

Carbon Neutrality Report

(Reporting Period: FY2023)



Table of Contents

1	Claim of Commitment and Basic Information
	1.1 Carbon Neutrality Claim
	1.2 Overview of Carbon Neutrality Claim1.3 Reporting Period
2	Reference Carbon Footprint
	2.1 Products Covered2.2 Boundary Definition
	2.3 Exclusions
	2.4 Methodology, Data Used, Emission Factors2.5 Uncertainty and Variability in Calculations
	2.6 Details of the Covered Products' Carbon Footprint
3	Management Plan
	3.1 Framework to Achieve Carbon Neutrality
	3.2 Carbon Neutrality Pathway and Goals 3.3 Reduction Measures
	3.4 Removal Plan
	3.5 Offset Policy 3.6 Assessment of Adverse Effects and Countermeasures
	3.7 Management Plan Update
4	Reduction in Second Reporting Period
	4.1 Criteria and Methods for Determining Reduction Amounts
	4.2 Changes in Calculation Methods4.3 Actual Reduction Measures
	4.4 Reductions Achieved
	4.5 Uncertainty and Variability in Calculations
5	Offset for Second Reporting Period
	5.1 Offset GHG Emissions 5.2 Offset Methodology
	5.3 Carbon Credit Project Details
6	Going Forward
	6.1 Achievement Plan for Next Reporting Period
	6.2 Management of this Carbon Neutrality Report and Maintenance of Claim

1 Claim of Commitment and Basic Information

[1.1] Carbon Neutrality Claim

The Yamato Group has set forth "Sustainability Initiatives - Integrating Environmental and Social Considerations into Management" in its mid- to long-term management grand design "YAMATO NEXT100," which was released in January 2020. For the environment, we have set "Connecting and Delivering the Future through Green Logistics" as our long-term vision and identified "Energy and Climate," "Atmosphere," "Resource Recycling and Waste," and "Social and Corporate Resilience" as our material focus areas. Then, in February 2024, we announced our "Mid-term Management Plan Sustainability Transformation 2030 - 1st Stage" and established goals and plans for achieving the long-term environmental and social visions set forth in "YAMATO NEXT100." This plan includes specific targets and initiatives for each environmental and social materiality area, aimed at realizing these visions and achieving net-zero CO₂ emissions by 2050.

Since FY2022, Yamato Transport Co., Ltd. has committed to achieving carbon neutrality for its services, including TA-Q-BIN, TA-Q-BIN Compact, and EAZY, as part of its efforts to realize our environmental and social visions and achieve long-term goals such as net-zero greenhouse gas emissions by 2050. We are pleased to announce that, under the verification of BSI Group Japan and in accordance with ISO 14068, we will achieve carbon neutrality as of March 31, 2024 (FY2023) and commit to maintaining it through to our long-term goal for FY2050.

Yutaka Nagao, President and Representative Director

[1.2] Overview of Carbon Neutrality Claim

This document is a Carbon Neutrality Report expressing our commitment to achieve carbon neutrality in FY2023 and maintain it through FY2050, our long-term target year. It covers the life cycle emissions of Yamato's products, including TA-Q-BIN, TA-Q-BIN Compact, and EAZY, across Scopes 1, 2, and 3. This Carbon Neutrality Report details the achievement of carbon neutrality for the target products. The quantification of the carbon footprint of the target products, the development and implementation of the carbon neutrality management plan, and the efforts to offset the remaining emissions have all been verified by BSI Group Japan, a third-party certification body, in accordance with ISO 14068-1:2023.

ISO 14068-1:2023 Declarant Yamato Transport Co., Ltd. Targets of ISO 14068-1:2023 Claim Target Functions • TA-Q-BIN: In Japan, parcels ranging from 60 to 200 in size (with a total of heigh width, and depth not exceeding 200 cm and weight up to 30 kg) are accepted year-round on an individual basis, with delivery to the specified recipient, excluding certain regions, on the following day. This includes Cool TA-Q-BIN (chilled/frozen), Golf TA-Q-BIN, and Ski TA-Q-BIN.
Target Functions TA-Q-BIN: In Japan, parcels ranging from 60 to 200 in size (with a total of heigh width, and depth not exceeding 200 cm and weight up to 30 kg) are accepted year-round on an individual basis, with delivery to the specified recipient, excluding certain regions, on the following day. This includes
In Japan, parcels ranging from 60 to 200 in size (with a total of heigh width, and depth not exceeding 200 cm and weight up to 30 kg) are accepted year-round on an individual basis, with delivery to the specific recipient, excluding certain regions, on the following day. This includes
•TA-Q-BIN Compact: In Japan, using dedicated packaging materials (20 cm in height, 25 cm in width, and 5 cm in depth), parcels are accepted year-round on a individual basis, with delivery to the specified recipient, excluding certain regions, on the following day. •EAZY: Products ordered from online shops, etc. are delivered using various delivery methods, including face-to-face, at the front door, or to a home delivery box.
The following delivery service-related activities Receiving parcels at service centers/in parcel lockers Collection Receipt/sorting at sales offices (excluding service centers and in-hous consignment) Transport from sales offices to logistics hubs Sorting at logistics hubs (origin/relay point) Transport between logistics hubs (landing) Transport from logistics hubs to sales offices Sorting at sales offices Sorting at sales offices Delivery Delivery at service centers/parcel lockers (except for service center and in-house consignment) IT systems and call centers From procurement of raw materials to disposal of materials related to the transport of home delivery services *Refer to the life cycle diagram in [Appendix A] for details
Methodology for Calculating the Carbon Footprint of the Targets ISO 14067:2018 (Greenhouse Gases - Carbon Footprint of Products Requirements and Guidelines for Quantification)
Conformity Assessment Method Verification by an independent third-party certification body (BSI)
Verification Completion Date December 23, 2024
Reference Period April 1, 2021 - March 31, 2022 (FY 2021)
First Reporting Period (Achieved) April 1, 2022 - March 31, 2023 (FY2022)
Second Reporting Period April 1, 2023 - March 31, 2024 (FY2023) (Achieved)
Person Responsible for Evaluating Yasushi Fukuda, Executive Officer (Green Innovation Development) and Providing Data Necessary for the Claim
Reference Carbon Footprint 0.001323 t CO2e/unit (1.323kg CO2e/unit)
First Reporting Period Carbon 0.001240 t COze/unit (1.240 kg COze/unit) Footprint

Second Reporting Period Carbon Footprint	0.001237 t CO2e/unit (1.237 kg CO2e/unit)
Carbon Footprint Calculation Results	[Appendix B]
Carbon Credit Redemption Certificate	[Appendix C]
Verification Opinion Statement	[Appendix D]

[1.3] Reporting Period

Based on the data aggregation and fiscal year perspective, the reporting period is set for one year (April 1 – March 31 of the following year). We will achieve and maintain carbon neutrality through reductions, removals, and offsets during each annual reporting period in accordance with the carbon neutrality pathway and management plan outlined in Chapter 3. This Carbon Neutrality Report summarizes that Yamato Transport Co., Ltd. has calculated its emissions for the second reporting period, April 1, 2023 to March 31, 2024, against the reference period, verified the reductions, and offset the remaining emissions.

