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## JCR provided post-issuance verification report to Japan Climate Transition Bond (1st) issued by the Government of Japan

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JCR conducted post-issuance verification of Japan's 10-year Japan Climate Transition Bonds (1st) and 5-year Japan Climate Transition Bonds (1st) as an approved verifier of Climate Bonds Initiative.

\*Please see the post-issuance verification report as per the attached.

Feb 19, 2026

Verifier name: Japan Credit Rating Agency, Ltd.

Independent Verifier Limited Assurance Report

## Japan Climate Transition Bond(1st)

## Post-issuance Verification

Issuer Name	The Government of Japan
Bond name	10-year Japan Climate Transition Bonds (1st) 5-year Japan Climate Transition Bonds (1st)

### Conclusion of Limited Assurance Opinion

As stated in this report dated Feb 19, 2026, JCR conducted post-issuance verification in accordance with pre-defined limited assurance procedures.

As a result, based on the procedures and the evidence obtained by JCR, nothing has come to our attention that causes us to believe that the bonds issued by the Government of Japan (10-year Japan Climate Transition Bonds (1st) and 5-year Japan Climate Transition Bonds (1st)) do not meet the requirements for project identification, project eligibility criteria, proceeds management, and reporting under the Climate Bonds Standard (CBS) v4.1 and the relevant Climate Bonds Initiative (CBI) Sector Eligibility Criteria.

### ▶▶▶ Summary of verification process

#### – Scope of Verification Work

The Government of Japan issued the 10-year Japan Climate Transition Bond (1st) and the 5-year Japan Climate Transition Bond (1st) (the “Bonds”) on February 15 and February 28, 2024. The proceeds raised through the Bonds will be allocated to the “Eligible Transition Projects” identified at the time of issuance. For the Bonds, the Government of Japan commissioned Japan Credit Rating Agency, Ltd. (JCR) as an independent approved verifier of the Climate Bonds Initiative (CBI), to conduct post-issuance verification with limited assurance of the Bonds. JCR performed this assurance engagement from May 9, 2025 to February 19, 2026.

#### – Criteria

The verification criteria for climate bonds referenced by JCR (hereinafter, the “Criteria”) are as follows:

- Climate Bonds Standard (CBS ver. 4.1)

- Sector Criteria applicable to each project listed in Table 1 and 2

## 1. Responsibilities of Government of Japan

Government of Japan is responsible for the collection, preparation and presentation of the subject matter in accordance with the criteria and for maintaining adequate records and internal controls that are designed to support the Bond.

## 2. Responsibilities of JCR

JCR is responsible for reviewing the information and documents provided by the Government of Japan and assessing whether the Bonds comply with the Climate Bonds Standard (CBS).

- Alignment of the use of proceeds (allocation status) with the CBS
- Alignment with the CBS of the appropriateness and transparency of the selection criteria and process for the use of proceeds
- Alignment with the CBS of the appropriateness and transparency of fund management
- Alignment of the reporting framework with the CBS

JCR carries out the following verification procedures:

- Request that the issuer provides reliable information necessary for JCR to perform post-issuance verification work.
- Evaluate the documents provided by the issuer and assess the alignment of the green bond with the CBS.
- Conduct interviews with personnel responsible for the use of proceeds of the green bond.
- Evaluate evidence related to the CBS provided by the issuer.
- Convene an internal committee to determine the verification report and conclusion.
- Issue a limited assurance report.

These limited assurance procedures conform to the general principles and professional standards relevant to independent assurance and to the International Standard on Assurance Engagements (ISAE) 3000.

## 3. Basic information on the Bonds

Certification Type	Use-of-Proceeds
Issuer	Government of Japan
Bond Names	10-year Japan Climate Transition Bond (1st) 5-year Japan Climate Transition Bond (1st)
Bond Identifiers	—
Verifier	Japan Credit Rating Agency, Ltd.
Post-Issuance Verification Period	May 9, 2025 – February 19, 2026

## ▶▶▶ Summary of verification results

### 1. Conformance of the Bonds to the Four Elements Required by the Climate Bonds Standard

#### a. Alignment of Use of Proceeds (Allocation Status) with the CBS

Under the Climate Transition Bond Framework, the Government of Japan stipulates that, as measures contributing to Japan's Green Transformation (GX), funds will be used for research and development of projects within the fields specified in the GX Promotion Strategy that meet the basic conditions set forth therein. Based on this framework, the Government of Japan allocated the entirety of the proceeds raised through the Bonds to the research and development programs and subsidy/grant schemes shown in Table 1 as the use of proceeds.

Regarding the "Subsidy for accelerating decarbonization transition in specific areas (subsidy for private line microgrid project)" program, JCR initially assessed the applicable CBI Sector Criteria as 1. Electrical Grids and Storage" at the time of the original evaluation. However, after confirming the subsequently finalized details of the subsidy and the actual facilities to which the funds were allocated, JCR reclassified the project as falling within the 5% flexibility pocket.

**Table 1 : Proceeds Allocated to Eligible Projects<sup>1</sup>**

	Budget Year	Allocated Projects	Sector	Allocated Amount (Billion Yen)
(1) GI Fund	FY2022 Suppl. FY2023 Initial	Green Innovation Fund (Project No. 1-13)	See Table 2.	<b>756.4<sup>*1</sup></b>
(2) R&D other than GI Funds	FY2022 Suppl.	15. Innovative GX technology creation project (GteX)	Transport Electricity and heat This project is included in the 5% flexibility pocket.	49.6
	FY2022 Suppl.	14. Research and development project for enhancing the post-5G information and communication system infrastructure	ICT	75.0
	FY2023 Initial	17. Demonstration reactor development project for high temperature gas-cooled reactor	Electricity Manufacturing	4.7
	FY2023 Initial	16. Demonstration reactor development project for fast reactor	Electricity	7.4
Subtotal of R&D other than GI Funds				<b>136.7</b>
(3) Subsidy programs	FY2022 Suppl.	19. Support project for strengthening the manufacturing supply chain of batteries essential for a green society	1. Low Carbon Transport (Rev2.2) 2. Electrical Grids and Storage (March 2022)	331.6

<sup>1</sup> Compiled by JCR based on materials provided by the Ministry of Economy, Trade and Industry (METI).

FY2022 Suppl.	18. Support project for strengthening the semiconductor manufacturing supply chain for achieving GX	1. Solar v2.3 2. Wind v1.3 3. Low carbon transport (Rev2.2) 4. Electrical Grids and Storage (March 2022)	152.3
FY2022 Suppl.	21. Support project costs for promoting energy efficiency investment and demand structure transformation <sup>*2</sup>	No CBI sector criteria available. This project is included in the 5% flexibility pocket.	2.4
FY2022 Suppl. FY2023 Initial FY2023 Suppl.	22. Subsidy for promoting the introduction of clean energy vehicles	Low carbon transport (Rev2.2)	114.1
FY2023 Initial	24. Grant for decarbonization transition acceleration for specific regions (microgrid-related projects utilizing privately-owned distribution lines and other related initiatives)	No CBI sector criteria available. This project is included in the 5% flexibility pocket.	0.2
FY2023 Initial	23. Promotion project for the electrification of commercial vehicles	Low carbon transport (Rev2.2)	10.8
FY2023 Initial	20. Promotion project for the installation of advanced equipment to improve the insulation performance of detached houses / Support project for accelerating energy conservation and CO <sub>2</sub> reduction in the household sector through insulating windows	Buildings (Whitelist for Low Carbon Building Technology Rev1.0)	90.3
Subtotal of R&D other than GI Funds			<b>701.6</b>
<b>Total</b>			<b>1,594.7<sup>*3</sup></b>
<b>Total issuance amount of the JCTBs issued in FY2023 (cash proceeds)</b>			<b>1,594.7</b>
<b>Amount of unallocated proceeds (cash proceeds - amount of proceeds allocated)</b>			<b>0</b>

\*1 With respect to the GI Fund, allocation to the Fund is deemed complete at the point when disbursements are made from the Special Account for Energy Policy to NEDO, the implementing body of the fund. The funds allocated to the GI Fund are executed, in line with the progress of research and development under each GI Fund program, to the R&D projects shown in Table 2 as needed. The status of fund execution for each R&D project is not disclosed at this time.

