GBP-1. The eligibility of projects is assessed and selected through discussions with relevant ministries and agencies as necessary, and finally reported to the "GX Implementation Council," chaired by the Prime Minister.

Specifically, eligible projects to which the proceeds will be allocated will be confirmed by ministries in charge of the projects to be consistent with the "GX Promotion Strategy" and conform to the selection criteria set out for each eligibility criterion shown in GBP-1. Eligible projects are confirmed again through discussions with the "Intergovernmental Committee on the Issuance of GX Economy Transition Bonds," consisting of Director-Generals, and relevant ministries and agencies as necessary, and finally reported to the "GX Implementation Council," chaired by the Prime Minister.

With regard to the negative impacts of projects, DNV has confirmed that the impact on the relevant supply chain, including Just Transition, mitigation of negative impacts (e.g., actions through environmental impact assessments) and avoidance of lock-in, as shown in CTF-4, will be considered before the selection of eligible projects as well as at the implementation stage of eligible projects.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-2 that "the issuer must outline the process for determining the eligibility of the project and outline how the project considers its impact on the targets."

^{*22} Members of the Intergovernmental Committee on the Issuance of GX Economy Transition Bonds: The Cabinet Secretariat, the Financial Services Agency, the Ministry of Finance, the Ministry of Economy, Trade and Industry and the Ministry of the Environment

GBP-3. Management of Proceeds:

Management of allocation of proceeds:

The Issuer has specified the Ministry of Economy, Trade and Industry (METI) to be responsible for the allocation and management of proceeds using an internal management system. The proceeds of the Climate Transition Bond will be received in the Energy Supply and Demand Account^{*23} of the Special Account for Energy Measures^{*24} and will be managed separately from other accounts. In addition, the proceeds can be tracked and managed on an eligible project basis as “Costs of measures to promote a smooth transition to a decarbonized growth economy structure.”

Management of unallocated proceeds:

Until the proceeds are allocated to eligible projects, unallocated proceeds will be managed as cash and will not be used for other temporary investments (e.g., green investments).

The Issuer will be subject to annual inspections by the Board of Audit of Japan of its proceeds management results. During the inspections by the Board of Audit of Japan, the climate transition bond-specific management process required under GBP-3 will also be inspected.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-3 that “the issuer must track and manage the proceeds (and, where necessary, establish and manage under appropriately classified portfolio units) and disclose how unallocated proceeds are treated.”

^{*23} Special account established in 2007 under the Act on Promotion of Administrative Reform for Realization of Small and Efficient Government to integrate the Special Account for Measures to Upgrade the Petroleum and Energy Supply and Demand Structure and the Special Account for Measures to Promote Power Source Development, and to clarify the accounting for energy measures;
https://www.mof.go.jp/policy/budget/topics/special_account/fy2022/2022-kakuron-6.pdf

^{*24} An account to succeed the operations that were carried out in the special account for measures to improve the oil and energy supply and demand structure.

GBP-4. Reporting:

Allocation status reporting:

The Issuer will report on the allocation status of proceeds on an annual basis on the Government's website, at least until the full amount of proceeds has been allocated. Allocation status reporting will be on an eligible project/eligibility criteria basis and will include the following items in consideration of confidential obligations.

- Allocated amount and unallocated balance
- Estimated amount of the proceeds allocated in the fiscal year prior to the issuance

Impact reporting (environmental benefits reporting):

The Issuer will, at least until the full amount of proceeds has been allocated, report on a project-by-project or eligibility criteria basis on key environmental benefit items (direct and expected benefits) and progress status of projects on an annual basis on the Government's website, taking into account confidential obligations and the extent practicable.

In the event of a significant change in circumstances in eligible projects (e.g., significant process changes, suspension/discontinuation, changes in specifications that have a significant impact on the environmental benefits) during the redemption period of the bond after allocations have commenced, the Issuer will disclose it in a timely manner or through reporting.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-4 that "the issuer shall, at least, report to bond investors regarding the allocation status of proceeds and quantitative or qualitative performance (environmental benefits) of eligible projects."

The 2023 Climate Transition Bond reporting (Allocation Reporting) is available in Japanese and English on the Ministry of Finance website below.

<https://www.mof.go.jp/jgbs/topics/JapanClimateTransitionBonds/index.html>

DNV has confirmed through an assessment based on relevant documentation and information provided by the Issuer through the Framework established by the Issuer and assessments, etc. that the Framework meets the material issues required by the relevant standards, CTFH/CTFBG and GBP/GBGL.

I. Introduction

i. Challenges and initiatives against climate change in Japan

Japan, being surrounded by the sea on all sides, has geographical constraints and land-use restrictions, and has been developing and introducing various energy-saving technologies and low-carbon and decarbonized energy sources to tackle the challenges of ensuring low-cost and safe energy supply for people's lives and ensuring productivity in economic activities, as well as decarbonizing energy. The major energy infrastructures, including electricity and gas, that cover throughout Japan have achieved a highly efficient and reliable energy system.

However, Japan is also facing the emergence of energy supply risks from conventional energy systems due to various natural disasters, such as typhoons and heavy rains, which are believed to be caused by climate change, which is said to have a tendency to become more severe and frequent in recent years. There is a growing international consensus on the importance of controlling the increase in CO₂ and other greenhouse gases generated by the use of fossil resources and avoiding negative impacts on climate change.

The Government of Japan has been leading the international society on environmental issues such as climate change, including the adoption of the Kyoto Protocol in 1997. In FY2021, the Government made an international commitment to "achieve carbon neutrality by 2050 (reducing GHG emissions by 46% in FY2030 (compared to FY2013) and taking up the challenge of achieving a further 50% reduction as well as carbon neutrality by 2050)" as an initiative consistent with the Paris Agreement. In February 2025, GHG reduction targets for FY2035 and FY2040 were added as shown in the table below.

Table: GHG reduction targets of the Government of Japan

Target year	GHG reduction targets (compared to FY2013)	Remarks
FY2030	46% reduction (challenge to achieve further 50% reduction)	Conventional target
FY2035	60% reduction	Added (February 2025)
FY2040	73% reduction	Added (February 2025)
Carbon neutrality by 2050		Conventional target

The Government of Japan is working to achieve decarbonization as well as industrial competitiveness and economic growth by transforming Japan's energy system (from fossil energy to clean energy) and industrial and social structures through the Green Transformation (GX) as an action against climate change by fulfilling its international commitments.

ii. GX (Green Transformation) initiatives

In July 2022, the Government of Japan held the GX Implementation Council to discuss necessary measures to implement the transformation of the entire economic and social system, or GX (Green Transformation), by shifting the fossil fuel-oriented economy, society, and industrial structure since the Industrial Revolution to a clean energy-oriented structure. In this context, the Government plans to support investments leading to decarbonization in the power generation, industrial, transport and household sectors, and to work towards an early transition to a decarbonized society, with particular priority given to initiatives that make sectors with high GHG emissions more effective and efficient, and that contribute to strengthening industrial competitiveness and economic growth.

In addition, in February 2023, the Government of Japan formulated the “Basic Policy for the Realization of GX (A roadmap for the next 10 years)”^{*25}, Reference Figure-1 to work on the following five items.

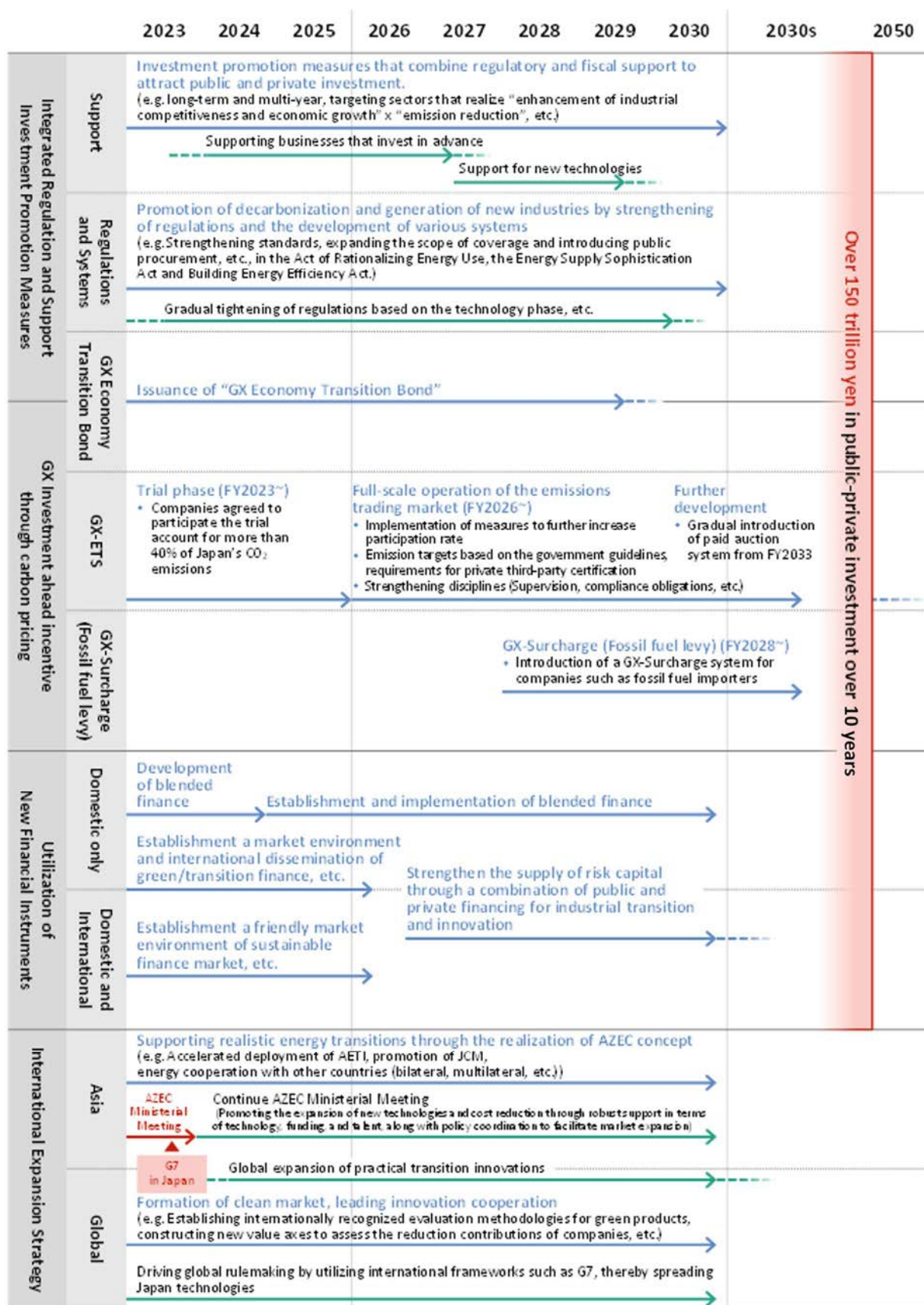
The Basic Policy for the Realization of GX includes a comprehensive set of concepts that form the basis of the Framework in the next section.

The GX 2040 Vision was formulated in February 2025 and outlined a longer-term direction to enhance the predictability of investments towards GX.

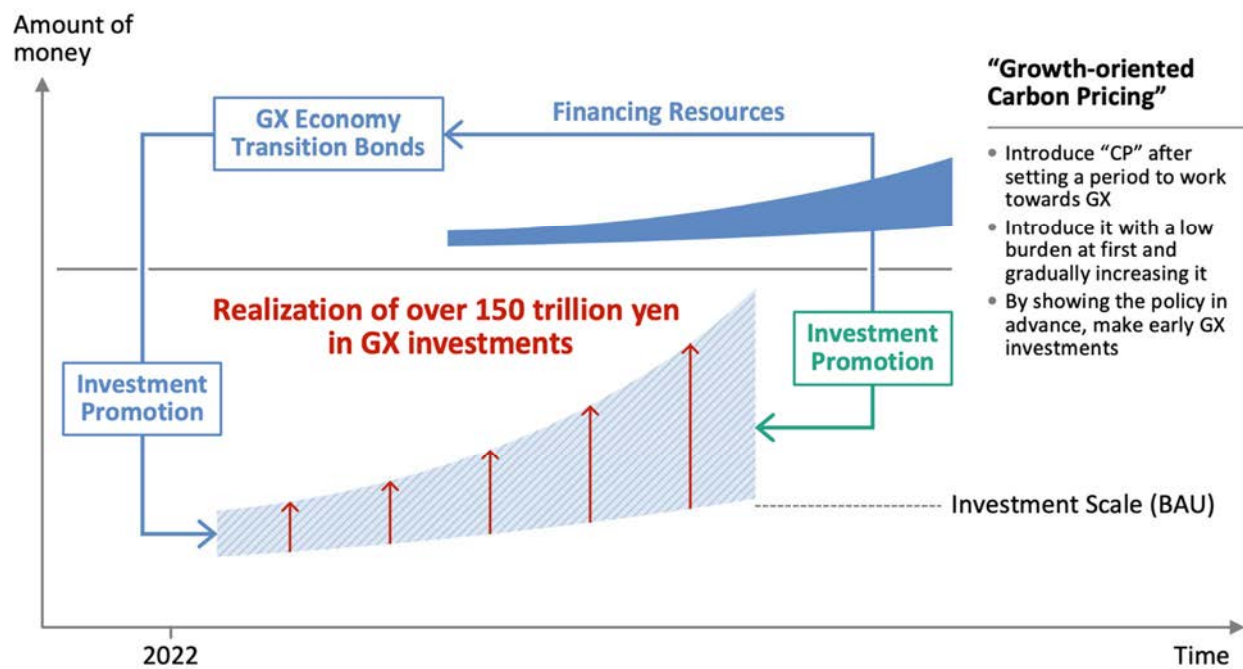
^{*25} The basic policy to simultaneously achieve decarbonization, stable energy supply and economic growth through GX, formulated through discussions at the GX Implementation Council chaired by the Prime Minister and at councils in various ministries; https://www.meti.go.jp/english/press/2023/pdf/0210_003a-2.pdf

<The Basic Policy for the Realization of GX Main items>

1. Decarbonization initiatives towards GX based on the premise of ensuring a stable energy supply
2. Realizing and implementing Pro-Growth Carbon Pricing Concept^{*Reference Figure-2}
3. Strategy for global actions
4. Promoting GX for entire society
5. Evaluating and reviewing the status of progress in the implementation of new policy initiatives for realizing GX



Reference Figure-1 "Overview of the GX Policy Road map"
(quoted from the framework)



Reference Figure-2 Growth-oriented carbon pricing concept

Reference: “About growth-oriented carbon pricing”, Industrial Technology and Environment Bureau, Ministry of Economy, Trade and Industry, 14 Feb 2023

iii. Climate Transition Bond Framework

In implementing the Climate Transition Bond, the Issuer has developed the Framework based on the three concepts and relevant national environmental plans, strategies, etc., and in a manner consistent with international/national principles, guidelines, etc.

The overview of the concept and the Framework's relationship with relevant national environmental plans, strategies, etc. are as shown below.

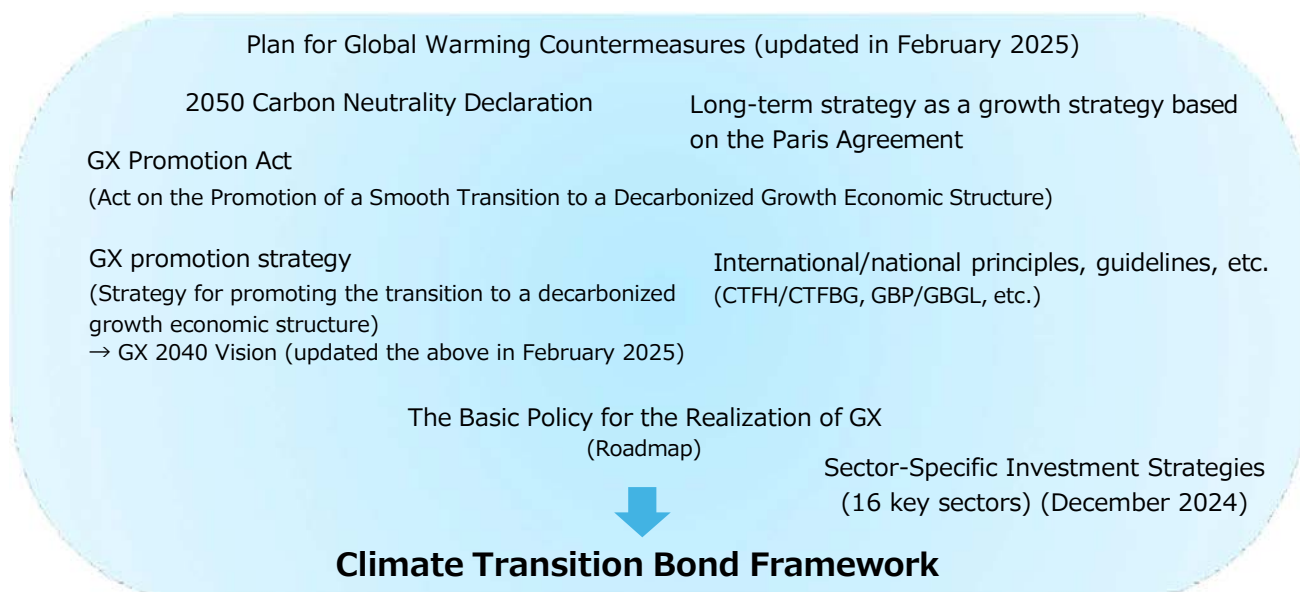
The Issuer aims to realize GX through public-private partnerships by providing approximately JPY 20 trillion in government support to the private sector over the next 10 years since 2023 through the GX Economy Transition Bonds.

The principles, guidelines, etc. to which the Framework specifically refers are described in section II (3) below.

<GX Economy Transition Bonds Three concepts (overview)>

1. Support companies etc. tackling the challenge of decarbonization and beyond, using future carbon pricing (CP) as a reimbursement source.
2. Promote private sector's (business operators and financial institutions) transition finance, with projects that contribute to the transition towards decarbonization as the use of proceeds.
3. Establish measures and mechanisms for decarbonization by discussing with investors and the market through the GX Economy Transition Bonds.

<National environmental plans, strategies, etc. and the Framework>



Issuer Name: The Government of Japan

Framework Name: Climate Transition Bond Framework Revision-1

Review Provider's Name: DNV Business Assurance Japan K.K.

Date of Report: 3 July 2025 (Initial: 7 November 2023)



II. Scope and Objectives

The Issuer has updated the Climate Transition Bond Framework and commissioned DNV to conduct an assessment. The objective of the assessment of DNV is to conduct an assessment to confirm that the Issuer meets the criteria of the CTFH/CTFBG and GBP/GBGL, which will be described later, and to provide a second party opinion on the eligibility of the Framework.

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 the Issuer.

In this paper, no assurance is provided regarding the financial performance of the Climate Transition Bond, the value of any investments, or the long-term environmental benefits of the transaction.

(1) Scope of review

The review assessed the following elements and confirmed their alignment with four core elements in GBP.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

* The scope of review is to be applied as a part of the evaluation of the Climate Transition Bond (transition bond with specific use of proceeds).

* The four disclosure elements of CTFH and CTFBG are included in the scope of review.

(2) Role(s) of review provider

- | | |
|---|--|
| <input checked="" type="checkbox"/> Second Party Opinion | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

(3) Standards to be applied

No.	Standards/Guidelines ^{*1}	Scheme owner
1.	Climate Transition Finance Handbook (CTFH) ^{*2}	International Capital Market Association (ICMA), 2023
2.	Basic Guidelines on Climate Transition Finance (CTFBG) ^{*2}	Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2025
3.	Green Bond Principles (GBP) ^{*3}	International Capital Market Association (ICMA), 2021
4.	Green Bond Guidelines (GBGL) ^{*3}	Ministry of the Environment, 2024

*1 Provide an eligibility assessment, citing relevant books recommended for reference in the principles and guidelines, etc., as appropriate.

*2 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).

*3 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 and edited from CTFBG).



III. Responsibilities of the Issuer and DNV

The 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 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 eligible projects selected or to be selected 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 and used as a basis for this assessment were not correct or complete.

IV. Basis of DNV's Opinion

To provide as much flexibility as possible for the Issuer, DNV has adapted our climate transition bonds assessment methodology, which incorporates the requirements of the CTFH/CTFBG and GBP/GBGL, to create the Issuer-specific Climate Transition Bond Eligibility Assessment Protocol (hereinafter, the "Protocol"). Please refer to Schedule-2 to 5. The Protocol is applicable to climate transition bonds under the CTFH/CTFBG and GBP/GBGL.

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

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

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

"Provide an investment opportunity with transparent sustainability credentials"

As per our Protocol, the criteria against which the Climate Transition Bond has been reviewed are grouped into four common elements (disclosure elements), respectively (1) and (2) below.

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

Principle One: Issuer's Climate Transition Strategy and Governance

The financing purpose should be shown as enabling issuer's climate change strategy.

Principle Two: Business Model Environmental Materiality

The planned climate transition trajectory should be relevant to the environmental materiality of the issuer's business model.

Principle Three: Climate Transition Strategy to be Science-based Including Targets and Pathways

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

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 common elements of GBP/GBGL (common elements as transition bonds with use of proceeds)

Principle One: Use of Proceeds

The Use of Proceeds criteria are guided by the requirement that an issuer of a transition bond must use the proceeds 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 bond should outline the process it follows when determining eligibility of investment destinations (e.g., businesses) using transition bond 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 the proceeds from a transition bond should be tracked by the issuer, that separate portfolios should be created when necessary and that a declaration of how unallocated proceeds will be handled should be made.

Principle Four: Reporting

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

V. Work Undertaken

Our work constituted a high-level 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:

iv. Pre-Issuance Assessment (Climate Transition Bond Framework (March 2025) Assessment)

- Creation of an Issuer-specific Protocol, adapted to the purpose of the Climate Transition Bond, as described above and in Schedule-2 to 5 to this assessment;
- Assessment of documentary evidence provided by the Issuer on the Climate Transition Bond and supplemented assessment by a comprehensive desktop research. These checks refer to current assessment best practice and standards methodologies;
- Discussions with the Issuer, and review of relevant documentation;
- Documentation of findings against each element of the criteria.

v. Post-Issuance Assessment (periodic review) (*not included in this report)

- Interview with the management of the Issuer, 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 below.

From the CTF-1 to CTF-4 in (1) below are the findings and opinions of DNV against the four common elements (disclosure elements) of CTFH and CTFBG including the Issuer's Transition Strategy. Please see Schedule-2 and 4 for details.

From the GBP-1 to GBP-4 in (2) below are the findings and opinions of DNV against the four common elements of GBP/GBGL necessary for the Issuer to manage transition bonds. Please see Schedule-3 and 5 for details.

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

CTF-1. Issuer's Climate Transition Strategy and Governance

Climate Transition Strategy:

- DNV has confirmed that the Issuer's mid-term goal quantified under the Transition Strategy, as well as the long-term goal, are consistent with the Paris Agreement and have a scientific basis.

Specifically, the long-term goal is carbon neutrality in 2050 and the mid-term goals are 1) 46% reduction in GHG emissions by FY2030 (compared to FY2013), 2) 60% reduction by FY2035, and 3) 73% reduction by FY2040. Each mid-term goal is set with FY2013 as the base year and 2050 as a linearly interpolated carbon-neutral trajectory.
- The Issuer's Transition Strategy has specific activities to realize the Transition Strategy by the revisions etc. of the Plan for Global Warming Countermeasures, Japan's NDC (Nationally Determined Contribution updated in February 2025), the Strategic Energy Plan (7th Strategic Energy Plan updated in February 2025), and the long-term strategy as a growth strategy based on the Paris Agreement, etc. established with reference to international scenarios. As a concrete example, the Plan for Global Warming Countermeasures (updated in February 2025) sets out the government's comprehensive plan to achieve the 46% reduction target for FY2030, as shown in Table-2.
- The actual GHG emissions from FY2013 to FY2022 are shown in Figure-1. Compared to the base year (FY2013): 1.407 billion t-CO₂, the FY2022 figure was 1.135 billion t-CO₂ (1.085 billion t-CO₂ after taking into account absorption of ▲0.050 billion t-CO₂), with a reduction rate of ▲22.9% (after taking into account absorption), showing a certain level of progress.

The current status of these GHG emissions and absorptions and measures to be taken are followed up every year for each sector, including energy conversion, industrial, transport, and household sectors, and the plan is approved and promoted by the Global Warming Prevention Headquarters, which is attended by all ministers.
- In 2023, the Issuer formulated the "Basic Policy for the Realization of GX" as a

roadmap for the next 10 years, which integrates the “GX initiatives based on the premise of ensuring a stable energy supply” and the “growth-oriented carbon pricing concept,” and sets out initiatives to strengthen the industrial competitiveness and achieve economic growth in the Japanese economy.

- The “Growth-oriented carbon pricing concept” (previously mentioned, see Reference Figure-2) outlines plans to gradually introduce emissions trading systems and paid auctions starting in FY2026 in accordance with the GX Promotion Act, and to introduce carbon pricing as a fossil fuel levy. (Climate Transition Bonds issued under the Framework are planned to be redeemed through fossil fuel levies and paid auctions.)
- Furthermore, the Issuer created in December 2024 16 priority categories as the “Sector-Specific Investment Strategies” (based on the 22 examples in the previous roadmap) to summarize the direction of GX, investment promotion measures, etc. In addition, the GX 2040 Vision was formulated in February 2025 and outlined a longer-term direction for 2030 and beyond to enhance the predictability of investments towards GX. The fact that the direction for 2030 and beyond is outlined, which was recommended in the SPO for the previous Framework, is evaluated as progress in addressing the disclosure elements required by the CTFH.
- The Government of Japan has committed to contributing to and promoting the decarbonization of not only Japan but also Asia and the rest of the world in its GX 2040 Vision. Amid growing global demand for transition finance, promoting transition in collaboration with various stakeholders is also valued from the perspective of building the technology and financial value chains necessary for implementing transition strategies.
- The Climate Transition Bond executed in accordance with the Issuer’s Transition Strategy contributes directly or indirectly to the SDGs and Just Transition.

In terms of direct or indirect contributions to the SDGs, the Issuer has further classified its decarbonization initiatives towards the GX, which are classified into 14 categories, into the six eligibility criteria shown in Table-3 and organized each area of contribution to the SDGs.