2 Reference Carbon Footprint

[2.1] Target Products

[Target products]

3 delivery services (TA-Q-BIN, TA-Q-BIN Compact, EAZY)

[Reason for selecting the target]

Since its launch in 1976, TA-Q-BIN has been the flagship product of Yamato Transport Co., Ltd. It is a major source of greenhouse gas emissions and is a target that allows for long-term management.

The three delivery services covered in this Carbon Neutrality Report account for approximately 80% of Yamato Transport Co., Ltd.'s operating revenue for FY2023. In addition, the total greenhouse gas emissions of the Yamato Group as a whole are 3,041,374 t CO₂e, while the emissions of the three delivery services total 2,329,701 t CO₂e. This accounts for about 80% of the entire Yamato Group's business activities and is a major source of greenhouse gas emissions for the Yamato Group.

The operations of this product are directly managed by our company, and we can plan and implement improvements aimed at reductions in the future. We can also continuously monitor these targets and manage our reduction efforts.

Meanwhile, other areas include Nekopos and Kuroneko DM, which account for less than 10% of our total business revenue. These products were excluded from the scope of this report because there is a possibility that the business model may change during this reporting period, and it would be challenging to monitor and manage emissions within the

same boundary from a long-term perspective.

Other areas include international forwarding and contract logistics for corporate clients. However, due to the fluid nature of these product offerings, they have been excluded from

the scope of achieving carbon neutrality for the same reason.

In addition, the Yamato Group has established an environmental vision and is promoting environmentally conscious management to achieve both sustainable growth and social development, not only for its three delivery services but for its overall business activities. In order to achieve net-zero greenhouse gas emissions in 2050 (company emissions) and a 48% reduction in greenhouse gas emissions in 2030 (compared to FY2020), we are promoting measures to reduce greenhouse gas emissions, taking into account the risks and opportunities posed by climate change. These include the introduction of electric vehicles (EVs) and solar power generation systems, aligned with our base strategy in the network and operational structure reforms.

[Calculation Period]

·FY2021: April 1, 2021 - March 31, 2022

[Reference value (for one parcel)]

•FY2021: 0.001323 t CO₂e/parcel (1.323 kg CO₂e/parcel)

FY2021 Greenhouse Gas Emissions (Total) (t CO2e)

2,496,623

In calculating the carbon footprint of the covered products, all significant activities that fulfill the functional unit of said products were covered, including the activities of Yamato Transport Co., Ltd. and those outsourced externally. Then, as shown in [2.3] below, the three items for which data collection is difficult were excluded based on the premise that their overall impact would be minimal.

5

[2.2] Boundary Definition

[Life cycle stages covered] (See [Appendix A])

- ·Receipt of parcels at service centers/parcel lockers (excluding service centers and in-house consignment)
- ·Collection
- ·Receipt/sorting at sales offices
- ·Transport from sales offices to logistics hubs
- ·Sorting at logistics hubs (dispatch/relay)
- ·Transport between distribution centers
- ·Sorting at logistics hubs (landing)
- ·Transport from logistics hubs to sales offices
- ·Sorting at sales offices
- Delivery
- ·Pickup at service centers/parcel lockers (except for service centers and in-house consignment)
- ·IT systems and call centers
- •From procurement of raw materials to disposal of materials related to the transport of home delivery services

[2.3] Exclusions

As a premise, all significant greenhouse gas emissions for the carbon footprint calculation of the covered products are accounted for, and only the following items, for which it is difficult to obtain actual values and calculate, are excluded.

- •Regarding electricity from renewable energy sources, the emissions on the upstream side are replaced with the emission factors from fossil fuels, and the impact related to the construction of capital goods is excluded due to the difficulty in assessing it. The estimated emissions for the construction of capital goods in FY2023 amount to 13,794 t CO₂e, which is 0.6% of total emissions, indicating that the impact on the carbon footprint is minimal.
- Disposal of packaging materials by end consumers is excluded if it is difficult to ascertain by weight. The estimated emissions from the disposal of packaging materials in FY2023 are 1,284 t CO₂e, which is 0.06% of the total emissions, indicating that the impact on the carbon footprint is minimal.
- ·Considering the effort required for data collection, we have excluded items that can reasonably be assumed to have a minor impact on the carbon footprint.

[2.4] Methodology, Data Used, Emission Factors

[Methodology]

·ISO 14067:2018

All calculated greenhouse gas emissions are converted to t CO₂e based on the 100-year Global Warming Potential (GWP) figures published by the Intergovernmental Panel on Climate Change (IPCC).

[Data used]

Data related to activity levels will primarily be collected using primary data (physical quantity), and in cases where it is difficult to collect primary data (physical quantity), primary data (monetary value) will be used instead. In cases where it was difficult to obtain primary data, secondary data defined by the company was used.

Regarding the copy paper used during the sorting of parcels, since measuring the actual amount used is difficult, the calculation was based on model scenarios.

[Emission units]

- ·IDEA Ver. 3.3
- ·Ministry of the Environment DB Ver. 3.2
- ·GLIO

[How secondary data was utilized]

- •The same database was used to calculate emissions without taking into account increases or decreases in emissions due to fluctuations in emissions factor values.
- ·As a general rule, IDEA Ver. 3.3 was used for the physical quantity data. Raw material procurement transport was calculated based on the scenario set for purchased products.
- ·As a general rule, GLIO was used for the monetary data. For raw material procurement transport, the calculation was made using the emission factor based on the purchase price.
- •From FY2021 to FY2023, due to the significant impact of price inflation between companies, the costs paid in FY2021 were used as the baseline, and the costs paid in FY2023 were adjusted for activity levels using the corporate goods price index.
- ·As a general rule, the Ministry of the Environment's DB ver. 3.2 was used for waste data.
- •For waste data, the environmental impact of transport was calculated using the Ministry of the Environment's DB ver. 3.2.

[Secondary data (model scenarios)]

- •The transportation distance, vehicle type, and loading rate for the raw material procurement stage was assumed to be 500 km for land transportation, with the loading rate for 10-ton trucks being average, with no return cargo.
- ·Waste (quantity with unknown disposal method) was assumed to be incinerated due to the difficulty in determining the actual situation.
- •The amount of waste (recycled) was defined as paper waste (recycled), since most of it corresponds to paper waste.
- ·Valuable materials were excluded from the scope of calculation and the calculation objective based on consideration of the relevant calculation range and purpose.
- ·For copy paper, it is assumed that 3 sheets of A5 copy paper per roll-box pallet used for transportation will be used in the sorting process. The amount of copy paper used was

calculated based on the number of roll-box pallets transported, multiplying the number of A5 sheets per pallet (3 sheets) by the weight of one sheet of copy paper (2 g)

•From FY2021 to FY2023, the activity amount was adjusted using the corporate goods price index for the cost paid in FY2023 based on the cost paid in FY2021 due to the large impact of price increases among companies.

[2.5] Uncertainty and Variability in Calculations

[Raw material procurement and transport scenarios]

Raw material procurement transportation was calculated based on the scenario as described above. The percentage of procurement transport was 0.60% in FY2021. For the transport scenario, if the land transportation distance is 250 km, the relevant emissions are halved and the amount of emissions becomes 0.00411 kg CO₂e in FY2021. Since the overall emissions are as shown in section [2.1], it can be understood that the impact of the transport scenario on the calculation results is minimal.