\*2 Initially, the portion of this subsidy to be financed by the Bonds was planned to cover only (A) Advanced Projects and (B) Tailor-made Projects, JCR has confirmed that allocations have also been made to (D)Energy Demand Optimization Measures.

\*3 The allocated amounts to the projects are inconsistent with the total amount as the values are rounded off to one decimal place.

**Table 2 : GI Fund projects that are candidates for the use of proceeds of the Bonds<sup>2</sup>**

Budget Year	Allocated Projects (Including candidate projects for Allocation)	Sector
FY2022 Suppl.	Development of next-generation solar cells	Electricity
FY2023 Initial	Cost reductions for offshore wind power generation	Electricity

<sup>2</sup> Compiled by JCR based on materials provided by the Ministry of Economy, Trade and Industry (METI).

Large-scale hydrogen supply chain establishment	Electricity and heat Manufacturing
Development of next-generation aircraft	Transport
Development of next-generation ships	Transport
Development of Technology for producing fuel using CO2, etc.	Transport
Hydrogen utilization in Iron and steelmaking processes	Heat Manufacturing
Decarbonization of thermal processes in manufacturing	Heat Manufacturing
Hydrogen production through water electrolysis using power from renewables	Electricity and heat Manufacturing
Achieving carbon neutrality in waste and resource circulation systems	Waste
Development of technology for producing raw materials for plastic using CO2 and other sources	Waste Manufacturing (Chemicals)
Promotion of carbon recycling using CO2 from biomanufacturing technology as a direct raw material	Manufacturing (Chemicals)

### **b. Alignment with the CBS of the appropriateness and transparency of the selection criteria and the process**

JCR assessed the selection criteria for the use of proceeds and the associated process as appropriate at the time of the initial verification in 2024. In preparing this post-issuance verification report, JCR confirmed with the Government of Japan that there have been no changes since the initial verification.

### **c. Alignment with the CBS of the appropriateness and transparency of management of proceeds**

JCR evaluated the Management of Proceeds as appropriate at the time of the initial verification in 2024. In preparing this post-issuance verification report, JCR confirmed—based on evidence of allocation—that the full amount of the Bonds’ proceeds has been allocated to the projects listed in Table 1 as the use of proceeds, and therefore assessed the appropriateness and transparency of the Management of Proceeds as adequate.

Furthermore, after fully allocating the planned amounts to the projects originally slated for allocation, a balance of proceeds remained unallocated. The Government of Japan therefore allocated this unallocated proceeds to the “Subsidy for promoting the introduction of clean energy vehicles” under the FY2023 supplementary budget, which had not been scheduled for allocation at the time of the initial evaluation. As this program is identical in content to the clean energy vehicle introduction promotion subsidy under the FY2022 supplementary and FY2023 initial budgets—deemed appropriate at the initial evaluation—JCR confirmed that all projects financed by the Bonds are consistent with content previously assessed as having environmental benefits.

## d. Alignment of the Reporting Framework with the CBS

### 1) Reporting on Allocation of Proceeds

As described under “a. Alignment of Use of Proceeds (Allocation Status) with the CBS,” the proceeds raised through the Bonds have been fully allocated as of the time of this verification. The allocation status is disclosed on the Government of Japan’s website as the allocation and impact report.

JCR confirmed that the allocation status is disclosed to investors and other stakeholders and that the content of the disclosure is appropriate.

### 2) Reporting on Environmental Benefits

At the time of issuance, the Government of Japan planned to disclose the following items as reporting on environmental benefits:

- Environmental improvement effects such as reduction in CO2 emissions (expected reduction effects for research and development)
- Overview of main projects, allocated amount, number of projects adopted, case studies of project implementation, progress updates on research and development and capital investment, etc.

※Additionally, other indicators and criteria related to the project may be disclosed as needed

These items, like the allocation status, are confirmed to be disclosed on the Government of Japan’s website as the allocation and impact report. JCR evaluates that environmental benefits are appropriately disclosed to investors and other stakeholders.

A summary of the progress of each R&D project and major impacts reported by the Government of Japan is presented in Table 3. For further details on other impacts, please refer to Annex 4 and 5.

**Table 3 : List of progress or reported impacts of allocated projects<sup>3</sup>**

	Budget Year	Project Type	Allocated Project	R&D Progress / Reported Impact
(1) GI Fund	FY2022 Suppl. FY2023 Initial	R&D	Development of next-generation solar cells	Progressing largely as planned.
		R&D	Cost reductions for offshore wind power generation	Progressing largely as planned.
		R&D	Large-scale hydrogen supply chain establishment	Progress checked continuously through monitoring and stage-gate reviews; feasibility studies (FS) and plan revisions conducted as appropriate according to progress.
		R&D	Development of next-generation aircraft	Progressing as planned.
		R&D	Development of next-generation ships	Progressing steadily. Some themes have delays of over one year due to development delays at overseas manufacturers not covered by the

<sup>3</sup> Compiled by JCR based on materials provided by the Ministry of Economy, Trade and Industry (METI) and publicly available information on subsidized projects.

				subsidy, but no overall project impact is anticipated.
		R&D	Hydrogen utilization in Iron and steelmaking processes	Progressing largely as planned (some items ahead of schedule).
		R&D	Decarbonization of thermal processes in manufacturing	Progressing largely as planned.
		R&D	Hydrogen production through water electrolysis using power from renewables	Element-technology development is progressing; in response to equipment delivery delays, plans are being revised; careful preparation toward demonstration is underway.
		R&D	Achieving carbon neutrality in waste and resource circulation systems	Effectively started in FY2024; progressing largely as planned.
		R&D	Development of technology for producing raw materials for plastic using CO2 and other sources	Stage-gate review conducted in Dec 2023; all themes continued with some conditions; preparations for pilot tests have started. Foundational technology development is progressing as initially planned. For later demonstration tests, plan revisions are underway for some themes due to rising equipment costs and longer construction timelines.
(2) R&D other than GI Funds	FY2022 Suppl.	R&D	Innovative GX Technology Creation Program (GteX)	Team-based research: 15 teams adopted in FY2023 and 1 in FY2024. Single-year innovative element-technology research: 16 themes adopted in FY2023; after completion, end-of-project reports and ex-post evaluations are published.
	FY2022 Suppl.	R&D	Research and development project for enhancing the post-5G information and communication system infrastructure	In FY2023, three themes were adopted: (1) Optical chiplet packaging technology, (2) Opto-electronic convergence interface memory module technology, (3) Deterministic-latency computing platform technology.
	FY2023 Initial	R&D	Demonstration reactor development project for high temperature gas-cooled reactor	For the demonstration reactor project, Mitsubishi Heavy Industries was selected as the core company in July 2023; design and R&D are being implemented. There have been some changes from the initial plan regarding the development of the HTTR heat application test facility and the conceptual design of the demonstration reactor. The demonstration reactor design and elemental technology development are progressing largely as planned.
	FY2023 Initial	R&D	Demonstration reactor development project for fast reactor	Mitsubishi Heavy Industries was selected as the core company in July 2023; an integrated R&D organization was established in July 2024. Work is progressing on establishing a large sodium test facility. There have been some changes from the initial plan,