The “Basic Policy for the Realization of GX” also organizes Just Transition as GX promotion for the entire society, as shown in Table-4. The Article 3 of the GX Promotion Act stipulates to “promote close mutual cooperation between the State and business operators as a basic principle, while also taking into account the perspective of Just Transition.”

- The Issuer is committed to minimizing negative environmental and social impacts (negative external effects) that may arise from the implementation of the GX through its contribution to the SDGs and consideration of Just Transition.

Table-2.1 The Government's comprehensive plan based on the Act on
Promotion of Global Warming Countermeasures **FY2030 targets**

(Base year: FY 2013 results; Progress: FY2022 results including reduction rate; Target: FY2030)

Unit: billion t-CO₂

GHG emissions/absorptions (total) (Unit: billion t-CO ₂)			FY2013 results (Base year)	FY2022 results (Progress) Reduction rate: 22.9%	FY2030 (Target)	
					GHG emissions/absorptions	Reduction rate
					<u>1.407</u>	<u>1.135</u>
GHG emissions/absorptions (breakdown)	Energy-derived CO ₂		1.235	0.964	0.677	▲45%
	Breakdown of energy-derived CO ₂	Industry	0.463	0.352	0.289	▲38%
		Business etc.	0.238	0.179	0.115	▲51%
		Household	0.208	0.158	0.071	▲66%
		Transportation	0.224	0.192	0.146	▲35%
		Energy conversion	0.106	0.085	0.056	▲47%
	Non-energy-derived CO ₂ , methane, N ₂ O		0.134	0.120	0.116	▲15%
	Four gases such as HFC (CFCs)		0.037	0.052	0.021	▲44%
	Absorption source (billion t-CO ₂)		-	▲0.050	▲0.048	▲0.037
Bilateral credit system		Aim for a cumulative international emission reduction/absorption of around 0.1 billion t-CO ₂ by FY2030 through public-private partnerships. Appropriately count the credits earned as Japan for the achievement of Japan's NDC.				

Source: MoE Japan's National Greenhouse Gas Emissions and Removals in Fiscal Year 2022 (12 April 2024)

Table-2.2 The Government's comprehensive plan based on the Act on
Promotion of Global Warming Countermeasures **FY2040 targets**

(Base year: FY 2013 results; Progress: FY2022 results including reduction rate; Target: FY2040)

Unit: billion t-CO₂

GHG emissions/absorptions (total) (Unit: billion t-CO ₂)			FY2013 results (Base year)	FY2022 results (Progress) Reduction rate: 22.9%	FY2040 (Target)	
					GHG emissions/absorptions	Reduction rate
					<u>1.407</u>	<u>1.135</u>
GHG emissions/absorptions (breakdown)	Energy-derived CO ₂		1.235	0.964	Approx. 0.360-0.370	▲70-71%
	Breakdown of energy-derived CO ₂	Industry	0.463	0.352	Approx. 0.180-0.200	▲57-61%
		Business etc.	0.238	0.179	Approx. 0.040-0.050	▲79-83%
		Household	0.208	0.158	Approx. 0.040-0.060	▲71-81%
		Transportation	0.224	0.192	Approx. 0.040-0.080	▲64-82%
		Energy conversion	0.106	0.085	Approx. 0.010-0.020	▲81-91%
	Non-energy-derived CO ₂ , methane, N ₂ O		0.134	0.120	Approx. 0.098	▲27%
	Four gases such as HFC (CFCs)		0.037	0.052	Approx. 0.011	▲70%
	Absorption source (billion t-CO ₂)		-	▲0.050	▲0.084	▲0.37
Bilateral credit system		Aim for a cumulative international emission reduction/absorption of around 0.1 billion t-CO ₂ by FY2030 through public-private partnerships. Appropriately count the credits earned as Japan for the achievement of Japan's NDC.				

Source: MoE Japan's National Greenhouse Gas Emissions and Removals in Fiscal Year 2022 (12 April 2024)

GHG emissions and absorptions
(converted to t-CO₂, including absorptions)

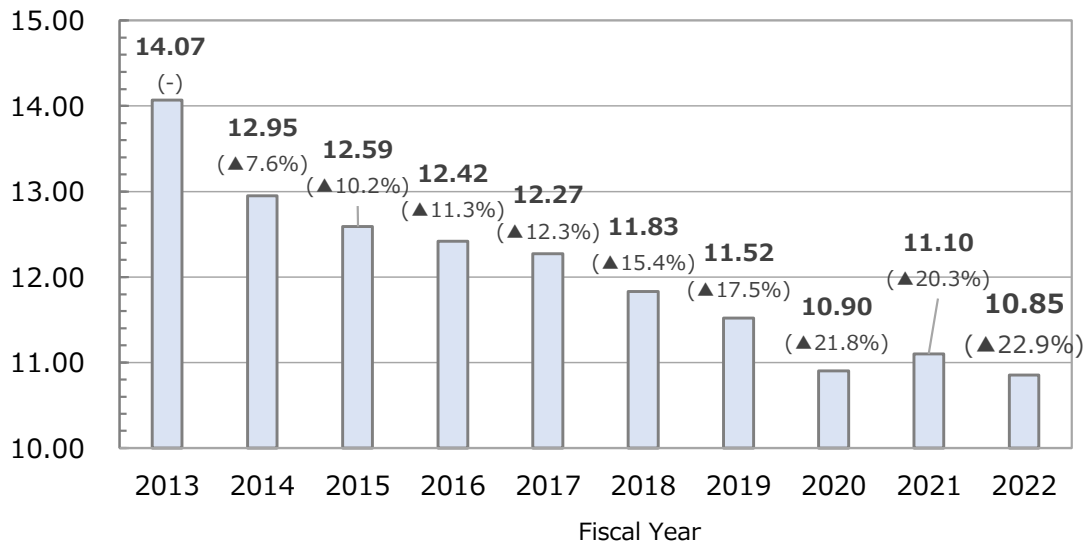










Figure-1 GHG emissions and absorptions (converted to billion t-CO₂)

* In consideration of the absorption amount

FY2013 (base year) - FY2022 (latest figures)

Source: MOE Japan's National Greenhouse Gas Emissions and Removals in Fiscal Year 2022 (12 April 2024)

Table-3 Relationship between the eligibility criteria based on the Transition Strategy and the SDGs*

Eligibility criteria	Energy efficiency	Renewable energy	Low and Decarbonized energy	Clean transportation	Environmentally-friendly products etc.	Biological and natural resources, circular economy, etc.
Representative SDGs items	7, 8, 9, 11, 13	7, 8, 13	7, 8, 9, 13	7, 8, 9, 11, 13	7, 8, 9, 13	8, 9, 11, 12, 13, 14, 15
SDGs items	 7. Affordable and clean energy  8. Decent work and economic growth  9. Industry innovation and infrastructure  11. Sustainable cities and communities				 12. Responsible consumption and production  13. Climate action  14. Life below water  15. Life on land	

* The relationship between the eligibility criteria and the SDGs based on the Transition Strategy is complementary to the Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals published by ICMA, which sets out the Green Bond Principles, and is not directly linked to the financing objectives.

Table-4 Just Transition* (GX promotion in the entire society)

1) Basic concept	In promoting GX, it is important to appropriately promote labor transfer to newly created industries from the perspective of Just Transition. Supporting the smooth labor transfer from fossil fuel-related industries to low-carbon industries will ensure people's lives and employment and contribute to Japan's economic growth. Therefore, necessary support, including human resource development at universities etc., will be provided, while taking into account the actual conditions of each industry.
2) Future actions	The policy package of investment in people of JPY 400 billion over three years is significantly expanded to JPY 1 trillion over five years, taking into account the comprehensive economic measures to overcome high prices and realize economic revival approved by the Cabinet in October 2022. Promote Just Transition by simultaneously facilitating the acquisition of new skills and smooth labor transfer to growth sectors, including green sectors, through support for the facilitation of labor transfer to growth sectors etc. and support for job transfers for career advancement of incumbent workers.

* "Just Transition" is a concept put forward by the International Trade Union Confederation (ITUC) at COP15 in 2009.

Governance:

- The Issuer has established structures and mechanisms to promote the Transition Strategy as a country. The above plans and strategies, which form the basis for the implementation of the Transition Strategy, will be updated as necessary through annual or periodic follow-up and revision.
- The Issuer plans to review the Transition Strategy and the initiatives for its realization and to promote the strategy in the event of major changes to the Plan for Global Warming Countermeasures, which is part of the basis for the strategy implementation, and the Strategic Energy Plan.
- For GX implementation, the GX Implementation Council, chaired by the Prime Minister, has been held since July 2022 to have discussions with relevant ministers and experts to determine the policy direction.

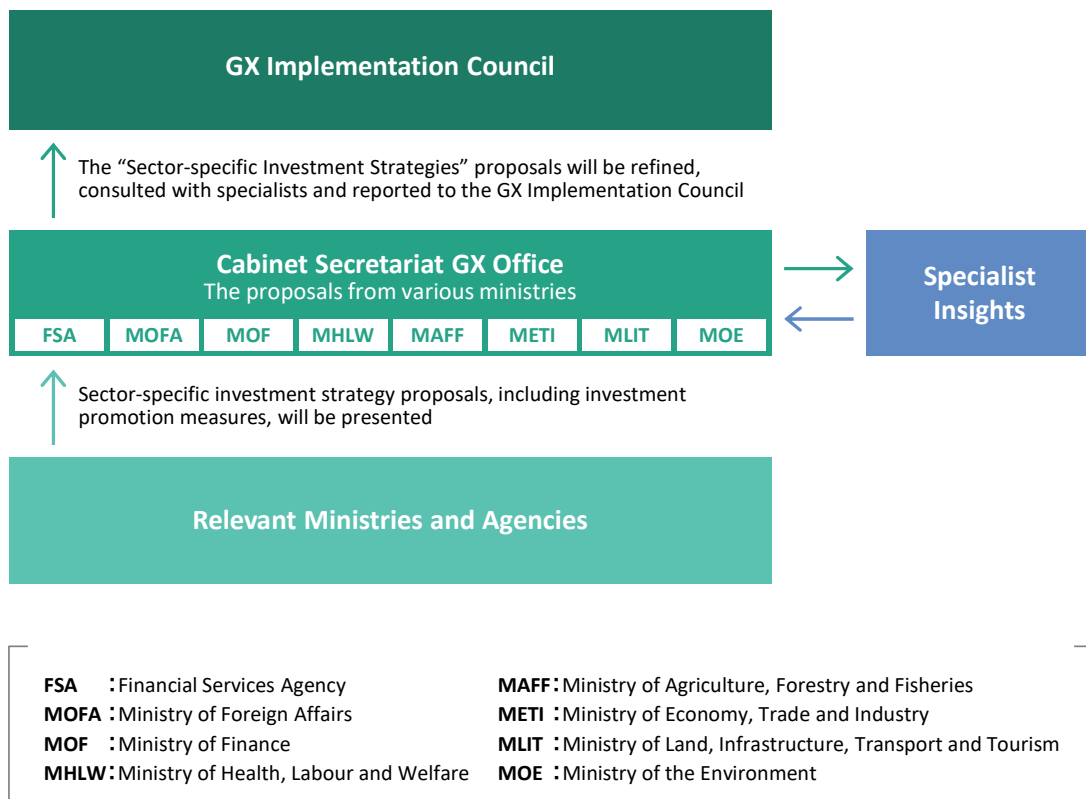


Figure-2 GX Implementation Council

- Based on the assessment of the Transition Strategy based on the Framework and the "Basic Policy for the Realization of GX" developed by the national plans etc., DNV has confirmed that the implementation plan is credible, ambitious and achievable.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-1 that it "should be directed towards achieving a GHG reduction strategy in line with the goals of the Paris Agreement."

CTF-2. Business Model Environmental Materiality

Environmental materiality:

- The Issuer recognizes that the manufacturing sector accounts for approximately 20% of Japan's GDP and is a key sector of the economy, that Japan is dependent on energy resources from overseas, though it has gradually increased (recovered) since the Great East Japan Earthquake and reached 15.2% in FY2023, and that changes in the international energy situation since 2022 is making energy security challenges in business activities and people's lives more apparent.
- In this context, DNV believes that the GX can be positioned as an important industrial and energy policy, which is environmental materiality, to shift the industrial and social structure to focus on clean energy, making maximum use of decarbonization-related technologies owned by Japanese companies, in order to achieve a stable energy supply, promote decarbonization and economic growth.

Scenario considerations:

- In advancing the GX, the Issuer classifies the sectors mainly related to GHG emissions into "energy supply side (energy conversion sectors such as power generation)" and "energy demand side (household and industrial sectors)." The Issuer has further developed GHG (CO₂) emission reduction image etc. for major emission sectors (11 sectors in total, including power generation, industrial and transport sectors) by making the roadmap for the promotion of transition finance consistent with various governmental measures and scenarios (e.g., IEA, IPCC, SBTi).

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-2 that "the transition strategy should relate to the environmentally material aspects of the issuer's business model and take into account several future scenarios that could influence the decision on current materiality."

Table-5 Main categories/types of sectors (eligibility criteria) mainly related to GHG emissions

* Eligibility criteria relevant to several sectors

Category of energy supply and demand	Sector types (GX category)	Eligibility criteria
Energy supply side	Energy conversion sector	<ul style="list-style-type: none"> - Making renewable energy a major power source - Utilization of nuclear power - Facilitating the introduction of hydrogen and ammonia * - Establishing electricity and gas markets to achieve carbon neutrality - Battery industry *
Energy demand side	Household sector	<ul style="list-style-type: none"> - Promotion of thorough energy efficiency improvement* - Restructuring the manufacturing industry (fuel and feedstocks transition) * - Battery industry * - GX in the transport sector * - Digital investment aimed at decarbonization * - Houses and buildings * - Infrastructure
	Industrial sector	<ul style="list-style-type: none"> - Facilitating the introduction of hydrogen and ammonia * - Promotion of thorough energy efficiency improvement* - Restructuring the manufacturing industry (fuel and feedstocks transition) * - Battery industry * - Resource circulation - GX in the transport sector * - Digital investment aimed at decarbonization * - Houses and buildings * - Infrastructure - Carbon Recycling and CCS - Food, agriculture, forestry, and fisheries

Table-6 Roadmap for promoting transition finance

(1) METI	(2) Other sectors
Steel sector	International shipping sector (MLIT)
Chemical sector	Inland shipping sector (MLIT)
Power sector	Aviation sector (MLIT)
Gas sector	
Oil sector	
Pulp and paper sector	
Cement sector	
Automotive sector	

METI: Ministry of Economy, Trade and Industry sector

MLIT: Ministry of Land, Infrastructure, Transport and Tourism

Source: https://www.meti.go.jp/english/policy/energy_environment/transition_finance/index.html

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

Science-based strategies, targets, and pathways:

- The Issuer's Transition Strategy is defined by science based CO₂ reduction targets and pathways consistent with the Paris Agreement.
- Specifically, the Issuer has set targets and pathways based on the strategies and plans described in CTF-1, and index and quantify mid-term (FY2030, FY2035, and FY2040) and long- term (FY2050) goals for (total) GHG emission reduction in Japan, together with the base year (FY2013). In particular, the means to achieve the mid-term (FY2030 and FY2040) goal are published for each industrial sector. These targets, pathways and means of achieving the targets have been discussed through a number of meetings consisting of experts and academics, and the results have been disclosed in detail in official documentation and information.
- In the latest year FY2022, CO₂ emissions (GHG emissions) was 1.085 billion t-CO₂ (reduction rate: ▲22.9%), showing a certain level of progress as planned (see Table-7).

Table-7 Long-term and mid-term CO₂ reduction targets

Fiscal year	Targets	CO ₂ emissions*
2013	Base year	1.407 billion t-CO ₂
2022	CO ₂ emissions: 22.9% reduction (achieved)	1.085 billion t-CO ₂
2030	CO ₂ emissions: 46% reduction (achieved, challenge to achieve further 50% reduction)	0.760 billion t-CO ₂
2035	CO ₂ emissions: 60% reduction	0.570 billion t-CO ₂
2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂
2050	Carbon neutrality	0 billion t-CO ₂

* CO₂ emissions (GHG emissions): Calculated in accordance with IPCC guidelines and includes all coverage areas and gases with the coverage ratio of 100%; CO₂ emissions and absorptions are combined (carbon neutrality refers to zero CO₂ emissions and absorptions combined).

- In addition, the Government is also working on a strategy to invest more than JPY 150 trillion to achieve the GX targets by incentivizing GX promotion through the future introduction of carbon pricing and through blended finance that combines public and private investments, including the GX Economy Transition Bonds.
- DNV highly evaluates that the Issuer is also disclosing the progress to achieve the targets for 2030, 2035, 2040, and 2050, which have a scientific basis as shown in Table-7, and disclosing in the GX 2040 Vision to enhance predictability, as well as conventional disclosure.



Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-3 that “the issuer’s transition strategy should be based on science-based targets and pathways towards transition.”

CTF-4. Implementation Transparency

Investment plan:

- The Issuer discloses the basic investment program for the implementation of the Transition Strategy.
- Specifically, the investment plan is to provide upfront investment support (GX Economy Transition Bonds) in the amount of approximately JPY 20 trillion as government support over the next 10 years in order to lead to an overall public-private investment of over JPY 150 trillion over the same period starting in 2023. The Issuer has issued a total of six Climate Transition Bond in FY2023-2024, worth approximately JPY 3 trillion.
- The main investment destinations of the Climate Transition Bond are the “promotion of non-fossil energy (JPY 6-8 trillion),” “industrial restructuring and radical energy conservation in a combination of supply and demand (approximately JPY 9-12 trillion),” and “resource recycling and carbon fixation technologies (approximately JPY 2-4 trillion).” These investment programs are disclosed in the Framework, the “Basic Policy for the Realization of GX”, etc. as necessary information for dialogue with the market.
- The investment program (investment amount and investment destinations) after the above (from 2033 onwards) until 2050 will be considered in the course of future GX initiatives.
- The investment destinations of the GX Economy Transition Bonds (approximately JPY 20 trillion) include capitals for subsidies, investments, debt guarantees, tax credits, etc. according to the business risk (technical risk, market risk, etc.) of each field/technology from research and development to social implementation for green projects classified mainly under the GBP (e.g., renewable energy sector, energy conservation (energy efficiency) sector and activities that should be undertaken at present for future carbon neutrality (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power). In addition, these supports may include not only capital expenditures (CapEx) but also operating expenses (OpEx).

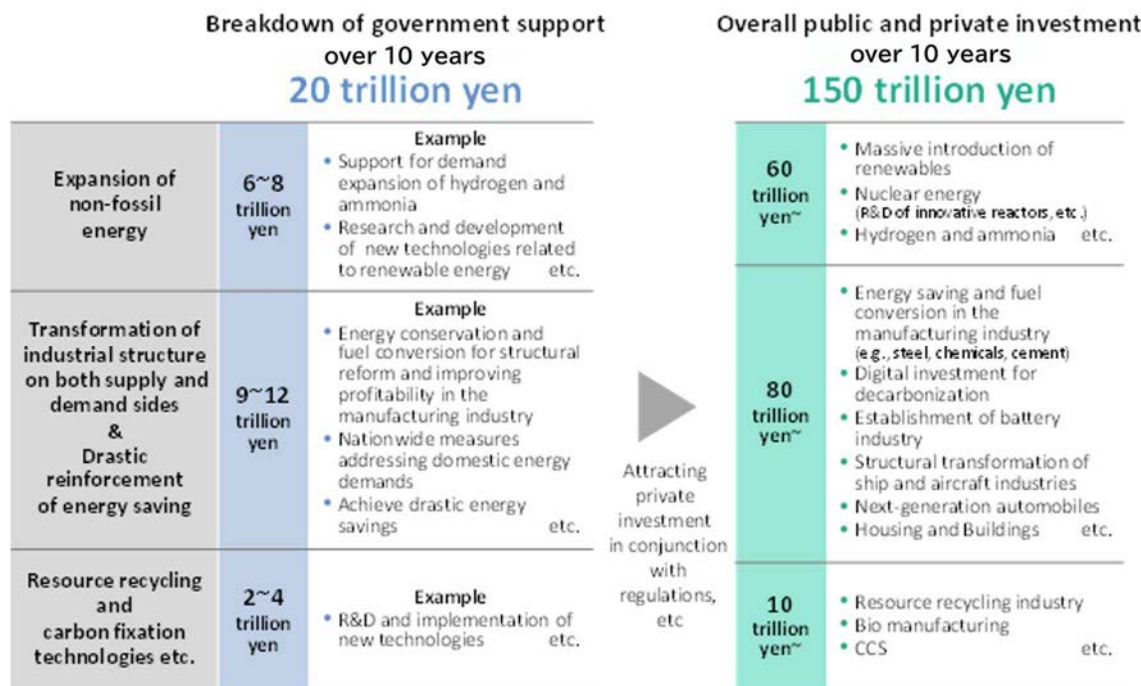


Figure-3 Image of governmental support and overall public-private investments for the 10 years since 2023
(quoted from the framework)

Just Transition, mitigation of negative impact, avoidance of lock-in:

- The Issuer plans to ensure that Just Transition, mitigation of negative impacts and avoidance of lock-in are in place in the “Basic Policy for the Realization of GX” and the selection process of investment destinations (eligible projects).
- Specifically, the policy for Just Transition is set out in the “Basic Policy for the Realization of GX” as “promotion of GX for the entire society (section 5).” In addition, with regard to mitigation of negative impacts and avoidance of lock-in, it is to be confirmed in the selection process of investment destinations (eligible projects) that they do not fall under the pre-defined exclusion criteria and that they are consistent with the GHG reduction roadmap.
- In addition, as part of these initiatives to ensure a just transition under the GX 2040 Vision, the Issuer will continue to address various impacts arising from industrial restructuring accompanying the promotion of GX.

DNV has confirmed through reviews of the Framework and the roadmap that the implementation is the transparent and that the adequacy of the implementation has been explained and agreed by the Issuer.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by CTF-4 that “the dialogue with the market on the provision of green, sustainability and sustainability-linked finance intended to finance the issuer's transition strategy should, as far as possible, also have transparency with regard to the investment program including capital and operating costs.”

Findings and opinions of DNV against the four common elements* of GBP/GBGL

* The four elements are applied as criteria for climate transition bonds that specify the use of proceeds. References to “green” in the description citing GBP should be read as “transition,” where appropriate.

GBP-1. Use of Proceeds

- With regard to the eligibility criteria for the use of proceeds, the Issuer defines projects that meet the elements of the Transition Strategy and the roadmap and related principles, guidelines, etc. as eligible businesses (eligible projects).
- Specifically, the proceeds will be allocated to projects to achieve a long-term goal of carbon neutrality by 2050 and mid-term goals of 1) 46% reduction in GHG emissions by FY2030 (compared to FY2013), 2) 60% reduction by FY2035, and 3) 73% reduction by FY2040, based on the “GX Promotion Strategy.” The proceeds are to be invested in projects that are truly difficult for the private sector alone to make investment decisions and that contribute to emission reductions and the realization of industrial competitiveness and economic growth, and will be prioritized based on the basic approach as shown in Reference Table-1.
- The “basic conditions” (overview) in the selection of the use of proceeds of the GX Economy Transition Bonds are shown in Table-8 and the Green/Transition Finance Eligibility Criteria are shown in Table-5 (reposted).
- In addition, the Issuer plans to prioritize projects of 1) strengthening industrial competitiveness and economic growth and 2) emission reductions out of the above basic conditions that meet one of each of the category A to C and ① to ③ listed below as candidates for support (Reference Table-1).

Table-8 The GX Economy Transition Bonds “Basic conditions” in the selection of the use of proceeds (overview)

Basic conditions (overview)	
I.	Those being truly difficult for the private sector alone to make investment decisions
II.	Those contributing to 1) strengthening industrial competitiveness and economic growth ^{*Reference Table-1} and 2) emission reductions ^{*Reference Table-2} , which are essential for achieving GX
III.	Integrity with regulatory and institutional aspects that change companies’ investments and the behavior of the demand side
IV.	Those leading to increased human and physical investments in the country

Reference Table-1 Priority assessment based on the types in the basic conditions II of Table-8

1) Strengthening industrial competitiveness and economic growth	2) Emission reductions
<p>A. Growth investments with a view to acquiring foreign demand or increasing domestic demand, with technological or business innovation potential or</p> <p>B. Growth investments that contribute to both reducing fossil raw materials and energy and improving agglomeration (e.g., integration, restructuring and mark-ups) utilizing advanced technologies or</p> <p>C. Measures to address domestic demand in the early period of the introduction of key commodities for which a nation-wide market is expected (also involving supply-side investments)</p>	<p>① R&D investments that contribute to future national reductions through technological innovation or</p> <p>② Capital investments etc. that are technically effective in reducing emissions and contribute directly to domestic emission reductions or</p> <p>③ Measures to address domestic demand in the early period of introduction of key commodities with a nation-wide demand and high long-term reduction effects</p>

- Based on the roadmap, the Issuer has defined 14 categories of eligibility criteria based on the GX type. The eligibility criteria have a set of eligible business assessment criteria (internal criteria) in place that are aligned with the GBP classification, the way forward as set out in the roadmap, the Sector-Specific Investment Strategies, etc.
- Eligible projects that are candidates for the use of proceeds are selected based on the eligible business assessment criteria (internal criteria) set out for each eligibility criterion, as well as the basic conditions and priority assessment described above. In each issue of the bond, the Issuer establishes a protocol whereby eligible projects with appropriate allocation needs are selected out of the nominated projects for actual use of the proceeds.
- The GBP classification of the eligible criteria, representative nominated projects and an overview of DNV's opinion (including the Issuer's specific measures and key assessment criteria) are shown in Table-9. DNV has confirmed through its assessment of the Issuer that the representative projects evaluated as nominated use of proceeds meet the eligibility criteria (assessment criteria for eligible projects) and are eligible as use of proceeds of the Climate Transition Bond and that the above protocol established by the Issuer is properly implemented.
- The Issuer has also organized in relation to the policy roadmap to be organized in the reference material of the "Basic Policy for the Realization of GX" for each of the sub-categories of the eligibility criteria, and the roadmap for promoting

transition finance shown in Table-6, where the eligibility criteria and use of proceeds are explained as being closely related to the various initiatives.