[Renewable energy electricity]

Renewable energy electricity was 61,381 MWh in FY2021. As noted in the scenario, since it is difficult to ascertain the raw material procurement activities in renewable energy production, we used the Japanese average upstream emission factor for electricity production from the Ministry of the Environment's DB Ver. 3.2 for the calculation. The environmental impact from the construction of capital goods was pseudo-derived from IDEA Ver. 3.3 emission factors, the Ministry of the Environment DB Ver. 3.2 emission factors, and emission factors by electricity providers using the formula IDEA Ver. 3.3 emission factor (national average 2018) - (electricity provider-specific emission factor + Ministry of the Environment DB Ver. 3.2). Taking into account the environmental impact on the upstream process of electricity generation, the emissions associated with the use of renewable energy electricity in FY2021 amount to 0.004313 kg CO₂e. When comparing the calculated results in the scenario with only the relevant process, there is an increase of about 250%, but considering its contribution to the overall emissions, it is clear that the impact is very minor.

[Waste (recycling)]

Waste (recycling) is calculated assuming it is paper waste as described in the scenario, since it is difficult to identify the material type. By changing the disposal method of paper waste to incineration, the impact on the total emissions for FY2021 was 0.36%. It is considered reasonable to calculate based on the set scenario as paper waste is closer to the actual situation in terms of data collection and has a negligible impact on overall emissions.

[2.6] Details of the Covered Products' Carbon Footprint

- ·See [Appendix A] for life cycle flow diagram
- ·See [Appendix B] for the results of the carbon footprint calculations

3 Management Plan

[3.1] Framework to Achieve Carbon Neutrality

First, the following system is in place to formulate policies and study measures related to the environment for the Yamato Group as a whole.

Management structure of the entire Yamato Group:

The Yamato Group has an environmental management system under the supervision of the Yamato Holdings Board of Directors, with the Environment Committee as the decision-making body to deliberate, decide, and supervise on environmental issues, including climate change. The President and CEO of Yamato Holdings serves as the Chairperson of the Environment Committee and, as the overall responsible person for environmental management, reports the important matters deliberated by the Environment Committee to the Board of Directors. As an example, in February 2024, the environmental mid-term plan for achieving Net Zero CO₂ Emissions by 2050 was approved by the Environment Committee and then resolved by the Board of Directors. The Board of Directors also deliberates on the identification of material issues, vision, and environmental policies to achieve the long- and mid-term plans, including reduction of greenhouse gas emissions.

Furthermore, at the Board of Directors of Yamato Transport Co., Ltd., which operates the logistics business, decisions are made regarding plans for purchasing vehicles that contribute to low-carbon efforts.

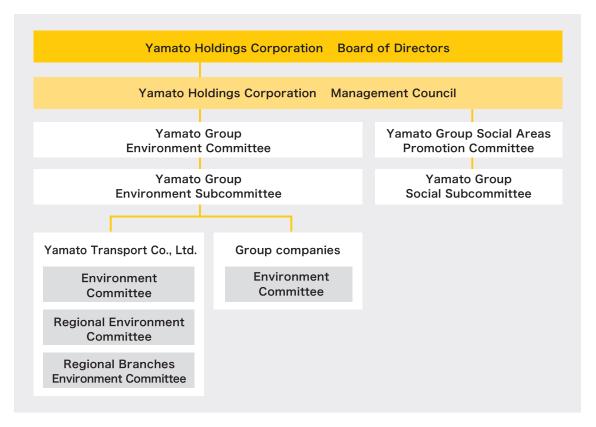


Figure 1. Yamato Group Environmental Management System Chart

Additionally, the Yamato Group has tasked the Sustainability Promotion Department of Yamato Transport Co., Ltd. with overseeing the overall strategy for reducing greenhouse gas emissions. Since 2021, the Green Innovation Development Department has been established as the department responsible for implementing greenhouse gas emission reduction measures, including formulating introduction plans, installation, and effectiveness, all in efforts to achieve carbon neutrality.

Management system to demonstrate carbon neutrality of the three delivery services:

To ensure the continued achievement of carbon neutrality for the three delivery services declared in this Carbon Neutrality Report, Yamato Transport Co., Ltd.'s Green Innovation Development Department, as the responsible department, will collaborate with the Sustainability Promotion Department, which is in charge of the overall greenhouse gas emission reduction strategy, and manage the implementation of greenhouse gas emission reduction measures as well as the processes necessary for carbon neutrality outlined below. The Yamato Group Environment Subcommittee ([1] Energy, Climate, and Atmosphere) will also check the progress of related measures, update management plans, and share carbon footprint calculation results and analysis.

[Carrying out the processes necessary to demonstrate carbon neutrality]

- ·Calculating carbon footprint for report period
- ·Carrying out, monitoring the progress of, and updating the management plan
- ·Offsetting
- ·Preparing a Carbon Neutrality Report for period of focus
- ·Conducting third-party verification
- ·Maintaining the Carbon Neutrality Claim

[3.2] Carbon Neutrality Pathway and Goals

Yamato Transport Co., Ltd. will follow the carbon neutrality pathway below, setting FY2021 as the reference year. By the long-term target of FY2050, the company aims to reduce all emissions to net zero, leaving only residual emissions, which will be offset through removal activities and the use of removal-based carbon credits.

Although this target pertains to products, we will follow the organization's net-zero approach and ultimately aim for net-zero in terms of the total volume. Net-zero refers to reducing total emissions to the point where only residual emissions remain, and then offsetting those residual emissions through removal activities or removal-based carbon credits to achieve a net-zero emissions status.

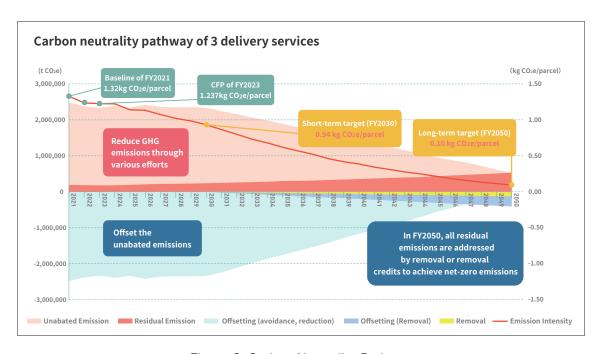


Figure 2. Carbon Neutrality Pathway

Since this target pertains to a product, the target value will be based on the unit emission, specifically the greenhouse gas emissions per unit of TA-Q-BIN. In order to contribute to the global target of net-zero emissions by FY2050 and Japan's national overall goals, Yamato Group has set short-term unit-based targets for FY2030 and long-term unit-based targets for FY2050, in line with the group's target years.

Reduction target for the entire Yamato Group

The Yamato Group has set an emissions target to be reached in 2030, referring to Japan's overall target of a 46% reduction by 2030 compared to FY2013.

- ·2050 greenhouse gas emissions (Scope 1 & 2): net-zero
- ·2030 greenhouse gas emission (Scope 1 & 2): 45% reduction from FY2021 levels* Approximately 479,000 t CO₂e

Target Values for the Three Delivery Services

Commitment Target	Standard value	Target value		Reduction rate	rate rate		Annual rate
	2021	2030	2050	2030 (compared			2050 (compared to 2021)
	1,000 t C	O2e		%			
3 Delivery Services / emission intensity	0.00132	0.00094	0.0001	-28.71%	-3.19%	-92.44%	-3.19%
*Reference below							
3 Delivery Services / emission amount (after reduction)	2,496	2,344	562	-6.09%	-0.68%	-77.49%	-2.67%
3 Delivery Services / removal amount	0	0	127	-	-	-	-
3 Delivery Services / removal credit	0	0	435	-	-	_	_

For the short-term target for FY2030, since all of the Yamato Group's current reduction measures are implemented within the boundaries of the three delivery services, this carbon neutrality report converts the group's own emission reduction target (total amount and compared to FY2020) into a comparison with FY2021. It also considers future fluctuations in the number of units handled and outsourced emissions and comprehensively sets the reduction target for the three delivery services.