				such as the construction of a large sodium test facility. The conceptual design of the demonstration reactor and the technological development of its components are progressing largely as planned.
(3) Subsidy Programs	FY2022 Suppl.	Subsidy	Support project for strengthening the manufacturing supply chain of batteries	<b>Supported:</b> 14 cases <b>Environmental impact:</b> approx. 13.5 million t-CO <sub>2</sub> /year.
	FY2022 Suppl.	Subsidy	Support project for strengthening the semiconductor manufacturing supply chain for achieving GX	<b>Supported:</b> 3 companies <b>Environmental impact:</b> approx. 1.74 million t-CO <sub>2</sub> /year.
	FY2022 Suppl.	Subsidy	Support project costs for promoting energy efficiency investment and demand structure transformation	<b>Supported:</b> 16 cases <b>Environmental impact:</b> approx. 3,300 t-CO <sub>2</sub> /year.
	FY2023 Initial	Subsidy	Grant for decarbonization transition acceleration for specific regions (microgrid-related projects utilizing privately-owned distribution lines and other related initiatives)	<b>Supported:</b> 4 local governments <b>Environmental impact:</b> approx. 342,000 t-CO <sub>2</sub> /year (cumulative; period not specified).
	FY2022 Suppl. FY2023 Initial FY2023 Suppl.	Subsidy	Subsidy for promoting the introduction of clean energy vehicles	<b>Supported:</b> 153,882 vehicles *1 <b>Environmental impact:</b> approx. 95,000 t-CO <sub>2</sub> /year. *1
	FY2023 Initial	Subsidy	Promotion project for the electrification of commercial vehicles	<b>Supported:</b> 3,698 vehicles <b>Environmental impact:</b> approx. 14,000 t-CO <sub>2</sub> /year.
	FY2022 Suppl.	Subsidy	Promotion project for the installation of advanced equipment to improve the insulation performance of detached houses / Support project for accelerating energy conservation and CO <sub>2</sub> reduction in the household sector through insulating windows	<b>Supported:</b> Detached houses 203,365 Apartment units 40,301. <b>Environmental impact:</b> Detached houses approx. 63,000 t-CO <sub>2</sub> /year. Apartment units approx. 8,000 t-CO <sub>2</sub> /year.

\*1 The “Subsidy for promoting the introduction of clean energy vehicles” includes, among the items eligible for allocation, a portion of the same program under the FY2023 supplementary budget. However, the support results and environmental improvement effects reported are the actual figures for the FY2022 supplementary budget and the FY2023 initial budget. The actual figures for the FY2023 supplementary budget are scheduled to be reported in or after the following fiscal year.

## ▶▶▶ Restrictions on distribution and use of verification reports

The verification report for CBI certification is intended for use by the Government of Japan and the Climate Bonds Standard Board. This document may be published by the Government of Japan, CBI and JCR. CBI and JCR will publish the report with the consent of the Government of Japan.

### **Assurance level statement**

A limited assurance engagement consists of making enquiries and applying analytical, appropriate testing, and other evidence-gathering procedures sufficient for us to obtain a meaningful level of assurance as the basis for providing a negative form of conclusion and, as such, do not provide all the evidence that would be required to provide a reasonable level of assurance. The procedures performed depend on the assurance practitioner's judgement including the risk of material misstatement of the specific activity data, whether due to fraud or error.

While we considered the effectiveness of Management's internal controls when determining the nature and extent of our procedures, our review was not designed to provide assurance on internal controls. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

## Verifier's signature

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## Important explanation regarding this third-party verification

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### 1. Relationship with acts related to credit rating business

The act of providing this third-party verification is performed by JCR as a related business and is different from acts related to the credit rating business.

### 2. Relationship with credit rating

This third-party verification is different from a credit rating, and does not promise to provide a predetermined credit rating or make it available for viewing.

### 3. JCR's third party nature

There are no capital or personnel relationships that could create a conflict of interest between the subject of this evaluation and JCR. In addition, care should be taken to ensure that one of the tasks does not unduly influence the results of the other task, such as by separating the persons in charge of the third-party verification and review evaluation preparation tasks. We are doing so.

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## Things to keep in mind

The information contained in this document was obtained by JCR from the Japanese government and other accurate and reliable sources. However, such information may contain errors due to human, mechanical, or other causes. Therefore, JCR makes no representations, express or implied, regarding the accuracy, results, accuracy, timeliness, completeness, merchantability, or suitability of such information for any particular purpose. JCR assumes no responsibility for any errors or omissions in such information, or for the results of using such information. Under no circumstances will JCR be liable in contract or tort for any special, indirect, incidental, or consequential damages of any kind, including lost opportunity or monetary loss, that may arise from any use of such information. , regardless of the cause of liability, including no-fault liability, and regardless of whether the damage is foreseeable or unforeseeable, the Company shall not be held responsible at all.

Annex 1: Detailed Fact Findings

Annex 2: Detailed and complete list of eligible green projects reviewed during verification engagements  
(Confidential)

Annex 3: Eligibility, adaptation and resilience check list

Annex 4: JCR Evaluation Report (Review of the Bonds)

(Publication Date: February 2, 2026, Reference No.: 25-D-1506)<sup>4</sup>

Annex 5: Allocation and impact report published by the Government of Japan<sup>5</sup>

Annex 6: JCR Evaluation Report (Framework Review)

(Publication Date: June 27, 2025, Reference No.: 25-D-0388)<sup>4</sup>

Annex 7: List of verification steps carried out by the verification team to confirm green bond compliance with CBS  
(Confidential)

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<sup>4</sup> <https://www.jcr.co.jp/en/ratinglist/sovereign/985000/release>

<sup>5</sup> [https://www.mof.go.jp/jgbs/topics/JapanClimateTransitionBonds/Climate\\_Transition\\_Bond\\_Impact\\_Report\\_FY2023\\_Allocation\\_Report\\_FY2024\\_eng.pdf](https://www.mof.go.jp/jgbs/topics/JapanClimateTransitionBonds/Climate_Transition_Bond_Impact_Report_FY2023_Allocation_Report_FY2024_eng.pdf)