- In addition to the nominated eligible use of proceeds (eligible projects) shown in Table-9, the Issuer may have additional projects that have been identified as eligible under the protocol. The Reference Table below shows representative nominated use of proceeds (eligible projects) newly added in conjunction with the update of the Framework in March 2025. The newly added nominated use of proceeds (eligible projects) are projects that have become necessary due to the progress of each project.
- DNV recommends the Issuer to establish in the future and disclose, where necessary, specific measures and how compliance with the assessment criteria has a scientific basis in order to clarify that the nominated use of proceeds comply with the GBP classification.
- DNV judges that though a part of the nominated use of proceeds does not currently meet green criteria widely recognized and used internationally, it is necessary to support and implement transition strategies that include the achievement of Japan's medium-term and long-term goals.

Reference Table Representative nominated use of proceeds (eligible projects) newly added in conjunction with the update of the Framework in June 2025

Eligibility criteria (sub-category)	Newly added nominated use of proceeds	Overview
1.1 Energy efficiency	Support for installing CO ₂ -saving facilities to reduce Scope 3 emissions through collaboration among companies	Subsidies for the introduction of equipment with high CO ₂ -saving effects by representative companies and collaborating companies (mainly small and medium-sized enterprises) that make up the value chain, as the importance of reducing CO ₂ emissions (Scope 3) from partner companies is increasing, especially among large companies.
1.3 Digital investment aimed at decarbonization	Research and Development of AI foundation models and advanced semiconductor technologies and related projects	Support for technological development for the entire information and communications networks and their constituent elements (e.g., computing resources, AI foundation models).
	Research and Development Program for Next-generation Edge AI semiconductor	Research and development focused on rapidly transferring to industry the technologies that academia should pursue, based on a back casting approach from existing industries or new industries expected to emerge in the mid-2030s and beyond, regarding the design, manufacturing, and materials technologies required for innovative next-generation edge AI semiconductors with ultra-low power consumption and other features.
3.1 Utilization of nuclear power	Support for technological development and supply chain building for the	Support for technological development related to innovative light water reactors and small light water reactors, and maintenance and strengthening of the domestic industrial base.

Eligibility criteria (sub-category)	Newly added nominated use of proceeds	Overview
	development and construction of Next-Generation Advanced Reactors	
3.2 Establishing electricity and gas markets to achieve carbon neutrality	Renewable energy and nuclear power	Support for large-scale, ongoing investment in renewable energy and nuclear power (including support for the restart of existing nuclear power plants) etc.
4.1 Clean transportation (GX in transport sector)	Support Project for Sustainable Aviation Fuel (SAF) Production and Supply Chain Development	Support for equipment investment etc. for domestic businesses engaged in large-scale SAF production, with the aim of establishing a system capable of stably supplying SAF at internationally competitive prices, regarding SAF production projects contributing to the simultaneous realization of stable energy supply, economic growth, and decarbonization through GX.
	Promotion of the construction of zero-emission ships etc.	Support for investments etc. in the construction and expansion of production facilities for engines, fuel tanks, fuel supply systems, and other components required for shipbuilding, and the development of facilities to install (outfit) such equipment, with the aim of the necessary infrastructure development for the widespread adoption of zero-emission ships etc. using hydrogen, ammonia, and other fuels, which are essential for achieving carbon neutrality by 2050.
5.1 Restructuring the manufacturing sector (fuel and feedstocks transition)	Support for energy/manufacturing process conversion for hard-to-abate industries	Support for capital investment etc. that will lead to the early implementation of measures to reduce emissions and strengthen industrial competitiveness in industries where emissions reduction is difficult. → Added as an explanation of the use of hydrogen in the ironmaking process and decarbonization of thermal processes, which were already mentioned in the examples of projects.
5.2 Facilitating introduction of hydrogen and ammonia	Support focused on the price difference to build supply chains for hydrogen and its derivatives	Support focusing on the price difference between low-carbon hydrogen and other existing raw materials and fuels to be replaced.
	Hydrogen Hub Development Program	Support for shared facilities that will lead to the large-scale expansion of low-carbon hydrogen etc. and benefit a wide range of businesses, with the aim of building an independent pilot supply chain that will contribute to the realization of GX by FY2030.

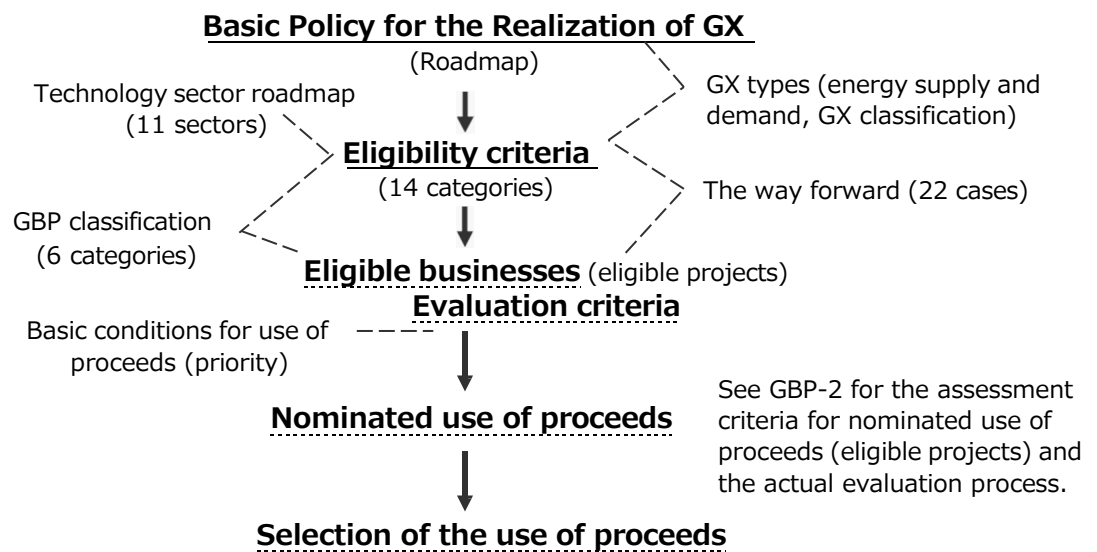







Figure-4 Relationship between the Basic Policy for the Realization of GX (roadmap) and the use of proceeds

Table-5 (reposted) Main categories/types of sectors (eligibility criteria) mainly related to GHG emissions

* Eligibility criteria relevant to several sectors

Classification of energy supply and demand	Sector types (GX classification)	Eligibility criteria
Energy supply side	Energy conversion sector	<ul style="list-style-type: none"> - Making renewable energy a major power source - Utilization of nuclear power - Facilitating the introduction of hydrogen and ammonia* - Establishing electricity and gas markets to achieve carbon neutrality - Battery industry*
Energy demand side	Household sector	<ul style="list-style-type: none"> - Promotion of thorough energy efficiency improvement* - Restructuring the manufacturing industry (fuel and feedstocks transition)* - Battery industry* - GX in the transport sector* - Digital investment aimed at decarbonization* - Houses and buildings* - Infrastructure
	Industrial sector	<ul style="list-style-type: none"> - Facilitating the introduction of hydrogen and ammonia* - Promotion of thorough energy efficiency improvement* - Restructuring the manufacturing industry (fuel and feedstocks transition)* - Battery industry* - Resource circulation - GX in the transport sector* - Digital investment aimed at decarbonization* - Houses and buildings* - Infrastructure - Carbon Recycling and CCS - Food, agriculture, forestry, and fisheries

Table-9 The GBP classifications of the eligibility criteria and representative nominated use of proceeds (eligible projects) and an overview of DNV's opinion




Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
1 Energy efficiency     	1.1: Promotion of thorough energy efficiency improvement	<ul style="list-style-type: none"> - Promote the spread of energy-efficient appliances 	<ul style="list-style-type: none"> - Energy-saving is an initiative to reduce the amount of energy equivalent to 62 million kiloliters of crude oil (CO₂ reduction: equivalent to 0.16 billion tonnes) in the period FY2013-2030, and is considered to be an important contribution to the reduction of CO₂ emissions for the country as a whole (1.408 billion tonnes in 2013). - The major assessment criteria include heat pump water heaters (e.g., energy efficiency of 3.5 or more* The FY2025 target standard in the energy-saving top runner scheme), any of the following: non-fossil use ratio (increase of 30% or more) or quantity (1,000 kiloliter or more) combined with energy saving, energy consumption intensity improvement ratio (e.g., 15% or more), etc. In the case of tailor-made projects*, the project is eligible if it meets one of the following criteria for the entire factory/workplace: energy-saving ratio + non-fossil use ratio increase: 10% or more, energy-saving amount + non-fossil use amount: 700 kiloliter or more, or energy consumption intensity improvement ratio: 7% or more, etc. * Projects that upgrade to equipment that involves mechanical design or that is designed and manufactured to suit the purpose and use of the business operator (tailor-made equipment) - The investment promotion project for Scope 3 emissions reduction provides subsidies for capital investments in equipment that is expected to achieve a 30% or more CO₂-saving effect compared to the current equipment. These supports for capital investments target large companies and small and medium-sized enterprises that are part of the value chain, making the support relatively broad in scope. In addition, some investments may involve continued use of fossil fuels, therefore, it is expected that clear explanations will be provided to ensure that these investments do not lead to carbon lock-in (the continued use of fossil fuels hindering decarbonization) in the future.

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<p>Reference links:</p> <ul style="list-style-type: none"> - Current situation and challenges for the manufacturing industry - Future policy directions https://www.meti.go.jp/shingikai/sankoshin/seizo_sangyo/pdf/014_04_00.pdf - Energy saving legislation for manufacturers of energy-consuming equipment - Top Runner Scheme https://www.enecho.meti.go.jp/category/saving_and_new/saving/enterprise/equipment/Act on Rationalizing Energy Use and Conversion to Non-fossil Energy (Energy saving Act) https://www.enecho.meti.go.jp/category/saving_and_new/saving/enterprise/overview/ - Support for installing CO₂-saving facilities to reduce Scope 3 emissions through collaboration among companies https://www.env.go.jp/content/000304298.pdf
	1.2: Houses and buildings	<ul style="list-style-type: none"> - Support for building new houses and buildings with high energy efficiency and retrofitting to improve energy efficiency <p>Replacing windows with thermal insulated models with higher energy efficiency</p>	<ul style="list-style-type: none"> - ZEH (Net Zero Energy House) and ZEB (Net Zero Energy Building), which virtually reduce CO₂ emissions from buildings to zero, are expected to promote the introduction of renewable energy sources such as solar power generation installed on roofs, in premises, etc. as well as to save energy in buildings. In addition, activities to reduce energy use in existing buildings, such as refurbishment with insulated windows, are expected to reduce CO₂ emissions associated with energy use in houses and buildings. - The Government has established the Top Runner Scheme for building materials and is working towards 2050 by setting technical requirements for products, components and equipment to be covered. - The major assessment criteria are that the building is ZEH or ZEB and that the thermal transmittance coefficient (Uw value) of insulated windows is 1.9 or lower, etc. The target projects are the introduction of products that exceed the 2030 target level in the Top Runner Scheme for building materials etc. <p>Reference links:</p> <ul style="list-style-type: none"> - Energy saving legislation for manufacturers of energy-consuming equipment - Top Runner Scheme https://www.enecho.meti.go.jp/category/saving_and_new/saving/enterprise/equipment/





Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<ul style="list-style-type: none"> - Act on the Improvement of Energy Consumption Performance of Buildings (Building Energy Saving Act) - https://www.mlit.go.jp/jutakukentiku/house/08.html
	1.3: Digital investment aimed at decarbonization	<ul style="list-style-type: none"> - Facilitating the development of and investment in energy efficient semiconductors, photonics electronics convergence technologies, etc. 	<ul style="list-style-type: none"> - Initiatives to reduce the use of electricity by semiconductors used in all industries to between one-fifth and one-tenth of the current level and investments in the development of photonics-electronics convergence technology to realize energy savings in data centers, which are expected to expand in the future, are expected to lead to reduced electricity use in the future. - The major assessment criteria are that the project scale is at least JPY 200 billion, that the project has state-of-the-art facilities and equipment performance and that the semiconductor device performance index (bandwidth density/power, (Gbps/mm)/(pJ/bit)) is at least 800 times higher than that of popular products at the time of research and development. - The medium- to long-term results (decarbonization effects through market utilization) of the AI foundation model and advanced semiconductor-related technology development project and the next-generation edge AI semiconductor research and development project are expected to contribute directly or indirectly to improving the energy efficiency of semiconductors themselves and/or products incorporating such semiconductors. On the other hand, since the research and development projects include initiatives focused on improving the performance of semiconductors and the products in which they are used, in addition to decarbonization related to GX, it is expected that projects aligned with the objectives of transition bonds will be selected. Furthermore, when reporting, since the outcomes of these projects are primarily research and technological development, it is difficult to evaluate quantitative contributions to decarbonization. Therefore, it is expected that progress towards the planned objectives will be disclosed.

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<p>Reference links:</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project "Building the Next Generation Digital Infrastructure" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_15_randd.pdf - Research and Development of AI foundation models and advanced semiconductor technologies and related projects https://www.meti.go.jp/main/yosan/yosan_fy2024/hosei/gx/pdf/r6_gx_pr.pdf - Research and Development Project of the Enhanced Infrastructures for Post-5G Information and Communication https://www.meti.go.jp/policy/mono_info_service/joho/post5g/pdf/20250325_kenkyukaihatsukeikaku.pdf - Next-generation edge AI semiconductor research and development project (page 7/18) https://www.meti.go.jp/main/yosan/yosan_fy2025/pr/pdf/pr_gx.pdf
	1.4: Battery industry	<ul style="list-style-type: none"> - Investments in plants manufacturing batteries together with their material and components 	<ul style="list-style-type: none"> - The battery industry is considered to be an important industry from the perspective of promoting the effective use of renewable energy sources with fluctuating power generation and the electrification of various industrial and household sectors from the use of fossil fuels (heat, electricity and power). - Initiatives to establish supply chains, including the recycling of storage batteries (e.g., research and development of next-generation storage batteries, manufacturing including materials, recycling technologies) are considered to be important from the perspective of promoting the electrification of the entire society and the sustainable use of storage batteries. - The Government is working towards the goal of establishing a domestic manufacturing infrastructure that will enable a storage battery capacity of 150 GWh/year by 2030, as part of the Battery Industry Strategy in 2022. - The major assessment criteria are that the project has an expansion of production capacity for in-vehicle storage batteries (3,000 MWh/year or more) and stationary storage batteries (300 MWh/year or more).






Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<p>Reference links:</p> <ul style="list-style-type: none"> - About mission-oriented automobile policy https://www.meti.go.jp/shingikai/mono_info_service/mobility_kozo_henka/pdf/004_02_00.pdf - Research, development and social implementation plan related to the GI Fund project "Development of next-generation storage batteries and motors" https://www.nedo.go.jp/content/100939364.pdf

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
2 Renewable energy   	2.1: Making renewable energy a major power source	<ul style="list-style-type: none"> - Next-generation solar cells (perovskite) - Floating offshore wind - Development of submarine DC power transmission etc. 	<ul style="list-style-type: none"> - With the aim of making renewable energy a major power source, the development and demonstration of technologies that enable power generation using renewable energy sources in limited land and sea areas in Japan with geographical constraints is considered to be an important initiative, together with the expansion and application of existing renewable energy sources. - Specifically, next-generation solar batteries (perovskite), as shown in the typical use of proceeds (eligible projects), are expected to be installed on walls and curved surfaces, taking advantage of their lightness and flexibility. Floating offshore wind turbines are also expected to be installed in sea areas where it is difficult to use landing type. Both are considered to be important initiatives for the expansion of renewable energy in Japan with geographical constraints. - In addition to the typical use of proceeds, nation-wide initiatives to make renewable energy a major power source, including further expansion and application of existing technologies, lower costs, and various schemes, are considered to be important initiatives for the realization of GX, including raising the renewable energy source ratio to 36-38% or higher by 2030, and 40-50% by 2040, which is further expansion of power generation beyond the increase in ratio, with power generation expected to increase. - In addition, further introduction of renewable energy requires to strengthen interconnection lines (transmission facilities) connecting the various regions of Japan. The Government plans to develop transmission facilities, including submarine DC transmission from Hokkaido to Honshu, on a scale of more than 10 million kW over a period of about 10 years starting in FY2023. - The major assessment criterion is that the project is capable of achieving low generation costs (e.g., wind: JPY 8-9/kWh; solar: JPY 14/kWh). <p>Reference links:</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<p>"Low-cost offshore wind power"</p> <p>https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_01_randd.pdf</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project <p>"Development of next-generation solar batteries"</p> <p>https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_02_randd.pdf</p>
	2.2: Infrastructure	<ul style="list-style-type: none"> - Development of cities and communities contributing to decarbonization 	<ul style="list-style-type: none"> - Initiatives to optimize (minimize) energy use through the introduction of decarbonized products, technologies and local energy networks in cities and regions and the effective use of renewable energy and stored energy are considered to be important for decarbonizing the industrial sector. - The major assessment criteria are that the project has a plan with the total electricity demand in the city or region concerned is equal to the total electricity supply from renewable energy and other sources, and that the project includes initiatives that are consistent with the Global Warming Action Plan. A typical example is the project to support the establishment of a self-owned line microgrid.





Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
3 Low-carbon and decarbonized energy *Classification set out in the Issuer's Climate Transition Bond    	3.1: Utilization of nuclear power	<ul style="list-style-type: none"> - Next-generation advanced reactors with built-in new safety mechanisms 	<ul style="list-style-type: none"> - Initiatives to improve the business environment, research and development, and demonstration of innovative light water reactors, high temperature gas reactors, fast reactors, etc. incorporating new safety mechanisms are considered to be an important initiative for the restart of existing nuclear power plants (expecting 20-22% of power generation as of 2030 and approximately 20% of power generation as of 2040, when power generation is expected to increase) in order to achieve carbon neutrality and stable energy supply from 2030 onwards. - Low-cost, stable and large-volume hydrogen production and supply using high-temperature gas reactors is expected to lead to increased use in various industrial sectors, including the steel and chemical industries, and contribute to the decarbonization of the entire industry. - The major assessment criteria are that the project is based on the strategic roadmap for the development of fast reactors and that the project has high-temperature gas reactors that enable hydrogen production (e.g., expecting to supply hydrogen at a rate of approximately JPY 12/Nm³ in 2050). <p>* Restart of the existing nuclear power plants is classified as an initiative under Section 3.2.</p>
	3.2: Establishing electricity and gas markets to achieve carbon neutrality	<ul style="list-style-type: none"> - Promoting zero-emission thermal power - Renewable energy - Existing nuclear power plants (restart) 	<ul style="list-style-type: none"> - The technology development to expand the introduction of low-carbon and decarbonized energy (zero-emission thermal power etc.) using gases such as hydrogen (including hydrogen carriers such as MCH) and ammonia, and the development of various environments for research and development and implementation related to supply chain establishment is considered to be an important initiative for achieving a stable energy supply and decarbonization in the future. - The major criterion is that the project is capable of realizing supply costs in 2030 and 2050 equivalent to those of fossil fuels (e.g., below JPY 30/Nm³ in 2030 and below JPY 20/Nm³ in 2050). - It is expected to specify the content of support for large-scale, ongoing investments in renewable energy and the restart of nuclear power

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<p>plants, etc.</p> <p>Renewable Energy: Considered to be important initiatives for the realization of GX, including raising the renewable energy source ratio to 36-38% or higher by 2030, and 40-50% by 2040, which is further expansion of power generation beyond the increase in ratio, with power generation expected to increase, with the aim of making renewable energy a main power source.</p> <p>Nuclear power generation: In addition to nuclear power utilization (next-generation advanced reactors with built-in new safety mechanisms) as shown in Section 3.1, ensuring power generation through the restart of the existing nuclear power plants is considered to be important for the realization of GX, including raising the power source ratio to 20-22% by 2030 and 20% by 2040, which is further expansion of power generation beyond the increase in ratio, with power generation expected to increase. From the perspective that nuclear power plants (next-generation advanced reactors and existing nuclear power plants) are required to contribute continuously to the realization of GX as a decarbonized power source, it is also expected that initiatives related to the supply chain (such as radioactive waste management and reprocessing) indicated in the Strategic Energy Plan will be promoted in parallel. Furthermore, given that the utilization of nuclear power requires a long-term perspective, it is expected that plans for the utilization of existing and new nuclear power plants will be clearly defined by the 2050 carbon neutrality target date (and from the perspective of maintaining carbon neutrality beyond 2050).</p> <p>Reference links:</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project "Establishment of a large-scale hydrogen supply chain" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/03r.pdf - Research, development and social implementation plan for the GI Fund project "Establishment of a fuel ammonia supply chain" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/06r.pdf - About the Strategic Energy Plan https://www.enecho.meti.go.jp/en/category/others/basic_plan/

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
4 Clean transportation     	4.1: Clean transportation (GX in transport sector)	<ul style="list-style-type: none"> - Support for the introduction of next-generation vehicles - Developing demonstration next-generation aircraft by 2030s - Production and supply of sustainable aviation fuel (SAF) - Promotion of the construction of zero-emission ships etc. 	<ul style="list-style-type: none"> - The transport sector accounts for approximately 20% of the country's total GHG emissions and is the second largest emitting sector after the industrial sector (FY2022 results: 0.192 billion t-CO₂). In order to decarbonize the transport sector, the de-fossilization (decarbonization) of fuels used in the automotive, aviation and shipping industries, as well as electrification and energy-saving (improvement in transport modes such as logistics) are considered to be important and it needs to be promoted in both the industrial and household sectors. - Automotive industry: The target projects include the introduction of zero-emission and low-carbon vehicles such as EVs as clean energy vehicles, FCVs (passenger cars and commercial) and PHEVs*; hydrogen aircraft as next-generation aircraft (engine performance, hydrogen tank weight, energy-saving airframe design (cruising performance), etc.). <p>* DNV has confirmed that the target PHEVs have been estimated and confirmed by the Issuer to meet internationally known standards (<50 g-CO₂/passenger-km*) at the time of the Framework assessment. Note that the standard may become stricter in the future (e.g., only vehicles with zero direct emissions, such as EVs and FCVs with 0 g-CO₂/passenger-km, will be eligible), so if the Issuer includes PHEVs as a use of Transition Bond proceeds, it is expected to reassess at the time of the Transition Bond issuance.</p> <p>* Climate Bonds Standard v4.0 Land Transport Standard, April 2023</p> <ul style="list-style-type: none"> - Aviation industry: Sustainable Aviation Fuel (SAF) is being considered as an alternative fuel for future use in the aviation sector as part of international frameworks (ICAO, CORCIA) aimed at decarbonization. Government support for the establishment of a production and supply system for SAF (e.g., capital investment) is judged as an important initiative for advancing decarbonization and enhancing competitiveness in both technical and economic aspects. In the production of SAF, indirect GHG emissions are associated with SAF feedstocks and production process. Therefore, it is expected to clarify the conditions and criteria that target SAF must meet.