For the 2050 long-term target, we plan to remove some of the residual emissions by introducing removal measures and offset the remaining portion through the use of removal-based carbon credits. Residual emissions refer to the greenhouse gas emissions that remain after all technically and economically feasible measures have been taken. Regarding the company's own emissions, all unaddressed emissions will be eliminated through the implementation of 100% reduction measures. For outsourced emissions, it is assumed that emissions from activities such as mainline transport can be reduced through technological advancements and widespread adoption. Therefore, residual emissions are defined as follows.

^{*}Converted from FY2020

[Residual emissions for this target]

- •Definition: Emissions associated with the procurement stage of materials and electricity, the waste disposal stage, and the emissions related to air mainline transport in the TA-Q-BIN life cycle
- ▶ Emissions from the upstream portion of material procurement, such as packaging materials, slips, and copy paper
- Emissions from the waste disposal stage of business activities
- ▶ Upstream emissions from the production process of purchased electricity
- ▶ Emissions from mainline air transport and aircraft loading operations
- ·Total amount in FY2021: approx. 198,000 t CO2e
- ·Total amount for FY2050 (projected*): approximately 562,000 t CO2e

*Figures are forecasts that take into account fluctuations in the number of units handled for the three delivery services

We will assess the level of ambition for the current carbon neutrality pathway and reduction targets based on the following three categories.

- ·Corporate capacity to act and responsibility:
- ▶ The long-term goal of this subject aligns with achieving net-zero by FY2050 under the 1.5°C scenario. The transportation sector accounts for approximately 20% of total emissions and, from the perspective of being categorized as Scope 3 for many companies, companies with a long history of providing products bear a historical responsibility. To achieve a higher level of ambition, they are expected to review and enhance their reduction pathway, aiming to meet targets ahead of FY2050.
- ·Carbon neutrality pathway and its relation to global or national climate policy goals:
- ▶ The long-term goal contributes to the common goal of net-zero for FY2050. It is also consistent with the 1.5°C greenhouse gas emission reduction target set in the IPCC's latest Integrated Report (Sixth Assessment Report).
- ▶ The short-term target will contribute to Japan's climate policy goals for both the transport sector and overall targets, particularly in terms of the company's own emissions, where current reduction measures are focused.
- ▶ From the perspective of the transportation sector, the short-term target aligns with the FY2030 bus and truck transport goals set by the International Energy Agency (IEA) for achieving net-zero by 2050, which call for a 15% reduction between 2022 and 2030, or an annual reduction of approximately 2% or more.
- ·Changes in response to new climate science information:
- ▶ Reducing our own emissions for FY2030 will contribute to the 1.5°C scenario. Since reductions in outsourced activities, particularly in mainline transport, require the widespread

use of alternative fuels and the electrification of vehicles, the management plan will need to be reviewed in each reporting year, taking into account the progress in mitigating relevant technological constraints, in order to improve the overall reduction pathway.

[3.3] Reduction Measures

To achieve the aforementioned reduction targets, the Yamato Group has primarily adopted the following key measures since fiscal year 2020, aiming to reduce greenhouse gas emissions from its business operations and continuously promoting efforts to reduce greenhouse gas emissions. Priority measures through FY2030 are as follows.

1. Introduce EVs

In the transport process, we are actively promoting the replacement of vehicles with environmentally friendly vehicles tailored to the transport method. The introduction of low-emission vehicles, such as LPG vehicles, CNG vehicles (natural gas), and hybrid vehicles, has already reached 70% of the total vehicle fleet. Additionally, in urban areas for short-distance transportation, the use of electric-assist bicycles and carts has been widely implemented to reduce greenhouse gas emissions. Since the introduction began in 2002, approximately 3,600 electric bicycles have been brought in. For medium-distance transportation, 522 Hino Dutro ZEVs, jointly developed with Hino Motors, were introduced, continuing from the previous year. Additionally, starting from August 2023, 896 electric small trucks (eCanter), developed by Mitsubishi Fuso Truck and Bus Corporation, were introduced. In addition, Isuzu Motors' new ELF model will be introduced on a trial basis starting in January 2024. To achieve the short-term target for FY2030, we plan to introduce 23.500 EVs.

2. Expand utilization of renewable energy sources

To achieve our short-term target for FY2030, we will increase our use of electricity derived from renewable energy sources to 70%. Specifically, we are promoting solar power generation facilities with a plan to install them in 810 locations by 2030.

3. Promote energy conservation

Promote operational efficiency and energy management optimization through the introduction of low-carbon technologies. We are advancing the visualization of operational status using digital technologies and promoting data-driven transportation efficiency. By improving cargo loading rates, we aim to reduce energy consumption.

As for energy conservation at our business sites, we will promote reductions in electricity consumption by switching to LED lighting in our buildings. LED bulbs are said to reduce power consumption by about 85% compared to ordinary bulbs. As of March 2024, approximately 2,000 sales offices have completed the conversion to LED lighting.

4. Reduce dry ice usage

We will introduce transport materials that do not use dry ice to reduce greenhouse gas emissions, improve quality, and optimize costs. To reduce the use of dry ice for cooling transported goods, the transport equipment used between transport locations will be switched to cold boxes powered by electricity, which do not require dry ice, for use between transport hubs. In addition, we are developing mobile on-board refrigeration units powered by electricity, as well as replacing some delivery vehicles that currently use dry ice with new refrigerated vehicles. We are also developing insulation and cold storage materials specifically for air containers used in Cool TA-Q-BIN air trunk line transportation.

In addition to the above key initiatives, we are also promoting the following measures to advance the construction of low-carbon transport and facilities, as well as the introduction of low-carbon technologies and operational efficiency.

- ·Continue demonstration trials on EVs and FCVs in collaboration with other industries (including medium-size trucks for long-distance use)
- ·Research and joint research on automated mobility (such as automated driving and platooning) for low carbon and preventing air pollution
- ·Visualization of operational status using digital technologies, data-driven transportation efficiency improvements, and promotion of eco-driving
- •Demonstration trials of model centers using 100% renewable energy
- ·Consolidation of touchpoints (locations)
- ·Curbing and streamlining the number of vehicles in operation by reviewing the consolidation of relays and improving the loading ratio of transportation between bases
- ·Working with partners to implement climate change measures to reduce emissions across the entire value chain (including outsourced operations)

[3.4] Removal Plan

In addition to reduction measures, we plan to introduce removal measures beginning in FY2030 so that we can achieve our long-term goal of net zero emissions in FY2050.

First, the removal measures that can be adopted within the system boundaries of the three delivery services are limited, and the following are excluded.