## Annex 1: Detailed Fact Findings

### Climate Bonds Standard (CBS) Checklist: PART A.3 Post-Issuance Requirements

A.3 Post-Issuance Requirements			
Clause	Climate Bonds Standard Requirements	Findings	Requirement Met
<b>A.3.1. Use of Proceeds</b>			
A.3.1.1.	The Net Proceeds of the debt instrument must be allocated to the Nominated projects and assets.	JCR confirmed that the net proceeds of this Bond were fully allocated to the projects nominated at the time of issuance .	✓
A.3.1.2.	All Nominated projects and assets must meet the documented objectives of the debt instrument as set out in the Issuer's Green Finance Framework.	JCR confirmed that the nominated projects are eligible projects stipulated in the Issuer's Green Bond Framework (called the Climate Transition Bond Framework for this Bond) and are consistent with the documented objectives in the	✓
A.3.1.3.	Issuers must allocate at least 95% of the net proceeds of the debt instrument to projects and assets that meet the Sector Criteria requirements of the Standard.	JCR confirmed that 96.73% of the bond was allocated to projects and assets that meet the CBS and its Sector Criteria.	✓
A.3.1.4.	For any part of the net proceeds that finance projects and assets that do not fully satisfy the Sector Criteria requirements (up to 5%), the Issuer must provide detailed disclosures in the Green Finance Framework.	<p>The following three projects do not fully meet the Sector Criteria (corresponding to 3.27% of the net proceeds):</p> <p>① Innovative GX technology creation project (GteX) (49.6 billion JPY for primary academic research on raw materials for storage batteries, biomanufacturing, etc.)</p> <p>② Support project costs for promoting energy efficiency investment and demand structure transformation (2.4 billion JPY, for energy efficiency (introduction of energy-saving equipment in large, medium, and small factories))</p> <p>③ Grant for decarbonization transition acceleration for specific regions (subsidy for private line microgrid project) (0.2 billion JPY for high energy-efficient facilities)</p> <p>Details of these are described and disclosed in the Issuer's Green Bond Framework (called the Climate Transition Bond Framework for this Bond) and the third-party opinion report prepared by JCR.</p>	✓
A.3.1.5.	<p>Any Nominated Projects and Assets which do not fully satisfy the Sector Criteria may be considered eligible if they meet all of the following conditions:</p> <p><b>i.</b> They must relate to sectors for which Climate Bonds has not yet developed Sector Criteria; and</p> <p><b>ii.</b> They must fall under any of the Green Project categories listed in the ICMA Green Bond Principles or the ICMA Social Bond Principles; and</p> <p><b>iii.</b> The Verification Report opinion must confirm their alignment with the ICMA Green/Social Bond principles</p> <p><b>iv.</b> They must not relate to any of the following excluded activities:</p> <p>* The exploration, extraction or transportation of proven conventional or unconventional fossil fuel reserves.</p> <p>* Natural gas production.</p> <p>* Refining crude oil to produce derivative products.</p> <p>* The supply and/or use of fossil fuels for power generation and heat.</p> <p>* Conversion or fragmentation of high-carbon-stock land or unsustainable operations on high-carbon stock land leading to the loss of its status as high-carbon stock land.</p>	JCR confirmed through this verification work that the three projects above meet all the requirements stipulated in 3.1.5.	✓
A.3.1.6.	The Issuer must allocate the Net Proceeds to the Nominated projects and assets within 24 months of issuance of the debt instrument. The 24-month deadline can be extended by the Climate Bonds Standard Secretariat for up to 5 years (and exceptionally up to 10 years if duly justified by the nature of the projects to be financed). An extension will be granted at the discretion of the Climate Bonds Standard Secretariat, provided the justification for it can be substantiated by the Issuer and confirmed by the Approved Verifier. At the end of the allocation period specified in the Certification, the Issuer must provide a Post-Issuance Verification Report by an Approved Verifier. The Issuer may be requested to provide annual Post-Issuance Verification Reports until the Approved Verifier confirms that 100% of the proceeds have been allocated.	JCR confirmed that the net proceeds of this Bond have been fully allocated as of the issuance date of this verification report.	✓
A.3.1.7.	Net proceeds may be reallocated to other Nominated projects and assets at any time while the debt instrument remains outstanding, provided the Approved Verifier has verified such assets.	JCR confirmed that the proceeds of this Bond have been fully allocated as of the issuance date of this verification report.	✓

A.3.1.8.	Nominated projects and assets must not be nominated to other Certified debt Instruments, unless the Issuer demonstrates that different Certified Climate Bonds are funding distinct portions of the Nominated projects and assets, or the Certified debt Instrument is being refinanced via another Certified debt Instrument.	The Issuer has not issued any other CBI-certified bonds besides this Bond.	✓
A.3.1.9.	Where a proportion of the Net Proceeds of the debt instrument are used for refinancing, the Issuer must track the respective shares of the Net Proceeds used for financing and refinancing and identify which Nominated projects and assets may be refinanced. This may also include the expected look-back period for refinanced Nominated projects and assets which should reflect the functional lifetime of the projects or assets for delivering the stated climate mitigation/ adaptation/ resilience benefits. The remaining functional lifetime of the financed physical projects or assets must be equal to or greater than the term of the instrument being certified. The Net Proceeds may only be used for refinancing operating expenditures that were incurred within three years prior to the issuance of the Certified Debt Instrument.	Of the use of proceeds for this Bond, a portion of the FY2022 supplementary budget projects (908.7 billion JPY) was funded by regular government bonds before the issuance of this Bond, and was refinanced by this Bond.  The government decided to spend on these refinanced projects with the issuance of CT government bonds in mind. JCR evaluates that all projects will generate new environmental improvement effects after issuance and have additionality to the market.	✓
A.3.1.10.	The Issuer must track the Net Proceeds of the debt instrument following a formal internal process which is documented in accordance with Clause A.3.3.	JCR confirmed that the Issuer tracks and manages the funds according to the method stipulated in the Climate Transition Bond Framework and meets all the requirements of A.3.3.	✓
A.3.1.11.	The Net Proceeds of the debt instrument must be no greater than the Issuer's total Investment Exposure or debt obligation to the Nominated projects and assets or the relevant proportion of the total Market Value of the Nominated projects and assets which are owned or financed by the Issuer. When satisfying this clause, the Issuer may choose either (i) the Investment Exposure or debt obligation to the Nominated projects and assets, or (ii) their Market Value.	JCR confirm that, as of the date of issuance of this verification report, the entire net proceeds of this bond have been allocated to the nominated projects.	✓
A.3.1.12.	Additional Nominated projects and assets may be added to, or used to substitute or replenish, the portfolio of Nominated projects and assets as long as the additional Nominated projects and assets are eligible under the Standard and are consistent with the debt instrument's objectives. Where additional Nominated projects and assets are covered by Sector Criteria which were not included in the scope of either the Pre-Issuance Verification or the Post-Issuance Verification Engagements, the Issuer must engage an Approved Verifier to provide a Verification Report covering at least the conformance of the additional Nominated projects and assets with the relevant Sector Criteria.	As of the post-issuance verification, JCR have confirmed the following changes:  1. There was an allocation of funds to an energy management system under the "Energy saving investment promotion/demand structure transformation support project subsidy" (the relevant project under A.3.1.4.), which had not been identified initially. 2. Since it has been confirmed that high-efficiency lighting equipment and high-efficiency air-conditioning equipment have been included among the eligible equipment under the "Grant for decarbonization transition acceleration for specific regions," we have reclassified this project as a flexibility pocket project.  JCR conducted verification regarding these changes and confirmed that the use of proceeds for this bond remains in conformity with the CBS. JCR also disclosed this in the Second Party Opinion.	✓
<b>A.3.2. Process for Evaluation and Selection of projects and assets</b>			
A.3.2.1.	The Issuer must document and maintain a decision-making process to determine the continued eligibility of the Nominated projects and assets. This includes, without limitation: <b>i.</b> A statement on the climate-related objectives of the Bond. <b>ii.</b> How the climate-related objectives of the debt instrument are positioned within the context of the Issuer's overarching goals, strategy, policy and/or processes relating to environmental sustainability. <b>iii.</b> The Issuer's rationale for issuing the debt instrument. <b>iv.</b> A process to determine whether the Nominated projects and assets meet the sector eligibility requirements specified of the Standard. <b>v.</b> Other information provided by the Issuer as described in Clause A.2.2.	The Issuer has established a Green Bond Framework (called the Climate Transition Bond Framework for this Bond) and appropriately documented the contents of i-v.	✓