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<ul style="list-style-type: none"> - Shipping industry: Includes subsidy programs for the construction of zero-emission ships and related equipment for various types of shipbuilding. However, since the definition of zero-emission ships includes vessels that use LNG (a fossil fuel) as engine fuel in addition to hydrogen, ammonia, batteries, etc., it is expected to clarify that it does not lead to carbon lock-in (the continued use of fossil fuels hindering decarbonization) in the future. <p>Reference links:</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project "Building a smart mobility society" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_14_randd.pdf - Research, development and social implementation plan for the GI Fund project "Development of next generation aircraft" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_16_randd.pdf - Research, development and social implementation plan for the GI Fund project "Development of next generation ships" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_17_randd.pdf - Promotion of construction of zero-emission ships etc. https://pczes.jstra.jp/

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
	4.2: Infrastructure	<ul style="list-style-type: none"> - Development of cities and communities contributing to decarbonization 	<ul style="list-style-type: none"> - The energy used in each urban and regional (industrial zones etc.) infrastructure (ports, roads, (hybrid) dams, sewers, etc.) is to be decarbonized across the entire area. - The major assessment criteria are that the project has a plan with the total electricity demand in the city or region concerned is equal to the total electricity supply from renewable energy and other sources, and that the project includes initiatives that are consistent with the Plan for Global Warming Countermeasures. <p>Reference links: *Carbon neutral ports as a typical example</p> <ul style="list-style-type: none"> - About carbon neutral ports (CNP) - Manual for the preparation of the "Port Decarbonization Promotion Plan" - Outline of the certification system for decarbonization of port terminals







Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
5 Circular economy adapted products, production technologies and processes    	5.1: Restructuring the manufacturing industry (fuel and feedstocks transition)	<ul style="list-style-type: none"> - Energy/manufacturing process conversion (hard-to-abate industries) - Development and introduction of innovative technologies such as hydrogen reduction steelmaking - Decarbonization of thermal processes 	<ul style="list-style-type: none"> - GHG emissions in the industrial sector are mainly associated with the use of electricity and heat. The industrial sector is the largest sector, accounting for approximately 30% of Japan's GHG emissions (FY2022 result: 0.352 billion t-CO₂). In particular, in the steel, chemical, cement, pulp and paper and biomanufacturing industries, which are so-called GHG-intensive industries due to their high consumption of electricity and heat in the product manufacturing process, various energy-saving measures as well as fuel and feedstocks transition (from coal and heavy oil to gas, decarbonized energy or feedstocks that do not rely on fossil resources), etc. are considered to be important initiatives. - The above-mentioned GHG-intensive industries are required to be addressed with reference to the technology roadmap prepared by the Ministry of Economy, Trade and Industry (METI) as a specific direction for the transition towards achieving carbon neutrality in 2050. - The major assessment criteria are that the project can establish ironmaking process (blast furnace hydrogen reduction technology and direct hydrogen reduction technology) that reduces CO₂ emissions by 50% or more in the steel sector, or industrial furnaces with 50% hydrogen mixing by FY2031 to decarbonize the heat used or technology to reduce peak electricity consumption and electricity receiving capacity by 30% or more in the manufacturing sector as decarbonization of thermal processes in use. - In the above evaluation criteria, since all of them may continue to involve the use of fossil fuels, it is expected clarify that they will not lead to carbon lock-in (the continued use of fossil fuels hindering decarbonization) in the future. <p>Reference links:</p> <ul style="list-style-type: none"> - Current status and challenges for the manufacturing industry Future policy directions https://www.meti.go.jp/shingikai/sankoshin/seizo_sangyo/pdf/014_04_00.pdf - Research, development and social implementation plan for the GI Fund project


Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<p>"Hydrogen utilization in steelmaking processes"</p> <p>https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_05_randd.pdf</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project <p>"Decarbonization of thermal processes in the manufacturing sector"</p> <p>https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_20_randd.pdf</p> <ul style="list-style-type: none"> - Support for energy/manufacturing process conversion for hard-to-abate industries <p>https://www.meti.go.jp/policy/energy_environment/global_warming/gx_budget/gx_HtA.html</p>

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
	5.2: Facilitating introduction of hydrogen and ammonia	<ul style="list-style-type: none"> - Support focused on the price difference to build supply chains for Low-carbon hydrogen and its derivatives - Hydrogen Hub Development Program. - Large-scale supply chain building <p>*Hydrogen etc.: Including hydrogen, ammonia, synthetic methane (e-methane), and synthetic fuel (e-fuel)</p>	<ul style="list-style-type: none"> - Initiatives to facilitate the introduction of hydrogen and ammonia are considered to be necessary technologies for both the energy supply side (energy conversion sector) and the energy demand side (mainly industrial sector). In the establishment of supply chains (production, transport, storage, and utilization) for hydrogen and ammonia utilization, the establishment and cost-cutting of production technologies (e.g., production of green hydrogen by water electrolysis using renewable energy) to secure the supply volume for the expected demand to make it commercially available as a decarbonized fuel. This is considered to be an important initiative in facilitating the introduction and utilization of hydrogen and ammonia. The main focus here is on large-scale supply and cost-cutting. - Hydrogen and ammonia are subject to various measures based on the Hydrogen Society Promotion Act, and it has been demonstrated that the formation of supply hubs for hydrogen and other carbon-neutral fuels is important, in addition to the above initiatives. The Government has outlined a three-stage plan to support the future use of hydrogen by 2030, and this initiative is part of those activities, providing financial support. Phase 1: Feasibility study (FS); Phase 2: Design (FEED); Phase 3: Infrastructure development - The planned domestic introduction of hydrogen and ammonia is as follows: 2030 Hydrogen: 3 million tonnes; Ammonia: 3 million tonnes (approx. 0.5 million tonnes of hydrogen equivalent) 2050 Hydrogen: 20 million tonnes; Ammonia: 30 million tonnes (approx. 5 million tonnes of hydrogen equivalent) - The major assessment criteria are the establishment of the supply chain necessary to realize the above-mentioned domestic introduction volumes and projects that enable supply costs to be equivalent to fossil fuels, i.e., below JPY 30/Nm³ in 2030 and below JPY 20/Nm³ in 2050. <p>Reference links:</p>

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
			<ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project "Establishment of a large-scale hydrogen supply chain" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/03r.pdf - Research, development and social implementation plan for the GI Fund project "Establishment of a fuel ammonia supply chain" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/06r.pdf - About Sector-Specific Investment Strategies 10. Hydrogen https://www.cas.go.jp/jp/seisaku/gx_jikkou_kaigi/senmonka_wg/dai9/siryoku.pdf

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
	5.3: Carbon Recycling and CCS (Carbon Captured & Storage)	<ul style="list-style-type: none"> - Support for research and development of Carbon Recycling fuel 	<ul style="list-style-type: none"> - Initiatives to make available fuels that contribute to decarbonization, such as SAF (Sustainable Aviation Fuel), synthetic fuels and synthetic methane as carbon recycling (e.g., development of regulations and systems, coordination with international rules) are important for realizing decarbonization in the transport sector (which accounts for approximately 20% of emissions in Japan) etc. - CCS (Carbon Captured & Storage) is to capture CO₂ that will remain emitted in the future and store it underground or elsewhere. Internationally, the introduction of CCS is recognized as a necessary step towards achieving carbon neutrality. Early actions are considered to be necessary to secure the amount of CCS storage indicated in the eligibility criteria and to establish domestic and international value chains and CCS markets. - The major assessment criteria include projects that develop and demonstrate control technologies to address feedstock variability*. There are no clear criteria for CCS at present, but projects that meet the above eligibility criteria through the Issuer's project evaluation and selection process are eligible. <p>* The feedstocks for the production of synthetic fuels are waste materials from various applications (e.g., waste oil) etc., and the properties of the feedstocks fluctuate. Therefore, in order to improve the efficiency of carbon recycling, it is necessary to develop technologies such as temperature control during production and the adjustment of appropriate catalyst quantities in response to fluctuations in the properties etc. of the feedstocks.</p> <p>Reference links:</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project "Development of fuel production technology using CO₂ etc." https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_08_randd_set.pdf - Research, development and social implementation plan for the GI Fund project "Development of CO₂ separation and collection technologies" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_10_randd_set.pdf

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
6 Environmentally sustainable management of living natural resources and land use, Circular economy      	6.1: Food, agriculture, forestry, and fisheries industry	<ul style="list-style-type: none"> - Decarbonization of agriculture, forestry and fisheries 	<ul style="list-style-type: none"> - As absorption sources for greenhouse gases, forests, agricultural lands and seaweed beds of the food, agriculture, forestry, and fisheries industries play an essential role in achieving carbon neutrality by 2050 as well as for decarbonization and mitigation of environmental impacts. - There are no clear criteria for food, agriculture, forestry, and fisheries. However, projects that contribute to the above through the Issuer's project evaluation and selection process in accordance with the "Green Food System Strategy" and the "Green Food System Act" are eligible. <p>Reference links:</p> <ul style="list-style-type: none"> - Green Food System Strategy https://www.maff.go.jp/j/kanbo/kankyo/seisaku/midori/attach/pdf/index-10.pdf - Green Food System Act https://www.maff.go.jp/j/kanbo/kankyo/seisaku/midori/houritsu.html#h_69877885961662471448330 - Research, development and social implementation plan for the GI Fund project "Development of CO₂ and other reduction and absorption technologies for food, agriculture, forestry, and fisheries" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_18_ranndd.pdf

Eligibility criteria		Representative nominated use of proceeds (eligible projects)	Overview of DNV's Opinion (including the Issuer's specific measures and key assessment criteria)
Categories (GBP classification)	Sub-categories		
	 <p>6.2: Resource circulation</p>	<ul style="list-style-type: none"> - Investment to accelerate resource circulation of plastics, metals, sustainable aviation fuel (SAF), etc. 	<ul style="list-style-type: none"> - Initiatives to avoid at most additional CO₂ emissions in the supply chain in the entire society through investments to introduce equipment etc. for low and decarbonized resources (e.g., recycled materials and bio-materials), material-saving resources and services such as leasing and sharing (investments in the arterial industry), and investments to introduce equipment etc. for recycling and re-use of plastics, metals (including battery materials, solar panels, etc.), biomass waste (e.g., production and supply of SAF) (investments in the venous industry) are considered to be important to minimize energy use in the future. - The major assessment criteria include projects that establish technologies to realize waste incineration facilities based on CO₂ separation and collection that meet a stable collection rate of 90% or more of the carbon contained in waste under specified conditions by 2030. <p>Reference links:</p> <ul style="list-style-type: none"> - Research, development and social implementation plan for the GI Fund project "Development of production technology of plastic raw materials using CO₂ etc." https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_07_randd.pdf - Research, development and social implementation plan for the GI Fund project "Development of fuel production technology using CO₂ etc." https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_08_randd_set.pdf - Research, development and social implementation plan for the GI Fund project "Development of manufacturing technology for concrete etc. using CO₂" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_09_randd.pdf - Research, development and social implementation plan for the GI Fund project "Development of CO₂ separation and collection technologies etc." https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_10_randd_set.pdf - Research, development and social implementation plan for the GI Fund project "Achieving carbon neutrality in the field of waste and resource circulation" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/gif_11_randd2.pdf - Research, development and social implementation plan for the GI Fund project "Promotion of carbon recycling using CO₂ as a direct feedstock through biomanufacturing technology" https://www.meti.go.jp/policy/energy_environment/global_warming/gifund/pdf/gif_19_randd.pdf

- DNV has confirmed that the Issuer plans to allocate all amount of the net proceeds, excluding expenses, of the entire amount of proceeds from the Climate Transition Bond to new investment and refinancing for eligible projects that meet the Issuer's investment plan to implement its Transition Strategy. With regard to refinancing, eligible projects are those to which the proceeds were disbursed in the previous fiscal year retrospectively from the date of the financing.
- The eligibility criteria and eligible projects focus on green projects classified under GBP/GBGL (e.g., in the renewable energy sector and the energy-saving sector (energy efficiency etc.)) and also include activities that need to be addressed at present in order to achieve carbon neutrality in the future (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power, etc.) like the eligibility criteria classified as low-carbon and decarbonized energy.
- Green projects classified under GBP/GBGL and projects that meet the eligibility criteria classified as low-carbon and decarbonized energy are eligible projects that directly or indirectly support projects that result in significant GHG emission reductions as exemplified by CTFH/CTFBG and GBP/GBGL or that contribute to achieving carbon neutrality, which contribute to achieving national targets, roadmaps for individual industries, etc. Eligible projects have been assessed for meeting the criteria set out by the Issuer and for having clear environmental benefits on the Transition Strategy, and are expected to contribute to the SDGs.
- The Issuer is also required to be aware that some eligible projects that meet the criteria at the time of the Framework assessment, such as PHEVs, may need to be reassessed due to future revisions of the criteria (e.g., stricter thresholds or revised assessment boundaries). It is expected that the project will be assessed to ensure that it is an eligible project at the time of issuance of the transition bond by monitoring international trends, reviewing the assessment criteria in a timely manner, etc.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-1 that "the issuer must use the proceeds for eligible projects that provide clear environmental benefits*."

- * Proceeds from transition bonds are also allowed to be allocated to related projects necessary to realize Just Transition and the transition strategy.

Use of proceeds classified under GBP

- | | |
|--|---|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency (energy savings) |
| <input type="checkbox"/> Pollution prevention and control | <input checked="" type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Conservation of terrestrial and aquatic Biodiversity | <input checked="" type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water resources and wastewater management | <input type="checkbox"/> Adaptation to climate change |
| <input checked="" type="checkbox"/> Circular economy adapted products, production technologies and processes (circular economy) | <input type="checkbox"/> Green buildings with locally, nationally or internationally recognized standards or certifications |
| <input checked="" type="checkbox"/> Other: Low-carbon and decarbonized energy (item set out in the Issuer's Climate Transition Bond) | |
| <input checked="" type="checkbox"/> Projects/eligibility criteria that are undetermined at the time of finance execution, but have been confirmed through appropriate processes to fit into the GBP classification or other eligibility areas not currently listed in the GBP, may be included. | |

GBP-2. Process for Project Evaluation and Selection

- The Issuer selects projects based on an assessment that they meet the GBP-1 eligibility criteria and the criteria required for an eligible project, and that they have clear environmental benefits in the timeline required by the roadmap. Eligible projects are planned to cover a range of activities such as technology development/research and development, demonstration tests, support for equipment and system installation (subsidies), etc., according to the timeline until the project is socially implemented.
- Specifically, eligible projects to which the proceeds will be allocated will be confirmed by the ministries in charge of the projects to be consistent with the "GX Promotion Strategy" and conform to the selection criteria set out in GBP-1 for each eligibility criterion. Eligible projects that are found to be in conformity will be re-confirmed by the "Intergovernmental Committee on the Issuance of GX Economy Transition Bonds," consisting of Director-Generals, and relevant ministries and agencies as necessary, and finally reported to the "GX Implementation Council," chaired by the Prime Minister. Each eligible project is determined annually by a resolution of the Diet as part of the governmental budget.

The members of the above Intergovernmental Committee are as follows:

- ◆ Cabinet Secretariat
 - ◆ Financial Services Agency
 - ◆ Ministry of Finance
 - ◆ Ministry of Economy, Trade and Industry
 - ◆ Ministry of the Environment
- When selecting eligible projects, the Issuer will ensure to take negative environmental and social impacts into account (including the necessary procedures in the region where the project is to be implemented) and that the proceeds are not allocated to projects related to the following exclusion criteria.

<Exclusion criteria>

- ◆ Businesses with the purpose of manufacture or distribution of inhumane weapons such as nuclear, chemical, biological and other weapons of mass destruction or anti-personnel landmines, or businesses engaged in the manufacture of products or provision of services supporting manufacture or sale of inhumane weapons such as nuclear, chemical, biological and other weapons of mass destruction or anti-personnel landmines;
- ◆ Businesses related to coal mining, refining or transportation;
- ◆ Businesses related to the ownership or operation of gambling facilities or businesses;



- ♦ Businesses related to forced labor or businesses related to unfair trade, bribery, corruption, extortion, embezzlement or other inappropriate relationships that do not comply with the laws and regulations of the country where the business is located;
- ♦ Businesses related to transactions that could cause human rights, environmental or other social problems.
- DNV has confirmed that the Issuer assesses and selects projects after confirming negative impacts (including exclusion criteria) following a standard process. However, in order to assess and select projects as Transition Bond eligible projects, including those, DNV recommends to make a common documentation as a robust process for operation that takes into account Just Transition, avoidance of lock-in, additional positive environmental impacts, etc., as required specifically for the Transition Bond as shown in the CTFH/CTFBG.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-2 that “the issuer must outline the process for determining the eligibility of the project and outline how the project considers its impact on the targets.”

Evaluation and selection

- | | |
|--|--|
| <input checked="" type="checkbox"/> The project is consistent with the achievement of the Issuer’s environmental contribution targets. | <input checked="" type="checkbox"/> The project has been assessed and selected through a documented process that demonstrates that it meets the defined eligibility category. |
| <input checked="" type="checkbox"/> The project is an eligible project as the use of green finance proceeds and is transparent. | <input checked="" type="checkbox"/> The project has been assessed and selected through a documented process to identify and manage potential ESG risks associated with the project execution. |
| <input checked="" type="checkbox"/> The project is evaluated and selected based on published criteria abstracts (green project with existing referenceable criteria). | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on responsibility and accountability

- | | |
|--|---|
| <input checked="" type="checkbox"/> Evaluation/selection criteria based on advice or verification by an external body | <input checked="" type="checkbox"/> Evaluation within the organization |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

GBP-3. Management of Proceeds

Management of allocation of proceeds:

- The Issuer has specified the Ministry of Economy, Trade and Industry (METI) to be responsible for the allocation and management of proceeds using an internal management system (Government Accounting System, ADAMS II, etc.). The proceeds of the Climate Transition Bond will be received in the Energy Supply and Demand Account of the Special Account for Energy Measures and will be managed separately from other accounts.
- Specifically, the procurement is carried out by the Ministry of Finance, and after payment to the Accounting Office of the Agency for Natural Resources and Energy, revenue and expenditure management is carried out using an internal management system. The Accounting Office of the Agency for Natural Resources and Energy manages the allocation of proceeds through the allocation to the private sector etc. via the responsible office and ministry.
- The management status of the proceeds allocation can be tracked on an eligible project basis as “costs for measures to promote a smooth transition to a decarbonized growth economic structure” using an internal management system from the issuance of the transition bond until the redemption.
- The Issuer intends that the proceeds will be allocated to projects that have been put into operation (commenced operation) or to which proceeds have been allocated in the fiscal year that includes the date of fundraising, after the fiscal year and in the previous year.

Management of unallocated proceeds:

- Until the proceeds are allocated to eligible projects, all unallocated proceeds will be managed as cash and will not be used for other temporary investments (including green investments) etc.

The Issuer will be subject to annual inspections by the Board of Audit of Japan of its proceeds management results. During the inspections by the Board of Audit of Japan, the climate transition bond-specific management process required under GBP-3 will also be inspected.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-3 that “the issuer must track and manage the proceeds (and, where necessary, establish and manage under appropriately classified portfolio units) and disclose how unallocated proceeds are treated.”



Tracking and management of proceeds:

- ☒ **Some or all of the proceeds from the Climate Transition Bond that are planned to be allocated are systematically distinguished or tracked by the Issuer.**
- ☐ Disclosure of intended types of temporary investment instruments for unallocated proceeds
- ☒ **Other: Unallocated proceeds are managed in cash.**

Additional disclosure:

- | | |
|--|--|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input checked="" type="checkbox"/> Allocations to individual disbursements | <input checked="" type="checkbox"/> Allocations to a portfolio of disbursements |
| <input type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (<i>please specify</i>): |

GBP-4. Reporting

- DNV has confirmed that the Issuer intends to report the following on an annual basis on the Government's website as proceeds allocation reporting and impact reporting until the Issuer has fully allocated the proceeds from the Climate Transition Bond.
- The Issuer intends to work on to strengthen organization's commitments and gain market recognition for the content of the upfront investment by additionally disclosing the mid-term strategy and the expected environmental benefits as well as the allocation status of proceeds and the direct impacts (environmental benefits) of eligible projects to which the allocation has been made.
- In the event of a significant change in circumstances in eligible projects (e.g., significant process changes, suspension/discontinuation, changes in specifications that have a significant impact on the environmental benefits), the Issuer will disclose it even after the completion of the proceeds allocation.
- DNV recommends that impact reporting should not be limited within the period up to the completion of the proceeds allocation, but also after the completion of the proceeds allocation until milestones are reached that are considered to be important, such as the completion of the project or the achievement of expected environmental benefits. DNV also recommends to establish and operate an appropriate reporting period as a documented process as an internal arrangement of the Issuer.

Allocation status reporting:

- The Issuer will report on the allocation status of proceeds on an annual basis on the Government's website, at least until the full amount of the proceeds has been appropriated. Allocation status reporting will be on a project-by-project or eligibility criteria basis and will include the following items, taking into account confidential obligations.
 - ♦ Allocated amount and unallocated balance
 - ♦ Estimated amount of the proceeds allocated in the fiscal year prior to the issuance
- The 2023 Climate Transition Bond reporting (Allocation Report) is available in Japanese and English on the Ministry of Finance website below.
<https://www.mof.go.jp/jgbs/topics/JapanClimateTransitionBonds/index.html>

Impact reporting (environmental benefits reporting):

- The Issuer will, at least until the full amount of proceeds has been allocated, report on the items of major environmental benefits (mainly GHG emission reduction effects) on a project-by-project or eligibility criteria basis (direct and indirect benefits and expected future benefits) and progress status of projects on an annual basis on the Government's



website, taking into account confidential obligations and the extent practicable.

- In the event of a significant change in circumstances in eligible projects (e.g., significant process changes, suspension/discontinuation, changes in specifications that have a significant impact on the environmental benefits) during the redemption period of the bond after allocations have commenced, the Issuer will disclose it in a timely manner or through reporting.
- DNV recommends that the impact reporting is conducted in comparison with what the Issuer actively discloses about specific environmental benefit indicators to be used for each eligibility criterion, representative project, etc. and the calculation method (including baseline conditions), where practicable, in the statutory documents for each bond issuance etc.

Based on the above, DNV judges that the Climate Transition Bond satisfies the element required by GBP-4 that “the issuer shall, at least, report to bond investors regarding the allocation status of proceeds and quantitative or qualitative performance (environmental benefits) of eligible projects.”

Allocation status reporting:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Green financed share of total investment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Impact reporting (environmental benefits reporting):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Information reported (expected or ex-post):

- | | |
|---|---|
| <input checked="" type="checkbox"/> GHG emissions/savings | <input type="checkbox"/> Energy savings |
| <input checked="" type="checkbox"/> Other ESG indicators (<i>please specify</i>): According to project progress and other properties of each eligibility criterion or eligible project | |



Means of disclosure

- | | |
|--|--|
| <input type="checkbox"/> Information published in financial report
(Integrated Report) | <input type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input checked="" type="checkbox"/> Other (<i>please specify</i>): The Government's website |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review) | |

External review (post-issuance periodic review of the Climate Transition Bond)

The Issuer will obtain an external review on an annual basis until the proceeds have been fully allocated in order to increase certainty (consistency) and objectivity of the ongoing compliance of the Climate Transition Bond with the relevant principles, guidelines and other required elements.

VII. Assessment Conclusion

On the basis of the information provided by the Issuer and the work undertaken, it is DNV's opinion that the Framework meets the criteria established in the Protocol, and that it is aligned with the following stated definition or purpose of the CTFH/CTFBG and GBP/GBGL.

"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.

3 July 2025



Thomas Leonard

Technical Reviewer

Head of Section, Sustainability Services

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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 Climate Transition Bond Eligibility Criteria and Representative Nominated Use of Proceeds (Eligible Projects)

The representative nominated use of proceeds (eligible projects) shown in the table have been assessed for eligibility by the Issuer at the time of the Framework assessment (as of June 2025). Future issuances of transition bonds based on the Framework may include, in addition to the representative nominated use of proceeds (eligible projects) shown in the table, eligible projects of which eligibility has been additionally confirmed by the Issuer in accordance with the “Process for Project Evaluation and Selection” described in the Framework and, if necessary additional assessments will be made in a timely manner by an external evaluation body.

No.	Eligibility criteria			Representative nominated use of proceeds (eligible projects)
	Categories (GBP classification)	Sub-categories		
1	Energy efficiency	Promotion of thorough energy efficiency improvement	1.1: Restructuring the manufacturing industry (fuel and feedstocks transition)	Subsidy system for energy-saving measures in the industrial sector - Decarbonization of factories, energy savings - Fuel and feedstock transition measures in five major industries etc.
			1.2: Houses and buildings	Subsidy system for energy-saving measures in the household sector - Subsidy for energy-saving refurbishment of existing buildings - Subsidy for low-carbon housing (life cycle) technology development etc.
			1.3: Digital investment aimed at decarbonization	Facilitating the development of and investment in energy efficient semiconductors, photonics electronics convergence technologies, etc.
		1.4: Battery industry		Investments in plants manufacturing batteries together with their material and components
2	Renewable energy	2.1: Making renewable energy a major power source		Next-generation solar cells (perovskite)
				Floating offshore wind
				Costs of basic surveys and maintenance of submarine DC transmission etc.
				Infrastructure facilities (costs of introducing renewable energy in diverse infrastructure spaces such as airports, roads, dams and sewers)
2.2: Infrastructure		Support for the establishment of self-owned line microgrids		
3	Low-carbon and decarbonized energy	3.1: Utilization of nuclear power		Research and development of next-generation advanced reactors with built-in new safety mechanisms
	*Classification set out in the Issuer’s Climate Transition Bond	3.2: Establishing electricity and gas markets to achieve carbon neutrality		Research and development towards zero-emission thermal power Renewable energy, existing nuclear power plants (restart)
4	Clean transportation	4.1: Clean transportation (GX in transport sector)		- Support for the introduction of next-generation vehicles

No.	Eligibility criteria		Representative nominated use of proceeds (eligible projects)
	Categories (GBP classification)	Sub-categories	
			- Developing demonstration next-generation aircraft by 2030s
			- Production and supply of sustainable aviation fuel (SAF)
			- Promotion of the construction of zero-emission ships etc.
		4.2: Resource circulation	- Decarbonization of fuels (SAF, synthetic fuels, etc.)
		4.3: Infrastructure	- Introduction of Carbon Neutral Ports (CNP) and clean transportation at airports and other infrastructure facilities
5	Circular economy adapted products, production technologies and processes	5.1: Restructuring the manufacturing industry (fuel and feedstocks transition)	- Energy/manufacturing process conversion Energy and manufacturing process conversion projects (hard-to-abate industries) - Development and introduction of innovative technologies such as hydrogen reduction ironmaking - Decarbonization of thermal processes
		5.2: Facilitating the introduction of hydrogen and ammonia	- Support focused on the price difference to build supply chains for Low-carbon hydrogen and its derivatives - Hydrogen Hub Development Program - Large-scale supply chain building *Hydrogen etc.: Including hydrogen, ammonia, synthetic methane (e-methane), and synthetic fuel (e-fuel)
		5.3: Carbon Recycling and CCS	Support for research and development of Carbon Recycling fuel
6	Environmentally sustainable management of living natural resources and land use, Circular economy	6.1: Food, agriculture, forestry, and fisheries	Decarbonization of agriculture, forestry and fisheries
		6.2: Resource circulation	Investment to accelerate resource circulation of plastics, metals, sustainable aviation fuel (SAF), etc.

Schedule-2 Climate Transition Finance Eligibility Assessment Protocol

The following checklists are the DNV assessment protocol created for the eligibility assessment based on the disclosure requirements of the CTFH.

