

JCR Climate Transition Loan Framework Evaluation
Third-Party Opinion (Transition-Linked Loan Framework)
By Japan Credit Rating Agency, Ltd.

Japan Credit Rating Agency, Ltd. (JCR) announces the following Climate Transition Loan Framework Evaluation and the results on conformity with the Sustainability Linked Loan Principles

JCR Assigned Green 1 (T)(F) to Transition Loans and Transition-Linked Loan Framework of Japan Airlines Co., Ltd. and Confirmed the Conformity of it with the Sustainability-Linked Loan Principles

Borrower : Japan Airlines Co., Ltd (Security code: 9201)
Subject : Japan Airlines Co., Ltd.
Transition Loans and Transition-Linked Loan Framework

<Results of Confirmation of Conformity with the Sustainability-Linked Loan Principles>

This framework conforms to the Sustainability-Linked Loan Principles.

<Evaluation Results of Climate Transition Loan Framework>

Overall Evaluation	Green 1(T)(F)
Green/Transition Evaluation (Use of Proceeds)	gt1(F)
Management, Operation and Transparency Evaluation	m1(F)

Chapter 1: Overview of Evaluations

1. Overview of Japan Airlines Corporation

Japan Airlines Co., Ltd (JAL, or "the Company") is one of the two major domestic airlines established in 1951. JAL is the core company of JAL Group, which comprises 142 subsidiaries and 54 affiliates for a total of 197 companies (as of the end of November 2022). In response to the significant deterioration in results due to the COVID-19 crisis, JAL Group has shifted from a profit structure that relies on its traditional full-service carrier business to a policy of building a highly risk-resistant business structure by expanding its business domains into the fields of LCC, Cargo and Mail, and Mileage, Lifestyle and Infrastructure. In FY03/22, international passengers accounted for 10% of revenues (35% in FY03/20 before the COVID-19 crisis), domestic passengers 35% (38%), cargo and mail 32% (7%), and others 23% (20%).

JAL Group's corporate policy is "JAL Group Will: Pursue the material and intellectual growth of all our employees, - Deliver unparalleled service to our customers. Increase corporate value and contribute to the betterment of society." Based on this policy, JAL Group announced JAL Vision 2030 in May 2021. JAL Vision 2030 has two key themes "Safety and Peace of Mind" and "Sustainability." In order to realize JAL Vision 2030, the Company is pursuing a management strategy with three axes: ESG strategy, business strategy and financial strategy.

2. Overview of Transition Strategies

At the General Meeting of Shareholders in June 2020, JAL set a target of Net Zero CO₂ emissions in 2050¹. Thereafter, in the medium-term management plan announced in May 2021, the Company announced a roadmap for Net Zero CO₂ emissions in 2050. In addition, as milestones toward this goal, the Company set CO₂ reduction targets of maintaining total emissions in FY2025 compared to FY2019, and reducing total emissions by 10% by FY2030 from FY2019 levels. In addition, quantitative targets are also set for the introduction of Sustainable Aviation Fuel (SAF).

JAL Group's roadmap for Net Zero CO₂ emissions is based on the following three policies: (i) upgrading to fuel-efficient aircraft; (ii) reducing CO₂ emissions in daily operations; and (iii) development and use of SAF. In addition to these three measures, JAL Group will continue to consider measures such as removing and collecting CO₂, and will update the roadmap from time to time to prevent obsolescence. JCR confirmed that the targets in the road map are consistent with global target setting.

3. Appropriateness of Transition Strategy (Overview of Compliance Assessment with CTFH, etc.)

JAL Group has a transition strategy formulated based on risk scenario analysis, etc. in accordance with TCFD Guidance, and a governance system to ensure its effectiveness has been appropriately established. As an airline that generates a large amount of CO₂ in daily operations, the Group recognizes that responding to climate-change is a key management issue in its business model, given the international need for efforts to decarbonize. The roadmap for reducing CO₂ emissions in the JAL Group's transition strategy covers Scope 1 and 2, which account for about 80% of the total, but JAL Group is considering setting a target for Scope 3 in the future. The Company's transition strategy is consistent with industry targets and science-based CO₂ reduction target levels such as 1.5°C scenario. In addition, the Company has obtained third-party verification of its CO₂ emissions, and its investment plans are publicly disclosed and highly transparent.

Based on the above, JCR confirmed that the Framework has properly established and disclosed all four elements required by the Climate Transition Finance Handbook (CTFH) ² established by International Capital Market Association (ICMA, and the Basic Guidelines for Climate Transition Finance (CTF Basic Guidelines) ³ (collectively CTFH and CTF Basic Guidelines, etc.).

¹ Achieving a balance between the amount of carbon emissions actually generated by business activities and the amount of reduction achieved through measures = Net Zero Emission (including emissions trading and CCS(CO₂ absorption technology))

² Established by International Capital Market Association (ICMA) in December 2020.

³ Established by the Financial Services Agency, Ministry of Economy, Trade and Industry, and Ministry of the Environment in May 2021

4. Summary of Compliance Assessment with SLLP, etc.

JAL has established the following KPI and SPTs for linked loans executed under this Framework.

<p>KPI: Total Green House Gas (GHG) emissions (direct emissions, Scope1)</p> <p>SPT1: Maintain Total GHG emissions (direct emissions, Scope1) in FY2025 compared to FY2019 (Less than 9.09 million tons)</p> <p>SPT2: Reduce Total GHG emissions (direct emissions, Scope1) by 90% in FY2030 to FY2019(Less than 8.18 million tons)</p>

JCR evaluates this KPI as a meaningful indicator that contributes to deepening and accelerating ESG strategy, which is the axis of JAL Group's management strategy. In addition, these SPTs are the very CO₂ emission reduction targets in the JAL Group's roadmap toward virtually zero CO₂ emissions by 2050. Compared to the Group's past track record, it is necessary to go beyond Business As Usual, and they are sufficiently ambitious targets compared to international benchmarks and other companies.

In addition, JCR confirmed that the economic terms of the Transition-Linked Loans to be executed under the Framework are linked with achievement of SPTs. Reporting content and verification systems after loan disbursement are also appropriately planned. Based on the above, JCR assesses that the Framework conforms with the Sustainability Linked Loan Principles (SLLP)⁴ established by Loan Market Association (LMA), Asia Pacific Loan Market Association (APLMA), and Loan Syndication and Trading Association (LSTA) and the Sustainability Linked Loan Guidelines (Guidelines)⁵ established by the Ministry of the Environment (SLLP and Guidelines are collectively referred to as "SLLP, etc.").

5. Overview of Climate Transition Loan Framework Assessment

JAL limited the use of proceeds to upgrading to fuel-efficient aircraft such as Airbus A350 and Boeing 787 (A350・787) when making use-specific loans based on this Framework. JCR affirmed that the standards for selecting use of proceeds were appropriate as those for climate transition financing that specified use of proceeds, and that the relevant departments and management were properly involved in the selection process. The appropriation plan, tracking management system, and reporting are appropriately planned. Based on the above, JCR assesses that the management and operational structure for funds procured under the Framework is appropriate and transparent. Regarding the sustainability efforts of the organization, it was confirmed that in addition to responding to climate change, the management has positioned the effective use of limited resources, Diversity and Inclusion (D&I), and regional revitalization as high-priority issues, and that the efforts are being made with the help of outside experts and others.

Based on the JCR Green Finance Evaluation Methodology, JCR confirmed that the Framework conforms with the Green Loan Principles⁶ established by LMA, APLMA, and LSTA and the Ministry of the Environment's Green Loan Guidelines⁷, and assigned "gt1 (F)" for the "Green/Transition Evaluation (Use of Proceeds)", "m1 (F)" for the "Management, Operation, and Transparency Evaluation." Consequently, JCR assigned "Green 1 (T) (F)" for the overall evaluation of the "JCR Climate Transition Finance Evaluation" for the Transition Loan Framework.

Based on the foregoing, it is believed that the Framework meets the standards for items required by the Climate Transition Finance Handbook (CTFH), the Basic Guidelines for Climate Transition Finance, the Sustainability Linked Loan Principles, the Green Loan Principles, and the Green Loan and Sustainability Linked Loan Guidelines.

⁴ Established by Loan Market Association (LMA), Asia Pacific Loan Market Association (APLMA) and Loan Syndication and Trading Association (LSTA) Revised in March 2022.

⁵ Established by Ministry of the Environment. Revised in July 2022.

⁶ Established by Loan Market Association (LMA), Asia Pacific Loan Market Association (APLMA) and Loan Syndication and Trading Association (LSTA) Revised in February 2021.

⁷ Established by Ministry of the Environment. Revised in July 2022.

Chapter 2: Overview of Evaluation Targets

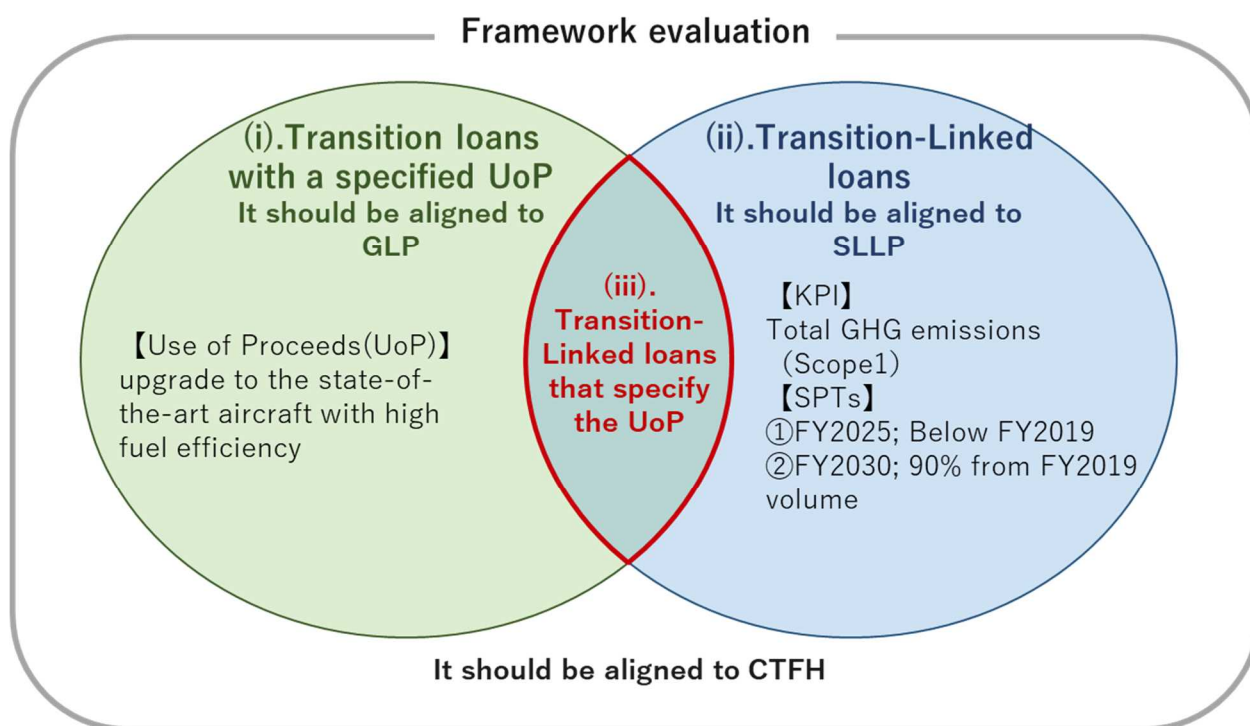
The subject of this evaluation is the Transition Loan and Transition-Linked Loan Framework (the Framework) prepared by JAL for the following three loan types.

- (i). Transition loans with a specified use of proceeds
- (ii). Transition-Linked loans where economic incentives are linked to the achievement of sustainability-performance targets (SPTs) set in advance by the borrower
- (iii). Transition-Linked loans that specify the use of proceeds and provide economic incentives to achieve SPTs as in (ii) above.

Transition Loans and Transition-Linked Loans are both loan products that conform to Climate Transition Financing (CTF). CTF refers to a financial means designed to support the efforts of a company that is considering measures to combat climate change and is taking initiatives to reduce greenhouse gas emissions in accordance with its long-term strategy in order to realize a decarbonized society. JCR will confirm the conformity of the Framework with the CTFHs, etc. established by ICMA.

Then, for the portion pertaining to the linked type loans that fall under (ii) and (iii), a third-party opinion shall be provided on the conformity of this Framework to the SLLP, etc. With respect to the types of loans with a specified use of proceeds that fall under (i) and (iii), an assessment of whether or not it is in conformity with the Green Loan Principles and the Green Loan Guidelines shall be made based on the JCR Green Finance Evaluation Methodology.

Figure 1. Outline of the object of this evaluation



(Source: JCR)

Chapter 3: Compliance with CTFH, etc.

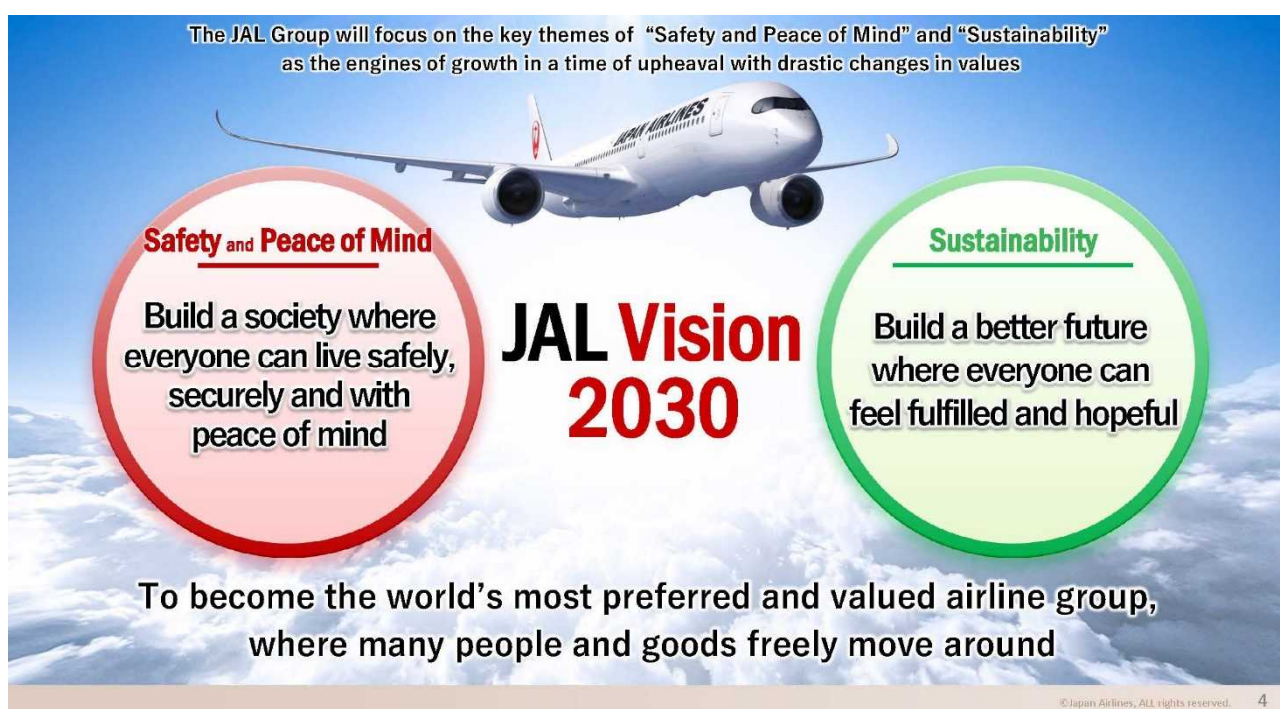
3-1. JAL's Long-Term Vision and Transition Strategy

<JAL Vision 2030>

JAL Group's corporate policy is "JAL Group Will: Pursue the material and intellectual growth of all our employees, Deliver unparalleled service to our customers. Increase corporate value and contribute to the betterment of society."