- ·Tree planting is excluded because the land use is outside the system boundary
- ·Ocean alkalization, ocean fertilization, and enhanced weathering are excluded because they are outside the system boundary
- •The use of dry ice derived from DAC (Direct Air Capture) is excluded because the policy prioritizes emissions reduction, and the amount of dry ice used is being reduced to zero
- •The use of electricity from BECCS (Biomass Energy with Carbon Capture and Storage) is excluded because the policy prioritizes emissions reduction, and the assumption is to switch to renewable energy. Additionally, a shift to 100% renewable energy is considered feasible from both a technological and economic perspective in the long term

At this time, the use of biomass cushioning materials is considered a feasible measure. Introduction will begin in FY2030, with the amount gradually increasing each year. If we switch to all biomass cushioning materials, the plan is to remove approximately 130,000 tons of CO₂e residual emissions by FY2050.

Meanwhile, since there are no other removal measures that can be implemented within the system boundary at this time, the remaining emissions that cannot be removed (approximately 430,000 t CO₂e) will be offset by removal-based carbon credits.

If other measures can be considered in the future, the introduction year and removal measures will be updated as appropriate, along with a review of the Management Plan.

[3.5] Offset Policy

Offsets will be implemented alongside reduction measures for each reporting period and, as described in [3.4], from FY2030 onward, they will be combined with removal measures. The use of carbon credits will gradually decrease over time. The amount of offset in the short-term target year FY2030 is the total amount of unaddressed emissions (about 2.34 million t CO₂e). For the long-term target year, 2050, the offset amount will be the residual emissions that cannot be removed (approximately 430,000 tons of CO₂e), which will be offset using removal-based carbon credits.

When offsetting the unaddressed emissions for each reporting period, carbon credits will be selected based on the following criteria, and only those approved by third-party certification bodies will be used. In addition, priority will be given to two types of carbon credits to be purchased: technology-derived emission avoidance and reduction, and technology-derived carbon removal.

Carbon Credit Criteria

- •The credits generated should represent true additional greenhouse gas emission reductions elsewhere.
- ·It must be demonstrated through a robust evaluation that the activities would not have occurred without the project, and that they show climate change mitigation exceeding regulatory requirements or conventional practices.
- ·It must comply with the methodologies of certified carbon credit programs for calculating appropriate baselines and providing conservative estimates of greenhouse gas reductions or removals (or both), and it must be measurable.
- ·It must be issued by a carbon credit system with appropriate safeguards to ensure permanence, or minimize the risk of cancellation, and guarantee that equivalent removal will occur in the event of cancellation.
- ·Credits must be certified by an independent third-party certification body.

Criteria for carbon credit program

- ·Must have documented information about the project cycle, including registration and verification requirements and procedures, which are publicly available to ensure transparency.
- ·Must appropriately address the impacts on ecosystems, biodiversity, communities, well-being, human rights, and local economies. Must be avoiding adverse effects, if applicable.
- ·Must be possible to identify which SDGs each carbon credit program contributes to.
- •The organization managing the carbon credit program should be able to provide governance information.
- ·It must include rules, procedures, calculation methods, tools, and requirements for stakeholder consultations and processes related to the development of the carbon credit program.
- ·Must undergo independent verification to demonstrate that it is promoting the reduction or removal of greenhouse gas emissions, which enables the issuance of carbon credits.
- •The following requirements must be met.
 - 1) Must be listed in a public registry that provides transparent and traceable information regarding the ownership and status of carbon credits (e.g., unsold, transferred, retired)
 - 2) Must have a serial number issued
 - 3) Must be issued under procedures that specify permanent retirement
- 4) Must be traceable back to the relevant carbon credit program
- ·Must have measures in place to avoid double counting, such as when greenhouse gas reductions or removals are claimed by multiple entities, as well as measures to prevent double counting between entities and governments.
- ·Must be measures in place to minimize the risk of leakage.

[3.6] Assessment of Adverse Effects and Countermeasures

As a result of evaluating the environmental and social impacts of the carbon neutrality initiatives, it is anticipated that the main negative impact will come from the introduction of EVs. As a countermeasure, we are advancing the introduction of EVs with cartridge-type batteries, which are expected to have the following effects.

In the future, during each reporting period, we will review the management plan and introduce new measures. As part of this process, we will regularly evaluate the potential negative impacts of these measures through environmental assessments and consider countermeasures to reduce those impacts. This approach will help ensure that our initiatives remain sustainable and continue to mitigate any unintended environmental effects.

- ·Potential negative effects from the introduction of EVs
- ▶ Disposal of batteries that can no longer be used in vehicles
- ▶ Reduced vehicle life due to battery life
- ▶ Increase in electricity load due to charging timing being concentrated during periods when vehicles are not in operation

- ·Countermeasure: We are introducing EVs with cartridge-type batteries and expect the following.
- ▶ By separating the battery from the car body, batteries that can no longer be used for vehicles can be made available for secondary use at sales offices and other locations, thereby promoting battery reuse and reducing waste.
- ▶ By separating the vehicle and battery, the vehicle can continue to be used for a long period of time without being affected by battery life.
- ▶ By separating the vehicle and battery, replacement batteries can be charged even when the vehicle is in operation, thereby spreading out the charging time and reducing the electricity load.

[3.7] Management Plan Update

Progress against the target values to be declared is regularly assessed by the relevant Yamato Group subcommittee described in [3.1], and the Green Innovation Development Department updates the Carbon Neutrality Management Plan every 12 months based on the results of these assessments.

In committees attended by the executive management and senior executives, as described in Section [3.1], the performance against environmental goals such as the progress of greenhouse gas emissions reduction, as well as the identification and evaluation of climate-related risks and opportunities, the response to environmental issues, legal compliance status, audit results, and plans for the next period are reported and monitored, and subject to supervision and evaluation. Specifically, reports are made from the Regional Branches Environment Committee (held four times a year) to the Regional Environment Committee (held four times a year), the Environment Committees of each group company (held once a year), the Environment Subcommittee (which deliberates on four environmental issues and meets three times a year), and the Group Environment Committee (held once a year). These reports are then reviewed by the top management, including the Representative Director and CEO, and are reported and monitored by the Board of Directors.

The Green Innovation Development Department is advancing the demonstration and verification of carbon neutrality for the three delivery services. Through the annual calculation of the carbon footprint for these services, the department will quantify the actual emissions and fluctuations not only from the organizational perspective but also throughout the entire product lifecycle and across each process. Through the comparison of planned and actual figures, we will monitor and evaluate the effectiveness of reduction measures and any additional future measures. Any discrepancies in the figures and necessary corrective actions will be reported and discussed in the relevant committees. The carbon neutrality pathway and management plan will be reviewed during each reporting period.

4 Reduction in Second Reporting Period

[4.1] Criteria and Methods for Determining Reduction Amounts

Reductions were calculated by comparing actual emissions in FY2021 and FY2023. The following methodologies were used to calculate the carbon footprint.

·ISO 14067:2018

The data and scenarios used in the calculations are presented in Chapter 2.

[4.2] Changes in Calculation Methods

The comparison of emission results between FY2021 and FY2023, along with the calculation of reductions, used coefficients that differ from those used in the previous year's calculation method. Accordingly, the actual emission results and reduction amounts for FY2021 and FY2022 were also recalculated.