The “Confirmed documents” in “Work Undertaken” column include public or non-public documents (internal document of the Issuer), information, etc. and are provided to DNV by the Issuer as evidence for determining the eligibility.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings															
1	Issuer's Climate Transition Strategy and Governance	<p>The green, sustainability or sustainability-linked financing should be directed toward enabling an issuer's GHG emissions reduction strategy in alignment with the goals of the Paris Agreement.</p> <p><i>Recommended information and indicators:</i></p> <ul style="list-style-type: none">a long-term, science-based target to align with the goals of the Paris Agreement;relevant and credible interim science-based targets in the short and medium-term on the trajectory towards the long-term goal, in line with the relevant regional, sector, or international climate change scenarios; <p>disclosure on an issuer's transition plan or climate transition strategy. This should include specific itemisation of the main levers towards GHG emissions reduction, such as a detailed capital expenditure (CapEx) plan and relevant technological implications (i.e., amounts to be spent, what carbon cost is considered for implementing</p>	<p>Confirmed documents:</p> <ul style="list-style-type: none">FrameworkBasic Policy for the Realization of GX (roadmap)Plan for Global Warming CountermeasuresStrategic Energy PlanLong-term strategy as a growth strategy based on the Paris AgreementJapan's NDCSector-specific technology roadmapSector-Specific Investment StrategiesGX Implementation Council documents <p>Interview with the Issuer</p>	<p>The Climate Transition Bond is a plan implemented with a strategy and governance to achieve Japan's 2050 carbon neutrality in line with the goals of the Paris Agreement and science-based mid-term goals of 46% GHG emissions reduction by FY2030, FY2035, and FY2040 (compared to FY2013).</p> <table><thead><tr><th>Target year</th><th>GHG reduction targets (compared to FY2013)</th><th>Remarks</th></tr></thead><tbody><tr><td>FY2030</td><td>46% reduction (challenge to achieve further 50% reduction)</td><td>Conventional target</td></tr><tr><td>FY2035</td><td>60% reduction</td><td>Added</td></tr><tr><td>FY2040</td><td>73% reduction</td><td>Added</td></tr><tr><td colspan="2">Carbon neutrality by 2050</td><td>Conventional target</td></tr></tbody></table> <p>i) The Issuer has explained that the 2050 carbon neutrality is consistent with the goals of the Paris Agreement.</p> <p>ii) The Issuer has set mid-term goals of 1) 46% reduction in GHG emissions by FY2030 (compared to FY2013), 2) 60% reduction by FY2035, and 3) 73% reduction by FY2040, which is the intersection of the target years of 1)-3) with the year 2050 on a trajectory linearly interpolated from FY2013</p>	Target year	GHG reduction targets (compared to FY2013)	Remarks	FY2030	46% reduction (challenge to achieve further 50% reduction)	Conventional target	FY2035	60% reduction	Added	FY2040	73% reduction	Added	Carbon neutrality by 2050		Conventional target
Target year	GHG reduction targets (compared to FY2013)	Remarks																	
FY2030	46% reduction (challenge to achieve further 50% reduction)	Conventional target																	
FY2035	60% reduction	Added																	
FY2040	73% reduction	Added																	
Carbon neutrality by 2050		Conventional target																	

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<p>such CapEx programme, operational impacts, regulatory considerations, etc.);</p> <ul style="list-style-type: none"> • clear oversight and governance of an issuer's climate transition strategy, including management/board level accountability; and • evidence of a broader sustainability strategy to mitigate relevant environmental and social externalities, including 'just transition' considerations where appropriate, and contributions to the UN Sustainable Development Goals (UN SDGs). 		<p>emissions to 2050 carbon neutrality, and is judged to have a scientific basis. In addition, the mid-term goals have been set in the GX Roadmap, the GX 2040 Vision, the Sector-Specific Investment Strategies, and the Plan for Global Warming Countermeasures as ambitious targets and specific initiatives as reduction rates for each industrial category that emits greenhouse gases, and ensuring their implementation brings relevance and credibility for achieving the goal.</p> <p>The Issuer has associated in its roadmap an investment program of approximately JPY 20 trillion in governmental support over a 10-year period from FY2023 and an overall public-private investment amount of over JPY 150 trillion with the transition plan and Transition Strategy. The main instruments for GHG emission reduction are organized in the Plan for Global Warming Countermeasures and the roadmap.</p> <p>iv) The Issuer has established a structure and mechanism to promote the Transition Strategy as a country. The above plans and strategies, which form the basis for the implementation of the Transition Strategy, will be updated annually or through periodic follow-ups and revisions. These GX initiatives will be discussed with relevant ministers and experts at the GX Implementation Council chaired by the Prime Minister, where the policy direction will be decided. This means that the GX is judged to have clear oversight and governance with accountability by the state.</p> <p>iii) With regard to direct or indirect contributions to the SDGs, the Issuer has further categorized its decarbonization initiatives towards the GX, which are classified into 14 categories, into the six</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>eligibility criteria shown in Table-3, each organizing areas of contribution to the SDGs. Just Transition is also stipulated in the "Basic Policy for the Realization of GX" to be considered as a society-wide promotion of GX. The above indicates that the Issuer should work to minimize negative environmental and social impacts (negative external effects) that may occur as a result of the implementation of the GX by contributing to the SDGs and taking into account Just Transition.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2	Business model environmental materiality	<p>The climate transition strategy should be relevant to the environmentally material parts of an issuer's business model, taking into account potential future scenarios which may impact current determinations concerning materiality.</p> <p><i>Recommended information and indicators:</i></p> <p>Discussion on the materiality of the planned climate transition strategy may:</p> <ul style="list-style-type: none"> • be disclosed in the form of a materiality matrix made publicly available by an issuer or be covered in an issuer's annual reports; and • address the materiality of climate-related eligible projects and/or KPI(s) on the overall emissions profile of an issuer. • Where Scope 3 emissions are expected to be material but are not yet identified or measured, a timeline for reporting should be disclosed. 	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Strategic Energy Plan - Long-term strategy as a growth strategy based on the Paris Agreement - Japan's NDC - Sector-specific technology roadmap - Sector-Specific Investment Strategies - GX Implementation Council documents <p>Interview with the Issuer</p>	<p>In developing the Transition Strategy, the Issuer has positioned GX as an important industrial and energy policy that shifts the industrial and social structure to a clean energy focus in order to ensure a stable energy supply for business activities and people's lives, promote decarbonization and achieve economic growth. The Issuer has developed roadmaps for key emitting sectors on how to reduce GHG emissions, consistent with various governmental measures and scenarios (see e.g., IEA, IPCC, SBTi).</p> <p>i) Materiality is not disclosed or described as a matrix, but is disclosed through various plans, strategies, laws, etc., which are also described in this report. Therefore, GX, the Transition Strategy to shift the industrial and social structure to a clean energy focus in order to achieve a stable energy supply, promote decarbonization and economic growth in Japan is considered to be an important industrial and energy policy.</p> <p>ii) Eligible projects (eligible businesses) related to climate change and KPIs (quantitative reduction targets set for each industry) define how the country's emission profile is to be reduced. Eligible projects and initiatives to achieve the KPIs are important milestones for the Issuer to achieve its goals.</p> <p>iii) GHG emissions cannot be directly organized as Scope 3 in the assessment of GHG emissions of the Issuer or Japan. When GHG emissions corresponding to Scope 3 are taken as emissions in the entire Japanese society and assessed, it has been confirmed that the</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				coverage ratio is 100%, including the scope and target gases, in accordance with IPCC guidelines. In addition, the scope for GHG emission calculation has been identified for each industry and GHG emissions are measured on an annual basis and reported on the Government's website.
3	Climate transition strategy and targets to be science-based	<p>An issuer's climate transition strategy should reference science-based targets and transition pathways. There is scientific guidance around the required rate of GHG emission reductions (the "GHG emissions reduction trajectory") to align the global economy with the goals of the Paris Agreement.</p> <p>The planned transition trajectory should:</p> <ul style="list-style-type: none"> • be quantitatively measurable and aligned with the latest available methodology; • be aligned with, benchmarked, or otherwise referenced to recognised third-party, science-based trajectories, where such trajectories exist; when third-party trajectories are not available, consider industry peer comparison and/or internal methodologies/historical performance; • be publicly disclosed (ideally in mainstream financial filings), including interim targets; and 	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Strategic Energy Plan - Long-term strategy as a growth strategy based on the Paris Agreement - Japan's NDC - Sector-specific technology roadmap - Sector-Specific Investment Strategies - GX Implementation Council documents <p>Interview with the Issuer</p>	<p>The Issuer's Transition Strategy is defined by a science based CO₂ reduction target (reduction rate) and pathway consistent with the Paris Agreement. Specifically, a 46% reduction (compared to FY2013) is set as a mid-term goal for FY2030, with 2013 as the base year and 2050 as a linearly interpolated carbon-neutral trajectory.</p> <ul style="list-style-type: none"> i) The Transition Strategy is quantitatively measurable in terms of GHG emissions and absorptions. Specifically, the scope (target sectors etc.) and target gases (100% coverage) are consistent with IPCC guidelines and in line with established calculation methods. ii) The Transition Strategy has set a mid-term goal of a 46% reduction (compared to FY2013) for FY 2030, which is on a linearly interpolated trajectory with 2013 as the base year and 2050 carbon neutrality. iii) The Transition Strategy has been published with mid-term targets shown below. <p>FY2030: 46% reduction (GHG emissions and absorptions of 0.760 billion t-CO₂) FY2035: 60% reduction (GHG emissions and absorptions of 0.570 billion t-CO₂) FY2040: 73% reduction (GHG emissions and absorptions of 0.380 billion t-CO₂)</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul style="list-style-type: none"> be supported by independent assurance or verification. <p><u>Strongly recommended information and indicators:</u></p> <ul style="list-style-type: none"> short, medium, and long-term GHG emission reduction targets aligned with the Paris Agreement; baseline year and historic emissions (including absolute emissions, where intensity metrics are the main indicator); scenario utilised and methodology applied (e.g., ACT, SBTi, IEA etc.). When third-party trajectories are not available, industry peer comparison and/or internal methodologies/historical performance; GHG emission objectives covering all scopes and most relevant sub-categories (Scopes 1, 2 and 3); targets formulated in either intensity or absolute terms, noting, that where intensity targets are used, projections on the change to absolute emissions should also be provided; and where applicable, use of carbon capture technology as well as of high- quality and high-integrity carbon credits, and their relative contribution to the GHG emissions reduction trajectory in line with best industry practices 		<p>iv) Although the targets set out in the Transition Strategy have not been independently assured or verified, the publicly available information (specific reduction amounts per sector and action plans) suggests that it is a reasonable strategy.</p> <p>-----</p> <p>v) The Issuer has set mid- and long-term GHG emission reduction goals consistent with the Paris Agreement. Specifically, the Issuer has set 2013 as the base year, with mid-term goals of 46% reduction by FY2030, 60% reduction by FY2035, and 73% reduction by FY2040, and a long-term goal of carbon neutrality by 2050.</p> <p>vi) In addition to the base year (FY2013), the Issuer has disclosed past emission data (including breakdown) since 1990. Note that emissions from FY1990 to FY2013 (base year) ranged between a minimum of 1.249 billion t-CO₂ (FY2009) and a maximum of 1.396 billion t-CO₂ (FY2012).</p> <p>vii) The Transition Strategy sets mid-term goals of 46% reduction (compared to FY2013) by FY2030, 60% reduction by FY2035, and 73% reduction by FY2040, which are on a linearly interpolated trajectory with 2013 as the base year and 2050 carbon neutrality.</p> <p>viii) The Transition Strategy is quantitatively measurable in terms of GHG emissions and absorptions. Specifically, the scope (target sectors etc.) and target gases (100% coverage) are consistent with IPCC guidelines and in line with established calculation methods.</p> <p>ix) The Transition Strategy is a target formulated in absolute GHG values (t-CO₂).</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		(e.g., SBTi, VCMi and ICVCM).		<p>x) In addition to the absorption of greenhouse gases by forests, agricultural soil, urban greening, etc. (FY2022: 0.050 billion t-CO₂, approx. 4% of emissions), the Issuer will utilize the bilateral credit scheme (JCM; Joint Crediting Mechanism), aiming for a cumulative international emission reduction and absorption of around 0.1 billion t-CO₂ by FY2030 and around 0.2 billion t-CO₂ by FY2040 through public-private partnerships. The Issuer plans to count the credits acquired by Japan appropriately for the achievement of Japan's NDC.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4	Implementation transparency	<p>Market communication regarding the offer of a GSS financing instrument intended to fund an issuer's climate transition strategy should also be transparent, to the extent practicable, on the underlying investment program including capital and operational expenditures (CapEx and OpEx).</p> <p><i>Recommended information and indicators:</i></p> <ul style="list-style-type: none"> CapEx roll-out plan consistent with the overall climate transition strategy and climate science and discussion of how it informs CapEx decision-making within the organisation; phase-out plan regarding activities/products incompatible with the climate transition strategy (when such activities or products are significantly harmful or display levels of performance inconsistent with science-based GHG emission reduction trajectories); green CapEx, for example those referenced under the eligible green project categories in the Green Bond Principles, as a percentage of total CapEx and how the ratio may be expected to evolve over time; disclosure on the percentage of assets/revenues/expenditures/divestments aligned to the various levers; a qualitative and/or quantitative assessment of the potential locked-in 	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Strategic Energy Plan - Long-term strategy as a growth strategy based on the Paris Agreement - Japan's NDC - Sector-specific technology roadmap - Sector-Specific Investment Strategies - GX Implementation Council documents - Assessment documents <p>Interview with the Issuer</p>	<p>The Issuer has disclosed the basic investment program for the implementation of the Transition Strategy. Specifically, the Issuer plans to provide approximately JPY 20 trillion in governmental support (The GX Economy Transition Bonds) as upfront investment support* over a 10-year period starting in FY2023, as well as over JPY 150 trillion in public-private investment over the same period.</p> <p>The investment program has been disclosed in the Framework and the "Basic Policies for the Realization of GX" as the information necessary for dialogue with the market, and is transparent.</p> <p>i) The major investment destinations of the GX Economy Transition Bonds are the "promotion of non-fossil energy (JPY 6-8 trillion)," "industrial restructuring and radical energy conservation in a combination of supply and demand (approximately JPY 9-12 trillion)," and "resource recycling and carbon fixation technologies (approximately JPY 2-4 trillion)." These decisions are made by the GX Implementation Council and the Cabinet Secretariat GX Office, based on the Sector-Specific Investment Strategies, including investment promotion measures, by relevant ministries and agencies and experts' working groups.</p> <p>ii) The Transition Strategy has remaining activities that partially continue to use fossil fuels from an economic or asset utilization perspective at present for future decarbonization. However, the continued use of these activities is conditional on having a lock-in avoidance plan in place, which will be adjusted accordingly to match the GHG emission reduction trajectory by decarbonizing the fuels and feedstocks used, in addition to phase-out.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<p>GHG emission from an issuer's key assets and products;</p> <ul style="list-style-type: none"> assumptions on the internal cost of carbon; and disclosure on adverse impacts on the workforce, community and surrounding environment, and related strategies used to mitigate those negative impacts. 		<p>iii) The investment destinations of the GX Economy Transition Bonds (approximately JPY 20 trillion) are mainly green projects classified under the GBP (e.g., the renewable energy sector and energy conservation (energy efficiency) sector), but also include activities that should be undertaken at present in order to achieve future carbon neutrality (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power). GX aims to achieve carbon neutrality by 2050 and the share of allocations for green projects classified under the GBP is expected to increase.</p> <p>iv) The Issuer has organized according to a timeline of what investments are planned for what projects (assets) based on the GX 2040 Vision and the Sector-Specific Investment Strategies, in addition to the initiatives classified into 14 categories in the GX roadmap and 22 cases as the way forward.</p> <p>v) The Issuer has elaborately specified the scope (e.g., target sectors) and target gases in accordance with the IPCC guidelines etc. for GHG emissions and absorptions in Japan. In addition, the details of the reduction plans for each scope and target gas are defined quantitatively and qualitatively. In particular, the Issuer has prepared roadmaps for GHG-intensive industries, set and disclosed the reduction policy up to 2050.</p> <p>vi) The Issuer has displayed the "Growth-oriented Carbon Pricing Initiative" as a key initiative of the GX Implementation Plan, and is working on accelerating GX investments and achieving carbon neutrality through "upfront investment support" and "measures to promote emission reductions (levy and emission trading scheme)." The carbon pricing (levy on carbon) has not yet been set as a concrete</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>pricing system, but is scheduled to be introduced from FY2028.</p> <p>Reference: the GX-ETS (Emission Trading Scheme) is planned to be promoted under the following plan.</p> <p>FY2023: Enforcement</p> <p>FY2026: Full-scale operation of the emission trading market</p> <p>FY2033: Phased introduction of pricing</p> <p>vii) The Issuer plans to ensure that Just Transition, mitigation of negative impacts and avoidance of lock-in are in place in the “Basic Policy for the Realization of GX” and in the selection process of investment destinations (eligible projects). Specifically, the policy on Just Transition has been set out in the “Basic Policy for the Realization of GX” as “Promotion of GX in the entire society (section 5).” In addition, mitigation of negative impacts and avoidance of lock-in will be confirmed in the selection process of investment destinations (eligible projects) that they do not fall under the pre-defined exclusion criteria and that they are consistent with the GHG reduction roadmap.</p>



Schedule-3 Green Bonds Principles (for Climate Transition Bonds with Use of Proceeds) Eligibility Assessment Protocol

The following checklists (GBP-1 to GBP-4) are the DNV assessment protocol created for the Climate Transition Bond (climate transition bond with use of proceeds) based on the requirements of the GBP. The “Confirmed documents” listed in the “Work Undertaken” column include public or non-public documents (internal document of the Issuer), information, etc. and are provided to DNV as evidence for determining the eligibility.

GBP-1 Use of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Types of funds	<p>The types of transition bond are classified into one of the following types defined by GBP.</p> <ul style="list-style-type: none"> • (Standard) Transition Bond • Transition Revenue Bond • Transition Project Bond • Other 	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Sector-specific technology roadmap - Sector-Specific Investment Strategies <p>Interview with the Issuer</p>	<p>DNV has confirmed that the transition bond is classified in the following category through its assessment work.</p> <p>(Standard) Transition Bond*</p> <p>* Bonds issued to raise funds for projects. The redemption is not dependent on a specific financial resource, but is funded by the Issuer’s overall cash flow.</p>
1b	Transition Project Classification	<p>The key to a transition bond is that the proceeds will be used for a transition project, which should be properly stated in the legal documents relating to the security.</p>	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Sector-specific technology roadmap - Sector-Specific Investment Strategies 	<p>DNV has confirmed that the transition bond is necessary for the realization of the Issuer’s Transition Strategy, as set out in the Framework and Schedule-1, and is intended to be allocated to eligible businesses (projects) that have been selected through an appropriate process.</p> <p>If a project has been selected prior to the issuance of the transition bond, it will be disclosed in statutory documents. If the project has not been selected prior to the issuance of the transition bond, it will be disclosed within the post-issuance reporting of the transition bond.</p> <p>Through the assessment, DNV concludes that the nominated eligible businesses (projects) have specific and true environmental benefits.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
			Interview with the Issuer	
1c	Environmental benefits	All transition projects to which the funds are used should have clear environmental benefits, the effects of which should be assessed by the issuer and, where possible, quantitatively demonstrated.	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Sector-specific technology roadmap - Sector-Specific Investment Strategies - List of nominated use of proceeds - Assessment documents <p>Interview with the Issuer</p>	DNV has confirmed that eligible businesses (projects) have clear environmental benefits, such as CO ₂ emission reduction, and that the environmental benefits are reported on an annual basis. The environmental benefits of eligible businesses (projects) can be direct, such as the installation of equipment and systems, as well as indirect, such as research and development and demonstration tests, which contribute to future realization of the Transition Strategy. The Issuer is considering quantifying and presenting these to extent practicable, taking into account the characteristics of eligible businesses (projects).

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
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.	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - List of nominated use of proceeds - Assessment documents <p>Interview with the Issuer</p>	DNV has confirmed that if the amount or percentage to be refinanced by the Issuer is known prior to the issuance of the transition bond, it will be disclosed in the statutory documents etc. DNV also confirmed that if it is not known prior to the issuance, the Issuer intends to disclose the approximate amount (or percentage) of the portion allocated as refinancing in the post-issuance reporting.

GBP-2 Process for Project Evaluation and Selection

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Project Selection Process	<p>Transition bond issuers should provide an overview of the process of qualifying projects for which transition bond funding will be used. This includes (but is not limited to):</p> <ul style="list-style-type: none"> • The process by which the issuer determines that the project in question is included in the business category of a qualified transition project • Creation of criteria for eligibility of projects for which transition bond funding will be used • Environmental sustainability goals 	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Sector-specific technology roadmap - Sector-Specific Investment Strategies - List of nominated use of proceeds - Assessment documents <p>Interview with the Issuer</p>	<p>DNV has confirmed that the Issuer has a process for determining the eligibility of eligible businesses (projects) to use the proceeds of the transition bond and that the overview is clearly stated in the Framework.</p> <ul style="list-style-type: none"> • The Issuer has defined 14 eligibility criteria, where eligible projects are classified into 14 categories based on the type set out in the GX Roadmap as activities necessary to realize the Issuer's Transition Strategy. The eligibility criteria have developed assessment criteria (internal criteria) that are consistent with the GBP classification and the way forward set out in the roadmap. • Eligible projects that are nominated use of proceeds are selected on the basis of the assessment criteria (internal criteria) defined for each eligibility criterion and the basic conditions and priority assessment described above. In each issuance of the bond, the Issuer establishes a procedure by which eligible projects with appropriate allocation needs are selected as the actual use of the proceeds from among the nominated projects for the use of proceeds. • The environmental sustainability goals are linked to the various national environmental plans, strategies, etc. to which the GX Roadmap refers. Specifically, the Issuer is working to achieve decarbonization as well as industrial competitiveness and economic growth by transforming Japan's energy system (from fossil energy to clean energy) and industrial and social structures through the GX as an action against climate change by fulfilling its international commitments.
2b	Issuer's Environmental and Social Governance Framework	<p>In addition to criteria and certifications, the information published by issuers regarding the transition bond process also considers the quality of performance of the issuer's framework and environmental sustainability.</p>	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Sector-specific technology roadmap 	<p>DNV has confirmed that, when selecting eligible projects, the Issuer will ensure to take negative environmental and social impacts into account (including the necessary procedures in the region where the project is to be implemented) and that the proceeds are not allocated to projects related to the separately specified exclusion criteria.</p> <p>DNV has also confirmed through the assessment that the Issuer will consider the negative impacts of projects at the project implementation</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
			<ul style="list-style-type: none"> - Sector-Specific Investment Strategies - List of nominated use of proceeds - Assessment documents Interview with the Issuer	<p>stage and the impacts on the relevant supply chain, including Just Transition, mitigation of negative impacts (e.g., actions through environmental impact assessment) and avoidance of lock-in, as indicated in CTF-4.</p> <p>The above has been published in the Framework, roadmap, etc.</p>

GBP-3 Management of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Tracking procedure-1	The net proceeds from transition 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 Transition Project.	Confirmed documents: <ul style="list-style-type: none"> - Framework - Assessment documents Interview with the Issuer	DNV has confirmed that the allocation status of proceeds from the transition bond can be tracked and managed on an eligible project basis using the Ministry of Economy, Trade and Industry's internal management system as "costs for measures related to the promotion of a smooth transition to a decarbonized growth economic structure."
3b	Tracking procedure-2	During the transition 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: <ul style="list-style-type: none"> - Framework - Assessment documents Interview with the Issuer	DNV has confirmed that the Issuer will be subject to annual inspections by the Board of Audit of Japan of its proceeds management results. DNV has also confirmed that during the inspections by the Board of Audit of Japan, the climate transition bond-specific management process required under GBP-3 will also be inspected, including the management of the balance of proceeds required in 3b.
3c	Temporary holding	If no investment or payment has been made in a qualified transition project, the issuer should also inform the investor of the possible temporary investment method for the balance of unallocated proceeds.	Confirmed documents: <ul style="list-style-type: none"> - Framework - Assessment documents Interview with the Issuer	DNV has confirmed that the Issuer intends to manage all unallocated proceeds in cash until the decision is made to allocate the proceeds. DNV also confirmed that the unallocated proceeds will not be used for other temporary investments (including green investments) etc.

GBP-4 Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Periodical Reporting	<p>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 transition bond proceeds have been allocated, taking into account the following: A list of each project should be provided.</p> <ul style="list-style-type: none"> - Confidentiality and competitive considerations - Outline of each project, expected sustainable environmental and social effects 	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Assessment documents <p>Interview with the Issuer</p>	<p>DNV has confirmed that the Issuer intends to include the following as disclosure information. The impact porting will be disclosed on an annual basis on the Government's website on a project-by-project or eligibility criteria basis, taking into account confidential obligations and the extent practicable.</p> <p>[Allocation status reporting]</p> <ul style="list-style-type: none"> • Allocated amount and unallocated balance • Estimated amount of the proceeds allocated in the fiscal year prior to the issuance <p>[Impact reporting] (environmental benefits reporting)</p> <ul style="list-style-type: none"> • Key environmental benefits (direct and indirect benefits related to GHG emission reduction etc., and benefits expected in the future) • Progress status of projects <p>In the event of a significant change in circumstances in eligible projects (e.g., significant process changes, suspension/discontinuation, changes in specifications that have a significant impact on the environmental benefits) during the redemption period of the bond after allocations have commenced, the Issuer will disclose it in a timely manner or through reporting.</p>

Schedule-4 Basic Guidelines on Climate Transition Finance Eligibility Assessment Protocol

The following checklists (from CTFBG-1 through CTFBG-4) are based on the four “disclosure elements” set forth in the “Basic Guidelines on Climate Transition Finance (CTFBG)” established by the Financial Services Agency, Ministry of Economy, Trade and Industry, and Ministry of the Environment in May 2021.

According to the CTFBG, “disclosure elements” are classified into the following three categories: “should”: ☉; “strongly recommended” & “recommended”: ○; and “be considered/possible”: △. These expressions are defined as follows.

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

The documents listed in the “Work Undertaken” column are those confirmed as evidence, whose details (document names) are shown in the List of Reference Materials (Appendix-1).

The evidence used in the assessment work includes information obtained through discussions and interviews with the management of the Fundraiser in addition to the confirmed documents.