Based on this policy, JAL Group aims to become the world's most preferred and valued airline group, where many people and goods lively move around. In May 2021, JAL announced its JAL Vision2030 showing what it wanted to do in 2030 based on these corporate philosophies and targets. In light of the fact that the values of society have changed dramatically after the COVID-19 crisis, the Company aims to realize a safe, secure, and reliable society in a comfortable environment, and an affluent society where each one of us can sense and hope for a brighter future, with "safety and peace of mind" and "sustainability" as the two growth engines.

Figure 2.JAL Vision2030



(Source: FY2021-FY2025 JAL Medium-Term Management Plan Rolling Plan 2022)⁸

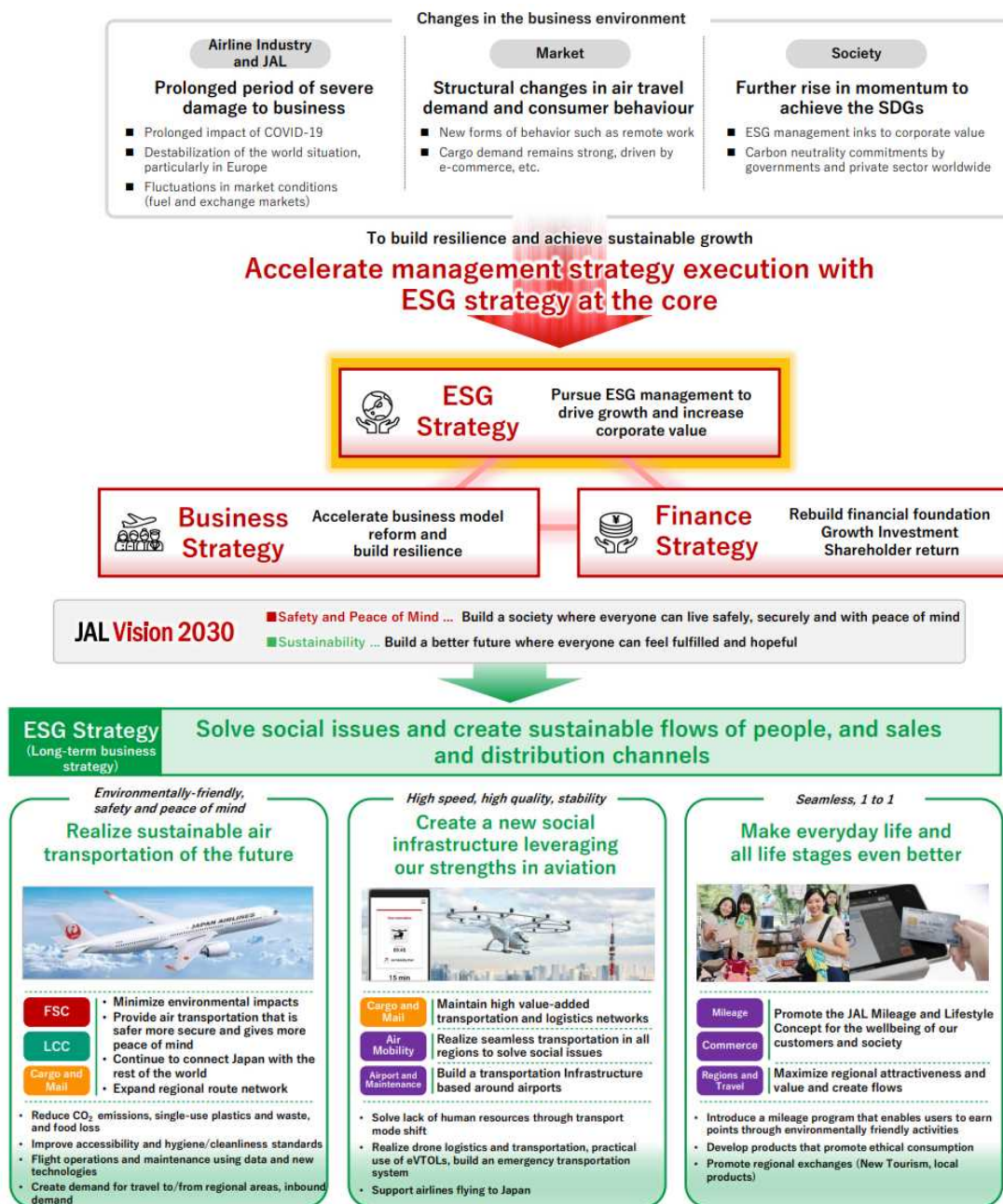
<Medium-Term Management Plan>

In its medium-term management plan for FY 2021 through FY 2025, JAL Group announced a management strategy with three axes: ESG strategy, business strategy and financial strategy to realize its JAL Vision2030. In terms of its business strategy, it stated that it would expand its LCC and Mileage, Lifestyle and Infrastructure business areas and build a risk-resistant business structure in response to the deterioration in performance due to the COVID-19 pandemic. In its financial strategy, the Group announced that it would strategically allocate management resources with the aim of achieving both a stronger risk system and capital efficiency. In its ESG strategy, it has set quantitative targets for key ESG issues, with the aim of realizing a sustainable society through its business activities. Particularly in the area of E: Environment, it has announced a roadmap toward virtually zero CO₂ emissions by 2050, as described below.

⁸ FY2021-2025 JAL Medium-Term Management Plan Rolling Plan 2022 May 6, 2022 <https://www.jal.com/en/philosophy-vision/strategy/>

Subsequently, in response to changes in the business environment, such as the prolonged COVID-19 crisis and the situation in Ukraine, in May 2022 JAL Group announced the Medium-Term Management Plan Rolling Plan 2022 in order to ensure the achievement of the Medium-Term Management Plan. In light of the recent increase in the momentum toward sustainability, JAL Group plans to promote business and financial strategies, such as business restructuring and restructuring of its financial base, by using its ESG strategy as the axis of its medium-to long-term growth strategy and management strategy.

Figure 3. JAL Medium-Term Management Plan Rolling Plan 2022 Overview



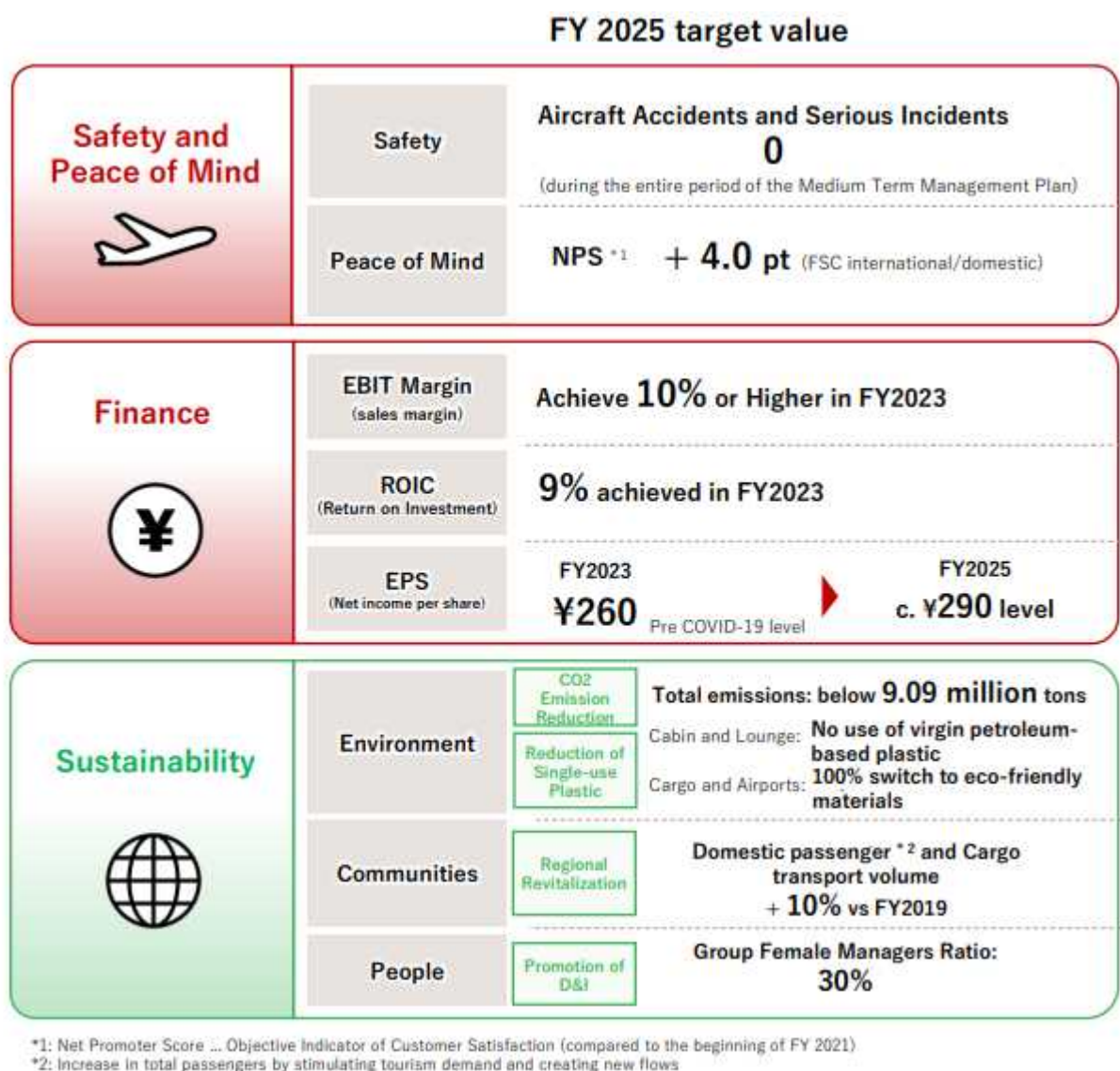
(Source: 2021-2025 JAL Medium-Term Management Plan Rolling Plan 2022)

<Goals set for the environment>

JAL has identified "4 areas/22 issues" as key issues to be addressed through its business, and set medium-term targets for each group.⁹ The 4 areas are "Environment," "Communities," "People," and "Governance." "Response to Climate Change" is the top priority in the "Environment." In addition, the goal for CO₂ reduction is a mid-term goal related to the "4 areas/22 issues," and at the same time, a value (Scope 1) for the FY2025 goal has been set as a management goal in the medium-term management plan as the most important issue to be focused on in particular.

JAL Group recognizes that climate change will not only have a major impact on the Group's business, but will also lead to serious social challenges such as hunger and poverty stemming from them. In order to fulfill its mission as a public transportation organization, JAL Group has set climate change as a top priority issue based on the belief that it is necessary to steadily advance measures to deal with climate change, including the reduction of CO₂ emissions, as a corporate responsibility.

Figure 4. Management Targets in the Medium-Term Management Plan



(Source: FY2021-FY2025 JAL Medium-Term Management Plan Rolling Plan 2022)

<Roadmap for Achieving Net Zero CO₂ Emissions in 2050>

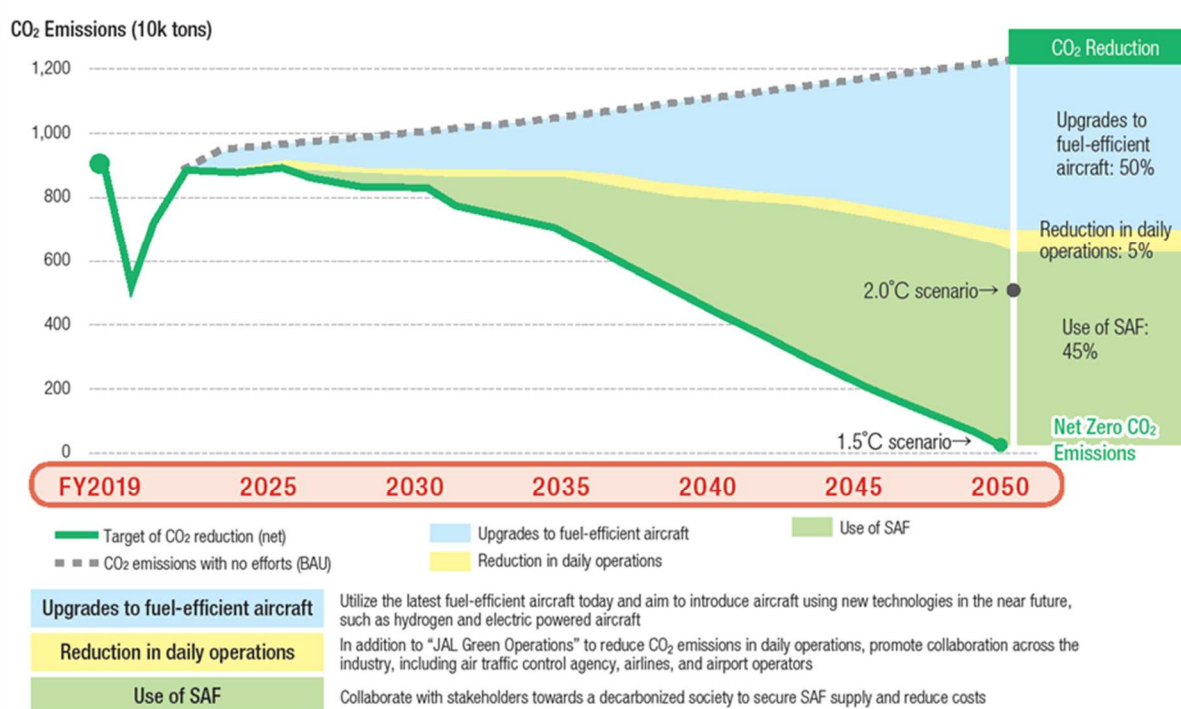
⁹ Japan Airlines Website <https://www.jal.com/en/philosophy-vision/strategy/>

At the General Meeting of Shareholders in June 2020, JAL set a target of virtually net zero CO₂ emissions in 2050. Thereafter, in the medium-term management plan announced in May 2021, as a response to climate change, the Company announced a roadmap toward virtually zero CO₂ emissions in 2050. In addition, as milestones toward this goal, reduction targets were set for 2025 and 2030.

In developing this roadmap, the JAL Group referred to the latest scenarios for reducing CO₂ emissions from aircraft, including ICAO¹⁰ and IATA¹¹ study materials and ATAG¹²'s "Waypoint 2050."¹³

Three measures to reduce CO₂ are planned for this roadmap: (i) upgrading to fuel-efficient aircraft; (ii) reducing CO₂ emissions in daily operations; and (iii) development and use of SAF*. Details of the measures are described in Chapter 4. The contribution of each measure is shown in the figure below. In addition to these three measures, JAL Group will continue to examine measures, such as removing and recovering CO₂, and update this roadmap as needed.

Figure 5. Roadmap for CO₂ Emissions Net zero



(Source: FY2021-FY2025 JAL Medium-Term Management Plan)¹⁴

* SAF is aviation fuel produced from sustainable sources such as waste cooking oil, animal and vegetable fats and oils other than fossil fuels. Although SAF emit CO₂ when they are burned as well as conventional fossil fuel, SAF is made from biomass, which CO₂ emissions have been reduced in the growing process, waste food and other waste, etc., and thus can drastically reduce CO₂ emissions throughout their lifecycle compared to conventional fossil fuel. SAF that has acquired ASTM standard¹⁵ certification can be used in existing infrastructures (existing aircraft and

¹⁰ ICAO: International Civil Aviation Organization, Civil Aviation Organization

A specialized organization of the United Nations established under the International Convention on Civil Aviation (known as the Chicago Convention) adopted in 1944 with the purpose of ensuring that international commercial aviation develops safety and orderly, and that international air transportation operations are managed in a sound and economical manner on the basis of the principle of equality of opportunity.