A.3.3 Management of Proceeds			
A.3.3.1.	The Net Proceeds of the debt instrument must be credited to a sub-account, moved to a sub-portfolio, or otherwise identified by the Issuer in an appropriate manner and documented.	JCR confirmed that the Issuer prepares a dedicated ledger and appropriately manages the net proceeds.	✓
A.3.3.2.	The debt instrument Issuer must either maintain an earmarking process or ring-fence the proceeds per Clause A.2.3 to manage and account for the allocation of Net Proceeds to the Nominated projects and assets.	The net proceeds of this Bond have been fully allocated to eligible projects as of the issuance date of this verification report, and the allocation status is disclosed (an earmarking process is maintained).	✓
A.3.3.3.	While the debt instrument remains outstanding, the balance of the tracked Net Proceeds must be reduced by amounts allocated to Nominated projects and assets. Pending such allocations to Nominated projects and assets, the balance of unallocated Net Proceeds must be: <ul style="list-style-type: none"> <li>i. Held in temporary investment instruments that are cash, money-market instruments or other liquid, short-term cash equivalent instruments within a treasury function; and/or</li> <li>ii. Held in temporary investment instruments that do not relate to greenhouse gas intensive projects or any projects which are inconsistent with the delivery of a low carbon and climate resilient economy; and/or</li> <li>iii. Applied to temporarily reduce the indebtedness of a revolving nature before being redrawn for investments in or disbursements to Nominated projects and assets.</li> </ul>	There are no unallocated proceeds as of the issuance date of this verification report.	✓
A.3.4. Post-Issuance Reporting			
A.3.4.1.	Following the issuance of a Certified UoP instrument, to maintain the Certification all Issuers must submit annual Update Reports within 12 to 24 months from the date of issuance of the debt instrument until its maturity. Any Post-Issuance Verification Report by an Approved Verifier in any year is deemed to satisfy the Issuer's requirement to submit an Update Report for that year.	The Issuer has published the annual update report on its website as of the issuance date of this verification report.	✓
A.3.4.2.	The Issuer should also provide an Update Report on a timely basis in case of material developments. Material developments include, but are not limited to, early repayment, change of control or acquisition, change of name, changes to the eligibility of assets and projects and any material amendments to transaction documents, including any winding-up process or enforcement.	As mentioned above, JCR confirmed the following changes as of the post-issuance verification: <ol style="list-style-type: none"> <li>1. There was an allocation of funds to an energy management system under the "Energy saving investment promotion/demand structure transformation support project subsidy" (the relevant project under A.3.1.4.), which had not been identified initially.</li> <li>2. Since it has been confirmed that high-efficiency lighting equipment and high-efficiency air-conditioning equipment have been included among the eligible equipment under the "Grant for decarbonization transition acceleration for specific regions," we have reclassified this project as a Flexibility pocket project.</li> </ol> <p>JCR conducted verification regarding these changes and confirmed that the use of proceeds for this bond remains in conformity with the CBS. JCR also disclosed this in the Second Party Opinion.</p>	✓
A.3.4.3.	Issuers are encouraged to provide their Update Reports through existing bond market reporting channels, such as the US Municipality sector's Electronic Municipal Market Access (EMMA) website.	The update report has been published on the Issuer's website.	✓
A.3.4.4.	An Update Report may contain three types of reporting: allocation reporting, eligibility reporting, and impact reporting: <ul style="list-style-type: none"> <li>i. Allocation reporting confirms the allocation of bond proceeds to eligible projects and assets and is mandatory for all Certified debt instruments.</li> <li>ii. Eligibility reporting confirms the characteristics or performance of projects and assets to demonstrate their eligibility under the relevant Sector Criteria and is mandatory for all Certified debt instruments.</li> <li>iii. Impact reporting discloses the metrics or indicators which reflect the expected or actual impact of eligible projects and assets and is encouraged for all Certified debt instruments.</li> </ul>	The annual report disclosed by the Issuer includes the contents of i and iii.  The contents of ii are disclosed in the post-issuance verification report issued by JCR.	✓
A.3.4.5.	The three different types of reporting can be included in a single Update Report, which must be provided to the Climate Bonds Standard Secretariat and made publicly available or provided annually to the bondholders/lenders for as long as the debt instrument remains outstanding.	Disclosed as the Issuer's annual report and JCR's post-issuance verification report.	✓
A.3.4.6.	The timing of reporting under this clause can be aligned with the Issuer's regular reporting schedule and does not need to follow the anniversary of the Certification or issuance of the Bond.	Reporting is done before the anniversary of the bond issuance.	✓