CTFBG-1 Fundraiser’s Climate Transition Strategy and Governance

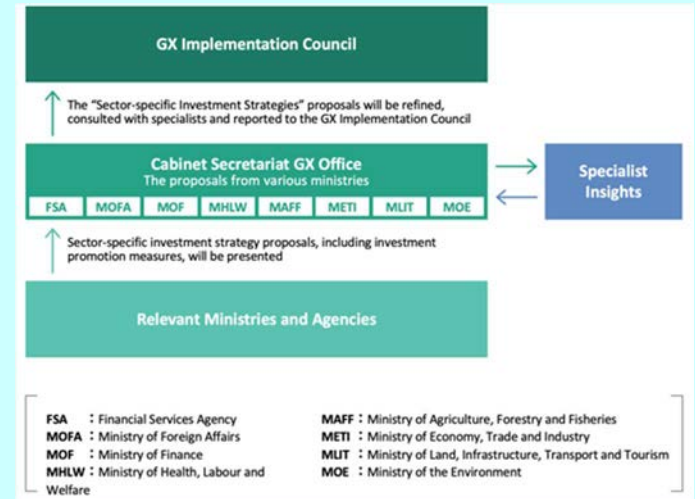
Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
☉	1-a)	<p>Financing through transition finance should aim to implement or incentivize the achievement of transition strategies⁹.</p> <p>Such strategies should incorporate a long-term target</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) 	<p>DNV has confirmed that the Issuer’s financing with the transition bond is aimed at achieving carbon neutrality in 2050 in accordance with the Transition Strategy, which is based on the Plan for Global Warming Countermeasures, NDC, etc.</p> <p>The Issuer’s Transition Strategy is 1) 46% GHG emission reduction by FY2030 (compared to 2013), 2) 60% reduction by FY2035, 3) 73% reduction by FY2040, and carbon neutrality by 2050, consistent with</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
		<p>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.</p> <p>Transition strategies should incorporate long-term and medium- to short-term targets based on science based disclosure of decarbonisation measures, and strategic plans that are consistent with the Paris Agreement's goal of ‘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.’</p>		<ul style="list-style-type: none">- Plan for Global Warming Countermeasures- Strategic Energy Plan- Long-term strategy as a growth strategy based on the Paris Agreement- Japan’s NDC- Sector-specific technology roadmap- Sector-Specific Investment Strategies- GX Implementation Council documents- Assessment documents <p>Interview with the Issuer</p>	<p>the goals of the Paris Agreement. The specific plan, including a basic concept, future actions, targets and strategies, investments, regulations and institutions, and international strategies for each major initiative have been disclosed in the roadmap.</p> <table><tr><th>Fiscal year</th><th>Targets</th><th>CO₂ emissions</th></tr><tr><td>2013</td><td>Base year</td><td>1.408 billion t-CO₂</td></tr><tr><td>2030</td><td>CO₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)</td><td>0.760 billion t-CO₂</td></tr><tr><td>2035</td><td>CO₂ emissions: 60% reduction</td><td>0.570 billion t-CO₂</td></tr><tr><td>2040</td><td>CO₂ emissions: 73% reduction</td><td>0.380 billion t-CO₂</td></tr><tr><td>2050</td><td>Carbon neutrality</td><td>0 billion t-CO₂</td></tr></table>	Fiscal year	Targets	CO ₂ emissions	2013	Base year	1.408 billion t-CO ₂	2030	CO ₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)	0.760 billion t-CO ₂	2035	CO ₂ emissions: 60% reduction	0.570 billion t-CO ₂	2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂	2050	Carbon neutrality	0 billion t-CO ₂
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◎ (△)	1-b)	<p>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 Agreement¹⁰.</p>	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 1-a)	<p>DNV has confirmed that the transition bond is intended to fund a wide range of eligible businesses (projects) that focus on the Issuer’s challenges and initiatives to address climate change, GX goals and initiatives and the Transition Strategy as set out in the roadmap, the Framework and Schedule-1 of this report.</p> <p>Specifically, all nominated eligible projects that meet the eligibility criteria, and the criteria set out for each eligibility criterion shown in the table below and in</p>																		

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																			
		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 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.			<p>Schedule-1 will be assessed as meeting the Transition Strategy. The proceeds from the transition bond will be allocated to one or more of the nominated eligible projects selected through an appropriate process. If an allocation is selected prior to the execution of the transition bond, it will be disclosed in statutory documents etc.</p> <p>The eligibility criteria are organized as the content of initiatives aimed at achieving decarbonization as well as industrial competitiveness and economic growth by transforming Japan’s energy system (from fossil fuel-based energy to clean energy) and industrial and social structure through GX.</p> <p>Through the assessment, DNV concludes that the eligibility criteria and the nominated eligible projects that meet the criteria defined for each eligibility criterion provide true environmental benefits.</p> <table><tr><th rowspan="2">No.</th><th colspan="3">Eligibility Criteria</th></tr><tr><th>Categories</th><th colspan="2">Sub-categories</th></tr><tr><td rowspan="4">1</td><td rowspan="4">Energy efficiency</td><td rowspan="3">Promotion of thorough energy efficiency improvement</td><td>Houses and buildings</td></tr><tr><td>Restructuring the manufacturing industry (fuel and feedstocks transition)</td></tr><tr><td>Digital investment aimed at decarbonization</td></tr><tr><td colspan="2">Battery industry</td></tr><tr><td>2</td><td>Renewable energy</td><td colspan="2">Making renewable energy a major power source</td></tr></table>	No.	Eligibility Criteria			Categories	Sub-categories		1	Energy efficiency	Promotion of thorough energy efficiency improvement	Houses and buildings	Restructuring the manufacturing industry (fuel and feedstocks transition)	Digital investment aimed at decarbonization	Battery industry		2	Renewable energy	Making renewable energy a major power source	
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Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
					<table><tr><td rowspan="2">3</td><td rowspan="2">Low-carbon and decarbonized energy</td><td>Establishing electricity and gas markets to achieve carbon neutrality</td></tr><tr><td>Utilization of nuclear power</td></tr><tr><td rowspan="3">4</td><td rowspan="3">Clean transportation</td><td>GX in transport sector</td></tr><tr><td>Resource circulation</td></tr><tr><td>Infrastructure</td></tr><tr><td rowspan="3">5</td><td rowspan="3">Circular economy adapted products, production technologies and processes</td><td>Restructuring the manufacturing industry (fuel and feedstocks transition)</td></tr><tr><td>Facilitating the introduction of hydrogen and ammonia</td></tr><tr><td>Carbon Recycling and CCS</td></tr><tr><td rowspan="2">6</td><td rowspan="2">Sustainable management of biological natural resources etc.</td><td>Food, agriculture, forestry, and Fisheries industry</td></tr><tr><td>Resource circulation</td></tr></table>	3	Low-carbon and decarbonized energy	Establishing electricity and gas markets to achieve carbon neutrality	Utilization of nuclear power	4	Clean transportation	GX in transport sector	Resource circulation	Infrastructure	5	Circular economy adapted products, production technologies and processes	Restructuring the manufacturing industry (fuel and feedstocks transition)	Facilitating the introduction of hydrogen and ammonia	Carbon Recycling and CCS	6	Sustainable management of biological natural resources etc.	Food, agriculture, forestry, and Fisheries industry	Resource circulation
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		Resource circulation																					
◎	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 business model. In such cases, the fundraiser should take into consideration widely the impact of business innovations to society and environment other than climate change (including “Just Transition”).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>With regard to the implementation of the Issuer’s Transition Strategy, DNV has confirmed through its assessment of the Issuer that the significant social and environmental impacts are expected to contribute to industrial competitiveness and economic growth, in addition to the contribution to climate change.</p> <p>It is referred to 1-l), 4-b) about consideration of “Just Transition”.</p>																		

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
◎ (△)	1-d)	Climate change-related scenarios ¹¹ 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>The Issuer’s Transition Strategy is established on the Plan for Global Warming Countermeasures, Japan’s NDC (Nationally Determined Contribution), the Strategic Energy Plan and the long-term strategy as a growth strategy based on the Paris Agreement, which were formulated with reference to international scenarios.</p> <p>The Issuer has formulated roadmaps for promoting transition finance in key emission sectors (11 sectors in total, including power, industry and transport) in line with various governmental measures and scenarios (see e.g., IEA, IPCC, SBTi), including GHG (CO₂) emission reduction images.</p> <table><tr><th>(1) METI</th><th>(2) Other sectors</th></tr><tr><td>Steel sector</td><td>International shipping sector (MLIT)</td></tr><tr><td>Chemical sector</td><td>Inland shipping sector (MLIT)</td></tr><tr><td>Power sector</td><td>Aviation sector (MLIT)</td></tr><tr><td>Gas sector</td><td></td></tr><tr><td>Oil sector</td><td></td></tr><tr><td>Pulp and paper sector</td><td></td></tr><tr><td>Cement sector</td><td></td></tr><tr><td>Automotive sector</td><td></td></tr></table>	(1) METI	(2) Other sectors	Steel sector	International shipping sector (MLIT)	Chemical sector	Inland shipping sector (MLIT)	Power sector	Aviation sector (MLIT)	Gas sector		Oil sector		Pulp and paper sector		Cement sector		Automotive sector	
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○	1-e)	Transition 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	DNV has confirmed that the Issuer has established a structure and mechanism to promote the Transition Strategy as a country. DNV has also confirmed that the above plans and strategies, which form the basis for the implementation of the Transition Strategy, will be updated annually or through periodic follow-ups and revisions.																		

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
△	1-f)	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	DNV has confirmed that the Issuer’s Transition Strategy has also generally been implemented, or is planned to be implemented in the future, for the “recommended” and “be considered/possible” items in these Basic Guidelines.
△	1-g)	In order to secure the effectiveness of the transition strategy, the fundraiser should establish an governance ³¹ including accountability at the managements and board of directors levels. 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>DNV has confirmed that the Issuer will establish and implement the following organizational structures:</p> <ul style="list-style-type: none"> For GX implementation, the GX Implementation Council, chaired by the Prime Minister, has been held since July 2022 to have discussions with relevant ministers and experts to determine the policy direction. 

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
©	1-h)	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>DNV has confirmed that the Issuer has defined the targets and activities necessary to realize the GX for each industry.</p> <p>Specifically, the Issuer has formulated roadmaps for promoting transition finance in key emission sectors (11 sectors in total, including power, industry and transport) in line with various governmental measures and scenarios (see e.g., IEA, IPCC, SBTi), including GHG (CO₂) emission reduction images.</p> <p>In addition, specific measures and emission reductions are set out in the Plan for Global Warming Countermeasures until 2030.</p>
△	1-i)	Transition strategies should be disclosed in advance in a company's integrated report, sustainability report, statutory documents and other materials for investors (including such disclosures on the website). This also applies to the other three elements.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>DNV has confirmed that the Issuer's Transition Strategy and Governance has been publicly disclosed and explained to stakeholders, including investors, in advance through the roadmap and the Framework.</p>
©	1-j)	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 IFRS S2 and SSBJ sustainability disclosure theme	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>The main process of the Issuer's Transition Strategy follows the NDC framework (rules for NDC description etc.) with seven items outlined and disclosed in the annex to "Japan's NDC (Nationally Determined Contribution)."</p> <ol style="list-style-type: none"> 1. Quantifiable information on the reference point (including, as appropriate, a base year): 2. Time frames and/or periods for implementation: 3. Scope and coverage: 4. Planning processes:

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
		standard and Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD; Final Report) ³² .			<p><u>5.</u> Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:</p> <p><u>6.</u> How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances:</p> <p><u>7.</u> How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2:</p> <p>Other detailed implementation plans and governance have been disclosed in the Framework.</p>																		
△	1-k)	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 ¹⁴ , 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.	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 1-a)	<p>The Climate Transition Bond executed in accordance with the Issuer’s Transition Strategy contributes directly or indirectly to the SDGs and contributes to Just Transition. The direct or indirect contributions to the SDGs are categorized by eligibility criteria and each area of contribution to the SDGs are organized.</p> <table><tr><th>No.</th><th>Eligibility criteria</th><th>Representative SDGs items</th></tr><tr><td>1</td><td>Energy efficiency</td><td>7, 8, 9, 11, 13</td></tr><tr><td>2</td><td>Renewable energy</td><td>7, 8, 13</td></tr><tr><td>3</td><td>Low-carbon and decarbonized energy</td><td>7, 8, 9, 13</td></tr><tr><td>4</td><td>Clean transportation</td><td>7, 8, 9, 11, 13</td></tr><tr><td>5</td><td>Prevention and control of pollution</td><td>7, 8, 9, 13</td></tr></table>	No.	Eligibility criteria	Representative SDGs items	1	Energy efficiency	7, 8, 9, 11, 13	2	Renewable energy	7, 8, 13	3	Low-carbon and decarbonized energy	7, 8, 9, 13	4	Clean transportation	7, 8, 9, 11, 13	5	Prevention and control of pollution	7, 8, 9, 13
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					<table><tr><td>6</td><td>Circular economy adapted products etc.</td><td>7, 8, 9, 13</td></tr><tr><td>7</td><td>Sustainable management of living natural resources etc.</td><td>8, 9, 11, 12, 13, 14, 15</td></tr></table> <p>SDGs items</p> <div><div></div><div>7. Affordable and clean energy</div></div> <div><div></div><div>8. Decent work and economic growth</div></div> <div><div></div><div>9. Industry innovation and infrastructure</div></div> <div><div></div><div>11. Sustainable cities and communities</div></div> <div><div></div><div>12. Responsible consumption and production</div></div> <div><div></div><div>13. Climate action</div></div> <div><div></div><div>14. Life below water</div></div> <div><div></div><div>15. Life on land</div></div>	6	Circular economy adapted products etc.	7, 8, 9, 13	7	Sustainable management of living natural resources etc.	8, 9, 11, 12, 13, 14, 15
6	Circular economy adapted products etc.	7, 8, 9, 13									
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○	1-l)	It is recommended that transition strategies specify the main measures for reducing GHG emissions, including detailed capital expenditure (CapEx) plans and related technical	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 1-a)	DNV confirmed that issuer have demonstrated technical measures for reducing GHG emissions in each sector and investment strategies as governments through the formulation and disclosure of ‘sector-specific technology roadmaps’ and ‘sector-specific investment strategies.’						

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		elements (i.e., planned expenditure amounts, carbon costs to be considered when implementing the capital expenditure plan, impact on business operations, regulatory considerations, etc.).			It is also confirmed that issuer has demonstrated investment promotion packages that incorporate carbon costs based on growth-oriented carbon pricing.
◎	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	<p>DNV has confirmed that the Issuer intends to update the Transition Strategy and plans as necessary, either annually or through periodic follow-ups and revisions.</p> <p>In the event of major changes to the Plan for Global Warming Countermeasures and the Strategic Energy Plan, which form the basis for the strategy implementation, the Transition Strategy and the initiatives for its realization are planned to be reviewed. The content and reasons for the changes are expected to be disclosed in the reviewed plan.</p>
○	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 and the management and the process by	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	Same as 1-h) and 1-m)

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		which the content of deliberations is reflected in management.			
○	1-o)	It is recommended that transition strategies links to mid-term management plans and other management strategies and business plans, taking into consideration how investments in carbon-neutral technologies, low-carbon products and services, and business model reforms will lead to business profits and improve medium-to long-term returns.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	DNV confirmed that issuer explained through the framework that its efforts toward GX could serve as a catalyst for economic growth in Japan and lead to a stable energy supply. It is also confirmed that the utilisation of Japan's decarbonisation technologies would contribute to the achievement of global carbon neutrality and help strengthen Japan's industrial competitiveness and economic growth.
○	1-p)	In cases where the fundraiser determines the need for an objective assessment regarding the transition strategy, it is recommended that a review, assurance and verification by an external organization for its transition strategy.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	The Issuer uses the reviews of DNV and Japan Credit Rating Agency, Ltd. as external bodies to ensure an objective assessment on the eligibility of the Framework, including the Transition Strategy.
△	1-q)	It is recognized useful to obtain a review particularly concerning the following in connection with the transition strategy: <ul style="list-style-type: none"> - Alignment of short-term, mid- term and long-term targets (for targets, refer 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-a)	DNV has confirmed the following with regard to its review of the Issuer's Transition Strategy: <ul style="list-style-type: none"> - The Issuer's Transition Strategy is aligned with mid- and long-term goals, and established GHG (CO₂) emission reduction images etc. in major GHG-intensive industries in line with governmental measures and scenarios (see e.g., IEA, IPCC, SBTi).

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
		<p>to Element 3) with the overall scenario</p> <ul style="list-style-type: none">- Credibility of the fundraiser’s strategy to reach the targets- With regard to scenarios, it is recommended to refer not only to international scenarios but also to more detailed scenarios specific to regions and industries. From this perspective, sector-specific technology roadmaps can be referenced in Japan. For example, in Asia, pathways such as ERIA's e-carbonisation Pathway in ASEAN³⁴ and ASEAN TRANSITION FINANCE GUIDANCE VERSION 2³⁵ - 4.2.2. Transition Pathway are currently available for reference, but it is expected that industry-specific and country-specific scenarios will be further refined in the future.- The level and type of independent governance and oversight of the climate transition strategy			<p>These are consistent with the targets shown in the table below as a whole.</p> <table><tr><th>Fiscal year</th><th>Targets</th><th>CO₂ emissions</th></tr><tr><td>2013</td><td>Base year</td><td>1.408 billion t-CO₂</td></tr><tr><td>2030</td><td>CO₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)</td><td>0.760 billion t-CO₂</td></tr><tr><td>2035</td><td>CO₂ emissions: 60% reduction</td><td>0.570 billion t-CO₂</td></tr><tr><td>2040</td><td>CO₂ emissions: 73% reduction</td><td>0.380 billion t-CO₂</td></tr><tr><td>2050</td><td>Carbon neutrality</td><td>0 billion t-CO₂</td></tr></table> <ul style="list-style-type: none">- DNV has confirmed that the implementation plan is credible, ambitious and achievable based on the assessment of the Transition Strategy in accordance with the Framework established by the national plans etc. and the “Basic Policy for the Realization of GX.”- DNV confirmed that issuer provided medium- to long-term technical scenarios for GHG emission reductions in each sector through the formulation and disclosure of ‘sector-specific technology roadmaps.’ It is expected that quantitative targets and other details will be added to the ‘sector-specific technology roadmaps’ in order to enhance their reliability and predictability.- The Transition Strategy is planned to appropriately implemented through the organizational structure described in 1-g) and the management processes described in 1-f), 1-m), and 1-n).	Fiscal year	Targets	CO ₂ emissions	2013	Base year	1.408 billion t-CO ₂	2030	CO ₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)	0.760 billion t-CO ₂	2035	CO ₂ emissions: 60% reduction	0.570 billion t-CO ₂	2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂	2050	Carbon neutrality	0 billion t-CO ₂
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Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		of the funder (e.g., governance and oversight by external directors or a special committee of the board of directors with appropriate expertise, or governance and oversight through procedures to obtain shareholder approval of the funder's climate transition strategy).			

- 29 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.
- 30 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.
- 31 Assumes matters provided for under "governance" in the TCFD Recommendations, and IFRS S2 climate related disclosure (Draft) can be referenced
- 32 As for the approach to disclosure aligned with TCFD Recommendations, refer to "Guidance on Climate-related Financial Disclosures (TCFD Guidance) 3.0 (2022)", "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". Reference should be made to IFRS S2 and the SSBJ Climate-related Disclosure Standards (draft).³⁴ In terms of response, it is possible to identify, mitigate and manage the risk of negative impacts.
- 33 An example of the approach may be to identify, eliminate, reduce, and manage potential negative effects.
- 34 ASIA Zero Emission Center (ERIA)
- 35 「ASEAN Transition Finance Guidance Version2」 (ACMF, 2024)

CTFBG-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. ³⁶	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Confirmed documents: - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Strategic Energy Plan - Long-term strategy as a growth strategy based on the Paris Agreement - Japan's NDC - Sector-specific technology roadmap - Sector-Specific Investment Strategies - GX Implementation Council documents - Assessment documents Interview with the Issuer	<p>The Issuer has positioned realization of the Transition Strategy through GX as an important industrial and energy policy that shifts the industrial and social structure to a clean energy focus in order to ensure a stable energy supply for business activities and people's lives, promote decarbonization and achieve economic growth.</p> <p>As GX core business activities, the roadmap has identified the following eligibility criteria as specific initiatives.</p> <table><tr><th rowspan="2">No.</th><th colspan="3">Eligibility Criteria</th></tr><tr><th>Categories</th><th colspan="2">Sub-categories</th></tr><tr><td rowspan="4">1</td><td rowspan="4">Energy efficiency</td><td rowspan="3">Promotion of thorough energy efficiency improvement</td><td>Houses and buildings</td></tr><tr><td>Restructuring the manufacturing industry (fuel and feedstocks transition)</td></tr><tr><td>Digital investment aimed at decarbonization</td></tr><tr><td colspan="2">Battery industry</td></tr><tr><td>2</td><td>Renewable energy</td><td colspan="2">Making renewable energy a major power source</td></tr><tr><td rowspan="2">3</td><td rowspan="2">Low-carbon and decarbonized energy</td><td colspan="2">Establishing electricity and gas markets to achieve carbon neutrality</td></tr><tr><td colspan="2">Utilization of nuclear power</td></tr><tr><td rowspan="3">4</td><td rowspan="3">Clean transportation</td><td colspan="2">GX in transport sector</td></tr><tr><td colspan="2">Resource circulation</td></tr><tr><td colspan="2">Infrastructure</td></tr><tr><td rowspan="2">5</td><td rowspan="2">Circular economy adapted products, production technologies and processes</td><td colspan="2">Restructuring the manufacturing industry (fuel and feedstocks transition)</td></tr><tr><td colspan="2">Facilitating the introduction of hydrogen and ammonia Carbon Recycling and CCS</td></tr></table>	No.	Eligibility Criteria			Categories	Sub-categories		1	Energy efficiency	Promotion of thorough energy efficiency improvement	Houses and buildings	Restructuring the manufacturing industry (fuel and feedstocks transition)	Digital investment aimed at decarbonization	Battery industry		2	Renewable energy	Making renewable energy a major power source		3	Low-carbon and decarbonized energy	Establishing electricity and gas markets to achieve carbon neutrality		Utilization of nuclear power		4	Clean transportation	GX in transport sector		Resource circulation		Infrastructure		5	Circular economy adapted products, production technologies and processes	Restructuring the manufacturing industry (fuel and feedstocks transition)		Facilitating the introduction of hydrogen and ammonia Carbon Recycling and CCS	
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		Facilitating the introduction of hydrogen and ammonia Carbon Recycling and CCS																																										
○	2-b)	When identifying business activities that are environmentally	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Same as 2-a)	The Issuer's Transition Strategy is established on the Plan for Global Warming Countermeasures, Japan's NDC (Nationally																																							

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
		material parts, it is recommended that the fundraiser consider multiple climate change-related scenarios that may possibly impact its judgment on the identification ³⁷ .	<input type="checkbox"/> Not Applicable		<p>Determined Contribution), the Strategic Energy Plan and the long-term strategy as a growth strategy based on the Paris Agreement, which were formulated with reference to international scenarios.</p> <p>The Issuer has formulated roadmaps for promoting transition finance in key emission sectors (11 sectors in total, including power, industry and transport) in line with various governmental measures and scenarios (see e.g., IEA, IPCC, SBTi), including GHG (CO₂) emission reduction images.</p> <table><tr><td>(1) METI</td><td>(2) Other sectors</td></tr><tr><td>Steel sector</td><td>International shipping sector (MLIT)</td></tr><tr><td>Chemical sector</td><td>Inland shipping sector (MLIT)</td></tr><tr><td>Power sector</td><td>Aviation sector (MLIT)</td></tr><tr><td>Gas sector</td><td></td></tr><tr><td>Oil sector</td><td></td></tr><tr><td>Pulp and paper sector</td><td></td></tr><tr><td>Cement sector</td><td></td></tr><tr><td>Automotive sector</td><td></td></tr></table>	(1) METI	(2) Other sectors	Steel sector	International shipping sector (MLIT)	Chemical sector	Inland shipping sector (MLIT)	Power sector	Aviation sector (MLIT)	Gas sector		Oil sector		Pulp and paper sector		Cement sector		Automotive sector	
(1) METI	(2) Other sectors																						
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△	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 ³⁸ .	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-a)	<p>Although no existing guidance has been applied with regard to the consideration of the environmental materialities of the Issuer, the challenges and initiatives as well as initiatives through GX presented by the Issuer itself to address climate change have been positioned as an important industrial and energy policy to shift the industrial and social structure to a clean energy focus.</p> <p>These initiatives are consistent with Japan’s initiatives to address climate change and other environmental issues in the international society, as well as initiatives consistent with the Paris Agreement.</p>																		

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
◎	2-d)	The fundraiser should indicate that climate change is an environmentally material part of business activities ³⁹ .	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-a)	<p>The Issuer has explained through the roadmap and the Framework that the initiatives to address climate change are important to the country in the environmental aspect.</p> <p>The Issuer is also supporting the participation of Japanese companies in the TCFD on climate change initiatives and recommends to disclose that climate change will be important in the environmental aspect for corporate activities in the entire society.</p>
○	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-a)	<p>The Issuer has formulated roadmaps for promoting transition finance in key emission sectors (11 sectors in total, including power, industry and transport, etc.) in line with various governmental measures and scenarios (refer to e.g., IEA, IPCC, SBTi), including GHG (CO₂) emission reduction images (see 1-d), and 2-b)).</p>
△	2-f)	Explanations regarding the materiality ; - It is also possible that transition strategies can be disclosed in the form of a materiality matrix for fundraisers, or they can be included in fundraisers' annual reports. - It is also possible to explain the importance of climate-related projects that meet certain criteria and the importance of KPIs related to fundraisers' overall emissions. - Scope 3 emissions should also be disclosed according to their importance. However, since	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable Same as 2-a)	Same as 2-a)	<p>The materiality of issuer's transition strategies is closely related to various measures and targets related to NDCs, basic energy plans, and GX initiatives, and is explained through the disclosure of this information.</p> <p>The issuer or Japan's GHG emissions cannot be directly calculated as Scope 3. When evaluating GHG emissions equivalent to Scope 3 from whole Japanese society emission, it has been confirmed that the coverage rate is 100% based on the IPCC guidelines, including the target boundary and target gases (see 3-c)).</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		<p>Scope 3 emissions are basically emissions from outside the company, it is possible to estimate them on a provisional 'best effort' basis using information that is readily available at that point in time without incurring excessive costs or effort. When disclosing Scope 3 emissions, it is important to understand that there are 15 categories and to focus on the categories most relevant to investors. Additionally, it is strongly recommended to disclose information on boundaries, calculation methods, and other related details. Furthermore, if Scope 3 emissions are expected to be significant but have not yet been quantified or measured, the timeline for disclosure should be disclosed in a manner consistent with discussions at the ISSB. Guidelines for calculation include the 'Basic Guidelines for Calculating Greenhouse Gas Emissions Through the Supply Chain' (Ministry of Economy, Trade and Industry and Ministry of the Environment).</p>			

- 36 They include activities that are environmentally material parts are considered to be business activities of the issuer that identifies climate change as part of its materiality.
- 37 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".
- 38 "The SASB Materiality Map" issued by the Sustainability Accounting Standards Board serves as a guidance concerning materiality.
- 39 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.