¹¹ IATA: International Air Transport Association, Air Transport Association
a group of commercial airlines established in 1945.

¹² ATAG: Air Transport Action Group, Air Transportation Action Group
Global alliance to promote sustainability in the airline industry

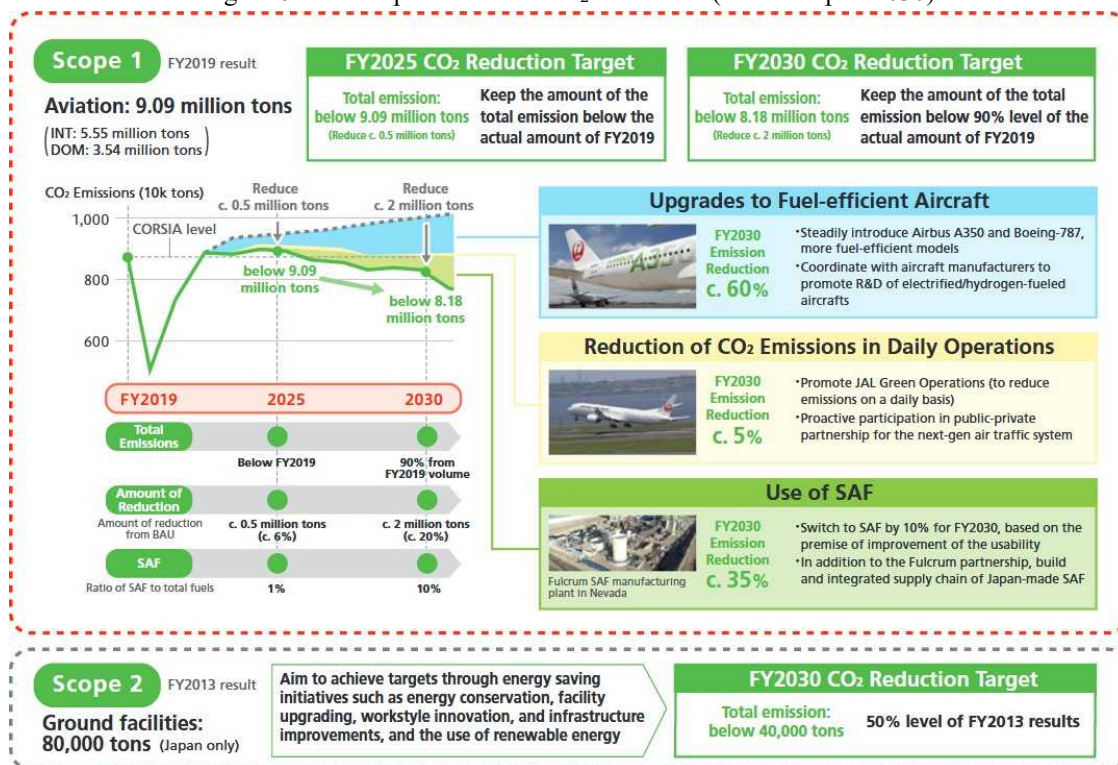
¹³ ATAG Waypoint 2050, September 2021. <https://aviationbenefits.org/environmental-efficiency/climate-action/waypoint-2050/>

¹⁴ FY2021-2025 JAL Medium-Term Management Plan-May 7, 2021 https://www.jal.com/ja/philosophy-vision/strategy/plan_2021_and.html

¹⁵ International standards for methods and feedstocks for the production of aviation fuels developed by ASTM International.

relevant infrastructures). Therefore, SAF has low hurdles for social implementation and is expected as a key role in the decarbonization of the airline industry. Currently, SAF is classified into seven Annex in ASTM Standard by the combination of alternative fuel feedstocks and manufacturing methods

Figure 6. Roadmap to Net Zero CO₂ Emissions (detailed up to 2030)



(Source: Japan Airlines Transition Loan and Transition-Linked Loan Framework)

<ESG Promotion System>

As shown in the chart below, Japan Airlines has established a hierarchy of meetings on sustainability. The Sustainability Promotion Council is chaired by the President, and the Sustainability Promotion Committee is chaired by the Senior Vice President of General Affairs, where management confirms and discusses progress toward the realization of sustainability and conducts management reviews. The lower-level meetings, the Sustainability Promotion Vice President Meeting and the Sustainability Staff Meeting, confirm progress and conduct planning more frequently. The agenda items of the Sustainability Promotion Council are reported to the Board of Directors meetings, where they are discussed.

Figure 7. ESG Promotion System



(Source: Japan Airlines website)¹⁶

¹⁶ In SAFs, ASTM D7556 and airplane fuels are addressed by ASTM D1655.

¹⁶ Japan Airlines Website Promotion System <https://www.jal.com/ja/sustainability/organization/>

In addition, with regard to E (Environment), JAL Group is striving to achieve environmental goals by implementing the Environmental Management System (EMS) in order to promote environmental conservation activities in an accurate and efficient manner while continuously improving it based on the JAL Group's environmental policy. The Environmental Promotion Department serves as the secretariat for EMS. Specifically, EMS managers are assigned to each company to set targets and quarterly action plans, promote initiatives, and review them on a quarterly basis, while following PDCA cycle stipulated in the JAL Group Environmental Management Regulations.

Based on the above, JCR confirmed that the Company has appropriately established a system to promote ESG management under the strong initiative of the President and other members of the management team, and that PDCA cycle is appropriately implemented through the EMS, particularly with regard to E (Environment).

3-2. Consistency with items required in the Climate Transition Finance Handbook

Element 1: Transition Strategy and Governance of Issuers, etc.

(1) Whether the issuer, etc. that procures funds has a strategy for the transition for climate change mitigation.

In JAL Vision 2030, JAL Group has set "sustainability" as one of the engines for realizing the ideal image that it wants to achieve by 2030, and in its medium-term management plan, it has announced that it will focus on ESG strategy. Given these assumptions, the 2050 CO₂ Emissions Net Zero Road Map is published. In addition, the roadmap sets the following targets for reducing CO₂ emissions.

- Net zero CO₂ emissions for Scope1 by FY 2050
- Reduce CO₂ emissions for Scope1 by 10% from FY2019 level by FY2030
- Maintain CO₂ emissions for Scope1 compared to FY2019 level by FY2025

To achieve the above goals for FY2025, FY2030, and FY2050, (i) upgrading to fuel-efficient aircraft; (ii) reducing CO₂ emissions in daily operations; and (iii) development and use of SAF are planned.

Thus, JAL has a strategy for the transition for climate change mitigation.

(2) Whether the use of a "transition" label in financing is intended to contribute to the realization of a corporate strategy that enables issuers, etc. to effectively deal with climate change-related risks and to transition to a business model that can contribute to the achievement of the goals of the Paris Agreement.

JAL Group identified climate-change related risks, such as carbon pricing and SAF procurement competition, and seeks to address them effectively through established transition strategies. The Group's Transition Strategy is based on risk scenario analyses in line with the guidance of TCFD (Climate-Related Financial Disclosure Task Force), as well as analyses based on IEA¹⁷'s SDS scenarios¹⁸. The target of "virtually zero CO₂ emissions by 2050" is based on a 1.5°C scenario (Science Based Targets initiatives (SBTi)¹⁹, which limits global temperature increases to less than 1.5°C before the industrial revolution. Measures to achieve the target are developed by referring to scenarios such as "ICAO and IATA study materials, ATAG's "Waypoint 2050."

Accordingly, JCR assesses that JAL Group's transition strategy is a key strategy aimed at moving to a business model that can contribute to the achievement of the goals of the Paris Agreement.

(3) Has a governance system been established to ensure the effectiveness of the transition strategy?

As described in detail in the ESG promotion system in the previous section, JAL Group has established a system that can promote ESG throughout the Group. In particular, for E (Environment), a system that appropriately conducts PDCA cycles through EMS has been established. JCR confirmed that each JAL Group company has appointed an EMS manager and that it sets targets and quarterly action plans, promotes initiatives, and reviews them on a quarterly basis, while following PDCA cycle stipulated in the JAL Group Environmental Management Regulations.

Accordingly, JCR assesses that a group-wide governance system is in place to implement the transition strategy.

¹⁷ IEA: International Energy Agency, International Energy Agency

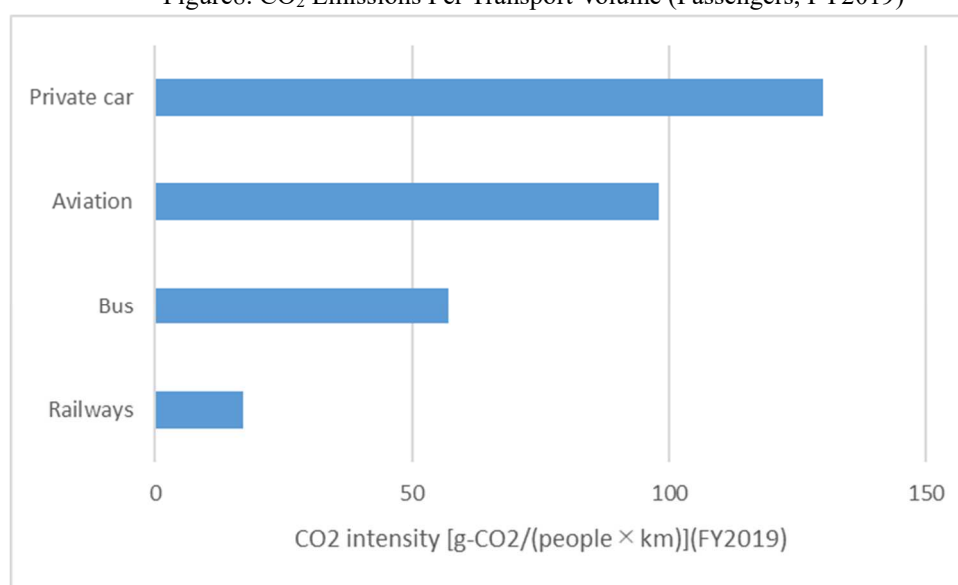
¹⁸ Sustainable Development Scenarios (Sustainable Development Scenario), a path to fully achieving IEA's sustainable development goals

¹⁹ Initiative to require companies to set "carbon dioxide emission reduction targets" based on "scientific evidence." It was established in September 2014 by CDP (formerly the Carbon Disclosure Project), the World Resources Institute (WRI), the World Wide Fund for Nature (WWF), and the United Nations Global Compact (UNGC), a coalition of institutional investors that promotes disclosure on climate change measures.

Element 2: Important environmental issues in the Company's business model

CO₂ emissions per unit of air transportation are larger than those of other public transportation facilities (buses and railways), making it essential to take steps to decarbonize aviation in order to achieve carbon neutrality. As of FY2019, CO₂ emissions for airlines were 619 million t-CO₂ for international routes and 417 million t-CO₂ for domestic routes (the sum of domestic routes for Japan and other countries). This is about 3% of the worldwide CO₂ emissions (2019, IEA published²⁰). Emissions on domestic routes in Japan were 10.5 million t-CO₂, which accounted for approximately 5% of the domestic transport sector in FY2019²¹. Air transportation demand declined temporarily due to the impact of COVID-19 pandemic. However, according to forecasts by IEA, ICAO and others, demand is expected to recover steadily and RTK²² and RPK²³ will continue to grow. Since an increase in airline demand will lead to an increase in CO₂ emissions, it is assumed that the airline industry will be required to take further decarbonization initiatives in the future. At the 41st General Assembly of ICAO held in October 2022, a long-term goal (LTAG; long-term global aspirational goal) was adopted²⁴ to reduce CO₂ emissions to virtually zero by 2050 in the field of international aviation. Thus, efforts to decarbonize aviation are accelerating globally.

Figure8. CO₂ Emissions Per Transport Volume (Passengers, FY2019)



(Source: Translated by JCR from Ministry of Land, Infrastructure and Transport website)²⁵

Based on these assumptions, JAL Group believes that as one of the world's leading airlines, it will be required to promote its decarbonization initiatives, and has expressed its ESG strategy as the cornerstone of its management strategy. The goal for CO₂ reduction is a mid-term goal related to the "4 areas/22 issues," and at the same time, a value (Scope 1) for the FY2025 goal has been set as a management goal in the medium-term management plan as

²⁰ IEA Website (Aviation) <https://www.iea.org/fuels-and-technologies/aviation>

IEA Website (CO₂ emissions) <https://www.iea.org/reports/global-energy-review-2021/co2-emissions>

²¹ Study Group on Reducing CO₂ in the Aircraft Operational Field (1st Meeting) March 22, 2021, Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism

<https://www.mlit.go.jp/common/001395880.pdf>

²² RTK: Revenue Ton-Kilometers, revenue ton-kilometers

The total distance of a revenue cargo (including the weight of passengers) transported and flying. Revenue cargo volume (t) × transportation distance (km)

²³ RPK: Revenue Passenger-Kilometers, revenue ton-kilometers

The total distance of revenue passengers transported and flying. Revenue passengers (number of people) × transportation distance (km)

²⁴ ICAO News Release

<https://www.icao.int/Newsroom/Pages/States-adopts-netzero-2050-aspirational-goal-for-international-flight-operations.aspx>

²⁵ https://www.mlit.go.jp/sogoseisaku/environment/sosei_environment_tk_000007.html

Due to a decrease in the number of users of each transportation system associated with the spread of the new type of coronavirus infectious disease, carbon dioxide emissions per transportation volume are extremely high compared to the average year. Therefore, data for FY2019 are used.

the most important issue to be focused on in particular. Scope1 of JAL's CO₂ emissions account for approximately 80%²⁶ of the total, or 6,210,000 t-CO₂ (FY 2021).

Therefore, it is a critical issue for Scope1 to make efforts to reduce CO₂ emissions.

Element 3: Based on scientific rationale

Does the transition roadmap meet the following?

(1) Quantitatively measurable, covering Scope1, 2. (It is desirable that Scope 3 are targeted to the extent feasible)

JAL has measured CO₂ emissions related to Scope 1, 2, and 3 for group companies in Japan and overseas, and has obtained third-party verification. In addition, in its roadmap toward virtually zero CO₂ emissions, JAL Group has stated its goal of achieving net zero CO₂ emissions by FY2050 for Scope 1 and 2, as well as milestones toward that goal. Furthermore, the Company committed to SBTi in March 2022 and plans to proceed with the procedures for approval within two years, and will set a reduction target for Scope 3 in the procedures.²⁷

(2) Consistent with general recognized scientific-based target setting

JAL Group's transition strategy was developed with reference to ATAG's "Waypoint 2050," IATA's demand assumptions, Boeing's "Commercial Market Outlook²⁸," and ICAO's discussion on CORSIA²⁹. Consequently, JAL's targets are consistent with international target setting on a total volume basis, such as ATAG's "Waypoint 2050", ICAO's LTAG, and IEA's Net zero by 2050³⁰.

According to TPI³¹, even when the JAL Group's medium- and long-term goals on a total volume basis are restated on a per RTK intensity basis according to the IEA and ICAO projections, they are consistent with the 1.5°C scenario. TPI calculates the intensity target from the JAL Group's medium- and long-term goals on a total volume basis, assuming that its passenger and cargo activity will grow according to the growth rate of passenger activity projected in the IEA's 2020 Energy Technology Outlook (ETP)³² and the growth rate of cargo activity projected by the ICAO. Although JAL Group announced an intensity target (0.8187 kg-CO₂/RTK) for the FY2025 goal at the end of December 2022, which is more aggressive than the value calculated by TPI (0.911 kg-CO₂/RTK), no intensity target has been announced for the FY2030 goal as of January 2023.³³

JCR assesses that JAL's CO₂ emissions reduction targets are consistent with industry-wide targets and science-based CO₂ reduction targets such as the 1.5°C scenario.