Description of change: The following coefficients were changed to reflect the actual conditions

- ·Parcel lockers
- ·Sorting at logistics hubs
- ·In-house pickup and delivery
- ·Receipt and delivery at service centers

[4.3] Actual Reduction Measures

- •The company plans to introduce 1,200 new electric vehicles in FY2023, and has already introduced 1,428 vehicles. In FY2021, electric vehicles were used for 190,000 km per year for pickup and delivery, but by FY2023, the annual use of electric vehicles will be approximately 8.75 million km, a 46-fold increase.
- ·In FY2023, we plan to install new solar power systems (on-site generation) at 80 locations, and ended up being completed at 100 building sites. The amount of renewable energy used from solar power systems (both self-generation and PPA) was approximately 1,100 MWh in FY2021, and it increased by about 2,000 MWh to approximately 3,100 MWh in FY2023.
- ·We have been promoting the use of LEDs in the buildings of our logistics facilities, and in FY2023, we planned to convert 433 buildings to LEDs, and ended up converting 411 buildings to LEDs. Due to changes in the planned buildings for installation, the targets were not achieved.

In the future, we will improve progress by accelerating the timing, including the ordering process.

- ·We increased the use of electricity derived from renewable energy sources from 10% (61,380,928 kWh) in FY2021 to 39% (214,224,386 kWh) in FY2023.
- •Switching to cold storage vehicles to reduce dry ice usage resulted in 1,915 units. Dry ice consumption was 83,000 tons in FY2021 and 76,000 tons in FY2023, a reduction of approximately 7,000 tons.

•The loading rate of cargo onto trucks for trunk line transportation increased from 90.5% in FY2021 to 93.3% in FY2023.

[4.4] Reductions Achieved: (see [Appendix B])

Emission intensity was reduced by 0.00008 t CO₂e/piece (5.9% compared to FY2021). Also, as mentioned in Section [3.4], there were no removal measures in place in the FY2022, so no removal amounts were recorded.

Emission intensity was reduced by 0.000003 t CO₂e/piece (0.24% compared to FY2022). The reason for this is that the load factor of the mainline transport between hubs improved from 92.8% in FY2022 to 93.3% in FY2023. While the number of parcels decreased, the emissions from electricity consumption remained stable compared to the previous year. As a result, we were unable to reduce the emission factor, and the reduction rate fell below the annual average reduction rate of the 1.5°C scenario.

- ·Reference year (FY2021): 0.001323 t CO2e/unit
- ·First reporting period (FY2022): 0.001240 t CO2e/unit
- ·Second reporting period (FY2023): 0.001237 t CO2e/unit

FY2021 Greenhouse Gas Emissions (total) (t CO ₂ e)	FY2022 greenhouse gas emissions (total) (t CO ₂ e)	FY2023 greenhouse gas emissions (total) (t CO ₂ e)
2,496,623	2,385,259	2,329,701

- In mainline transport between hubs, which accounts for most of Yamato Transport Co., Ltd.'s emissions, emissions were reduced by approximately 55,000 tons, or 7% per package, compared to the reference year, through a review of transport routes and efforts to reduce the number of vehicles in operation.
- •For lateral handling between logistics hubs and sales offices, emissions were reduced by approximately 10,000 tons, or approximately 8% per package, compared to the reference year through efforts to reduce the number of vehicles in operation.
- In addition, a reduction in the use of dry ice used to keep cool in the chilled delivery service resulted in a reduction of approximately 7,000 tons of emissions.
- ·In the delivery process, the introduction of electric vehicles and other initiatives resulted in a 1% reduction in emissions per package compared to the reference year.
- •In the lateral handling process, emissions were reduced by approximately 20,000 tons, or 8% per package, compared to the reference year, due to efforts such as reviewing delivery routes.
- •In the sorting process, the introduction of LEDs in buildings and other initiatives have reduced emissions by approximately 80,000 tons, or approximately 16% per piece, compared to the reference year.

[4.5] Uncertainty and Variability in Calculations

[Raw material procurement and transport scenarios]

Raw material procurement transport was calculated based on the scenario described in Chapter 2. The ratio of procured transportation in FY2023 is 0.60%. For the transport

scenario, if the land transportation distance is 250 km, the relevant emissions are halved and the amount of emissions is 0.00370 kg CO₂e in FY2023. The overall emissions are as outlined in section [4.3], and since they are the same as the baseline year (see [2.5]), it can be understood that the impact of the transportation scenario on the calculation results is minimal.

[Primary data (cost data)]

The cost data paid was calculated based on the scenario described in Chapter 2. After adjusting costs based on the corporate goods price index, the rate of change in costs paid (in-house and outsourced) was (-16.33%, +7.10%) before adjustment and (-24.20%, -2.97%) after adjustment compared to FY2021, while the rate of change in emissions was (-15.49%, +4.74%) before adjustment and (-23.44%, -5.11%) after adjustment compared to FY2021. The difference in the rate of change between emissions and cost is similar, suggesting that the impact of adjustments to the primary data in the corporate goods price index on emissions is small. This indicates that the main factor driving the fluctuation in emissions is related to the activities themselves.

[Renewable energy electricity]

The renewable energy electricity usage for FY2023 is 214,224,386 kWh. As stated in the scenario, since the procurement of raw materials for the production of renewable energy electricity is difficult to track, the upstream emission factor for electricity generation in Japan, as provided in the Ministry of the Environment DB Ver. 3.2, was used for the calculation. The environmental impact from the construction of capital goods was pseudo-derived from IDEA Ver. 3.3 emission factors, the Ministry of the Environment DB Ver. 3.2 emission factors, and emission factors by electricity providers using the formula IDEA Ver. 3.3 emission factor (national average 2018) - (electricity provider-specific emission factor + Ministry of the Environment DB Ver. 3.2). Taking into account the environmental impact from the upstream processes of electricity generation, the emissions associated with the use of renewable energy electricity in FY2023 amount to 0.01508 kg CO₂e. When comparing the calculated results in the scenario with only the relevant process, there is an increase of about 250%, but considering its contribution to the overall emissions, it is clear that the impact is very minor.

[Waste (recycling)]

Waste (recycling) is calculated assuming it is paper waste as described in the scenario, since it is difficult to identify the material type. By changing the disposal method of paper waste to incineration, the impact on the total emissions for FY2023 (taking into the corporate goods price index) was 0.30%. It is considered reasonable to calculate based on the scenario set as paper waste is closer to the actual situation in terms of data collection and has a negligible impact on overall emissions.

5 Offset for Second Reporting Period

[5.1] Offset GHG Emissions

Yamato Transport Co., Ltd. purchased carbon credits to offset unaddressed emissions in order to achieve carbon neutrality. The amount of greenhouse gas emissions (unaddressed emissions) to be offset in FY2023 is 2,329,701 t CO₂e.

Reference year (FY2021)	Second reporting period (FY2023)				
Emissions	Reduction	Emissions (offset amount)			
2,496,623 t CO ₂ e	166,923 t CO ₂ e	2,329,701 t CO ₂ e			

[5.2] Offset Methodology

[Methodology for purchased carbon credits]

All carbon credits, as well as all carbon credit projects that generated the applicable credits, are verified by the VCS (Verified Carbon Standard) and fall under the VER (Verified Emission Reduction) scheme, meeting the principles described in [3.5].

*Details on the requirements for VCS credits can be found at the URL below. https://verra.org/wp-content/uploads/2024/04/VCS-Standard-v4.7-FINAL-4.15.24.pdf

[Measures to avoid double-counting with the state]

To avoid double-counting with the state, we intend to procure credits that align with the Paris Agreement. The multilateral corresponding adjustment mechanism corresponding to Article 6 of the Paris Agreement has not yet been established, and the credits in this case have not undergone corresponding adjustment. As soon as the corresponding adjustment mechanism is established and credits corresponding to it are in circulation, we will transition to procuring those relevant credits.