A.3.4.7.	<p>The Allocation Reporting must include, without limitation:</p> <p><b>i.</b> Confirmation that the Bonds issued under the Issuer's Green Finance Framework are aligned with the Climate Bonds Standard.</p> <p><b>ii.</b> A statement on the climate-related objectives of the Bond.</p> <p><b>iii.</b> The list of Nominated projects and assets to which Net Proceeds have been allocated (or re-allocated).</p> <p><b>iv.</b> The amounts allocated to the Nominated projects and assets.</p> <p><b>v.</b> An estimate of the respective shares of the Net Proceeds used for financing and refinancing and which Nominated projects and assets have been refinanced. This may also include the expected look-back period for refinancing Nominated projects and assets.</p> <p><b>vi.</b> The geographical distribution of the Nominated projects and assets.</p>	JCR confirmed that all contents from i to vi are included in the Issuer's annual report and JCR's post-issuance verification report.	✓
A.3.4.8.	<p>The Eligibility Reporting must include, without limitation:</p> <p><b>i.</b> Confirmation that the Nominated projects and assets continue to meet the relevant eligibility requirements applicable when obtaining the Certification.</p> <p><b>ii.</b> Information on the environmental characteristics or performance of Nominated projects and assets, which is prescribed by the relevant Sector Criteria.</p> <p><b>iii.</b> Where the issuer has made use of the 5% flexibility pocket in accordance with paragraph A.3.1.3, the percentage of the use of proceeds allocated to, and detailed description of, the Nominated projects and assets which do not fully satisfy the Sector Criteria.</p>	The contents on the left are explained in the appendix of the verification report issued by JCR.	✓
A.3.4.9.	Some Bonds have a very stable allocation of proceeds and do not need to track any performance indicators to maintain the eligibility of the projects and assets (such as financing for a single large-scale solar facility). This means that the annual Update Report can be concise and restate the information from previous reports.	Not applicable as this is the first report.	✓
A.3.4.10.	Where there are limits on the detail that can be made available in the Update Report about specific Nominated projects and assets (as per Clause A.2.4.3), information disclosed must include the investment areas into which the Nominated projects and assets fall and an explanation of why detail on Nominated projects and assets is limited.	Not applicable as there are no projects with information disclosure restrictions.	✓
A.3.4.11.	<p>The impact reporting shall, without limitation:</p> <p><b>i.</b> Provide the expected or actual outcomes or impacts of the Nominated projects and assets concerning the climate-related objectives of the Bond.</p> <p><b>ii.</b> Use qualitative performance indicators and, where feasible, quantitative performance measures of the outcomes or impacts of the Nominated projects and assets for the climate-related objectives of the Bond.</p> <p><b>iii.</b> Provide the methods and the key underlying assumptions for the calculation of the performance indicators and metrics.</p>	JCR confirmed that the Issuer's allocation report includes all the items listed on the left.	✓
A.3.4.12.	Examples of quantitative performance measures of the outcomes of Nominated projects and assets can include but are not limited to: renewable energy capacity installed, greenhouse gas emissions avoided, emissions intensity, energy performance of buildings, number of passengers carried by public transport, volume of wastewater treated. Impact metrics and indicators can include but are not limited to: greenhouse gas emissions reduced/avoided, the number of households provided with access to clean power, a decrease in water use, a reduction in the number of cars required.	CO2 emission reductions are disclosed as impact indicators as much as possible. Indicators other than CO2 emission reductions are presented as the impact.	✓
A.3.4.13.	Methods include, but are not limited to, the framework used and the calculation methodology, including annualized metrics and/or lifetime calculations. Both institutional and proprietary frameworks may be used: institutional frameworks may be referenced by name, but proprietary and new frameworks should be described in sufficient detail to allow assessment.	Indicators such as annual rates, life-cycle, and contribution to reduction are used according to the nature of the project.	✓
A.3.4.14.	The Issuer must make available to the public or to the bondholders any Verification Reports or other relevant material which supports the Update Report.	The update report will be published on the issuer's website, and the verification report will be published on JCR's website.	✓

## Climate Bonds Standard (CBS) Checklist: Clause 2.2.7 Eligible R&D Expenditure

2.2.7 Eligible R&D Expenditure			
Clause	Climate Bonds Standard Requirements	Findings	Requirement Met
2.2.7.a.	Any early or later stage expenditure relating to the research, applied research and experimental development of solutions, processes, technologies, business models and other products dedicated to the substantial reduction, avoidance or removal of GHG emissions for which the ability to substantially reduce, remove or avoid GHG emissions has been demonstrated in a relevant environment, corresponding to at least Technology Readiness Level (TRL)6.	All R&D projects targeted by these bonds aim to reach TRL 6 or higher by the end of the term. JCR has requested the government to submit relevant documents, including the R&D plan for each project, the strategic roadmap for each sector approved by the expert committee, and the Green Innovation Fund-related disclosure materials. However, subsidies may be provided for research at TRL 1–5 if it supports researchers' work that contributes to the reduction of greenhouse gas emissions. Even in such cases, we confirmed the necessity of formulating an R&D plan designed to organically link to TRL 6 research.	✓
2.2.7.b.	For the avoidance of doubt, this includes expenditure related to research, applied research and experimental development to bring the solution, process, technology, business model or other product through TRLs 1-5. In addition, funds or subsidy schemes incentivising early stage R&D (TRL1 to TRL5) may be considered eligible if aiming to bring the solution, product or technology to TRL6.	With the exception of one project (The Green Technologies of Excellence (GteX) Program), all projects involve the R&D of technologies, products, or other solutions that will enable compliance with CBS v4.1. ii. It has been quantitatively confirmed that they offer further improvement effects compared to current technologies.	✓
2.2.7.c.	Substantial reduction, removal or avoiding GHG emissions requires the R&D to: i. Provide research, development or innovation for technologies, products or other solutions that enable an economic asset or activity to meet the respective Sector Criteria under the Climate Bonds Standard; or ii. Aim to bring to market a solution that is expected to have a substantially better performance in terms of life-cycle GHG emissions than best commercially available technologies based on public or market information or which substantially improves their technological and economic feasibility in order to facilitate their scaling up.	In R&D aiming for TRL 6 or higher, activities such as understanding interrelationships with other technologies, defining manufacturing methods, and assessing environmental, legal/regulatory, and socio-economic risks are conducted at the R&D proposal stage.  At this stage, technologies at TRL 7 or higher are ineligible; therefore, patents and similar items are excluded from the scope of verification.	✓
2.2.7.d.	TRL6 or above must be demonstrated as follows: i. TRL6 requires that the technology is fine-tuned to a variety of operating conditions, the process is reliable and the performances match the expectations, interoperability with other connected technologies is demonstrated, the manufacturing approach is clearly defined and that all environmental, regulatory and socio-economic issues are addressed. ii. Where the researched, developed or innovated technology, product or other solution is at TRL 6 or 7, life-cycle GHG emissions are evaluated in simplified form by the entity carrying out the research. The entity demonstrates one of the following, where applicable:  (a) a patent not older than 10 years associated with the technology, product or other solution, where information on its GHG emission reduction potential has been provided; (b) a permit obtained from a competent authority for operating the demonstration site associated with the innovative technology, product or other solution for the duration of the demonstration project, where information on its GHG emission reduction potential has been provided.  iii. Where the researched, developed or innovated technology, product or other solution is at TRL 8 or higher, life-cycle GHG emissions are calculated using Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018 and are verified by an independent third party.	All R&D projects will be evaluated annually by an independent verification body appointed by the government, and their contribution to achieving the relevant climate-related targets will be confirmed.	✓
2.2.7.e.	Where the R&D expenditure relates to products, solutions or activities for which Climate Bonds has not yet developed Sector Criteria, the eligibility will be individually assessed on a case-by-case basis. In making such assessments Climate Bonds may rely on independent expert reports or opinions.		✓
2.2.7.f.	R&D expenditure must be continually assessed by the Issuer to ensure that the relevant climate-related goals are being achieved. The results of the assessment must be disclosed in the annual Update Report in accordance with paragraph A.3.4.		✓
2.2.7.g.	All R&D expenditure must be independently verified by a Climate Bonds Approved Verifier at least on an annual basis until the related technology reaches TRL6 or higher.		✓