²⁶ Calculated by JCR from Japan Airlines ESG (FY2021). As of FY2019, there was no impact of the new coronavirus, the share of Scope1 was 86%.

²⁷ Certification statement issued by the Japan Maritime Association
https://www.jal.com/ja/sustainability/environment/environment-management/pdf/ias_jal2022_jpn_220713.pdf

²⁸ Boeing Website <https://www.boeing.com/commercial/market/commercial-market-outlook/index.page>

²⁹ CORSIA: Carbon Offsetting and Reduction Scheme for International Aviation
 Carbon offset and reduction schemes for international aviation created by ICAO.

³⁰ IEA Net Zero by 2050, revised October 2021. <https://www.iea.org/reports/net-zero-by-2050>

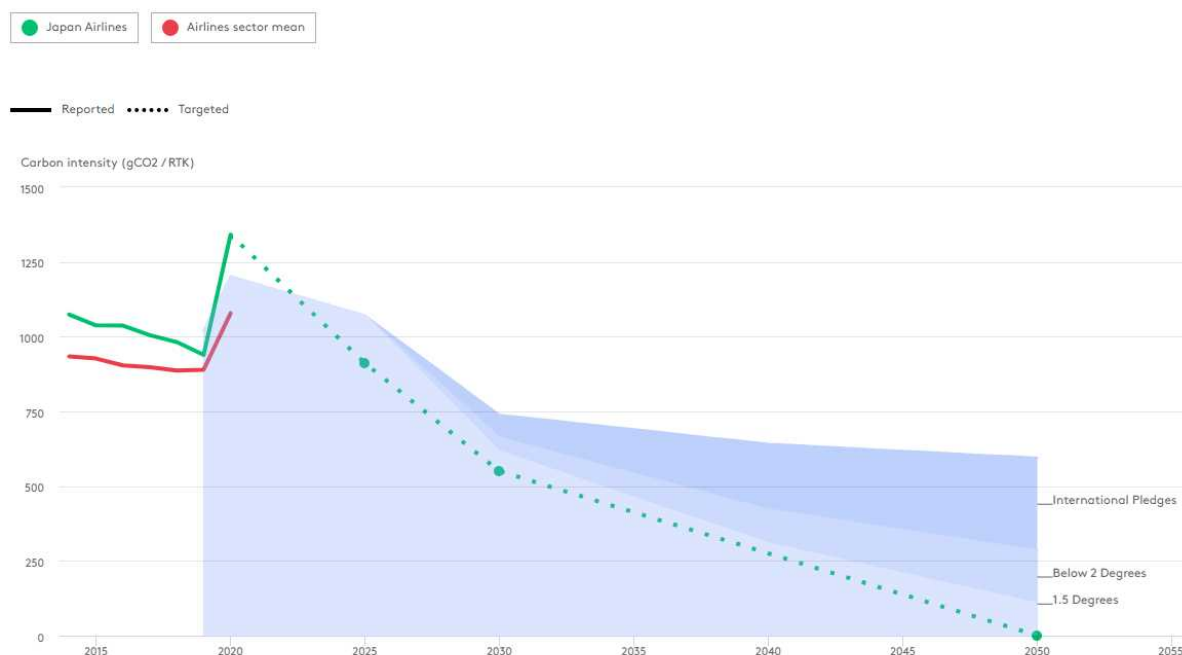
³¹ TPI: Transition Pathway Initiative

A low-carbon economic promotion initiative developed in 2017 with the participation of more than 120 major institutional investors. For comparisons with each scenario, see data as of December 2022.

³² IEA Energy Technology Perspectives <https://www.iea.org/topics/energy-technology-perspectives>

³³ Japan Airlines Website https://www.jal.com/ja/sustainability/initiatives_sdgs/

Figure 9.JAL's Goals in TPI (Per-Unit Basis)



(Source: TPI Japan Airlines)³⁴

(3) Published (including mid-point milestones)

In its medium-term management plan released in May 2021, JAL announced a roadmap to virtually zero CO₂ emissions and CO₂ emissions targets, both of which are disclosed on its website.

(4) Certification and verification by an independent third party

JAL has obtained third-party certification for environmental data, including performance of CO₂ emissions.

Element 4: Transparency is secured for the investment plan for the transition

In its medium-term management plan covering the period up to FY 2025, JAL has announced an investment plan to invest a cumulative total of approximately ¥660 billion over four years to promote ESG management. Among them, many parts are investment in E (Environment), and it plans to use it for introduction of fuel-efficient aircraft, etc.

Based on the above, JAL has disclosed specific plans to invest in achieving its goal of virtually net zero CO₂ emissions by 2050, and JCR has evaluated as highly transparent.

³⁴ TPI <https://www.transitionpathwayinitiative.org/companies/japan-airlines> valuation date: January 13, 2022

Chapter 4: Compliance with SLLP, etc.

4-1. Outline of KPI · SPTs in this framework

When developing this framework, JAL selected Scope 1, which accounts for approximately 80% of the Company's total greenhouse-gas emissions, as a KPI. CO₂ emissions reduction targets for 2025 and 2030, which are published in roadmap to real-zero CO₂ emissions in 2050, were set as SPTs.

KPI: Total Green House Gas (GHG) emissions (direct emissions, Scope 1)

SPT1: Maintain Total GHG emissions (direct emissions, Scope 1) in FY2025 compared to FY2019 (Less than 9.09 million tons)

SPT2: Reduce Total GHG emissions (direct emissions, Scope 1) by 90% in FY2030 to FY2019 (Less than 8.18 million tons)

4-2. Appropriateness of KPI selection

(1) Evaluation perspective

In this section, JCR assesses the significance of selected KPIs of the borrower, focusing on whether they contain the following elements as illustrated in SLLP and elsewhere.

- 1) Are the KPIs relevant, core and material to the borrower's overall business, and of high strategic significance to the borrower's current and/ or future operations?
- 2) Are they measurable or quantifiable based on a consistent methodological basis and can be externally verifiable?
- 3) Can be benchmarked (i.e. as much as possible using an external reference or definitions to facilitate the assessment of the SPT's level of ambition)?

(2) Current Situation of Evaluation Targets and Evaluation of JCR

(Evaluation Results)

The KPI set forth in this framework includes all the elements required by SLLP, etc., and is meaningful KPI that contributes to "addressing climate change," which is a key issue for JAL, and its ESG strategy, which is the cornerstone of its management strategy.

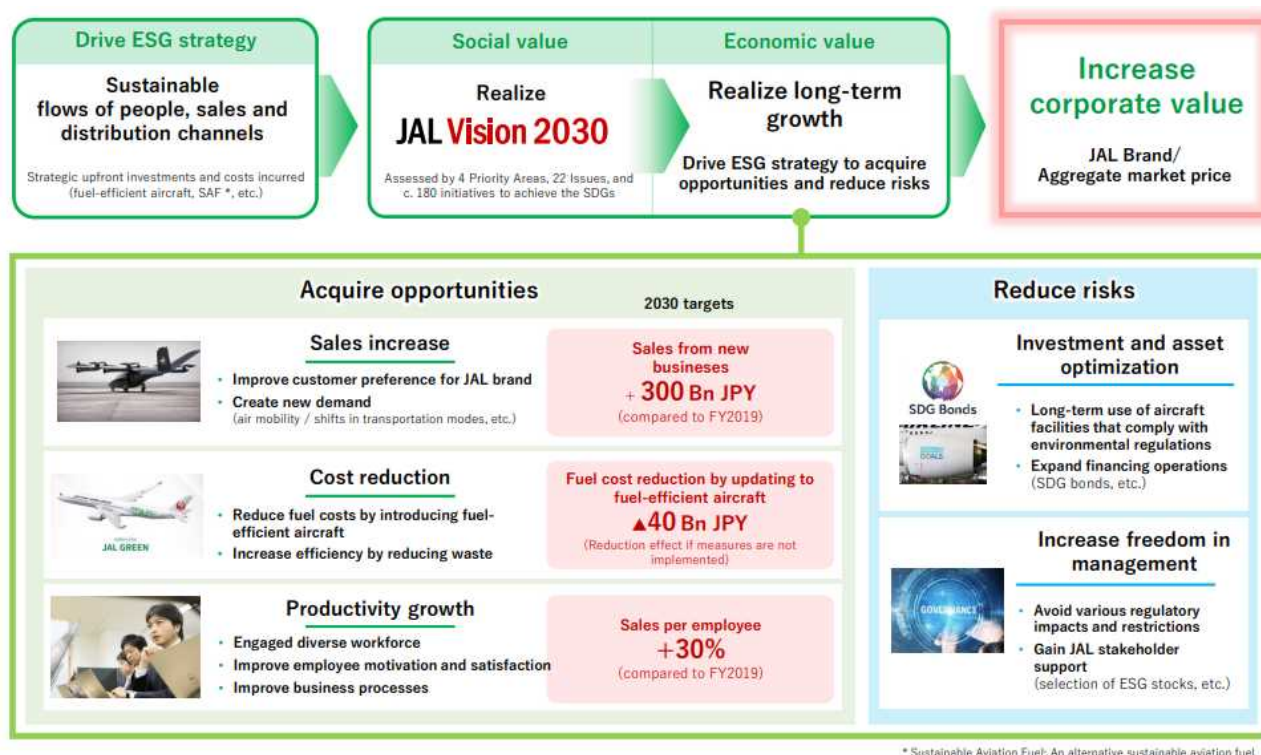
The total GHG emissions (direct emissions, Scope 1) set for KPI in this framework contribute directly to addressing climate change," which has been identified as a key issue to be addressed through JAL Group business. It is also set as a management target in the medium-term management plan as the most important issue to be focused on in particular.

As previously explained, JAL Group has positioned ESG strategy as the cornerstone of its management strategy. Through the promotion of ESG initiatives, the Company aims to improve its social and economic value and, in turn, increase its corporate value by solving social issues and creating sustainable flows of people, sales and distribution channels. The Group recognizes that addressing climate-change will have a major impact on airlines, including the possibility that customers will add CO₂ emissions as an indicator when they choose airlines and the risk of increased credit-purchasing costs due to tighter CO₂ emission controls. Furthermore, as climate change leads to the aggravation of social issues such as hunger and poverty that originate from these issues, the Group considers "addressing climate change" to be a particularly important social issue for the sustainability of society.

In addition, JAL's core business is air transportation, and CO₂ emissions from aircraft account for more than 99% of the KPI's total greenhouse gas emissions (direct emissions, Scope1). Furthermore, this KPI has already been verified by external sources and can be benchmarked.³⁵

Based on the above, JCR assesses that this KPI is a meaningful indicator that contributes to deepening and accelerating ESG strategy, which is the axis of JAL Group's management strategy.

Figure 11. JAL Story of Enhancing Corporate Value



(Source: 2021-2025 JAL Medium-Term Management Plan Rolling Plan 2022)

4-3. Calibration of SPTs

(1) Evaluation perspective

In this section, JCR assesses the level of ambition and significance of the borrower's established SPTs, focusing on whether they include the following factors illustrated in SLLP and elsewhere:

- (1) Are SPTs represent a material improvement in the respective KPIs and be beyond a "Business as Usual" trajectory?
- (2) (Where possible) can be compared to a benchmark or an external reference?
- (3) Are they consistent with the borrowers' overall strategic sustainability / ESG strategy?
- (4) Are they determined on a predefined timeline, set before (or concurrently with) the issuance of the loan?

Next, JCR examines the benchmarks and other factors taken into account when setting the borrower's SPTs. The following elements are illustrated in SLLP and others.

- ✓ Establish quantitative measures based on the borrower's own recent performance level (select KPIs with at least the last three years' track records whenever possible) and also disclose forward-looking information on KPIs as much as possible.

³⁵ JAL ESG (FY2021)

- ✓ Relative positioning of established SPTs relative to peers (e.g., average level of performance, industry-leading level, etc.)
- ✓ Scientific-based scenario analyses and absolute values (e.g., carbon budgets), national and regional or international targets (e.g., the Paris Agreement, CO₂ Zero Emissions Targets, SDGs, etc.), recognized BATs (best available technologies) and other indicators that determine relevant targets across ESG topics

(2) Current Situation of Evaluation Targets and Evaluation of JCR

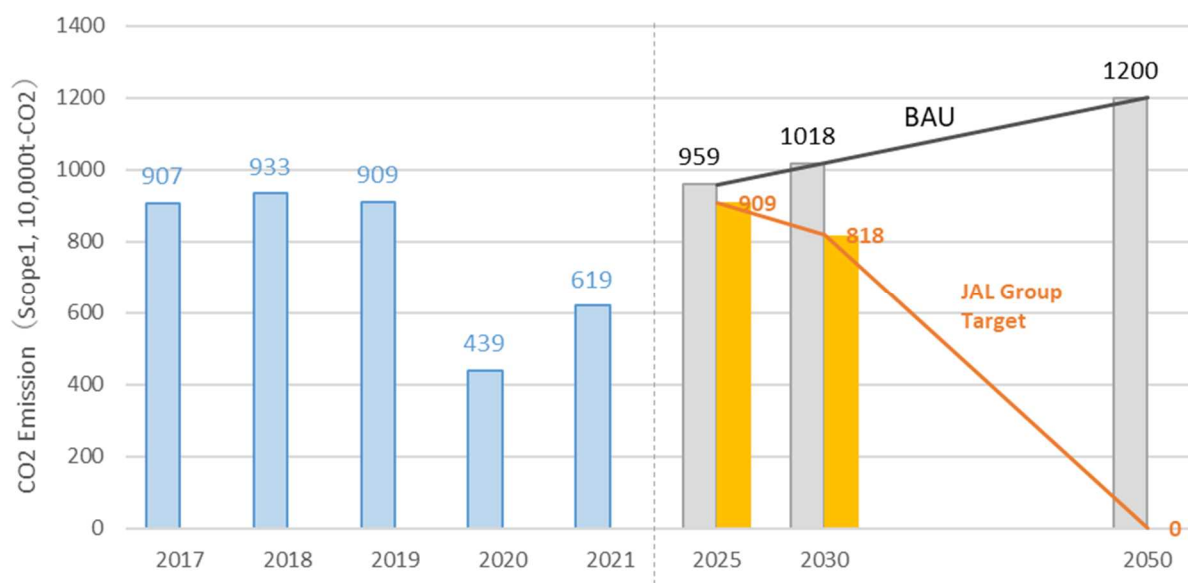
(Evaluation Results)

SPTs set in this framework are ambitious compared with the historical results, benchmarks, and other companies' targets. They are also consistent with the Company's ESG strategy, which is the axis of its management strategy, and the setting the target-setting period is also appropriate.

i. Comparison with the Company's historical track record

The historical track records of JAL's CO₂ emissions (from Scope 1, aircraft-derived) are shown in the figure below. Due to the impact of COVID-19 pandemic, the emissions have decreased sharply since the latter half of FY2019, but a recovery in demand after the end of COVID-19 pandemic is expected in the future. Based on demand forecasts published by IATA and ATAG, Boeing and others, the JAL Group's future demand for international and domestic flights is projected to rise to about 9.59 million t-CO₂ in FY2025, 10.18 million t-CO₂ in FY2030, and 12 million t-CO₂ in FY2050 if Business As Usual continues as in the past. Considering this increase in the case of BAU, the numerical targets set by JAL are considered ambitious.