CTFBG-3 Climate Transition Strategy to be Science-based including Targets and Pathways

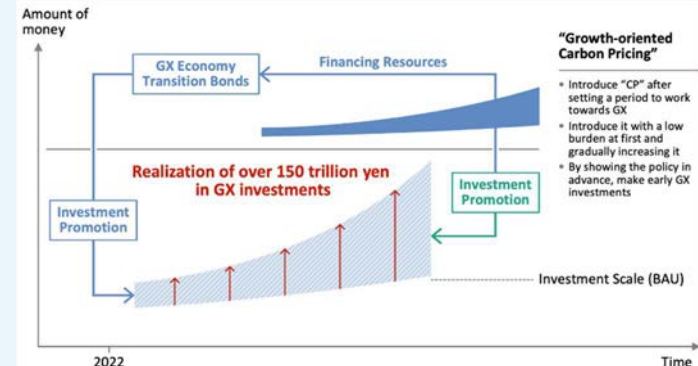
Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
◎	3-a)	The fundraiser should reference science-based targets in developing its transition strategies.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Strategic Energy Plan - Long-term strategy as a growth strategy based on the Paris Agreement - Japan's NDC - Sector-specific technology roadmap - Sector-Specific Investment Strategies <p>Interview with the Issuer</p>	<p>The Transition Strategy is based on the long-term goal of carbon neutrality in 2050, when the total emissions and absorptions of greenhouse gases will be zero, and the mid-term goals of 1) 46% reduction by FY2030 (compared to FY2013), 2) 60% reduction by FY2035, and 3) 73% reduction by FY2040.</p> <p>The long-term goal is consistent with the goals of the Paris Agreement, and the mid-term goals for FY2030, FY2035, and FY2040 are the intersection on a trajectory linearly interpolated from FY2013 (base year) emissions to carbon neutrality in 2050, both of which are considered to have a scientific basis.</p> <p>The Transition Strategy is embodied in the roadmap, the GX 2040 Vision, the Sector-Specific Investment Strategies, the Plan for Global Warming Countermeasures, etc. together with implementation timelines based on the above science based goals.</p>
◎	3-b)	The target 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The Issuer has a long-term goal of carbon neutrality in 2050, when the total emissions and absorptions of greenhouse gases will be zero, which is intended to align with the goals of the Paris Agreement, and mid-term goals for FY2030, FY2035, and FY2040 (see the table below).</p> <p>These have been measured and monitored for a long period of time in the Plan for Global Warming</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
					<div>Countermeasures etc., and are judged to be quantifiable using consistent and the latest available measurement methods.</div> <table><tr><th>Fiscal year</th><th>Targets</th><th>CO₂ emissions</th></tr><tr><td>2013</td><td>Base year</td><td>1.408 billion t-CO₂</td></tr><tr><td>2030</td><td>CO₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)</td><td>0.760 billion t-CO₂</td></tr><tr><td>2035</td><td>CO₂ emissions: 60% reduction</td><td>0.570 billion t-CO₂</td></tr><tr><td>2040</td><td>CO₂ emissions: 73% reduction</td><td>0.380 billion t-CO₂</td></tr><tr><td>2050</td><td>Carbon neutrality</td><td>0 billion t-CO₂</td></tr></table>	Fiscal year	Targets	CO ₂ emissions	2013	Base year	1.408 billion t-CO ₂	2030	CO ₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)	0.760 billion t-CO ₂	2035	CO ₂ emissions: 60% reduction	0.570 billion t-CO ₂	2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂	2050	Carbon neutrality	0 billion t-CO ₂
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◎ (○)	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 supply- chain emissions. It is strongly 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.	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 3-a)	<div>The Issuer has defined emission reductions as absolute values (GHG emissions and absorptions).</div> <div>GHG emissions cannot be directly organized as Scope 3 in the assessment of GHG emissions of the Issuer or Japan. When GHG emissions corresponding to Scope 3 are taken and assessed as emissions of the entire Japanese society, the coverage ratio is confirmed to be 100%, including target boundary and target gases, in accordance with IPCC guidelines.</div>																		
△	3-d)	From the perspective of promoting the GX value of products and making visible their contribution to reducing emissions across society as a whole, it is possible to show	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 3-a)	<div>Same as 3-c)</div> <div>(No target disclosure of Avoided emission or Emission result/performance)</div>																		

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		the avoided emission amount, reduction performance/achievement amount, or both of these targets in addition to the above Scope 1 to 3 targets, as necessary.			
© (△)	3-e)	<p>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 trajectories⁴¹.</p> <ul style="list-style-type: none"> - Scenarios widely recognized in the international community⁴² - 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 sector⁴³, industries set out plans that are science-based achieving the Paris Agreement⁴⁴ and so on. <p>Furthermore, in cases where there is no scientifically based trajectory established by a third party, it may be possible to</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The Issuer's transition targets refer to the following:</p> <ul style="list-style-type: none"> • Japan's NDC consistent with the goals of the Paris Agreement (February 2025) <p>The Issuer has formulated roadmaps for promoting transition finance in key emission sectors (11 sectors in total, including power, industry and transport) in line with various governmental measures and scenarios (see e.g., IEA, IPCC, SBTi), including GHG (CO₂) emission reduction images.</p> <p>The science based trajectory is a linear interpolation between 2013 as the base year to 2050 carbon neutrality as the long-term goal.</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		consider comparisons with competitors, the use of internal methods, and past performance.			
©	3-f)	<p>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 benchmarks⁴⁵.</p> <ul style="list-style-type: none"> - Regarding scenarios, it is recommended to refer not only to international scenarios but also to more detailed scenarios specific to regions and industries. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The mid-term goals for FY2030, FY2035, and FY2040 are the intersection on a trajectory linearly interpolated from FY2013 (base year) emissions to carbon neutrality in 2050, and are judged to be on the path towards the long-term goal.</p> <ul style="list-style-type: none"> - The issuer provides a 'sector-specific technology roadmap' for major hard-to-abate industries that includes short- and medium-term initiatives that take into account Japan's regional and industry characteristics, referring to international scenarios. From the perspective of enhancing reliability and predictability, it is expected that quantitative targets, etc. will be added to the 'sector-specific technology roadmap.'
△	3-g)	<p>(regarding to 3-f)), 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 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.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The Issuer set 2013 as the base year (starting point) as an update as of 2015, when the goal for 2030 was first prepared prior to the Paris Agreement. The mid-term goals for FY2030, FY2035, and FY2040 are on a linear interpolation between FY2013 and 2050 as shown in 3-a), 3-e) and 3-f). However, the process along the way may be non-linear due to various factors (e.g., status of technology development, implementation status, economic rationale).</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																		
◎	3-h)	The fundraiser should disclose the short- to mid-term and long-term targets they have set, including the base years, past emission (including absolute emission in case of that carbon intensity is key indicator) etc.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The Issuer’s mid-term and long-term goals use 2013 CO₂ emissions as the base year. CO₂ emissions are calculated as the total of GHG emissions and absorptions.</p> <p>The CO₂ emissions (GHG emissions) for the base year, mid-term and long-term goals are as follows:</p> <table><tr><th>Fiscal year</th><th>Targets</th><th>CO₂ emissions</th></tr><tr><td>2013</td><td>Base year</td><td>1.408 billion t-CO₂</td></tr><tr><td>2030</td><td>CO₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)</td><td>0.760 billion t-CO₂</td></tr><tr><td>2035</td><td>CO₂ emissions: 60% reduction</td><td>0.570 billion t-CO₂</td></tr><tr><td>2040</td><td>CO₂ emissions: 73% reduction</td><td>0.380 billion t-CO₂</td></tr><tr><td>2050</td><td>Carbon neutrality</td><td>0 billion t-CO₂</td></tr></table>	Fiscal year	Targets	CO ₂ emissions	2013	Base year	1.408 billion t-CO ₂	2030	CO ₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)	0.760 billion t-CO ₂	2035	CO ₂ emissions: 60% reduction	0.570 billion t-CO ₂	2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂	2050	Carbon neutrality	0 billion t-CO ₂
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○	3-i)	Where applicable, it is strongly recommended to disclose the use of carbon capture technologies, the status of use of high-quality and reliable carbon credits ⁴⁶ , and the contribution to the trajectory of greenhouse gas emission reductions using above technology and scheme.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The issuer also works on a strategy to achieve the goals set forth by GX through blended finance, which combines public and private funds, including GX economic transition bonds (including Climate transition bonds), in order to provide incentives for promoting GX through the introduction of carbon pricing in the future (see figure below).</p> <p>Additionally, the issuer works on CCS (Carbon Capture and Storage) as carbon capture technologies, in the fields of environmentally adaptive products, environmentally considerate production technologies and processes, as well as the utilisation of greenhouse gas absorption sources such as forests, farmland, and algal beds in the food, agriculture, forestry, and fisheries sectors (these are also included as nominated use of proceeds of climate transition bonds).</p>																		

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
					 <p>Figure Growth-oriented carbon pricing concept</p>
©	3-j)	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The Issuer's transition targets are set in accordance with the Japan's NDC, which is consistent with the goals of the Paris Agreement.</p> <p>The Issuer has formulated roadmaps for promoting transition finance in key emission sectors (11 sectors in total, including power, industry and transport) in line with various governmental measures and scenarios (see e.g., IEA, IPCC, SBTi), including GHG (CO₂) emission reduction images.</p>
△	3-k)	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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>The Issuer has disclosed the basic investment program for the implementation of the Transition Strategy.</p> <p>Specifically, the Issuer plans to provide approximately JPY 20 trillion in governmental support (The GX</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings															
		transition strategy, based on the investment plan (refer to Element 4) and other plans.			<p>Economy Transition Bonds) as upfront investment support over a 10-year period starting in FY2023, as well as over JPY 150 trillion in public-private investment over the same period.</p> <p>The major investment destinations of the GX Economy Transition Bonds are the following:</p> <p>“Promotion of non-fossil energy (JPY 6-8 trillion)”</p> <p>“Industrial restructuring and radical energy conservation in a combination of supply and demand (approximately JPY 9-12 trillion)”</p> <p>“Resource recycling and carbon fixation technologies (approximately JPY 2-4 trillion)”</p> <p>The investment program has been disclosed in the Framework and the “Basic Policies for the Realization of GX” as the information necessary for dialogue with the market.</p>															
				<div><div><p>Breakdown of government support over the next decade</p><p>20 trillion yen</p><table><tr><td>Expansion of non-fossil energy</td><td>6~8 trillion yen</td><td><p>Example</p><ul style="list-style-type: none">Support for demand expansion of hydrogen and ammoniaResearch and development of new technologies related to renewable energy etc.</td></tr><tr><td>Transformation of industrial structure on both supply and demand sides & Drastic reinforcement of energy saving</td><td>9~12 trillion yen</td><td><p>Example</p><ul style="list-style-type: none">Energy conservation and fuel conversion for structural reform and improving profitability in the manufacturing industryNationwide measures addressing domestic energy demandsAchieve drastic energy savings etc.</td></tr><tr><td>Resource recycling and carbon fixation technologies etc.</td><td>2~4 trillion yen</td><td><p>Example</p><ul style="list-style-type: none">R&D and implementation of new technologies etc.</td></tr></table></div><div><p>Attracting private investment in conjunction with regulations, etc</p></div><div><p>Overall public and private investment over the next decade</p><p>150 trillion yen</p><table><tr><td>60 trillion yen~</td><td><ul style="list-style-type: none">Massive introduction of renewablesNuclear energy (R&D of innovative reactors, etc.)Hydrogen and ammonia etc.</td></tr><tr><td>80 trillion yen~</td><td><ul style="list-style-type: none">Energy saving and fuel conversion in the manufacturing industry (e.g., steel, chemicals, cement)Digital investment for decarbonizationEstablishment of battery industryStructural transformation of ship and aircraft industriesNext-generation automobilesHousing and Buildings etc.</td></tr><tr><td>10 trillion yen~</td><td><ul style="list-style-type: none">Resource recycling industryBio manufacturing etc.CCS</td></tr></table></div></div>		Expansion of non-fossil energy	6~8 trillion yen	<p>Example</p> <ul style="list-style-type: none">Support for demand expansion of hydrogen and ammoniaResearch and development of new technologies related to renewable energy etc.	Transformation of industrial structure on both supply and demand sides & Drastic reinforcement of energy saving	9~12 trillion yen	<p>Example</p> <ul style="list-style-type: none">Energy conservation and fuel conversion for structural reform and improving profitability in the manufacturing industryNationwide measures addressing domestic energy demandsAchieve drastic energy savings etc.	Resource recycling and carbon fixation technologies etc.	2~4 trillion yen	<p>Example</p> <ul style="list-style-type: none">R&D and implementation of new technologies etc.	60 trillion yen~	<ul style="list-style-type: none">Massive introduction of renewablesNuclear energy (R&D of innovative reactors, etc.)Hydrogen and ammonia etc.	80 trillion yen~	<ul style="list-style-type: none">Energy saving and fuel conversion in the manufacturing industry (e.g., steel, chemicals, cement)Digital investment for decarbonizationEstablishment of battery industryStructural transformation of ship and aircraft industriesNext-generation automobilesHousing and Buildings etc.	10 trillion yen~	<ul style="list-style-type: none">Resource recycling industryBio manufacturing etc.CCS
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Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
△	3-I)	<p>Concerning targets and trajectories, obtaining independent expert reviews on the following is considered to be particularly useful. It is also useful to obtain independent external review to past data point)</p> <ul style="list-style-type: none"> - Whether the long-term target is aligned with science-based targets <ul style="list-style-type: none"> ➢ 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 <ul style="list-style-type: none"> ➢ 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 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 3-a)	<p>Based on the documentation and information provided by the Issuer, DNV reviewed the following and has confirmed that the targets and trajectories are based on scientific evidence:</p> <ul style="list-style-type: none"> - Is the long-term goal based on scientific evidence? <ul style="list-style-type: none"> ➢ The long-term goal of the Issuer is carbon neutrality in 2050, when the total emissions and absorptions of greenhouse gases will be zero. The long-term goal is consistent with the goals of the Paris Agreement and is considered to have a scientific basis. - In setting short- and mid-term goals, has the greenhouse gas calculation been estimated based on an analysis of climate change scenario? <ul style="list-style-type: none"> ➢ The greenhouse gas calculation was estimated for short- and mid-term goals based on linear interpolation between the long-term goal under the Paris Agreement and the base year, and 46% reduction in GHG emissions by FY2030 (compared to FY2013), 60% reduction by FY2035, and 73% reduction by FY2040 have been set. - Are performance values relating to the indicators utilized in the goals quantitatively measured by consistent measurement methods? <ul style="list-style-type: none"> ➢ The Issuer has set sector-specific GHG emission reduction measures and goals in order to realize the mid-term goal of 46% reduction by FY2030 and 73% reduction by

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		<ul style="list-style-type: none"> ➤ Whether a specific GHG emissions reduction measure has been developed to achieve short- to mid- term targets aligned with long-term goals 			FY2040 in its Plan for Global Warming Countermeasures etc.

- 40 Public-Private Initiatives for Creating the GX Market' (Ministry of Economy, Trade and Industry, 2024)
- 41 ICMA published a Methodologies Register in 2022, which lists tools that are particularly useful for fundraiser to verify their own emission reduction trajectories for their reference. Additionally, Appendix 2 of the ICMA Climate Transition Finance Handbook includes a list of examples of various public and market-based guidelines related to GSS bonds focused on climate transition (including Japan's sector-specific technology roadmaps).
- 42 There are scenarios defined by the IEA that are consistent with the Paris Agreement, as well as the 2°C scenario (RCP2.6) and 1.5°C scenario (RCP1.9) referenced by the IPCC, and benchmarks related to the Transition Pathway Initiative (TPI). In addition, the TCFD Technical Supplement and 'Recommendations for Developing Management Strategies Using the TCFD: A Practical Guide to Scenario Analysis Incorporating Climate-Related Risks and Opportunities, 2022 Edition' (Ministry of the Environment, 2023) list scenarios.
- 43 As for sector-specific roadmaps developed by public institutions, the Ministry of Economy, Trade and Industry has developed and published sector-specific technology roadmaps for eight sectors: steel, chemicals, electricity, gas, petroleum, paper and pulp, cement, and automotive". Additionally, the Ministry of Land, Infrastructure, Transport and Tourism has published roadmaps and timelines for decarbonisation promotion in the shipping and aviation sectors.
- 44 When utilising plans established by industries, etc., it is necessary to ensure reliability by explaining their alignment with the Paris Agreement based on scientific evidence.
- 45 When setting short- to medium-term targets, it may be considered to determine the level by assuming the use of BAT (Best Available Technologies), but it is necessary to consider whether the use of such technologies would make it difficult to achieve long-term targets.
- 46 The use of carbon credits for offsetting purposes to achieve greenhouse gas emission reduction strategies should be kept to a minimum and used solely for the purpose of suppressing residual emissions. When using carbon credits, funders should disclose the rationale and necessity for their use, along with internal policies and related governance regarding the procurement of carbon credits. Documents summarising the use of carbon credits include the 'Carbon Offset Guidelines (Ministry of the Environment),' the Voluntary Carbon Market Initiative (VCMI), and the International Council for Voluntary Carbon Markets (ICVCM).

CTFBG-4 Implementation Transparency

Ref.	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	<p>Confirmed documents:</p> <ul style="list-style-type: none"> - Framework - Basic Policy for the Realization of GX (roadmap) - Sector-Specific Investment Strategies - GX Implementation Council documents - Assessment documents <p>Interview with the Issuer</p>	<p>DNV has confirmed that the Issuer has disclosed the image of the amount of governmental support and the overall amount of public-private investments for the 10 years since 2023 as its investment plan (see 3-i)).</p> <p>The Issuer has disclosed the basic investment program for the implementation of the Transition Strategy.</p> <p>Specifically, the Issuer plans to provide approximately JPY 20 trillion in governmental support (The GX Economy Transition Bonds) as upfront investment support over a 10-year period starting in FY2023, as well as over JPY 150 trillion in public-private investment over the same period.</p> <p>The major investment destinations of the GX Economy Transition Bonds are the following:</p> <p>“Promotion of non-fossil energy (JPY 6-8 trillion)”</p> <p>“Industrial restructuring and radical energy conservation in a combination of supply and demand (approximately JPY 9-12 trillion)”</p> <p>“Resource recycling and carbon fixation technologies (approximately JPY 2-4 trillion)”</p> <p>The investment program has been disclosed in the Framework and the “Basic Policies for the Realization of GX” as the information necessary for dialogue with the market.</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings																									
○	4-b)	The investment plan includes not only capital expenditure (Capex) but also capital and operational expenditure (Opex) (ICP Internal Carbon Pricing). Therefore, costs related to research and development (R&D), 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.	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 4-a)	<p>The Issuer’s investment plan is to invest in projects that are truly difficult for the private sector alone to make investment decisions and that contribute to emission reductions and the realization of industrial competitiveness and economic growth, and will be prioritized based on the basic concept specified in the roadmap (R&D). Specifically, costs related to research and development, including costs for the Green Innovation Fund projects, will be accounted.</p> <p>In addition, as “Just Transition” from the perspective of promoting GX in the entire society, the policy package of investment in people of JPY 400 billion over three years is planned to be significantly expanded to JPY 1 trillion over five years, taking into account the comprehensive economic measures to overcome high prices and realize economic revival approved by the Cabinet in October 2022.</p> <table><tr><th rowspan="2">No.</th><th colspan="3">Eligibility Criteria</th></tr><tr><th>Category</th><th colspan="2">Sub-category</th></tr><tr><td rowspan="4">1</td><td rowspan="4">Energy efficiency</td><td rowspan="3">Promotion of thorough energy efficiency improvement</td><td>Houses and buildings</td></tr><tr><td>Restructuring the manufacturing industry (fuel and feedstocks transition)</td></tr><tr><td>Digital investment aimed at decarbonization</td></tr><tr><td colspan="2">Battery industry</td></tr><tr><td>2</td><td>Renewable energy</td><td colspan="2">Making renewable energy a major power source</td></tr><tr><td rowspan="2">3</td><td rowspan="2">Low-carbon and decarbonized energy</td><td colspan="2">Establishing electricity and gas markets to achieve carbon neutrality</td></tr><tr><td colspan="2">Utilization of nuclear power</td></tr></table>	No.	Eligibility Criteria			Category	Sub-category		1	Energy efficiency	Promotion of thorough energy efficiency improvement	Houses and buildings	Restructuring the manufacturing industry (fuel and feedstocks transition)	Digital investment aimed at decarbonization	Battery industry		2	Renewable energy	Making renewable energy a major power source		3	Low-carbon and decarbonized energy	Establishing electricity and gas markets to achieve carbon neutrality		Utilization of nuclear power	
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		Resource circulation																	
△	4-c)	It is recommended that the investment plan outline the assumed climate-related outcomes and impacts ⁴⁷ in a quantitative fashion where possible, along with the calculation methods and prerequisites ⁴⁸ . If quantification is difficult, the use of external certification systems can be considered as a substitute for qualitative assessment.	<div><input checked="" type="checkbox"/> Yes</div> <div><input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	Same as 4-a)	<p>With regard to the climate-related outcomes and impacts expected in the investment plan, appropriate indicators will be stated in the post-issuance reporting of the transition bond, depending on the characteristics of the eligible projects, and quantitative environmental benefits will be reported for practically quantifiable projects.</p> <p>Items relating to environmental benefits to be stated in the reporting are planned to include the following (see GBP-4 in the main text for details):</p> <ul style="list-style-type: none">- Key environmental benefit items (direct and indirect effects and expected future effects), progress status of projects, etc. on a project- by-project or eligibility-criteria basis (taking into account confidential obligations and the extent practicable)- Any significant changes in circumstances in eligible projects (e.g., significant process changes, suspension/discontinuation, changes in specifications that have a														

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
					significant impact on the environmental benefits) during the redemption period of the bond after allocations have commenced
◎	4-d)	when outlining the assumed climate-related outcomes and impacts, issuer should disclose include not only GHG emission reduction and other initiatives to ease climate change but also disclose how consideration of a "just transition" is incorporated into the transition strategy.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	<p>The Issuer plans to ensure that Just Transition, mitigation of negative impact and avoidance of lock-in are in place in the "Basic Policy for the Realization of GX" and in the selection process of investment destinations (eligible projects).</p> <p>Specifically, the policy on Just Transition has been set out in the "Basic Policy for the Realization of GX" as "Promotion of GX in the entire society (section 5)."</p>
○	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	<div> <div> Basic concept transfer </div> <div> <p>In promoting GX, it is important to appropriately promote labor to newly created industries from the perspective of Just Transition.</p> <p>Supporting the smooth labor transfer from fossil fuel-related industries to low-carbon industries will ensure people's lives and employment and contribute to Japan's economic growth. Therefore, necessary support, including human resource development at universities etc. will be provided, while taking into account the actual conditions of each industry.</p> </div> </div> <div> <div> Future actions </div> <div> <p>The policy package of investment in people of JPY 400 billion over three years is significantly expanded to JPY 1 trillion over five years, taking into account the comprehensive economic measures to overcome high prices and realize economic revival approved by the Cabinet in October 2022.</p> <p>Promote Just Transition by simultaneously facilitating the acquisition</p> </div> </div>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
					of new skills and smooth labor transfer to growth sectors, including green sectors, through support for the facilitation of labor transfer to growth sectors etc. and support for job transfers for career advancement of incumbent workers.
◎	4-f)	Moreover 4-e), the outcomes arising from investments included in the investment plan should align with the targets.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	DNV has confirmed that the outcomes (4-c) from the nominated eligible projects included in the Issuer's investment plan are closely related to the goals (3-b) and that there are plans to help achieve the goals.
○ (△)	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	<p>The Issuer's transition bond is basically planned to be allocated to finance new initiatives. However, it may also be allocated as refinancing.</p> <p>The Framework stipulates that if the proceeds of the transition bond are allocated as refinancing, the Issuer will target projects that have been put into operation (commenced operation) or to which proceeds have been allocated in the fiscal year that includes the date of fundraising and in the previous year. If a period other than the above is targeted, it will be disclosed in the statutory documents at the time of the issuance of the transition bond, together with the reasons.</p>
○	4-h)	It is recommended that investment plans be disclosed by linking the outcomes and impacts with the expenditures to the extent practicable ⁴⁹ .	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	Through the assessment, DNV has confirmed that the investment plans for eligibility criteria etc. including the GX Economy Transition Bonds set out in the roadmap, eligible projects, and the industry-specific measures and goals set out in the Plan for Global Warming Countermeasures are closely linked.

