The Climate Bonds Initiative (Climate Bonds) is proud to announce that the Japan Climate Transition Bond has achieved Certification under its rigorous Climate Bonds Standard, marking a significant advancement not only in Japan’s transition finance landscape but also serving as a global exemplar of best practice.

As the inaugural sovereign transition-labelled bond, this deal encompasses a diverse range of Use of Proceeds (UoPs) categories, from bolstering subsidies for established green initiatives to catalysing vital research and development (R&D) efforts crucial for facilitating the transition.

As a Certified Climate Bond, this deal will be included in the Certified Climate Bonds Database.
UN Secretary-General Antonio Guterres describes the challenge we face as averting climate catastrophe, not simply climate change.

Rapid and substantial emission reductions are vital. Achieving rapid emissions reductions globally will depend on the proliferation of **transformational industrial and technology solutions**; ensuring they happen at speed will, in turn, depend on strong and persistent enabling public sector activity.

Japan’s first Green Transformation (GX) Plan is one example of what needs to be done across all economies. Like all climate plans, the GX plan will need to be updated and improved over time, in line with the increasing ambition of global emissions targets.

Climate Bonds recommendations for the GX Plan are outlined in the October 2023 paper, “Japan: Policies to Grow Credible Transition Finance”. Nonetheless, the fact that such support programmes are now being implemented is of paramount importance and needs to be supported. In this context, Climate Bonds is supportive of Japan’s GX Plan.
R&D to enable technological breakthroughs necessary for a 1.5°C aligned future qualifies.

Uniquely, the bond has earmarked 55% of its UoP to R&D, including 18% for the utilisation of hydrogen in the steel making process and the decarbonisation of the thermal process.

Rapid and substantial emission reductions are essential. Supporting necessary technological innovations is important, including those in the early stages of R&D, subject to research activities being focused on ambitious emission reductions.

Climate Bonds notes that Japan has committed to pursuing efforts to limit temperature increase to 1.5°C, including through statements made at the G20 and G7.

Climate Bonds is also pleased to confirm that the Government of Japan (GoJ) has committed to the requirements and conditions of Certification as outlined in this briefing note.

Subsidies for established green activities qualify.

The remaining 44.5% of the bond’s UoP is earmarked to support decarbonisation objectives. This includes subsidies for low-carbon transport and batteries, subsidies to improve the insulation performance of houses, and subsidies to promote the introduction of clean energy vehicles.

The largest subsidy allocation is directed to silicon carbide power semiconductors for renewable energy, clean transport, electricity storage batteries, electricity transmission and distribution, and to strengthen supply chains for critical materials in the manufacturing of storage batteries.
The wider GX plan does support some gas-fired power generation for the electricity network, which would not meet the criteria for Certification.

Discussion about the GX Plan has also included the potential for new technology that allows the replacing coal in coal-fired power stations with ammonia. However, the UoP being funded by this Certified Climate Bond do not include any allocation to gas-fired power generation activities, nor any allocation to operational activities related to ammonia co-firing in coal fired plants.

Future UoP bonds linked to this plan will be assessed at the time of issuance.

About Climate Bonds Standard & Certification Scheme

The Climate Bonds Standard & Certification Scheme is a labelling scheme for entities, assets, bonds, loans & sustainability-linked debt instruments. Rigorous science-based criteria ensure that it is consistent with the goals of the Paris Climate Agreement to limit warming to 1.5°C. The Scheme is used globally by bond issuers, governments, investors and the financial markets to prioritise investments which genuinely contribute to addressing climate change.

Get in touch: certification@climatebonds.net
The bond has met Climate Bond’s criteria for Certification under the Climate Bonds Standard v4.1. Relevant criteria for the Certification of the bond include general criteria for R&D, and sector-specific criteria for Renewable Energy, Low Carbon Transport, Electrical Grids and Storage, and Buildings.

Requirements for eligible Research and Development (R&D)

One of the key features of the bond is the allocation to R&D projects. Climate Bonds recognises investment in a wide range of technologies as critical to achieving 1.5°C aligned goals, some of which may be in the early stages of readiness. The requirements for post-issuance reporting, described in A3.4 of the Climate Bonds Standard v4.1, apply to all R&D UoP, and this is no exception for this bond.

For those projects considered eligible under the R&D criteria, the following also apply:

- Allocation amounts will be checked by the verifier at post-issuance.
- Eligible R&D projects must aim to achieve Technology Readiness Level (TRL) 6, meaning the technology must demonstrate its viability in a relevant environment.
- R&D expenditure must be regularly assessed to ensure that the relevant climate-related goals are being achieved and the progress of R&D projects must be independently verified at least on an annual basis.
- For some R&D projects, specific requirements regarding performance and progress have been communicated.
- The bond’s verifier, the Japan Credit Rating Agency, has received confirmation from the issuer, the Government of Japan, of its commitment to meeting the above requirements.
- Where any R&D projects to be financed by these bonds do not progress as planned, they will be discontinued/terminated. In such a case, the Government intends to nominate the corresponding expenditure against other eligible projects under the framework.
A small part of the bond qualifies under the Climate Bonds flexibility pocket.