Figure. 12 Transition in JAL CO₂ Emissions (Aircraft)



(Source: Prepared by JCR from JAL Group Integrated Report, etc.)

In addition, unlike the industry, which has a wide range of CO₂ reduction measures, CO₂ reduction measures in the airline industry are virtually limited to three categories: upgrading to energy-efficient equipment, using SAF, and implementing operations. The company's goal is ambitious, taking into account the prospect that innovative technologies such as aircraft electrification and hydrogenation will be put to practical use in 2035 and beyond, the lack of SAF supplies, and the associated possibility that competition for procurements within the industry will occur. Based on the above, when compared with past track records, the numerical targets of this SPTs require initiatives that go beyond the traditional business (Business As Usual), and JCR appreciates that it has an ambition as a SPTs.

ii. Comparison with benchmark

These SPTs are comparable to ATAG "Waypoint 2050, IEA "Net zero by 2050, and other global scenarios based on the total amount. In addition, JAL's long-term goal of virtually zero CO₂ emissions by 2050 is also consistent with ICAO's LTAG.

Table1. Comparing SPTs with Various Benchmarks

	FY2025 (SPT1)	FY 2030 (SPT2)	FY2050
JAL Group	Maintained compared to FY2019	10% reduction compared to FY2019	Net zero
ATAG "Waypoint 2050"	-	Maintained compared to 2019	Net zero
IEA "Net zero by 2050" ³⁶	5% reduction compared to 2019	20% reduction compared to 2019	79% reduction compared to 2019
ICAO LTAG	-	-	Net zero

(Source: Prepared by JCR from various published data)

Furthermore, as detailed in Chapter 2, JAL Group's goals for intensity, according to data published by TPI as of December 2022, are also consistent with the 1.5°C scenario. In addition, JAL's FY2025 intensity target (0.8187kg-CO₂/RTK) announced at the end of December 2022 is more aggressive than the value calculated by TPI (0.911kg-CO₂/RTK).

Based on the above, JCR evaluates that SPTs have a strong degree of ambition even compared to other international benchmarks.

iii. Comparison with other companies

These SPTs are at an ambitious level even compared to the total volume-based targets published by domestic and overseas peer companies. Furthermore, according to data released by TPI as of December 2022, JAL's targets are even more ambitious on an intensity basis than those of its industry peers both in Japan and abroad.

Based on the above, JCR assesses that these SPTs have an ambition compared to its domestic and overseas peers.

iv. Roadmap for Achieving SPTs in the Framework

In order to achieve SPTs, Japan Airlines will take the following measures.

1) Upgrading to fuel-efficient aircraft

JAL Group will steadily upgrade to state-of-the-art aircraft such as A350, 787, and promote technological development in cooperation with airframe manufacturers, etc. for future electrification and hydrogenation of aircraft. Upgrading to state-of-the-art aircraft is described in detail in Chapter 4. With regard to electrification and hydrogenation, many companies are currently conducting technology developments using small aircraft with 5-10 passengers. From 2035 onward, it is assumed that technological innovation will be deployed from aircraft with a small number of passengers. Introduction of new technology is under consideration including hybrid system of electricity and hydrogen.

³⁶ Calculated by JCR from the text in p.135-136. Figures for FY 2030 are calculated under the assumption that they decrease linearly from 2025 to 2050.

2) Reducing CO₂ emissions in daily operations

JAL Group is continuing its efforts to reduce CO₂ in day-to-day operations on the premise of maintaining safe operations. By spreading this know-how to group airlines as well, the Group is accelerating its efforts throughout the Group. Specifically, by devising operational timetables, it reduces fuel consumption by flying at altitudes with low air resistance, and reduces the total weight of the airframe by reducing the weight of various onboard items.

However, the growth in CO₂ effects from the above-mentioned innovations has slowed gradually, and going forward, the Company expects that it will be difficult for the JAL Group alone to achieve a significant reduction in CO₂ emissions through its own operational innovations alone. Therefore, the JAL Group recognizes that in order to achieve its medium-to long-term goals, it is necessary to deepen cooperation with the government, other airlines, etc., and to make industry-wide efforts in flight operation innovations, such as reducing congestion over airports in the Tokyo metropolitan area and operating ground transportation at airports more efficiently. Based on this recognition, the JAL Group will utilize frameworks such as the CO₂ reduction study group organized by the Civil Aviation Bureau of the Ministry of Land, Infrastructure, Transport and Tourism.

3) Development and Use of SAF

JAL Group is working to procure CORSIA-certified SAF stably and at economically reasonable prices. In particular, it is working vigorously on Annex 1, such as announcing an investment in Fulcrum. In addition to its own procurement, it aims to realize sustainable SAF procurement through collaboration with various affiliated companies, including promotion of joint procurement through oneworld³⁷ and activities of "ACT FOR SKY," a voluntary organization to implement initiatives across industries to commercialize and popularize domestically produced SAF. JAL is the lead company of the ACT FOR SKY.

Based on the aviation industry's common forecast that aircraft smaller than small size will be shifted to electrified and hydrogenated, the JAL Group plans to use SAF as a measure to reduce CO₂ emissions primarily for mid-and large-sized aircraft. In the roadmap toward virtually zero CO₂ emissions released in May 2021, it announced a target for the introduction of SAF, which is to "replace 1% of the total fuel-load by FY 2025 and 10% by FY 2030 with SAF."

4-4. Loan Characteristics (Economic Conditions)

(1). Evaluation perspective

In this section, JCR confirms the following details.

- (1) Are there arrangements under which the financial and structural characteristics of the loan will change depending on whether or not the selected KPIs achieve pre-established SPTs?
- (2) Are the definitions of KPIs and SPTs and variability of the financial and structural characteristics of sustainability-linked loans included in the loan's contractual documents?
- (3) Are there plans to mention the responses in the event of unexpected events that could have a material impact on the method of measuring KPIs, setting of SPTs and assumptions, and scope of KPIs (such as important M&A activities, significant changes in regulations or other systems, or the occurrence of unusual events, etc.) in the loan's disclosure documents?

³⁷ Global airline alliance. As of December 2022, 14 airlines are members. (including one airline that is a member of oneworld connect)

(2) Current Situation of Evaluation Targets and Evaluation of JCR

(Evaluation Results)

The transition-linked loans to be executed under the Framework will have arrangements where financial characteristics will vary depending on whether or not the pre-defined SPTs with respect to selected KPIs are achieved. The possibility of such variability will be included in the loan contract documents; the method of measurement of the KPIs, the setting of the SPTs, and the assumptions will likewise be mentioned in the loan contract documents.

The Framework establishes the point of determination for SPTs as FY 2026 and/or 2031, and applies preferential interest rate to the Transition-Linked loans that have been made under the Framework if the respective SPTs have been achieved at that time. Such variability according to the fulfillment requirement for the respective SPTs will be described in the loan contract documents, etc. The definition of KPI, establishment of SPTs, and assumptions will also be described in the loan contract documents, etc. If an unforeseeable situation occurs at the time of formulating this framework, and it becomes necessary to change KPI measurement methods, SPTs setting, assumptions and KPI coverage, etc., JAL plans to disclose the details of the changes, including the reasons for the change and the recalculation method, in a timely manner.

Based on the above, JCR confirmed that arrangements were made for the linkage with loan execution conditions, etc., and that disclosures in contracts, etc. are also appropriate.

4-5. Reporting and Verification

(1) Evaluation perspective

In this section, JCR confirms whether the following items are planned to be included in the report content after financing, and whether the method of disclosure and third-party verification are planned.

i. Items to be disclosed

Are the following items planned to be disclosed at least once a year?

- ✓ Update on selected KPI performance, including baseline assumptions
- ✓ Useful information for borrower fundraisers to measure their SPTs ambitions (e.g. information on the borrower's most recent sustainability strategies and related KPI/ESG governance, as well as information on analyzing KPIs and SPTs)

Disclosure of the following information to the extent possible:

- ✓ Qualitative and quantitative explanations of the main factors contributing to the improvement in performance/KPIs (including M&A activities, etc.)
- ✓ Explanation of how improved performance impacts borrowers' sustainability
- ✓ Presence of revaluation of KPIs, revision of set SPTs, and changes in baseline assumptions and scope of KPIs

ii. Verification

Are the verification details (status of achievement of SPTs, impacts on changes in financial and structural characteristics, timing of such changes, etc.) planned to be disclosed?

(2) Current Situation of Evaluation Targets and Evaluation of JCR

(Evaluation Results)

JAL plans to appropriately plan the content, frequency, and method of disclosure in the post-implementation reporting of the transition-linked loans to be executed under the Framework, and plans to undergo third-party verification of the content required by the Principles, such as the progress of the SPTs.

Japan Airlines will disclose on its website the following items regarding KPI's performance.

Table 2. Reporting in this Framework

No.	Information to be Reported	Reporting Frequency
①	Performance of the KPI within the reference period	Annually until the final determination dates, starting from the fiscal year following the year of execution of each Transition-Linked Loan
②	Performance against the SPTs within the reference period	
③	Up-to-date information of climate transition strategies relevant to the KPI and SPTs	

(Source: Japan Airlines Transition Loan and Transition-Linked Loan Framework)

In addition, JAL plans to obtain third-party verification of the disclosure items related to the progress of the SPTs from an independent third party, Nippon Kaiji Kyokai, and will disclose the verification results on its website as well.

4-6. Conclusions on compliance with SLLP, etc.

Based on the above considerations, JCR has confirmed that the Framework, which is the subject of this Third-Party Opinion, is in compliance with SLLP, etc.

Chapter 5: Climate Transition Loan Framework Assessment

Evaluation Phase 1: Climate Transition Evaluation

Based on the current situation and JCR's evaluation, as detailed below, JCR assessed that 100% of the Use of Proceeds under the Frameworks is for Green Project and/or Environmental Improvement Effect Project (climate transition project) to be implemented during the transition phase to mitigate climate change, and evaluated Phase 1: Climate Transition Evaluation at the highest level ("gt1(F)").

5-1. Climate Transition Evaluation (Fund Use Specific Type)

1. JCR's Key Consideration on this factor

Matters to be confirmed in this section

- ✓ Can the proceeds be used for Green Projects with clear environmental improvement effects and/or projects with environmental improvement effects to be implemented at the transition stage (Climate Transition Projects)?
- ✓ When a negative impact on the environment is anticipated in the use of proceeds, whether the impact is sufficiently examined by a specialized internal department or an external third-party organization, and necessary avoidance and mitigation measures are taken?
- ✓ Does the issuer meet the four elements prescribed by ICMA's CTFH?
- ✓ Are there consistency of financial uses with the Sustainable Development Goals ("SDGs")?

2. Current Situation of Evaluation Subjects and JCR's Evaluation

a. Outline of Use of Proceeds

<Use of Proceeds defined in this framework>

JAL will use the proceeds of the Transition-Linked Loans or Transition Loans to finance and refinance new and existing eligible projects falling within the following project category. In the case of existing investments, allocation is limited to expenditures made within three years from the execution of the Transition-Linked Loans or Transition Loans.

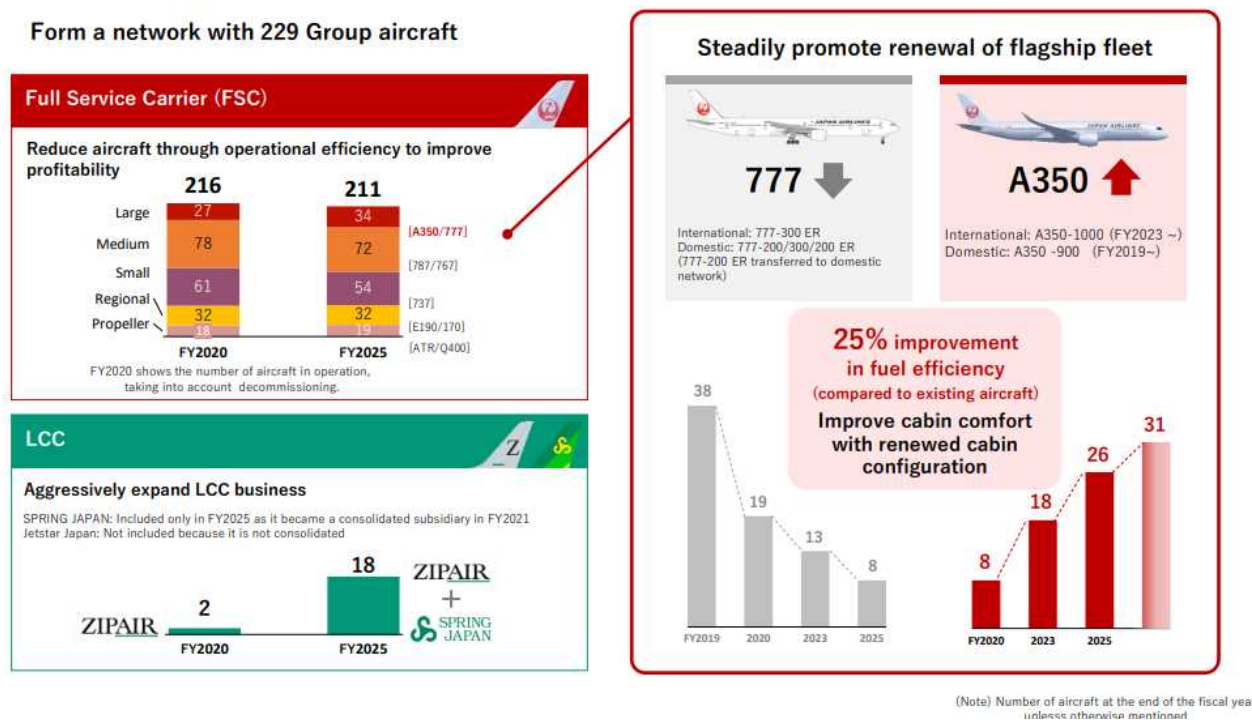
Project Category	Eligibility Criteria	SDGs
Upgrading to Fuel-efficient aircraft Green Loan Principles: Clean transportation (Environmental objectives: Climate change mitigation)	"Targets and Initiatives towards CO ₂ emission reduction by 2030": Upgrading to fuel-efficient aircraft such as Airbus A350 and Boeing 787	7. Ensure access to affordable, reliable, sustainable and modern energy for all 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 13. Take urgent action to combat climate change and its impacts

<JCR's Evaluation of the Framework>

The use of the proceeds from this framework is to upgrade to the state-of-the-art aircraft with high fuel efficiency (A350/ 787) as stated in the "Targets and Initiatives to Reduce CO₂ by 2030." A summary of aircraft and JAL's fleet strategy are shown below.

- **A350:** Large aircraft provided by Airbus. CO₂ emissions have been reduced by 25% compared to conventional large-sized aircraft by using lighter weight with the state-of-the-art composites, designing wings with variable cambers and others, and using Rolls-Royce Holdings' state-of-the-art engines Trent XWB.³⁸
JAL has already been operating A350-900 on domestic routes since FY2019, and has announced that it will operate A350-1000 on international routes from FY 2023. As of FY2021, JAL owned 15 A350-900 aircraft.
- **787:** Medium-sized aircraft provided by Boeing. It uses carbon fiber composite materials with high rigidity, and has main wings that combine size and lightness. CO₂ emissions have been reduced by 20-25% compared to conventional medium-sized aircraft by using GENx-1B/Trent 1000 supplied by General Electric Company, Rolls-Royce Holdings and by streamlining system/design.³⁹
JAL already operates 787-8 on domestic and international routes and 787-9 on international routes, with 29 aircraft and 22 aircraft at the end of FY2021, respectively.