**Annex 3 : Eligibility, adaptation and resilience check list**

	budget year	Business type	Allocation projects (including some allocation candidate projects)	Project name shown in the pre-issuance report	Sector	CBI Sector Criteria Asset/Activity class	CBI Sector Criteria Asset/Activity class					
						R&D Requirement a&b TRL level	c.1 Substantial reduction, removal or avoiding GHG emissions	d.i. TRL 6 or above must be demonstrated as follows:	d.ii. & iii. For TRL 6-7 requirement	Requirement/Conditions	Confirmation results of eligibility at post issuance verification	
(1) GI Fund	FY2022 Suppl. FY2023 Initial	R&D	Development of next-generation solar cells	1. Development of next-generation solar cells (Expansion of demonstration scale of perovskite solar cells)	Electricity	TRL 6-7 (2023-2030)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.		JCR confirmed that although new R&D projects have been added, the specified conditions are still being met. Additionally, the progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.	
	FY2022 Suppl. FY2023 Initial	R&D	Cost reductions for offshore wind power generation	2. Lowering the cost of offshore wind power generation (Development of common infrastructure related to integration of wind turbines, floating structures, etc. in floating offshore wind power, floating offshore wind power demonstration project)	Electricity	TRL 6 (2023-2030)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.		JCR confirmed that although new R&D projects have been added, the specified conditions are still being met. Additionally, the progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.	
	FY2022 Suppl. FY2023 Initial	R&D	Large-scale hydrogen supply chain establishment	3. Building a large-scale hydrogen supply chain (Demonstration of hydrogen power generation technology (high co-firing) using large gas turbine)	Electricity	TRL 6 or higher (2026-2030)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Achieve a minimum blending rate of $\geq$ 30% for cofiring	JCR confirmed that although some operations were discontinued, the specified conditions are still being met. Additionally, the progress of existing projects is published in impact reports and on the NEDO website, and JCR have confirmed that they are proceeding smoothly. High-co-firing power generation demonstrations have not yet been conducted.	
				9. Building a large-scale hydrogen supply chain (commercialization demonstration of liquefied hydrogen/MCH supply chain, research and development of dehydrogenation technology from ammonia for large-scale hydrogen transportation)	Electricity and heat Manufacturing	TRL 6 or higher (2030)	Meet CBS v4.1. 7 million t-CO <sub>2</sub> e/year	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Annual reporting on the progress of measures that contribute to energy loss reduction.	The progress of existing projects is published in impact reports and on the NEDO website, and JCR have confirmed that they are proceeding smoothly, although there have been some changes to the plan. Research and development related to dehydrogenation technology from ammonia is not currently being conducted.	
	FY2022 Suppl. FY2023 Initial	R&D	Development of next-generation aircraft	4. Development of next-generation aircraft (development of electric aircraft)	Transport	TRL 6 or higher (2030)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.		The progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.	

FY2022 Suppl. FY2023 Initial	R&D	Development of next-generation ships	5. Development of next-generation ships (Zero-emission ships)	Transport	Hydrofen fuel engine: TRL 8 or higher in 2030 Ammonia fuel engine: TRL 9 or higher (2028)	Meet CBS v4.1..	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.		The progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly. Although some themes are experiencing delays of one year or more due to development delays by overseas manufacturers (which are outside the scope of this grant), this is not expected to impact the overall progress of the project.
FY2022 Suppl. FY2023 Initial	R&D	Development of Technology for producing fuel using CO2, etc.	6. Development of fuel manufacturing technology using CO2 etc. (Development and demonstration of control technology that responds to raw material fluctuations in synthetic fuel (transportation fuel) production)	Transport	TRL 5-7 (around 2030) TRL 8-9 (2040)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Annual reporting on the progress to reach TRL level initially determined and disclosed in its research and development plan	The progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.
FY2022 Suppl. FY2023 Initial	R&D	Hydrogen utilization in iron and steelmaking processes	7. Hydrogen utilization in iron and steelmaking process (Expansion of demonstration scale of hydrogen reduction ironmaking technology)	Heat Manufacturing	TRL 6-7 (2030)	Meet CBS v4.1. 2 million t-CO2e/year by 2030	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Annual reporting on the progress to reach TRL level initially determined and disclosed in its research and development plan	JCR confirmed that although new R&D projects have been added, the specified conditions are still being met. Additionally, the progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.
FY2022 Suppl. FY2023 Initial	R&D	Decarbonization of thermal processes in manufacturing	8. Decarbonization of thermal processes in the manufacturing sector	Heat Manufacturing	TRL 6 or higher (2031)	Meet CBS v4.1. 20 million t-CO2e/year by 2040	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Annual reporting on the progress to reach TRL level initially determined and disclosed in its research and development plan	The progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.
FY2022 Suppl. FY2023 Initial	R&D	Hydrogen production through water electrolysis using power from renewables	10. Hydrogen production through water electrolysis using electricity derived from renewable energy, etc.	Electricity and heat Manufacturing	TRL 8 or higher (2030)	Meet CBS v4.1. 400 million t-CO2e/year	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.		JCR confirmed that although new R&D projects have been added, the specified conditions are still being met. Additionally, the progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.
FY2022 Suppl. FY2023 Initial	R&D	Achieving carbon neutrality in waste and resource circulation systems	11. Achieving carbon neutrality in the waste and resource recycling field	Waste	TRL 6-7 (2027-2030)	Meet CBS v4.1. 10.5 million t-CO2e/year by 2030	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	<ul style="list-style-type: none"> <li>• Waste hierarchy must be followed.</li> <li>• If waste burning/bioenergy, follow appropriate Sector Criteria</li> <li>• CCUS (excluding BECCUS) a minimum efficiency design target of at 70% is required (if used)</li> <li>• If it is necessary to handle specific hazardous materials, the materials will be utilized in accordance with Japanese regulations in a manner that does not have a negative impact on external environment.</li> </ul>	Companies have been selected to implement the research project, and actual research and development has commenced. As of June 2025, progress has been reported, confirming that the project is proceeding smoothly.