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
					Although the individual documents do not directly link the amounts, outcomes and impacts of each investment target, the investment plan is judged, from a comprehensive perspective, to link the amounts, outcomes and impacts of each investment target.
○	4-i)	It is recommended that the fundraiser, after securing financing, reports any deviations between the initial plan and the actual expenditure, outcomes and impacts. For any deviations, it is recommended that the underlying reasons be explained.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	DNV has confirmed that if there are material differences in the originally planned outcomes or impacts of the projects for which the Climate Transition Bond has been disbursed, the Issuer will explain the circumstances and reasons for such differences through annual reporting etc.
△	4-j)	Annual disclosure of each CapEx and OpEx plan (including assumptions regarding related carbon costs) and other financial metrics related to climate transition strategies is possible to disclose in fundraisers' annual reports, sustainability reports, climate-related strategies, legal documents, funding frameworks, or funding allocation and impact reports.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	The issuer plans to disclose information related to its climate transition strategy through the disclosure of annual reports (fund allocation and impact reports) on transition bonds, reviews and revises of the framework, and regular reviews and revises of various policies.
◎	4-k)	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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	The Framework stipulates that if the proceeds of the transition bond are allocated as refinancing, the Issuer will target projects that have been put into operation (commenced operation) or to which proceeds have been allocated in the fiscal year that includes the date of

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		relevant methods along with the underlying reasons and factors.			fundraising and in the previous year. If a period other than the above is targeted, it will be disclosed in the statutory documents at the time of the issuance of the transition bond, together with the reasons.
© (△)	4-I)	<p>It is possible but not easy to obtain limited assurance or verification to how CapEx and OpEx plans contribute to the climate transition strategy of fundraisers. In case that such assurance or verification are not provided, fundraisers should demonstrate some predictive analyses of how CapEx and OpEx plans are expected to contribute to greenhouse gas emission reduction strategies. In doing so, the following elements may be reviewed (from independent party).</p> <ul style="list-style-type: none"> • Share or ratio of expenditures on initiatives contributing to the transition strategy relative to total expenditures. • The absolute amount of expenditures on initiatives contributing to the transition strategy. • The greenhouse gas emission reduction outcomes or impacts or expected to be achieved through the increase in expenditures for initiatives contributing to the transition 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 4-a)	<p>The issuer does not plan to obtain limited assurance or verification regarding its CapEx and OpEx plans.</p> <p>The issuer has disclosed a basic investment programme for the implementation of its transition strategy. Specifically, in order to lead to a total investment of over 150 trillion yen in public-private investment over 10 years from fiscal 2023, it plans to issue approximately 20 trillion yen worth of GX economic transition bonds as government support over the same 10-year period.</p> <p>Through its review, DNV confirmed that the above-mentioned public-private investment (over 150 trillion yen) and government support (approximately 20 billion yen) will play an important role in achieving the greenhouse gas emission reduction strategies (targets) for 2030, 2035, and 2040.</p> <p>(At this point, reductions in spending on activities that are environmentally unfriendly or significantly harmful are not permitted.)</p>

Ref.	No.	Disclosure Elements	Requirement Check	Work Undertaken	DNV Findings
		strategy, and, if information is available, the outcomes or impacts or expected to be achieved through the reduction of environmentally negative or significantly harmful expenditures			

- 47 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.”
- 48 When demonstrating results and impact, it may be useful to refer to the “Guidance Document on Harmonised Framework for Impact Reporting (ICMA, 2024)”. Additionally, impact could also be demonstrated by showing the contribution to CO₂ reduction across the entire lifecycle, including the global value chain and consumption stage. For avoided emission, reference could also be made to the ‘Basic Guidelines for Disclosure and Evaluation of Climate-Related Opportunities’ (GX League GX Management Promotion WG, 2023) and the ‘Guidance on Avoided Emissions’ (WBCSD, 2023). Furthermore, regarding research and development outcomes, it may be possible to refer to the IEA’s Measuring Innovation by Technology Readiness Level (TRL) and its relevance to net zero, and to demonstrate progress in the research and development phase or the CO₂ reduction potential of the target technology in terms of its importance to net zero.
- 49 In particular, disclosure of the investment plan is expected to be required for projects applicable to Use of Proceeds. About investment plan, In addition to the above, it is expected to disclose the following items to the extent possible.
- An explanation of the CapEx implementation plan aligned with the overall climate transition strategy and climate-related science, and how it effects CapEx-related decision-making within the organisation.
 - A phased discontinuation plan for activities and products that conflict with the climate transition strategy (when such activities or products are significantly harmful or only result in outcomes that conflict with the science-based greenhouse gas emission reduction trajectory).
 - Disclosure of the ratio of recovery of assets, revenues, expenditures, and invested funds associated with various type of measures.
 - Qualitative and quantitative evaluation of greenhouse gas emissions carbon-locked-in for a certain period of the time from the main assets and products of the fundraisers.
 - Assumptions regarding internal carbon costs.
 - Disclosure of adverse impacts on the workforce, community, and surrounding environment, and measures to mitigate them.

Schedule-5 Green Bond Guidelines (Transition Bonds with Specific Use of Proceeds) Eligibility Assessment Protocol

The following checklists (GBGL-1-1 through GBGL-2-1) are prepared based on the Green Bond Guidelines (GBGL), Ministry of Environment (MOE), 2024.

According to the GBGL, "Requirements"/"Evaluation Items" are classified into the following two categories: "Should: ☉"; and "Recommended: ○."

The documents listed in the "Work Undertaken" column are those confirmed as evidence, whose details are shown in the List of Reference Materials (Appendix-1).

The evidence used in the evaluation work includes confirmed documents as well as information obtained through discussions and interviews with the fundraiser.

In Schedule-5, the requirements are applied to transition bonds with use of proceeds based on CTFH/CTFBG. Therefore, the terms "green (bond, project)" in the "Requirements/Evaluation Items" column in Schedule-5 should be read as "transition (bond, project)."

GBGL-1-1 Use of Proceeds

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
☉	1-1 principle (1)#1	The cornerstone of a Green Bond is the utilisation of the proceeds of the bond for eligible Green Projects, which should be appropriately described in the legal documentation of the security	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Confirmed documents: - Framework - Basic Policy for the Realization of GX (roadmap) - Plan for Global Warming Countermeasures - Sector-specific technology roadmap Assessment documents	DNV has confirmed through the Framework and the assessment that all proceeds raised by the Issuer from the transition bond will be allocated to eligible projects selected through the process of project evaluation and selection of eligibility criteria and eligible projects set out in the Framework. DNV has also confirmed that the environmental benefits of the use of proceeds will be assessed by the Issuer. The use of proceeds will be disclosed in the statutory documents prior to the issuance of the transition bond, if it is selected in advance. If the use of proceeds is not selected prior to the issuance of the transition bond, it

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
					will be disclosed in the reporting after the issuance of the transition bond.
©	1-1 principle (1)#2	All designated eligible Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Interview with the Issuer	DNV has confirmed that the environmental benefits of the eligible projects as the use of proceeds are quantified by the Issuer to the extent practicable.
○	1-1 principle (2)	In the event that all or a proportion of the proceeds are or may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs. re-financing, and where appropriate, also clarify which investments or project portfolios may be refinanced, and, to the extent relevant, the expected look-back period for refinanced eligible Green Projects.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable		<p>DNV has confirmed that if the amount or percentage to be refinanced by the Issuer is known prior to the issuance of the transition bond, it will be clarified in the statutory documents etc. DNV has also confirmed that if it is not clear prior to the issuance, the Issuer intends to clarify the approximate amount (or percentage) of the portion allocated as refinancing in the post-issuance reporting.</p> <p>DNV has confirmed that, in the event that refinancing is targeted, a reasonable look-back period (e.g., at the time of refinancing, the eligibility of the project is maintained at present and the environmental benefits will last during the redemption period, or clear environmental benefits can be expected in the future) will be set.</p>
○	1-1 guidance (5)	(refinancing to Use of Proceeds) In the case of corporate bonds, the Cabinet Office Order on Disclosure of Corporate Affairs requires	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable		Same as 1-1 principle (2)

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
		the disclosure of the information set out in this section. In the case of other types of bonds, it is also recommended that such information be disclosed in order to ensure transparency			
O	1-1 guidance (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, 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 reviewer as necessary. (<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable		DNV has confirmed that the Issuer has no current plans of allocation to refinancing to eligible projects that are long overdue (more than two fiscal years before issuance).

GBGL-1-2 Process for Project Evaluation and Selection

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings																		
©	1-2 principle (1)	<p>The issuer of a Green Bond should clearly communicate to investors:</p> <ul style="list-style-type: none">The environmental sustainability objectives of the eligible Green Projects;The process by which the issuer determines how the projects fit within the eligible Green Projects categories (examples are identified above); andComplementary information on processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s).	<div><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</div> <div><input type="checkbox"/> Not Applicable</div>	<p>Confirmed documents:</p> <ul style="list-style-type: none">FrameworkBasic Policy for the Realization of GX (roadmap)Sector-specific technology roadmapGX Implementation Council documentsAssessment documents <p>Interview with the Issuer</p>	<p>Followings are DNV findings to 3 Requirement / Evaluation items listed in left column in 1-2 principle (1)</p> <ul style="list-style-type: none">The environmental sustainability objectives of the eligible Green Projects;<ul style="list-style-type: none">➔ DNV has confirmed that the Issuer intends to explain the environmental targets it intends to achieve through the transition bond through the Framework etc.<p>Specifically, the environmental targets include the following:</p><table><tr><th>Fiscal year</th><th>Targets</th><th>CO₂ emissions</th></tr><tr><td>2013</td><td>Base year</td><td>1.408 billion t-CO₂</td></tr><tr><td>2030</td><td>CO₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)</td><td>0.760 billion t-CO₂</td></tr><tr><td>2035</td><td>CO₂ emissions: 60% reduction</td><td>0.570 billion t-CO₂</td></tr><tr><td>2040</td><td>CO₂ emissions: 73% reduction</td><td>0.380 billion t-CO₂</td></tr><tr><td>2050</td><td>Carbon neutrality</td><td>0 billion t-CO₂</td></tr></table>The process by which the issuer determines how the projects fit within the eligible Green Projects categories (examples are identified above) ;<ul style="list-style-type: none">➔ Eligible projects to which the proceeds will be allocated will be confirmed by the “Intergovernmental Committee on the	Fiscal year	Targets	CO ₂ emissions	2013	Base year	1.408 billion t-CO ₂	2030	CO ₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)	0.760 billion t-CO ₂	2035	CO ₂ emissions: 60% reduction	0.570 billion t-CO ₂	2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂	2050	Carbon neutrality	0 billion t-CO ₂
Fiscal year	Targets	CO ₂ emissions																					
2013	Base year	1.408 billion t-CO ₂																					
2030	CO ₂ emissions: 46% reduction (Ibid. challenging the 50% reduction)	0.760 billion t-CO ₂																					
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2040	CO ₂ emissions: 73% reduction	0.380 billion t-CO ₂																					
2050	Carbon neutrality	0 billion t-CO ₂																					

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
					<p>Issuance of GX Economy Transition Bonds," consisting of Director-Generals, to be consistent with the "GX Promotion Strategy" and conform to the selection criteria set out in GBP-1 for each eligibility criterion by the Issuer. The eligibility of projects is assessed and selected through discussions with relevant ministries and agencies as necessary, and finally reported to the "GX Implementation Council," chaired by the Prime Minister.</p> <p><Members of the Intergovernmental Committee></p> <ul style="list-style-type: none"> • Cabinet Secretariat • Financial Services Agency • Ministry of Finance • Ministry of Economy, Trade and Industry • Ministry of the Environment <p>• Complementary information on processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s);</p> <p>➔ DNV has confirmed that, when selecting eligible businesses (projects), the Issuer will ensure to take negative environmental and social impacts into account (including the necessary procedures in the region where the project is to be implemented) and that the proceeds are not allocated to projects related to the following exclusion criteria.</p>

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
					<p>DNV has also confirmed through the assessment that the Issuer will consider the negative impacts of projects at the project implementation stage and the impacts on the relevant supply chain, including Just Transition, mitigation of negative impacts (e.g., actions through environmental impact assessment) and avoidance of lock-in, as indicated in CTF-4.</p> <ul style="list-style-type: none"> • Businesses with the purpose of manufacture or distribution of inhumane weapons such as nuclear, chemical, biological and other weapons of mass destruction or anti-personnel landmines, or businesses engaged in the manufacture of products or provision of services supporting manufacture or sale of inhumane weapons such as nuclear, chemical, biological and other weapons of mass destruction or anti-personnel landmines; • Businesses related to coal mining, refining or transportation; • Businesses related to the ownership or operation of gambling facilities or businesses; • Businesses related to forced labor or businesses related to unfair trade, bribery, corruption, extortion, embezzlement or other inappropriate relationships that do not comply with the laws and regulations of the country where the business is located.

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
	1-2 guidance (1)	When no individual Green Project to which Green Bond proceeds will be allocated is determined (e.g., (i) in cases where a corporation or a local government issues a Green Bond to raise funds for Green Projects in the relevant business and project category, and (ii) in cases where financial institutions raise funds for investments and loans for a large number of Green Projects, etc.), issuers should establish criteria for determining the eligibility of Green Projects based on the environmental objectives, and provide investors with such information, in addition to the above information in the Green Bond Principles, in advance.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	<p>DNV has confirmed that the Issuer, in the evaluation and selection of the transition bond, will explain the assessment criteria set for each eligibility criterion, including standards such as CTFH/CTFBG, GBP/GBGL, etc., through the Framework etc. (The Framework provides examples of the main criteria, but DNV has confirmed that the Issuer's internal or publicly available criteria/processes are followed in the actual evaluation and selection.)</p> <p>DNV has confirmed that the Issuer's criteria and processes are aligned with overarching goals, strategies and policies, based on the roadmap and relevant environmental plans and strategies. These can be understood through the Framework. DNV has also confirmed that the Issuer intends to explain them to investors through the Framework.</p>
©	1-2 guidance (3)#1	Depending on the process put in place for the allocation of proceeds, it is recommended that issuers either provide a list of projects to which green bond proceeds have been allocated, or report solely on a portfolio level. Communication with investors on the use of proceeds should specify the project category of the Green Projects, such as the construction of facilities for a wind power generation project or lending to projects related to biomass power generation, so that investors and	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	<p>DNV has confirmed that the Issuer intends to explain to investors through the Framework, statutory documents, etc. that the proceeds will be allocated to one or more of the eligibility criteria set out in Schedule-1.</p> <p>Post issuance, the projects or portfolios (eligible criteria) being allocated will be reported in annual reports.</p>

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
		other market participants are able to evaluate the appropriateness of the use of proceeds.			
○	1-2 guidance (3)#2	In cases where individual Green Projects have been determined, it is recommended that issuers clearly specify the relevant projects.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	<p>DNV has confirmed that the Issuer intends to clearly indicate the eligible projects through statutory documents etc. if the use of proceeds has been selected prior to the issuance of the transition bond.</p> <p>(If the use of proceeds is not selected prior to the issuance of the transition bond, it will be disclosed in the reporting after the issuance of the transition bond.)</p>
○	1-2 guidance (6)	It is recommended for issuers to also communicate to investors, in advance, any environmental standards or certifications that they will refer to in evaluating and selecting Green Projects.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	<p>DNV has confirmed that the Issuer, in the evaluation and selection of the transition bond, will explain the assessment criteria set for each eligibility criterion, including standards such as CTFH/CTFBG, GBP/GBGL, etc., through the Framework etc. (The Framework provides examples of the main criteria, but DNV has confirmed that the Issuer's internal or publicly available criteria/processes are followed in the actual evaluation and selection.)</p>
○	1-2 guidance (8)	It is recommended that internal departments with environmental expertise, such as environment related departments, or external institutions are involved in the evaluation and selection process of Green Projects to ensure suitability from an environmental point of view.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	<p>DNV has confirmed that the adequacy of the Issuer's process for project evaluation and selection is ensured by the ministry with jurisdiction over the eligible project in accordance with the Issuer's internal or publicly available criteria/processes and, where necessary, with advice from professional experts etc.</p>

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
◎	1-2 guidance (11)	In cases where Green Projects have associated negative environmental and/or social risks along with the intended environmental benefits, issuers should explain these negative impacts in addition to the assessment results and how the issuer will address them, in their communication with investors, so that investors and market participants can appropriately evaluate these impacts.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	Same as 1-2 principle (1) The Issuer identifies, mitigates and, where necessary, eliminates negative environmental and social impacts through an environmental impact assessment etc. DNV has confirmed through the assessment that there is a process to identify negative impacts specific to the target project when selecting the target project.
○	1-2 guidance (15)#2	Issuers are also recommended to explain how the actual Green Project is aligned with the referenced environmental standards and certifications, when and if issuers refer to them.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	DNV has confirmed that the eligibility criteria set out in the Issuer's Framework focus on capital investment and research in green projects classified under the GBP, a widely recognized international standard (e.g., the renewable energy sector and energy saving sector (energy efficiency etc.)), and also include activities that should be undertaken at present in order to achieve future carbon neutrality (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power), such as eligibility criteria classified as low-carbon and decarbonized energy.
○	1-2 guidance (15)#3	When utilizing external certification, it is recommended that issuers not only satisfy the certification requirements but also explain the environmental benefits to be achieved.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-2 principle (1)	The Issuer has no specific plans to utilize external certification at present.

GBGL-1-3 Management of Proceeds

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
©	1-3 principle (1)#1	The net proceeds of the Green Bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Confirmed documents: - Framework - Assessment documents Interview with the Issuer	The Ministry of Economy, Trade and Industry (METI) to be responsible for the allocation and management of proceeds using an internal management system. The proceeds of the Climate Transition Bond will be received in the Energy Supply and Demand Account of the Special Account for Energy Measures and will be managed separately from other accounts.
©	1-3 principle (1)#2	The net proceeds of the Green Bond should be attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for eligible Green Projects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	Specifically, the procurement is carried out by the Ministry of Finance, and after payment to the Accounting Office of the Agency for Natural Resources and Energy, revenue and expenditure management is carried out using an internal management system. The Accounting Office of the Agency for Natural Resources and Energy manages the allocation of proceeds through the allocation to the private sector etc. via the responsible office and ministry.
○	1-3 guidance (2)	Issuers are recommended to appropriately keep evidence documents that demonstrate how the Green Bond proceeds have been tracked and managed.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	DNV confirmed that the internal management system of the proceeds is available throughout the redemption period and is kept in appropriate documentation.
©	1-3 guidance (3)	Issuers should provide to investors, in advance, on how Green Bond proceeds will be tracked and managed (using framework, etc described latter).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	Same as principle (1)#1 Outlines of the process for tracking and managing of the proceeds is provide in the framework.

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
◎	1-3 guidance (4)	It is recommended that the funds raised from a Green Bond should be applied to Green Projects as soon as possible.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	The funds are expected to be allocated to the transition project as soon as possible. Depending on the timing of the fundraising and project implementation, as well as the timing of the allocation decision, the funds may be allocated to projects that will be launched or executed in the fiscal year following the current fiscal year or in the previous fiscal year, in addition to the fiscal year in which the project is implemented. However, it is unlikely that any funds will remain unallocated for a long period.
◎	1-3 principle (2)#1	So long as the Green Bond is outstanding, the balance of the tracked net proceeds should be periodically adjusted to match allocations to eligible Green Projects made during that period.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	The management status of the proceeds allocation can be tracked on an eligible project basis as “costs for measures to promote a smooth transition to a decarbonized growth economic structure” using an internal management system from the issuance of the transition bond until the redemption. The Issuer will be subject to annual inspections by the Board of Audit of Japan of its proceeds management results. During the inspections by the Board of Audit of Japan, the climate transition bond-specific management process required under GBP-3 will also be inspected.
◎	1-3 principle (2)#2	The issuer should make known to investors the intended types of temporary placement for the balance of unallocated net proceeds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	Same as 1-3 principle (2)#1 All unallocated proceeds will be managed in cash until the proceeds are allocated to eligible projects and will not be allocated to other temporary investments (including green investments) etc.

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
O	1-3 principle (2)#4	GBP recommend that an issuer's management of proceeds be supplemented by the use of an external auditor, or other third party, to verify the internal tracking method and the allocation of funds from the Green Bond proceeds.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	Same as 1-3 principle (2)#1 The Issuer will be subject to annual inspections by the Board of Audit of Japan of its proceeds management results. During the inspections by the Board of Audit of Japan, the climate transition bond-specific management process required under GBP-3 will also be inspected.
O	1-3 guidance (6)	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-3 principle (1)#1	Same as 1-3 principle (2)#1 All unallocated proceeds will be managed in cash until the proceeds are allocated to eligible projects and will not be allocated to other temporary investments (including green investments) etc.

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
◎	1-4 principle (1)#1	Issuers should make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Confirmed documents: - Framework - Assessment documents Interview with the Issuer	DNV has confirmed that the Issuer will disclose the allocation status of the proceeds on an annual basis on the Government's website, at least until the proceeds has been fully allocated. In the event of a significant change in the progress status of projects to which the proceeds are allocated or environmental benefits (significant process changes, changes in specifications, delays in the expected environmental benefits or their acting timing, etc.), the Issuer will disclose it even after the completion of the proceeds allocation.
◎	1-4 principle (1)#2	The annual report should include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects, the amounts allocated, and their expected impact.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-4 principle (1)#1	
○	1-4 principle (1)#3	Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the GBP recommend that information is presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-4 principle (1)#1	DNV has confirmed that the Issuer intends to disclose information on an individual green project or eligibility criteria basis, taking into account practical considerations and confidential obligations, while ensuring transparency as much as possible.
○	1-4 guidance (5)	In the case of corporate bonds, the Cabinet Office Order on Disclosure of Corporate Affairs requires the disclosure of the information set out in this section in addition to the intended types of temporary placement for the balance of	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-4 principle (1)#1	DNV has confirmed that the Framework summarizes information on Japan's past initiatives and strategies for comprehensive environment (in particular, mitigation of climate change), mainly in Section 1 and Sections 1.1 to 1.3.

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
		unallocated net proceeds required by the GBP. In the case of other types of bonds, it is also recommended that such information be disclosed in order to ensure transparency			
○	1-4 principle (2)#1	Transparency is of particular value in communicating the expected and/or achieved impact of projects. The GBP recommend the use of qualitative performance indicators and, where feasible, quantitative performance measures and disclosure of the key underlying methodology and/or assumptions used in the quantitative determination.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-4 principle (1)#1	<p>DNV has confirmed that the Issuer will select appropriate indicators on key environmental benefits (direct and indirect GHG emission reduction effects as well as future expectations) for the disclosure of environmental benefits based on the characteristics of eligible businesses.</p> <p>DNV has confirmed that, for projects where quantification is practicable, quantitative environmental benefits will be estimated by the Issuer or operator and reported together with calculation methods and assumptions, where necessary.</p>
◎	1-4 principle (2)#1	Issuers should refer to and adopt, where possible, the guidance and impact reporting templates provided in the “Harmonised Framework for Impact Reporting”.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-4 principle (1)#1	<p>DNV has confirmed that the Issuer intends to include the following as disclosure information related to Impact from the project. The impact reporting will be disclosed on an annual basis on the Government’s website on a project-by-project or eligibility criteria basis, taking into account confidential obligations and the extent practicable.</p> <p>[Impact reporting] (environmental benefits reporting)</p> <ul style="list-style-type: none"> • Key environmental benefits (direct and indirect benefits related to GHG

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
					<p>emission reduction etc., and benefits expected in the future)</p> <ul style="list-style-type: none"> Progress status of projects
O	1-4 guidance (10)	In disclosing the expected environmental benefits of projects, issuers are recommended, where feasible, to use quantitative indicators and disclose information on underlying methodologies and/or assumptions with the indicators.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 1-4 principle (1)#1	<p>Same as 1-4 principle (2)#1</p> <p>DNV has confirmed that, for projects where quantification is practicable, quantitative environmental benefits will be estimated by the Issuer or operator and reported together with calculation methods and assumptions, where necessary.</p>

GBGL-2-1 Green Bond Framework

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
◎	2-1 principle (1)#1	Issuers should explain the alignment of their Green Bond or Green Bond programme with the four core components of the GBP (i.e. Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds and Reporting) in a Green Bond Framework or in their legal documentation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Confirmed documents: - Framework - Assessment documents Interview with the Issuer	DNV has confirmed that the Issuer has described in the Framework (i) the four common elements of CTFH/CTFBG, consisting of disclosure items related to the transition strategy etc. required for a transition bond, and (ii) the four core elements of green bonds, consisting of elements required to manage a transition bond with use of proceeds, and that conformity with the four elements will be disclosed.
◎	2-1 principle (1)#2	Such Green Bond Framework and/or legal documentation should be available in a readily accessible format to investors.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-1 principle (1)#1	DNV has confirmed that the Framework is planned to be published on the Government's website and disclosed to the public, including investors.
○	2-1 principle (2)#1	It is recommended that issuers summarise in their Green Bond Framework relevant information within the context of the issuer's overarching sustainability strategy.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-1 principle (1)#1	DNV has confirmed that the Framework summarizes information on Japan's past initiatives and strategies for comprehensive environment (in particular, mitigation of climate change), mainly in Section 1 and Sections 1.1 to 1.3.
○	2-1 principle (2)#3	Issuers are encouraged to disclose any taxonomies, green standards or certifications referenced in project selection.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-1 principle (1)#1	The Issuer identifies, mitigates and, where necessary, eliminates negative environmental and social impacts through environmental impact assessment etc. DNV has also confirmed through the assessment that there is a process to identify

Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
					<p>negative impacts specific to the target project when selecting the target project (same as 1-2-①).</p> <p>Overviews of these will be disclosed in the Framework.</p>
○	2-1 guidance (4)	Issuers are recommended to explain how the actual Green Projects are aligned with the referenced environmental standards and certifications, when and if issuers have referred to them	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-1 principle (1)#1	DNV has confirmed that the eligibility criteria set out in the Issuer's Framework focus on capital investment and research in green projects classified under the GBP, a widely recognized international standard (e.g., the renewable energy sector and energy saving sector (energy efficiency etc.)), and also include activities that should be undertaken at present in order to achieve future carbon neutrality (e.g., initiatives for phasing out fossil fuel use, the utilization of nuclear power), such as eligibility criteria classified as low-carbon and decarbonized energy (same as 1-2 guidance (15)#3).
○	2-1 guidance (5)	When obtaining external certifications, issuers are recommended to explain the environmental benefits to be achieved with the certification, rather than just meeting the certification requirements.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-1 principle (1)#1	<p>The Issuer has no specific plans to obtain external certification at present.</p> <p>(Bond issued on Feb. 2024 obtained certification from Climate Bond Initiatives)</p>
○	2-1 principle (3)	When communicating Paris-aligned transition strategies in the context of projects targeting climate change mitigation, issuers are encouraged	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	Same as 2-1 principle (1)#1	The issuer formulated a framework being applied Climate Transition Finance Handbook and will execute and manage transition bonds based on it.



Ref.	Section	Requirements/Evaluation Items	Requirement Check	Work Undertaken	DNV Findings
		to use guidance from the Climate Transition Finance Handbook.			

Appendix-1 List of Reference Materials

- /01/ Climate Transition Bond Framework; Cabinet Secretariat, Financial Services Agency, Ministry of Finance, Ministry of Economy, Trade and Industry, Ministry of the Environment (version June 2025)
- /02/ The Basic Policy for the Realization of GX (a roadmap for the next 10 years); February 2023
- /03/ The Basic Policy for the Realization of GX Reference material; February 2023
- /04/ Sector-Specific Investment Strategies; December 2024
- /05/ Plan for Global Warming Countermeasures; 18 February 2025
- /06/ Long-term strategy as a growth strategy under the Paris Agreement; 22 October 2021
- /07/ The (7th) Strategic Energy Plan; 18 February 2025
- /08/ Japan's NDC (Nationally Determined Contribution); 18 February 2025
- /09/ GHG emissions and absorptions in FY2022
- /010/ GX Implementation Council documents, minutes, and agendas *July 2022 to December 2024 (1st to 12th meetings)
- /011/ Classification of eligibility criteria (list of nominated use of proceeds)
- /012/ GX 2040 Vision
- /013/ Climate Transition Bond issued in FY2023 Allocation Report
- /014/ Assessment documents
 - List of questions for third-party evaluation bodies-1 (version 24 October 2023)
 - List of questions for third-party evaluation bodies-2 (version 21 March 2025)
 - Execution management of GX bonds (Government Accounting System (ADAMS II))
 - Explanatory material on eligible categories and projects

Other information on the government's and ministries' websites and disclosure documents
The above are the latest versions and important past documents, and do not include all reference materials.