Figure 13.JAL Group's Aircraft Strategy



(Source: FY2021-2025 JAL Group Medium-Term Management Plan Rolling Plan 2022)

As mentioned above, JCR confirmed that all of the aircraft specified in this framework are aircraft that reduce CO₂ emissions by 15-25% compared to conventional aircraft⁴⁰, and that they are listed as fuel-efficient aircraft within

³⁸ Figures are published by Airbus. The percentage of CO₂ emissions reduction is the percentage of Boeing's 777-200ER or 777-300ER emissions per seat.

<https://aircraft.airbus.com/en/aircraft/a350/a350-less-weight-less-fuel-more-sustainable>

³⁹ The figures announced by Boeing are 20% for B787-8, B787-9 and 25% for B787-10. The comparable models are not disclosed.

<https://www.boeing.com/commercial/787/>

⁴⁰ Figures published by Japan Airlines are based on the manufacturer's published figures and take into account the gap between actual flight status and the manufacturer's calculation.

ATAG's Waypoint 2050. According to the ICCT⁴¹'s CO₂ Emissions from Commercial Aviation 2013, 2018, and 2019⁴², JCR also confirmed that A350 and 787 have lower carbon-intensity per passenger than other aircraft. As a result, JCR assesses that the use of these funds is highly effective in improving the environment.

JCR also confirmed that the renewal plan for fuel-efficient aircraft related to the use of the funds was incorporated into the investment plan up to FY2025, and that the transfer of the qualifications of flight crew, mechanics, etc. is also expected to be implemented with certainty, and evaluated that there is no concern about the effectiveness of the investment plan.

In general, new aircraft are developed and introduced every 15 to 20 years. Furthermore, the renewal of A350 and 787 by JAL is expected to be completed to a certain extent by FY2025. In light of these, JAL recognizes the need to review the definition of fuel-efficient aircraft in this framework within a few years. In the future, JCR confirmed that, when Japan Airlines revises its definition of fuel-efficient aircraft in this framework, it will properly update this framework and obtain confirmation from a third-party evaluation organization at the time of renewal.

Based on the above, the use of proceeds falls under "clean transportation" in the Green Loan Principles and "projects for clean transportation" in the Ministry of the Environment's Green Loan Guidelines.

b. Negative impact on the environment and others

(1) Environmental Impact Assessment

JAL has established an environmental policy and is committed to compliance with environmental laws and regulations, international conventions, industry and the Company's standards. Specifically, for air pollutants other than CO₂ emitted from airplanes, it is decided to adopt engines that comply with emission standards established by ICAO. In addition, hazardous chemicals are managed in accordance with PRTR system⁴³. Others such as noise are subject to international standards. In addition, in the operation and implementation of the project, the framework clearly states that the related departments will work on the conservation of the surrounding environment. Furthermore, JCR confirmed that retired aircraft at the time of replacement were treated in an environmentally friendly manner. Based on the above, it is expected that there will be no negative impact on the environment when upgrading aircraft to fuel-efficient aircraft.

(2) Potential Fossil Fuel Lock-in

As described in Chapter 2, fuel-efficient aircraft, which are the use of funds in this framework, can utilize SAF without additional structural changes to the aircraft, so there is no possibility of a fossil fuel lock-in.

(3) Do No Significant Harm Assessment⁴⁴

The use of the proceeds in the Framework may not significantly harm other green projects.

⁴¹ ICCT: International Council on Clean Transportation, International Clean Transportation Board
U.S. environmental non-profit organization whose mission is to thoroughly reduce pollution and greenhouse gas emissions by individuals and public transportation in order to mitigate air pollution, improvement the environment related to human health, and prevent global warming.

⁴² ICCT, October, CO₂ EMISSIONS FROM COMMERCIAL AVIATION 2013, 2018, AND 2019"2020.
<https://theicct.org/sites/default/files/publications/CO2-commercial-aviation-oct2020.pdf>

⁴³ PRTR: Pollutant Release and Transfer Register
In order to ascertain the amount of specified chemical substances released into the environment and to promote improvement in management, business operators themselves ascertain the amount of emissions and report it to the government. A system for aggregating and disclosing quantities.

⁴⁴ To verify whether implementing the project will hinder other green-eligible projects (projects that contribute to climate change adaptation, pollution/contamination prevention, clean water and ocean conservation, recycling-oriented economies, energy conservation, and the protection of the ecosystem).

(4) Consideration for a Just Transition

JCR confirmed that there are no employment relationships, etc. that could adversely affect the implementation of this project.

c. Fulfillment of Matters Required in the CTFH

Element 1: Borrower's Climate Transition Strategy and Governance

(1) Whether the borrower that raises funds has a strategy for the transition for climate change mitigation or not.

This fund will be used for the renewal of fuel-efficient aircraft as one of the main measures in the JAL Group's roadmap for achieving virtually net zero CO₂ emissions in 2050 announced in May 2021. Based on the trends of technological innovations and equipment upgrades over the last 30 years, JAL Group considers that contribution to the total CO₂ reductions from upgrades to fuel-efficient aircraft is the largest among the three major measures. The contribution as of FY 2030 is expected to be 60% and 50% as of FY 2050.

Accordingly, the use of proceeds set out in this framework has been cited as a key measure in the roadmap for achieving virtually net zero CO₂ emissions in 2050, and JCR has assessed it as the Group's strategy regarding the transition for climate change mitigation.

<JCR's Views on Satisfying the Transition Finance Handbook and Basic Guidelines>

Elements 1, 2, 3, and 4 are being satisfied as detailed in Chapter 3. Accordingly, JCR has assessed that the use-specific loans to be implemented under this framework also satisfy the four elements required by the Climate Transition Finance Handbook.

d. Consistency with SDGs

JCR has assessed that the use of proceeds in the Framework will contribute to the following SDGs goals and targets, with reference to ICMA's SDGs mapping.



Goal 3: Good health and well-being

Target 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination



Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Target 7.3 By 2030, double the global rate of improvement in energy efficiency



Goal 9 : Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Target 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial

processes, with all countries taking action in accordance with their respective capabilities



Goal 13 : Take urgent action to combat climate change and its impacts

Target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Evaluation Phase 2: Management, Management, and Transparency Evaluation

Based on the current situation described in detail below and JCR's evaluation of it, JCR evaluated that the management and operation system was firmly established, that the transparency was extremely high, and that the implementation of the project as planned and the appropriation of the procurement funds were sufficiently expected. Based on this evaluation, Phase 2: Management, Operation, and Transparency Evaluation was placed at the highest level, "m1(F)."

5-2. Management, operation, and transparency assessment (for specific uses of funds)

5-2-1. Appropriateness and transparency of the standards for selecting the Use of Proceeds and its process

(1) JCR's Key Consideration on this factor

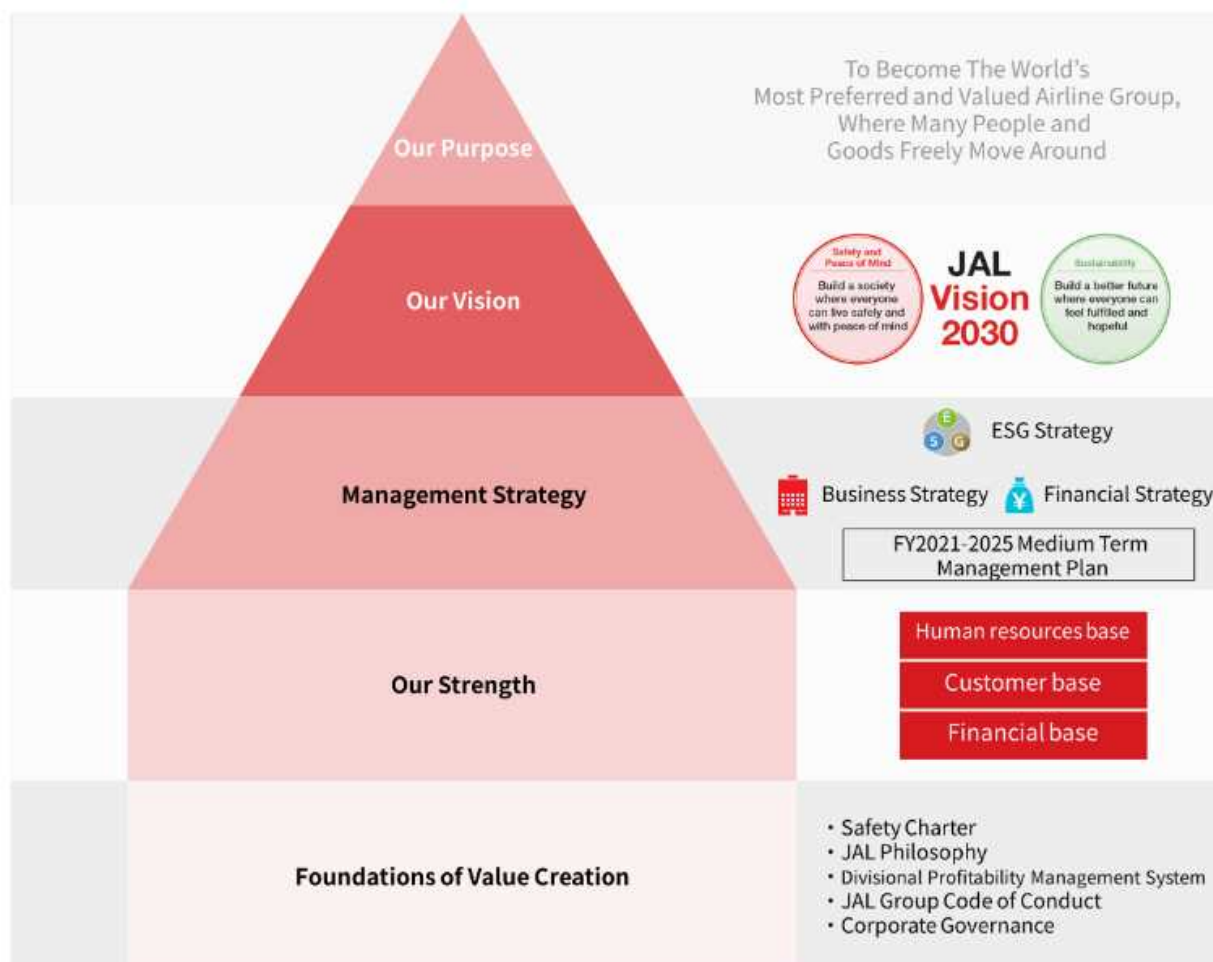
In this section, JCR confirms that the objectives to be achieved through the Green/Transition Projects, the criteria for selecting green projects, the appropriateness of the process, and the series of processes are appropriately disclosed to lenders.

(2) Current Situation of Evaluation Targets and JCR's Evaluation

a. Goal

JAL's corporate philosophy is shown in the chart below.

Figure 14. JAL's Corporate Philosophy



(Source: Japan Airlines website⁴⁵)

⁴⁵ Vision <https://www.jal.com/en/philosophy-vision/>

JAL Group aims to become the world's best-chosen and loved airline group by leveraging the strengths it has cultivated to date to realize "JAL Vision 2030" with the backbone of "creating a safe and secure society" and "creating a sustainable future." To achieve this, the Company plans to pursue the 2021-2025 JAL Medium-Term Management Plan, centered on its ESG strategy. In its medium-term management plan, JAL Group has set four sustainability-related issues as its management targets, including "Addressing Climate Change," which is of particular importance among the social issues that the Group must resolve through its business. It has declared CO₂ emissions of virtually zero in 2050 ahead of the industry. It has also published a roadmap and milestone for that goal within the plan.

The eligibility criteria for the use of funds set by JAL in this framework are initiatives to promote ESG Strategy, which is the axis of the management strategy of the medium-term management plan, and also to contribute to JAL Group's management goal of addressing climate change. Furthermore, JCR evaluates that the goal to be achieved through the use-specific loans based on this Framework is appropriate because it is consistent with the JAL Group's publicly announced goal of virtually zero CO₂ emissions by 2050 and its roadmap.

b. Selection criteria

The eligibility criterion for the use of funds under this Framework is the replacement of the aircraft with fuel-efficient state-of-the-art aircraft (A350 and 787), as confirmed in Evaluation Phase 1. JCR evaluates this selection criterion as appropriate, because all of the equipment has an effect to reduce CO₂ emissions by 15-25%.

c. Process

JAL's Finance Department will discuss the selection and evaluation of the projects covered by this Framework with the relevant business divisions, analyze and review them comprehensively based on eligibility criteria, and select eligible projects. Upon origination of a Transition-Linked Loan or Transition Loan which limits the use of proceeds, the Senior Vice President of Finance & Accounting will make the final decision on the eligible projects. JCR has confirmed that management is aware of the Eligible Projects in the development of this Framework.

Accordingly, JCR evaluates that the selection process is appropriate, since the relevant departments and management within JAL are involved in the process.

As the selection criteria and processes for this framework are scheduled to be published in this Evaluation Report, etc., JCR assesses that transparency is ensured.

5-2-2. Appropriateness and transparency of proceeds management

(1) JCR's Key Consideration on this factor

It is generally assumed that the management method of the proceeds varies by the issuer. JCR assesses whether proceeds procured under the Framework are appropriated to the Green/Transition projects and whether a mechanism and internal system are in place to enable easy tracking and management of the appropriation of proceeds.

JCR also attaches importance to evaluating the management and operation of the unallocated proceeds as well as to confirming that the proceeds procured under the Framework will be allocated to the Green/Transition projects at early stage.

(2) Current Situation of Evaluation Targets and JCR's Evaluation

JAL has established a framework whereby the Finance Division uses an internal control system to manage the appropriation of proceeds through the use-specific loans on an annual basis until the entire amount is appropriated, and the unappropriated fund is managed in cash or cash equivalents until the appropriation is completed.

JCR assesses that JAL's fund management is reasonable and highly transparent, given that JAL has established an appropriate tracking and management system for funds procured under the Framework, and has appropriately planned the tracking and management of such appropriation status and its internal control and management method for unappropriated funds.

5-2-3. Reporting

(1) JCR's Key Consideration on this factor

In this section, JCR evaluates whether the disclosure system for lenders and others before and after the procurement of the Loan is planned in detail and in an effective manner.

(2) Current Situation of Evaluation Targets and JCR's Evaluation

a. Reporting on the status of appropriation of funds

After the implementation of a specific-use loan under the Framework, JAL will report on the allocation of proceeds on JAL's website annually until the proceeds have been fully allocated to Eligible Projects. JAL will report timely in the event of a significant change in the allocation of proceeds. The report will include the aggregated amount of allocation of the proceeds to the Eligible Projects at category level, the amount of unallocated proceeds and the amount of proceeds used for refinancing.

b. Reporting on the Effectiveness of Environmental Improvements

JAL has stipulated that it will report on its website, to the extent practicable, the annual CO₂ reduction amount resulting from upgrades to fuel-efficient aircraft until the proceeds of the specific-use loan under the Framework are allocated.

Based on the above, JCR evaluates that JAL's assumptions about the content of reporting on allocation status of funds and the environmental improvement effects are appropriate.

5-2-4. Organizational Efforts for the Environment

(1) JCR's Key Consideration on this Factors

In this section, JCR assesses whether the issuer's management considers environmental issues to be of high priority in management, whether the transition finance procurement policy and process, criteria for selecting Green/Transition Projects, etc. are clearly positioned by establishing a department that specializes in the environmental field or through collaboration with external organizations, etc.