[5.3] Carbon Credit Project Details

	Project Name	Country	Туре	Certifying Institution	Project ID	Project Type	Methodology	Year Created	Quantity (t CO2e)	Depreciation Date	Depreciation Registry URL	Serial Number
1	Gansu Yumen Sanshilijingzi Wind Power Project	China	Wind power generation	vcs	124	Energy industries (renewable/non- renewable sources)	ACM0002	2018	17,809	17/10/24	Link-1	14462-596782315-596800123-VCS-VCU-264- VER-CN-1-124-01012018-29032018-0
2	Hebei Kangbao Sanxiatian Wind Farm Project	China	Wind power generation	vcs	697	Energy industries (renewable/non- renewable sources)	ACM0002	2018- 2019	127,530	22/10/24	<u>Link-1</u>	9884-155478802-155522597-VCS-VCU-259-VER- CN-1-697-01012018-31122018-0
											Link-2	9884-155438328-155478801-VCS-VCU-259-VER- CN-1-697-01012018-31122018-0
											Link-3	9884-155529567-155563071-VCS-VCU-259-VER- CN-1-697-01012018-31122018-0
											<u>Link-4</u>	9885-155676673-155686427-VCS-VCU-259-VER- CN-1-697-01012019-27112019-0
3	Gansu Guazhou Xiangyang Phase II Wind Power	China	Wind power generation	vcs	716	Energy industries (renewable/non- renewable sources)	ACM0002	2018- 2019	111,081	17/10/24	Link-1	14459-596619946-596689391-VCS-VCU-259- VER-CN-1-716-01012018-31122018-0
	Project										Link-2	14460-596699392-596741026-VCS-VCU-259- VER-CN-1-716-01012019-18082019-0
4	Guyuan Wuhuaping 49.5 MW Wind Power	China	Wind power generation	VCS	<u>736</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2018	3,351	22/10/24	<u>Link-1</u>	9981-170595022-170596897-VCS-VCU-208-VER- CN-1-736-01012018-31122018-0
	Project										Link-2	9981-170580898-170582372-VCS-VCU-208-VER- CN-1-736-01012018-31122018-0
5	OTLUCA HPPs run-of-river hydro project	Turkey	Hydroelectric power generation	VCS	<u>755</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2019- 2020	200,000	10/10/24	<u>Link-1</u>	14375-580708572-580799185-VCS-VCU-279-VER- TR-1-755-01012019-31072019-0
											Link-2	16264-752352819-752374725-VCS-VCU-997- VER-TR-1-755-01082019-31122019-0
											Link-3	16265-752374726-752462204-VCS-VCU-997- VER-TR-1-755-01012020-31122020-0
6	Hebei Chongli County Qingsanying Second Phase 49.3MW Wind Power Project	China	Wind power generation	VCS	807	Energy industries (renewable/non- renewable sources)	ACM0002	2020	7,061	17/10/24	Link-1	14128-556888716-556895776-VCS-VCU-279- VER-CN-1-807-01012020-31122020-0
7	Beijing Guanting Wind Power Project Phase Il and Phase II addition	China	Wind power generation	vcs	830	Energy industries (renewable/non- renewable sources)	ACM0002	2018	92,138	22/10/24	Link-1	11318-318935886-319028023-VCS-VCU-324- VER-CN-1-830-01012018-30062018-0
8	Gansu Guazhou Beidaqiao Wind Power Project	China	Wind power generation	VCS	<u>873</u>	Energy industries (renewable/non- renewable sources)	<u>ACM0002</u>	2018	32,518	17/10/24	<u>Link-1</u>	14637-613787273-613819790-VCS-VCU-259- VER-CN-1-873-01012018-31122018-0
9	Madushan Hydropower Project on Honghe	China	Hydroelectric power generation	VCS	883	Energy industries (renewable/non- renewable sources)	ACM0002	2019	900,000	10/10/24	<u>Link-1</u>	16572-773985846-774235845-VCS-VCU-262- VER-CN-1-883-01012019-31122019-0
	River in Yunnan Province, China										Link-2	16547-772725642-772925641-VCS-VCU-262- VER-CN-1-883-01012019-31122019-0
											Link-3	16626-783577848-783777847-VCS-VCU-262- VER-CN-1-883-01012019-31122019-0
											Link-4	16518-764702337-764852336-VCS-VCU-262- VER-CN-1-883-01012019-31122019-0
											Link-5	16863-796641297-796741296-VCS-VCU-262- VER-CN-1-883-01012019-31122019-0
10	Hebei Chengde Weichang Yudaokou Pasture 150MW Wind Farm Project	China	Wind power generation	vcs	892	Energy industries (renewable/non- renewable sources)	ACM0002	2019	2,116	22/10/24	Link-1	8230-2822504-2824619-VCS-VCU-279-VER- CN-1-892-01012019-31122019-0
11	Hebei Guyuan County Dongxinying 199.5 MW Wind Power	China	Wind power generation	vcs	903	Energy industries (renewable/non- renewable sources)	ACM0002	2019- 2020	50,023	22/10/24	Link-1	8104-457249327-457285549-VCU-034-apx- cn-1-903-01012019-31122019-0
	Project										Link-2	8104-457105860-457115082-VCU-034-apx- cn-1-903-01012019-31122019-0
											Link-3	8104-457102860-457105859-VCU-034-apx- cn-1-903-01012019-31122019-0
											Link-4	8104-457115083-457115859-VCU-034-apx- cn-1-903-01012019-31122019-0
											Link-5	8105-457504698-457505497-VCU-034-apx- cn-1-903-01012020-29022020-0
12	Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project	China	Wind power generation	vcs	1001	Energy industries (renewable/non- renewable sources)	ACM0002	2018	109,799	22/10/24	Link-1	7718-423236291-423346089-VCU-034-APX- CN-1-1001-01012018-31122018-0
13	Guohua Wulate Zhongqi Chuanjing Phase II Wind Farm Project	China	Wind power generation	vcs	1200	Energy industries (renewable/non- renewable sources)	ACM0002	2018	130,081	22/10/24	Link-1	7652-417288841-417418921-VCU-034-APX- CN-1-1200-01012018-31122018-0
14	Guohua Rongcheng Phase II Wind Farm Project	China	Wind power generation	vcs	1301	Energy industries (renewable/non- renewable sources)	ACM0002	2019	24,847	22/10/24	Link-1	8017-448017456-448042302-VCU-034-APX- CN-1-1301-01012019-30112019-0
15	Guohua Tongliao Kezuo Zhongqi Phase I 49.5 MW Wind Farm Project	China	Wind power generation	vcs	<u>1310</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2018	2,030	22/10/24	Link-1	8111-458252588-458254617-VCU-034-apx- cn-1-1310-01012018-31102018-0
16	Bundled Wind Power Project by Giriraj Enterprises	India	Wind power generation	VCS	<u>1669</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2019	608	17/10/24	<u>Link-1</u>	9827-143241854-143242461-VCS-VCU-814-VER- IN-1-1669-01042019-31122019-0
17	Hydroelectric Project in Kinnaur District in Himachal Pradesh	India	Hydroelectric power generation	VCS	1742	Energy industries (renewable/non- renewable sources)	ACM0002	2020	293,310	17/10/24	<u>Link-1</u>	9354-83171486-83464794-VCS-VCU-997-ver- in-1-1742-01012020-30042020-0
	. imachai rradesh										Link-2	9354-83171485-83171485-VCS-VCU-997-ver- in-1-1742-01012020-30042020-0