	FY2022 Suppl. FY2023 Initial	R&D	Development of technology for producing raw materials for plastic using CO2 and other sources	12. Development of plastic raw material manufacturing technology using CO2 etc.	Waste Manufacturing (Chemicals)	TRL 6 or 7 (2027-2030)	Meet CBS v4.1. 40 million t-CO2e/year by 2030	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	<ul style="list-style-type: none"> <li>Supply chain may not link to new or expansion of any O&amp;G facilities (commissioned/ expanded or newly refurbished, as of 1 Jan 2020, excluding chemical plants).</li> <li>Any required expansion/ upgrade and/or repair to distribution infrastructure is not restricted under the above</li> </ul>	JCR confirmed that although new R&D projects have been added, the specified conditions are still being met. While the development of foundational technology is proceeding according to the initial plan, JCR are in the process of revising the plans for some themes heading into the demonstration tests in the latter half, due to the influence of soaring equipment costs, prolonged construction schedules, and other factors.
	FY2022 Suppl. FY2023 Initial	R&D	Promotion of carbon recycling using CO2 from biomanufacturing technology as a direct raw material	13. Promoting carbon recycling using CO2 as a direct raw material using bio-manufacturing technology	Manufacturing (Chemicals)	TRL 4-7 (2030) TRL 7-9 (2040)	Meet CBS v4.1. 1.35 billion t-CO2e/year by 2040	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Annual reporting on the progress to reach TRL level initially determined and disclosed in its research and development plan	The progress of existing projects is disclosed in the impact report and on NEDO's website, and JCR have confirmed that they are progressing smoothly.
(2) R&D other than GI Funds	FY2022 Suppl.	R&D	Research and development project for enhancing the post-5G information and communication system infrastructure	14. Among the post-5G information and communication system infrastructure reinforcement research and development projects, research and development of future technologies that are essential for realizing GX such as optoelectronic convergence	ICT	TRL 6 (2030)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	Annual reporting on the progress to reach targets (such as emission saving compared to baseline) initially determined and disclosed in its research and development plan.	The progress of existing projects is published in impact reports and on the websites of the projects or their implementing organizations, and JCR have confirmed that they are proceeding smoothly.
	FY2022 Suppl.	R&D	Innovative GX technology creation project (GteX)	15. Innovative GX technology creation project	Transport Electricity and Heat	Storage battery: TRL 6 or higher (2040) Hydrogen: TRL 6 or higher (2030) Bio-manufacturing: TRL 6 or higher (2040)	Meet CBS v4.1 This is classified into flexibility pocket.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.		The progress of existing projects is disclosed in the impact report and on website of the project, and JCR have confirmed that they are progressing smoothly.
	FY2023 Initial	R&D	Demonstration reactor development project for fast reactor	16. Fast reactor demonstration reactor development project	Electricity	TRL 4-6 (2030) TRL 7-8 (the 2040s)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	<ul style="list-style-type: none"> <li>National nuclear regulations must be followed, for, nuclear material (i) sourcing, (ii) handling, (iii) transport, (iv) use, (v) storage AND (vi) safe disposal) when constructing reactors.</li> </ul>	The progress of existing projects is disclosed in the impact report and on METI's website, and JCR have confirmed that they are progressing smoothly.
	FY2023 Initial	R&D	Demonstration reactor development project for high-temperature gas reactor	17. High temperature gas reactor demonstration reactor development project	Electricity Manufacturing	TRL 4-6 (2030) TRL 7-8 (the 2040s)	Meet CBS v4.1.	JCR confirmed the following item are included in the proposal Did Variety of operating conditions consider? Is the Process reliable? Do performances match the expectations? Is interoperability with other technologies demonstrated? Is manufacturing approach clearly defined? Are all environmental, regulatory and socio-economic issues addressed?	Out of scope, as the current TRL has not yet reached 6.	<ul style="list-style-type: none"> <li>National nuclear regulations must be followed, for, nuclear material (i) sourcing, (ii) handling, (iii) transport, (iv) use, (v) storage AND (vi) safe disposal) when constructing reactors.</li> </ul>	The progress of existing projects is disclosed in the impact report and on METI's website, and JCR have confirmed that they are progressing smoothly.

(3) Subsidy program	FY2022 Suppl.	Subsidy	Support project for strengthening the semiconductor manufacturing supply chain for achieving GX	18. Among the support projects for strengthening the supply chain of important materials in response to changes in the economic environment, the project supports strengthening the semiconductor supply chain to achieve GX by improving power performance.	CBI sector criteria: 1. Solar v2.3 2. Wind v1.3 3. Low carbon transport (Rev.2.2) 4. Electrical Grids and Storage (March 2022)	Core parts of EV cars electric train and Solar/wind power which enable to decrease energy loss	Meet CBS v4.1 Sector Criteria Low Carbon Transport Electrical Grids and Storage			JCR confirmed that there are no changes to the eligibility-related matters verified during the pre-issuance review, and that the proceeds are being allocated to the originally intended project.
	FY2022 Suppl.	Subsidy	Support project for strengthening the manufacturing supply chain of batteries	19. Strengthening supply chains for manufacturing storage batteries for EV and renewable energy, which are essential for a green society.	CBI sector criteria: 1. Low Carbon Transport(Rev2.2) 2. Electrical Grids and Storage (March 2022)	Electricity Storage Facilities	Meet CBS v4.1. Sector Criteria Electrical Grids and Storage			JCR confirmed that there are no changes to the eligibility-related matters verified during the pre-issuance review, and that the proceeds are being allocated to the originally intended project.
	FY2022 Suppl.	Subsidy	Promotion project for the installation of advanced equipment to improve the insulation performance of detached houses / Support project for accelerating energy conservation and CO <sub>2</sub> reduction in the household sector through insulating windows	20. Project to promote the introduction of advanced equipment to improve the insulation performance of houses	CBI sector criteria: Buildings (White list for Low Carbon Building Technology Rev1.0)	double- and triple-glazed windows	Meet CBS v4.1. Sector Criteria Building (white list) Minimum U-values are stipulated by 7 regions of Japan by from north to south.			JCR confirmed that there are no changes to the eligibility-related matters verified during the pre-issuance review, and that the proceeds are being allocated to the originally intended project.
	FY2022 Suppl.	Subsidy	Support project costs for promoting energy efficiency investment and demand structure transformation *1	21. Energy saving investment promotion/demand structure transformation support project subsidy	No CBI criteria available.	-	Meet CBS v4.1 This is classified into flexibility pocket.			Initially, the portion of this subsidy to be financed by the Bonds was planned to cover only (A) Advanced Projects and (B) Tailor-made Projects. JCR has confirmed that allocations have also been made to (D)Energy Demand Optimization Measures.
	FY2022 Suppl. FY2023 Initial FY2023 Suppl.	Subsidy	Subsidy for promoting the introduction of clean energy vehicles	22. Subsidy to promote the introduction of clean energy vehicles (BEV, PHEV, FCV)	CBI sector criteria: Low Carbon Transport (Rev.2.2)	passenger cars	Meet CBS v4.1. Sector Criteria Low Carbon Transport All the PHEVs, supported by this program meets CBI sector criteria (under 50g-CO <sub>2</sub> /km/person)			JCR confirmed that there are no changes to the eligibility-related matters verified during the pre-issuance review, and that the proceeds are being allocated to the originally intended project.
	FY2023 Initial	Subsidy	Promotion project for the electrification of commercial vehicles	23. Commercial vehicle electrification promotion project	CBI sector criteria: Low Carbon Transport (Rev.2.2)	Commercial vehicle (PHEV are for taxi only)	Meet CBS v4.1. Sector Criteria Low Carbon Transport All the PHEVs, supported by this program meets CBI sector criteria (under 50g-CO <sub>2</sub> /km/person)			JCR confirmed that there are no changes to the eligibility-related matters verified during the pre-issuance review, and that the proceeds are being allocated to the originally intended project.
	FY2023 Initial	Subsidy	Grant for decarbonization transition acceleration for specific regions (microgrid-related projects utilizing privately-owned distribution lines and other related initiatives)	24. Subsidy for promoting regional decarbonization (independent line microgrid project subsidy)	No CBI criteria available.	-	Meet CBS v4.1 This is classified into flexibility pocket.			Upon reviewing the project eligible for the subsidy, JCR confirmed that the actual equipment funded is LED lighting and high-efficiency air conditioning equipment. JCR reclassified the project as falling within the 5% flexibility pocket.

\*1 This project includes gas uses (e.g. gas cogeneration firing system in factories). JCR found that this gas cogeneration system is necessary for the manufacturing factories which use both electricity, heat and water vapor. These factories are classified into steel, pulp, other metal or food manufacturing plants. JCR found that this kind of gas cogeneration firing system is necessary in the process of decarbonization of manufacturing factories, as there is no clean technology which enable to supply both electricity, high heat and water vapor. The government and Japanese companies are now conducting R&D for the development of hydrogen and ammonia, one of the use of proceeds of these bonds, which gas cogeneration systems may utilize in the future once the technologies are commercialized. Although, it is difficult to disclose the actual percentage of energy saving rate of each project, JCR has confirmed projects with an energy saving rate or decarbonization rate of more than 30%