(2) Current Situation of Evaluation Targets and JCR's Evaluation

The JAL Group has set "JAL Vision 2030" as its ideal future vision, with "Safety and Peace of Mind" and "Sustainability," which are universal values for society and the Group, as engines for future growth. To realize this vision, the medium-term management plan states that the JAL Group will pursue management strategies centered on ESG strategy. The JAL Group has also identified "4 areas/22 issues" as problems to be solved through its business activities, of which "addressing climate change," "effective use of limited resources," "promotion of D&I," and "regional revitalization" are the most important issues to focus on as management targets in the medium-term management plan.

[Initiatives for Each Management Target in the Medium-Term Management Plan]

- "Addressing Climate Change"

In June 2020, the JAL Group declared its goal of achieving virtually zero CO₂ emissions (net zero emissions) by 2050, which was early compared to other industries and countries. The JAL Group then announced a roadmap for achieving net-zero emissions in its medium-term management plan for FY2021-FY2025, and publicly announced its CO₂ emission reduction targets for FY2025 and FY2030, as well as its SAF introduction target for FY2030. This is the first time for a Japanese airline to clearly state a quantitative target for the introduction of SAF in FY2030, and shows the seriousness with which the JAL Group is dealing with climate change. In addition, JAL Group expressed its support for the TCFD's recommendations in February 2021 and for the SBTi in March 2022.

- "Effective Use of Limited Resources"

In order to promote initiatives to respond to the growing domestic and international circular economy, the JAL Group has set ambitious goals for reducing disposable plastic products and reducing food loss offered to customers through communications with the public sector, such as the Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries, and with environmental NGO, such as WWF⁴⁶, and is working to promote specific measures through collaboration with suppliers. It endorses the Plastic-Circular Challenge sponsored by WWF and promotes and disseminates initiatives together with WWF and other companies.⁴⁷

- "Promotion of D&I"

The JAL Group is taking the lead in promoting initiatives in response to the government's trend to promote women's activities and work style reforms. While the airline industry tends to have an extreme gender composition depending on departments, it has set a management goal of increasing the ratio of female managers to 30%, including those departments that currently have a low ratio of women. In addition, although not a management target, it has set a target for the employment of people with disabilities at a level higher than the statutory target, and has established a system that allows people to work after retirement, making use of their knowledge and experience, and has set specific quantitative targets to enable a diverse range of employees to play an active role.

- "Regional Revitalization"

In response to the regional economic stagnation caused by such factors as depopulation, declining birthrate, aging population, and shortage of labor, the JAL Group established the Regional Vitalization Division in 2020 as an

⁴⁶ WWF: World Wide Fund for Nature, Global Wildlife Foundation

⁴⁷ Increase in the number of passengers by stimulating tourism demand and creating new liquidity

initiative to resolve these issues through its businesses. Based on the belief that creating new flows of people, sales, and distribution channels can be of value to society, it has set a goal of increasing the volume of domestic passenger and cargo transportation by 10% compared to FY2019. In order to revitalize regional economies, it is promoting a wide range of initiatives with local governments, local companies, DMOs⁴⁸, and others.

JAL Group utilizes consulting services provided by external specialist organizations and other entities for its sustainability initiatives. Specifically, it is exchanging opinions with The Global Alliance for Sustainable Supply Chain, a general incorporated association, and other organizations. It also utilizes academia's expertise in xSDG consortiums led by Keio University. In addition, JCR confirmed that the opinions of various stakeholders, including shareholders, investors, customers, suppliers, business partners, and employees, are taken into account in the development of sustainability strategies, and that the Group is taking initiatives to solve social issues to which it should contribute throughout its entire value chain.

Based on the above, JCR confirmed that JAL Group's management team has positioned global society issues, including climate change, as a high management priority issue, that it has identified key management issues and incorporated them into its medium-term management plan, and that it has established a group-wide sustainability promotion system and is working to resolve these issues. JCR also confirmed that it is collaborating with external organizations, experts, universities, and other organizations from different industries in each sustainability-related initiative.

5-3. Climate Transition Loan Framework Evaluation

Based on the JCR Green Finance Evaluation Methodology, JCR assigned "gt1 (F)" for the "Green/Transition Evaluation" and "m1 (F)" for the "Management, Operation, and Transparency Evaluation." Consequently, JCR assigned "Green 1(T) (F)" for the "JCR Climate Transition Finance Evaluation" of the Framework. The Framework is considered to meet the standards for items required by the Climate Transition Finance Handbook, the Basic Guidelines on Climate Transition Finance, the Sustainability Linked Loan Principles, the Green Loan Principles, and the Green Loan and Sustainability Linked Loan Guidelines.

[JCR Climate Transition Loan Framework Evaluation Matrix]

		Management, Operation, and Transparency Evaluation				
		m1 (F)	m2 (F)	m3 (F)	m4 (F)	m5 (F)
Green/Transition Evaluation	gt1 (F)	Green 1 (T) (F)	Green 2 (T) (F)	Green 3 (T) (F)	Green 4 (T) (F)	Green 5 (T) (F)
	gt2 (F)	Green 2 (T) (F)	Green 2 (T) (F)	Green 3 (T) (F)	Green 4 (T) (F)	Green 5 (T) (F)
	gt3 (F)	Green 3 (T) (F)	Green 3 (T) (F)	Green 4 (T) (F)	Green 5 (T) (F)	Not Subject to Evaluation
	gt4 (F)	Green 4 (T) (F)	Green 4 (T) (F)	Green 5 (T) (F)	Not Subject to Evaluation	Not Subject to Evaluation
	gt5 (F)	Green 5 (T) (F)	Green 5 (T) (F)	Not Subject to Evaluation	Not Subject to Evaluation	Not Subject to Evaluation

⁴⁸ DMO: Destination Management Organization, Tourism Region Development Corporation

Chapter 6: Conclusions of this evaluation

Based on the foregoing considerations, JCR believes that the Framework, which is the subject of this third-party opinion, meets the criteria for items required by the Climate Transition Finance Handbook, the Basic Guidelines on Climate Transition Finance, the Sustainability Linked Loan Principles, the Green Loan Principles, and the Green Loan and Sustainability Linked Loan Guidelines. As a result, JCR assigned "Green 1(T) (F)" to the "JCR Climate Transition Loan Framework Evaluation."

(Responsible analysts for this evaluation) Atsuko Kajiwara and Haruna Goto

Important explanation of the Climate Transition Finance evaluation and Third Party Opinion

1. Assumptions, Significance, and Limitations of JCR Climate Transition Finance Evaluation

JCR Climate Transition Finance Evaluation, which is assigned and provided by the Japan Credit Rating Agency (JCR), represents JCR's overall opinion at the present time as to the extent to which funds procured from the Transition Financing, which are subject to evaluation, are appropriated for the Green/Transition Projects as defined by JCR, and the extent to which JCR's efforts to manage, operate and ensure transparency of such Transition Financing, etc., and does not fully represent the extent of management, operations and transparency efforts related to the appropriation of funds procured from the Transition Financing and The Use of Proceeds, etc.

JCR Climate Transition Finance evaluation evaluates plans or circumstances, such as the appropriation of funds at the time of funding plans or at the time of funding of the Transition Financing, and there is no guarantee that funds will be appropriated or otherwise in the future. In addition, JCR Climate Transition Finance Evaluation does not demonstrate the effect of Transition Finance on the environment and is not responsible for its effect on the environment. JCR confirms that the effects of the funds procured from transition Finance on the environment are measured quantitatively and qualitatively by the borrower or by a third party requested by the borrower, but in principle it does not directly measure the effects.

2. Methods used in the conduct of this evaluation

The methods used in this evaluation are listed on JCR website (Sustainable Finance & ESG in <https://www.jcr.co.jp/en>) as JCR Green Finance Evaluation Methodology.

3. Premises, significance, and limitations of the JCR Third-Party Opinion

Third-party opinions granted and provided by the Japan Credit Rating Agency, Ltd. (JCR) are representations of JCR's overall opinion at the present time regarding the evaluation target, the Climate Transition Finance Handbook (CTFH), the Sustainability Linked Bond Principles (SLBP), the basic guidelines for Climate Transition Finance established by the Financial Services Agency, the Ministry of Economy, Trade and Industry and the Ministry of the Environment in May 2021, and the conformity of JCR to the Green Loan and Sustainability Linked Loan Guidelines formulated by the Ministry of the Environment in March 2020 and revised in July 2022. These statements do not fully depict the extent of positive impact that such appraisal targets may have.

This Third Party Opinion evaluates current plans or circumstances based on information provided by the Client and information independently collected by JCR and does not guarantee an evaluation of future status. Also, this Third Party Opinion does not quantitatively prove the positive effects of the Transition Linked Bond and is not responsible for its effects. JCR confirms that the funding raised by this project is measured quantitatively and qualitatively by the issuer or by a third party requested by the issuer in terms of the degree of achievement of the impact indicators established by the Company, but in principle, this is not directly measured.

4. International initiatives, principles, etc. referred to in carrying out this evaluation

In conducting this evaluation, JCRs refer to the following principles and guides formulated by ICMA, LMA, UNEP FI and its ministries and agencies.

- Climate Transition Finance Handbook
- Basic Guidelines for Climate Transition Finance of the Financial Services Agency, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment
- Principles of Sustainability Linked Bonds and Principles of Sustainability Linked Loans
- Ministry of the Environment's Sustainability Linked Bond Guidelines and Sustainability Linked Loan Guidelines
- Positive impact financial principle
- Positive Impact Finance Model Framework without Limited Use of Funds

5. Relationship with Acts Related to Credit Rating Business

JCR Climate Transition Finance Evaluation is determined and provided by JCR as an ancillary business, which is different from the activities related to the credit rating business.

6. Relationship with Credit Ratings

The Evaluation differs from credit ratings and does not promise to provide or make available for inspection a predetermined credit rating.

7. Third Party character of JCR

There is no conflict of interest related to capital or human resources relationships between the subject of this evaluation and JCR.

Disclaimers

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■Glossary

JCR Climate Transition Finance Framework Evaluation: The evaluation assesses the extent to which funds raised through transition financing based on the framework will be allocated to green/transition projects as defined by JCR, as well as the degree of management, operations, and transparency initiatives related to the use of such transition financing, etc. The evaluation is on a five-point scale, from top to top, and is displayed using the rating symbols Green1 (T)(F), Green2 (T)(F), Green3 (T)(F), Green4 (T)(F), and Green5 (T)(F).

■Status of registration as an external assessor of green finance

- Ministry of the Environment's external green bond reviewer registration
- ICMA (registered as an observer with the International Capital Markets Association)
- Members of UNEP FI Positive Impact Financial Principles Working Groups
- Climate Bonds Initiative Approved Verifier (Climate Change Initiative Accreditation Verification Organization)

■Status of registration as a credit rating agency, etc.

- Credit Rating Agency: the Commissioner of the Financial Services Agency (Rating) No.1
- EU Certified Credit Rating Agency
- NRSRO: JCR has registered with the following four of the five credit rating classes of the Securities and Exchange Commission's NRSRO(Nationally Recognized Statistical Rating Organization. (1)Financial institutions, broker dealers, (2) insurance companies, (3) general business corporations, and (4) government and local governments. If the disclosure is subject to Section 17g-7(a) of the Securities and Exchange Commission Rule, such disclosure is attached to the news releases posted on the JCR website (<https://www.jcr.co.jp/en/>).

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<Reference>

Check Sheet for Consistency with Basic Guidelines on Climate Transition Finance

March 1, 2023

Japan Credit Rating Agency, Ltd.

Company to be evaluated: Japan Airlines Co., Ltd (JAL)

The following are the check results of the consistency of the Finance with respect to the items recommended in the Basic Guidelines on Climate Transition Finance (the "Guidelines") published by the Financial Services Agency, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment.

The Guidelines use three expressions: "should," "recommended," and "be considered/possible." These expressions are used in the following context:

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

Element 1: Fundraiser's Climate Transition Strategy and Governance

a) Financing through transition finance **should** aim to implement or incentivize the achievement of transition strategies. Such strategies **should** incorporate a long-term target to align with the goals of the Paris Agreement, relevant interim targets on the trajectory towards the long-term goal, disclosure on the levers towards decarbonization, and fundraiser's strategic planning.

Consistency: ✓

JAL Group aims to realize a safe, secure, and reliable society in a comfortable environment, and an affluent society where everyone can feel fulfilled and hopeful, with "safety and peace of mind" and "sustainability" as two growth engines. In May 2022, JAL Group announced the Medium-Term Management Plan Rolling Plan 2022, which JAL Group plans to promote business and financial strategies, such as business restructuring and restructuring of its financial base, by using its ESG strategy as the core of its medium-to long-term growth strategy and management strategy. JAL Group's roadmap sets the following targets for reducing CO₂ emissions.

- Net zero CO₂ emissions for Scope1 by FY 2050
- Reduce CO₂ emissions for Scope1 by 10% from FY2019 level by FY2030
- Maintain CO₂ emissions for Scope1 compared to FY2019 level by FY2025

The SPTs are the very CO₂ emission reduction targets in the JAL Group's roadmap toward virtually zero CO₂ emissions by 2050. JAL Group's strategy and targets are consistent with international target setting on a total volume basis, such as ATAG's "Waypoint 2050", ICAO's LTAG, and IEA's Net zero by 2050.

b) A transition strategy **should** serve to explicitly communicate the implementation of an issuer's strategy to transform the business model in a way which effectively addresses climate-related risks and contributes to achieving the goals of the Paris Agreement. 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.

Consistency: ✓

JAL Group identifies climate-change related risks, such as carbon pricing and SAF procurement competition, and seeks to address them effectively through established transition strategies. The transition strategy is based on risk scenario analyses in line with the guidance of TCFD (Climate-Related Financial Disclosure Task Force), as well as analyses based on IEA's SDS scenarios. To achieve the above goals for FY2025, FY2030, and FY2050, (i) upgrading to fuel-efficient aircraft; (ii) reducing CO₂ emissions in daily operations; and (iii) development and use of SAF are planned.

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, it is **recommended** that the fundraiser also takes into consideration the impact of business innovations to society and environment other than climate change.

Consistency: ✓

With the implementation of JAL's transition strategy, there is no negative impact on employment or on societies other than climate change. On the environmental front, JAL is committed to compliance with environmental laws and regulations, international conventions, industry-wide and the Company's standards through the formulation of environmental policies and the implementation of EMS. Innovative technologies for which laws and regulations are not currently in place are also planned to be appropriately addressed in cooperation with related enterprises so as not to have a negative impact on the environment.

d) Climate change-related scenarios **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.

Consistency: ✓

Identified possible climate-related risks and opportunities. JAL Group's strategy and targets are consistent with international target setting on a total volume basis, such as ATAG's "Waypoint 2050", ICAO's LTAG, and IEA's Net zero by 2050.

e) Transition strategies and plans must be highly credible in terms of their effectiveness. Therefore, it is **recommended** that a transition strategy and plan are linked to management strategy and business plan, including Medium-term Business Plans.

Consistency: ✓

In May 2022, JAL Group announced the Medium-Term Management Plan Rolling Plan 2022, which JAL Group plans to promote business and financial strategies, such as business restructuring and restructuring of its financial base, by using its ESG strategy as the core of its medium-to long-term growth strategy and management strategy.

JAL has identified "4 areas/22 issues" as key issues to be addressed through its business. The 4 areas are "Environment," "Communities," "People," and "Governance." "Response to Climate Change" is the top priority in the "Environment." In addition, the FY2025 goal for CO₂ reduction (Scope 1) has been set as a management goal in the medium-term management plan as the most important issue to be focused on in particular. The investment plans for climate change measures have also been announced. Therefore, this transition strategy is linked to the Medium-Term Management Plan.

f) However, because such strategies and plans run for a long period of time, it is **possible** that the content may be modified or adjusted in the event of a major change in the assumed external environment and so on.