Climate Bond Standard v4.1 allows for a 5% flexibility pocket. This is to allow the inclusion of UoP uses that are aligned with the ICMA’s Green & Social Bond Principles, but do not yet have suitable eligibility criteria.

These sources may be novel energy systems or further developments in existing technology that certification standards have yet to include.

Introduced in version 4.1 of the Climate Bonds Standard, this feature is consistent with the flexibility pocket of 15% included in the recently enacted EU Green Bond Standard, while maintaining the rigour and best practice characteristics of the Climate Bonds Standard.

All allocations to the flexibility pocket have to be at a minimum in line with the ICMA Green Bond Principles (high-level) guidance on eligible investments. The flexibility pocket has been applied to Projects 15 and 21 of the bond.

**Regarding Project 15**

Sustainable Aviation Fuels (SAFs) have a significant potential to reduce the emissions profile of aviation.

While Climate Bonds has bioenergy criteria, it has not yet assessed the potential environmental impacts of the use of SAFs.

**Regarding Project 21**

This project covers subsidies for energy efficiency improvement measures of SMEs and factories across various industries.

There is not yet any directly corresponding Climate Bonds criteria to this project, and so it is included in the flexibility pocket.
BRIEFING NOTE  JAPAN’S CLIMATE TRANSITION BOND

KEY FEATURES

• A substantial part of the UoP for the bond (55.5%) is allocated to research and development of technologies that will support industrial and energy transition in line with emission reduction target.

• The remainder of the bond’s proceeds (44.5%) is allocated to subsidy programmes that support decarbonisation objectives. The largest allocations of subsidies (81.6%) are directed to semiconductors, electricity storage batteries, and energy-efficiency measures in buildings.

• A significant part of the bond’s UoP (>39.0%) is allocated to support green activities. This includes R&D for Perovskite Solar Cells and wind, and subsidies for low-carbon transport and batteries.

• The bond includes an allocation to R&D for the utilisation of hydrogen in the steel-making process and the decarbonisation of the thermal process (18.0%).

• The bond does not include funding for gas-fired power generation for the electricity network.

Use of Proceeds allocation (billion yen)

- R&D for Steel: 288.9 (18.0%)
- Subsidy program: 715.5 (44.5%)
- R&D: 893.4 (55.5%)

Total: 1,608.9

Graphs data: Created by Climate Bonds, based on the pre-issuance verification report for the Certification written by Japan Credit Rating Agency, Ltd.
**Breakdown of Use of Proceeds**

**Green Innovation Fund** 756.4 billion yen
- Building a large-scale hydrogen supply chain
- Hydrogen production through water electrolysis using electricity derived from renewable energy, etc.
- Promoting carbon recycling using CO₂ as a direct raw material using bio-manufacturing technology
- Development of next generation shipping
- Development of fuel manufacturing technology using CO₂ etc.
- Development of plastic raw material manufacturing technology using CO₂ etc.
- Lowering the cost of offshore wind power generation

**Subsidy program** 715.5 billion yen
- Energy saving investment promotion / demand structure transformation support project subsidy
- Private line micro grid business grant
- Commercial vehicle electrification promotion subsidy
- Subsidy to promote the introduction of clean energy vehicles (BEV, PHEV, FCV)
- Project to promote the introduction of advanced equipment to improve the insulation performance of house
- Semiconductor supply chain resilience support project
- Storage battery manufacturing supply chain resilience support project

**R&D other than GI Fund** 137 billion yen
- Innovative GX technology creation project
- Next generation nuclear, High temperature gas reactor (Pink hydrogen)
- Research and development of photoelectric fusion, etc.
- Development of next generation solar cells
- Hydrogen power generation using gas turbine
- Decarbonization of thermal processes in the manufacturing sector, Hydrogen utilization in the steelmaking process
- Development of next generation aircraft
- Achieving carbon neutrality in the waste and resource recycling field 6%
- Building a large-scale hydrogen supply chain
- Hydrogen production through water electrolysis using electricity derived from renewable energy, etc.
- Promoting carbon recycling using CO₂ as a direct raw material using bio-manufacturing technology
- Development of next generation shipping
- Development of fuel manufacturing technology using CO₂ etc.
- Development of plastic raw material manufacturing technology using CO₂ etc.
- Lowering the cost of offshore wind power generation

Data provided by Japan Credit Rating Agency, Ltd.