Consistency: ✓

The Company will continue to revise the content appropriately in the future in response to changes in the external environment.

g) In the initial phase of developing a transition strategy by the fundraiser, it is **considered** as an option for the fundraiser to indicate a plan for future implementation of items described with the words "recommended" and "be considered/possible" in these Guidelines.

Consistency: ✓

All matters that are considered "should" in the Basic Guidelines satisfy their requirements. In

addition, almost all items identified as "recommended" and "considered/possible" have met their requirements or are expected to be implemented in the future.

h) In order to secure the effectiveness of the transition strategy, the fundraiser **should** establish an organizational structure 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.

Consistency: ✓

As shown in the chart below, Japan Airlines has established a hierarchy of meetings on sustainability. The Sustainability Promotion Council is chaired by the President, and the Sustainability Promotion Committee is chaired by the Senior Vice President of General Affairs, where management confirms and discusses progress toward the realization of sustainability and conducts management reviews. The lower-level meetings, the Sustainability Promotion Vice President Meeting and the Sustainability Staff Meeting, confirm progress and conduct planning more frequently. The agenda items of the Sustainability Promotion Council are reported to the Board of Directors meetings, where they are discussed.

i) While a transition strategy shall be basically developed by a company in need of finance, it is **possible** for entities to utilize the strategy of companies that are wholly or partially responsible for the initiatives to establish or explain their own strategy, given that the finance supports GHG emissions reduction initiatives of not just a single company but its supply chain.

Consistency: ✓

JAL Group's efforts are primarily targeted at Scope 1 due to its large emissions. Within the efforts, however, JAL Group recognizes that collaboration with various affiliated companies is essential, and aims to achieve the targets through the supply chain. Furthermore, the Company committed to SBTi in March 2022 and plans to proceed with the procedures for approval within two years, and will set a reduction target for Scope 3 in the procedures.

j) Transition strategies **should** be disclosed in advance in a company's integrated report, sustainability report, statutory documents and other materials for investors (including such disclosures on the website). This also applies to the other three elements.

Consistency: ✓

Transition strategies are disclosed in the Integrated Report and Medium-Term Management Plan.

k) It is **possible** to disclose transition strategies and elements concerning the governance guaranteeing that the execution of transition strategies is in alignment with the reporting

frameworks such as the Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD; Final Report).

Consistency: ✓

In February 2021, JAL Group expressed our endorsement of the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), and in August 2021, we disclosed information in line with the TCFD. Disclosure regarding Climate Change of the JAL Group was selected as a good disclosure example in the TCFD Annual Report

l) 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 approaches, 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.

Consistency: ✓

JAL has identified "4 areas/22 issues" as key issues to be addressed through its business, and set medium-term targets for each group. In addition, for each area, JAL Group identifies areas of SDGs that it contributes to and discloses them on its website.

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.

Consistency: ✓

The Company will continue to revise the content appropriately in the future in response to changes in the external environment.

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 which the content of deliberations is reflected in management.

Consistency: ✓

As shown in the chart below, Japan Airlines has established a hierarchy of meetings on sustainability. The Sustainability Promotion Council is chaired by the President, and the Sustainability Promotion Committee is chaired by the Senior Vice President of General Affairs, where management confirms and discusses progress toward the realization of sustainability and

conducts management reviews. The lower-level meetings, the Sustainability Promotion Vice President Meeting and the Sustainability Staff Meeting, confirm progress and conduct planning more frequently. The agenda items of the Sustainability Promotion Council are reported to the Board of Directors meetings, where they are discussed.

o) 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.

Consistency: ✓
For the purpose of objective evaluation, JAL has obtained reviews by Japan Credit Rating Agency, Ltd. (JCR), etc. for this framework.

p) It is **recognized** useful to obtain a review particularly concerning the following in connection with the transition strategy:

- Alignment of short-term, mid-term and long-term targets (for targets, refer to Element 3) with the overall scenario
- Credibility of the fundraiser's strategy to reach the targets
- Appropriateness of the management process and governance for the transition strategy

Consistency: ✓
JCR confirmed the above three items and provided this evaluation report.

Element 2: Environmental Materiality (Priority) in Business Models

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.

Consistency: ✓
Efforts to decarbonize in aviation industries are accelerating globally because CO₂ emissions per unit of air transportation are larger than those of other transportation modes (buses and railways), and air transportation demand is expected to increase steadily. Based on these assumptions, JAL Group believes that as one of the world's leading airlines, it will be required to promote its decarbonization initiatives, and has expressed its ESG strategy as the cornerstone of its management strategy. The goal for CO₂ reduction is a mid-term goal related to the "4 areas/22 issues," and at the same time, a value (Scope 1) for the FY2025 goal has been set as a management goal in the medium-term management plan as the most important issue to be focused on in particular. Therefore, it is a critical issue to make efforts to reduce CO₂ emissions.

b) When identifying business activities that are environmentally material parts, it is **recommended**

that the fundraiser consider multiple climate change-related scenarios that may possibly impact its judgment on the identification.

Consistency: ✓

Identified possible climate-related risks and opportunities based on multiple scenarios.

c) In terms of considering materiality, it is **possible** to apply existing guidance provided by an organization that creates standard criteria concerning sustainability reporting.

Consistency:

JAL Group utilizes consultants and NGOs from the outside of the company to set materiality through extracting expectations and requests from stakeholders. There is no particular application of existing guidance.

d) The fundraiser **should** indicate that climate change is an environmentally material part of business activities.

Consistency: ✓

Efforts to decarbonize in aviation industries are accelerating globally because CO₂ emissions per unit of air transportation are larger than those of other transportation modes (buses and railways), and air transportation demand is expected to increase steadily. Based on these assumptions, JAL Group believes that as one of the world's leading airlines, it will be required to promote its decarbonization initiatives, and has expressed its ESG strategy as the cornerstone of its management strategy. The goal for CO₂ reduction is a mid-term goal related to the "4 areas/22 issues," and at the same time, a value (Scope 1) for the FY2025 goal has been set as a management goal in the medium-term management plan as the most important issue to be focused on in particular. Therefore, JAL Group disclosed that it is a critical issue to make efforts to reduce CO₂ emissions.

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.

Consistency: ✓

JAL Group's Transition Strategy is based on risk scenario analyses in line with the guidance of TCFD (Climate-Related Financial Disclosure Task Force), as well as analyses based on IEA's SDS scenarios. The content of the referenced scenarios is explained in the Integrated Report.

Element 3: Scientifically Rationalized Climate Transition Strategies (Including Targets and Channels)

a) The fundraiser **should** reference science-based targets in developing its transition strategies.

Consistency: ✓

Identified possible climate-related risks and opportunities. JAL's strategy and targets are consistent with international target setting on a total volume basis, such as ATAG's "Waypoint 2050", ICAO's LTAG, and IEA's Net zero by 2050.

b) This **should** include mid-term targets (short- to mid-term targets) in addition to long-term targets for 2050 and be quantitatively measurable based on a measurement methodology which is consistent over a long period of time.

Consistency: ✓

These targets described below was disclosed.

- Net zero CO₂ emissions for Scope1 by FY 2050
- Reduce CO₂ emissions for Scope1 by 10% from FY2019 level by FY2030
- Maintain CO₂ emissions for Scope1 compared to FY2019 level by FY2025

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 **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.

It is also **possible** to disclose the avoided emissions as necessary.

Consistency: ✓

JAL has measured CO₂ emissions related to Scope 1, 2, and 3 for group companies in Japan and overseas, and has obtained third-party verification. In addition, in its roadmap toward virtually zero CO₂ emissions, JAL Group has stated its goal of achieving net zero CO₂ emissions by FY2050 for Scope 1 and 2, as well as milestones toward that goal. Furthermore, the Company committed to SBTi in March 2022 and plans to proceed with the procedures for approval within two years, and will set a reduction target for Scope 3 in the procedures.

d) Science-based targets are GHG reduction targets required for achieving the goals of the Paris Agreement and **should** be set while taking into account differences in regional characteristics and industries. In so doing, it is **possible** to refer to the following trajectories.

- Scenarios widely recognized in the international community (Examples include the Sustainable Development Scenario (SDS) outlined by the International Energy Agency (IEA))

- Objectives verified under the Science Based Targets Initiative (SBTi) and such like
- Nationally Determined Contributions (NDC) of countries aligned with the goals of the Paris Agreement, roadmaps by industry sector, industries set out plans that are science-based achieving the Paris Agreement and so on.

Consistency: ✓

Identified possible climate-related risks and opportunities. JAL's strategy and targets are consistent with international target setting on a total volume basis, such as ATAG's "Waypoint 2050", ICAO's LTAG, and IEA's Net zero by 2050.

e) Short- to mid-term targets (with a term of three to fifteen years) **should** be set by referencing the aforesaid trajectories or on the pathway toward the long-term targets planned as benchmarks.

Consistency: ✓

These targets described below was disclosed.

- Net zero CO₂ emissions for Scope1 by FY 2050
- Reduce CO₂ emissions for Scope1 by 10% from FY2019 level by FY2030
- Maintain CO₂ emissions for Scope1 compared to FY2019 level by FY2025

f) In doing so, since short- to mid-term targets will likely be set in consideration of various factors (including the starting point and track records of the issuer, timing of capital 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.

Consistency: ✓

Targets have been set taking into account a variety of factors in addition to a road map for decarbonization, such as investment plans and the resulting returns. As a result, it is assumed that it is not a linear path of the same slope.

g) The fundraiser **should** disclose the short- to mid-term and long-term targets they have set, including the base years, etc.

Consistency: ✓

The short-and medium-term targets have set the base year as FY2019.

h) In order to show that long-term targets are science-based, disclosures **should** explain the methodology or trajectory used to define target, including the underlying reasons (e.g., characteristics specific to a region or industry). In particular, when reference is made to plans and industry roadmaps established by an industry, etc., the explanation **should** include that they

are grounded in scientific basis.

Consistency: ✓

Identified possible climate-related risks and opportunities. JAL's strategy and targets are consistent with international target setting on a total volume basis, such as ATAG's "Waypoint 2050", ICAO's LTAG, and IEA's Net zero by 2050.

i) It is **possible** that disclosures explain the pathway toward a long-term target and the alignment between the short- to mid-term targets on the pathway and the transition strategy, based on the investment plan (refer to Element 4) and other plans.

Consistency: ✓

In its medium-term management plan covering the period up to FY 2025, JAL has announced a plan to invest a cumulative total of approximately ¥660 billion over four years to promote ESG management. Among them, many parts are investment in E (Environment), and it plans to use it for introduction of fuel-efficient aircraft, etc.

j) Concerning targets and trajectories, obtaining expert reviews on the following is **considered** to be particularly useful:

- Whether the long-term target is aligned with science-based targets
 - > Whether the disclosed information explains the alignment with the Paris Agreement
- Whether the short- to mid-term targets are determined using a GHG emissions forecast calculated based on a climate change scenario analysis
 - > Whether scenarios, etc. widely recognized in the international community are used or referenced
- Whether the actual values of the indicators used for the targets are quantitatively measured using consistent measurement methods
 - > Whether a specific GHG emissions reduction measure has been developed to achieve short- to mid-term targets aligned with long-term goals

Consistency: ✓

JCR has confirmed that all of the above items have been met in this assessment report.

Element 4: Transparency of Implementation

a) In implementing transition strategies, the fundraiser **should** provide transparency of the basic investment plan to the extent practicable.

Consistency: ✓

In its medium-term management plan covering the period up to FY 2025, JAL has announced a plan to invest a cumulative total of approximately ¥660 billion over four years to promote ESG

management. Among them, many parts are investment in E (Environment), and it plans to use it for introduction of fuel-efficient aircraft, etc.

b) The investment plan includes not only capital expenditure (Capex) but also capital and operational expenditure (Opex). Therefore, costs related to research and development, M&A, and dismantling and removal of facilities are also subject to the investment plan. In other words, it is **recommended** that the investment plan incorporate, to the extent possible, expenditure and investment necessary for implementing the transition strategy.

Consistency: ✓

The investment plan incorporates costs and investments related to the implementation of the transition strategy.

c) It is **recommended** that the investment plan outline the assumed climate-related outcomes and impacts in a quantitative fashion where possible, along with the calculation methods and prerequisites. If quantification is difficult, the use of external certification systems **can** be considered as a substitute for qualitative assessment.

Consistency: ✓

Regarding KPIs' performance, annual reports on the progress of CO₂ emission reduction plans (achievement of medium-and long-term goals) are scheduled to be disclosed on JAL's website. CO₂ emissions of Scope1, 2 will be verified by a third-party organization.

d) In particular, when outlining the assumed climate-related outcomes and impacts, it is **recommended** that the disclosure include not only GHG emission reduction and other initiatives to ease climate change but also report how consideration of a "just transition" is incorporated into the transition strategy.

Consistency: Not applicable

JAL's implementation of the Transition Strategy does not require any just transition considerations.

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.

Consistency: ✓

With the implementation of JAL's transition strategy, there is no negative impact on employment or on societies other than climate change. On the environmental front, as described in Chapter 3, JAL is committed to compliance with environmental laws and regulations, international conventions, industry-wide and the Company's standards through the formulation of environmental policies and

the implementation of EMS. Innovative technologies for which laws and regulations are not currently in place are also planned to be appropriately addressed in cooperation with related enterprises so as not to have a negative impact on the environment..

f) Moreover, the outcomes arising from investments included in the investment plan **should** align with the targets.

Consistency: ✓

JAL Group will work to achieve carbon neutral by FY2050 through investments totaling 600 billion JPY (four years) in strategic investments in promoting ESG management, which are currently planned.

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.

Consistency: ✓

JAL will use the proceeds of the Transition-Linked Loans or Transition Loans to finance and refinance new and existing eligible projects related to upgrading to fuel-efficient aircraft such as Airbus A350 and Boeing 787. In the case of existing investments, allocation is limited to expenditures made within three years from the execution of the Transition-Linked Loans or Transition Loans.

h) It is **recommended** that investment plans be disclosed by linking the outcomes and impacts with the expenditures to the extent practicable.

Consistency: ✓

For the entire transition strategy, each investment target and the total investment amount are disclosed. In addition, JAL Group disclosed its aircraft strategy and SAF procurement plan.

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.

Consistency: ✓

The differences between the original plan and actual expenditures, results and impacts of this financing will be disclosed in the Impact Reporting, which is scheduled to be implemented on a regular basis after executing loans

j) In cases where the Use of Proceeds bonds include refinancing, the fundraiser **should** provide an explanation on the lookback period set under the framework or other relevant methods along with the underlying reasons and factors.

Consistency: Not applicable

The issuance of loans is planned.

k) While there are differences in business practices, such as the fact that loans are traditionally made based on the bilateral relationship between a borrower and a lender, it is **recommended** that disclosure on the above be made to the extent possible in order to ensure transparency and credibility of transition finance. However, if it is difficult to disclose such information to the public from the standpoint of confidentiality and competition, it is **possible** to report such information only to lenders or external evaluation organizations without disclosing it to the public.

Consistency: ✓

The allocation of this financing is disclosed in this evaluation report despite this being the loan. Also, at least once a year, the status of appropriation of funds and the effects of environmental improvement will be disclosed on its website, until the full amount of the proceeds has been appropriated for financing eligible projects.

l) Similarly, in cases where the fundraiser is a small-to-medium-sized enterprise and it is difficult to disclose to the public the same content as that reported to the financier or an external evaluation institution, it is **possible** for the fundraiser to simplify the content of disclosure, for example, by limiting disclosure to a summary of h) to j) of this section.

Consistency: Not applicable

Although JAL does not fall under the category of SMEs, it is under consideration to disclose the content of the report to the extent practicable by the project.