	Project Name	Country	Туре	Certifying Institution	Project ID	Project Type	Methodology	Year Created	Quantity (t CO2e)	Depreciation Date	Depreciation Registry URL	Serial Number
18	Bundled Solar Photovoltaic Project by ACME	India	Solar power generation	vcs	<u>1753</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2020	223	26/11/24	<u>Link-1</u>	11045-274451022-274451244-VCS-VCU-997- VER-IN-1-1753-01022020-31122020-0
19	Solar Energy Project(s) by SB Energy Private Limited	India	Solar power generation	vcs	1805	Energy industries (renewable/non- renewable sources)	ACM0002	2018	81,117	22/10/24	Link-1	8423-16007629-16088745-VCS-VCU-997-VER- IN-1-1805-01012018-31122018-0
20	Grid Connected Solar Energy Project	India	Solar power generation	vcs	<u>1890</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2020	23,000	10/10/24	<u>Link-1</u>	8665-37863448-37886447-VCS-VCU-997-VER- IN-1-1890-01012020-20072020-0
21	CECEP Gansu Yumen Changma Daba South Wind Farm Project	China	Wind power generation	VCS	<u>1939</u>	Energy industries (renewable/non- renewable sources)	ACM0002	2018	84,063	22/10/24	Link-1	7617-412282436-412344633-VCU-034-APX- CN-1-1939-01012018-31122018-0
	Farm Project										Link-2	7617-412344634-412362435-VCU-034-APX- CN-1-1939-01012018-31122018-0
											Link-3	7582-408477812-408481874-VCU-034-APX- CN-1-1939-01012018-31122018-0
22	Guangxi Longan Biomass Power Project	China	Biomass Power generation	VCS	<u>1972</u>	Energy industries (renewable/non- renewable sources)	ACM0006	2020	2,800	22/10/24	<u>Link-1</u>	14141-558158137-558160936-VCS-VCU-785- VER-CN-1-1972-01062020-31122020-1
23	Renewable Solar Power Project by Mahindra Renewables Private Limited	India	Solar power generation	VCS	2059	Energy industries (renewable/non- renewable sources)	ACM0002	2018	23,196	22/10/24	<u>Link-1</u>	8597-32909237-32932432-VCS-VCU-1491-VER-IN-1-2059-06072018-31122018-0
24	Guizhou Panjiang Low Concentration Coal Mine Methane Power Generation Project Phase 3	China	Methane power generation	vcs	2292	Fugitive emissions from fuels (solid, oil and gas)	ACM0008	2020	11,000	17/10/24	<u>Link-1</u>	13217-479145343-479156342-VCS-VCU-1310- VER-CN-10-2292-01012020-31122020-0
Total									2,329,701			

6 Going Forward

[6.1] Next Reporting Period

In this Carbon Neutrality Report, Yamato Transport Co., Ltd. expresses its commitment to achieve carbon neutrality of its three delivery services in the second reporting period, FY2023, and in the long-term target year, FY2050. In the next report period, the achievement of the third reporting period will be demonstrated and achieve verification. Specifically, after the fiscal year ends in April 2025, the emissions data will be compiled, the reductions will be verified, the management plan will be updated, and offsets will be made, and the certification will be verified again by a third-party after August 2025.

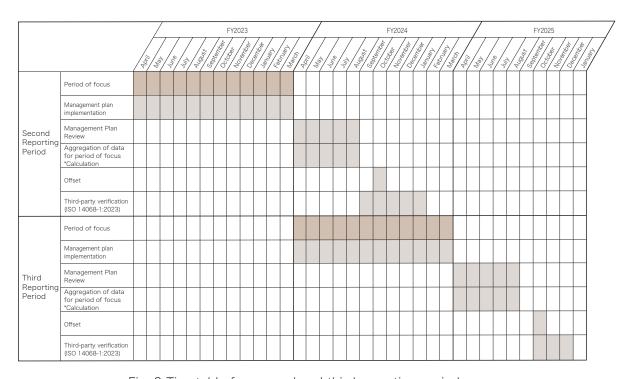


Fig. 3 Timetable for second and third reporting periods

[6.2] Management of this Carbon Neutrality Report and Maintenance of Declaration

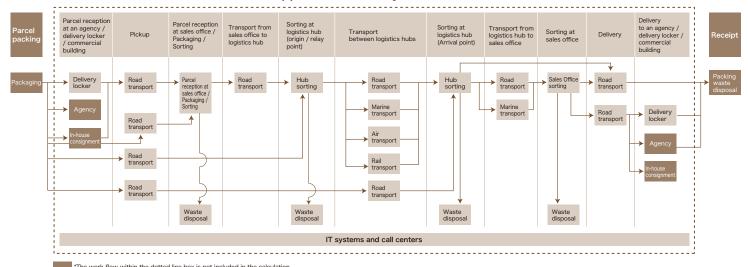
This Carbon Neutrality Report and other related supporting documents will be listed and managed by the Green Innovation Development Department, the department in charge of carbon neutrality management, and stored electronically for six years.

In the event of changes or events affecting the validity of the carbon neutrality claim, the department in charge of carbon neutrality management will assess the current situation and review this carbon neutrality report and claim as necessary. The following conditions are assumed as potential factors that could invalidate the claim.

- •Business environment-related: If there are significant changes to the lifecycle and carbon footprint of the three target three delivery services due to business changes during the commitment period. Or if the primary suspension or cessation of the delivery business makes future quantification difficult.
- ·Calculation-related: If a significant defect is found in the calculation of this carbon neutrality report, and the carbon footprint for the first reporting period and the corresponding credit procurement amount are not equal, resulting in incomplete offsetting.
- •External environmental-related: If a mandatory reduction target is applied during the commitment period.

If any changes occur to the Claim or demonstration, we will recalculate and update the demonstration within three months of the change, following the same assumptions as those in this Carbon Neutrality Report as a corrective action, and maintain the validity of the Claim by publishing an updated version of the Carbon Neutrality Report. If the Carbon Neutrality Report and Claim cannot be quantified in the future, or if it is not expected to be possible to maintain carbon neutrality, the Carbon Neutrality Report and Claim will be withdrawn.

[Appendix A] Life Cycle Flowchart



[Appendix B] Carbon Footprint Calculation Results

	1. Definition of Subject
1.1 Subject	One parcel under delivery services (TA-Q-BIN, TA-Q-BIN Compact, EAZY)
1.2 Purpose of this Calculation	Verify ISO 14068-1:2023 in the TA-Q-BIN Carbon Neutrality Claim
1.3 Calculation Unit	Per parcel under delivery service (TA-Q-BIN, TA-Q-BIN Compact, EAZY)
1.4 Elements of product	Our activities and outsourced activities that fulfill the relevant functional unit
1.5 Period for Calculation	·April 2023 – March 2024 (FY2023)
1.6 Characterization Factors	Global Warming Potential IPCC2013 GWP100a
1.7 Comparison Claims	None
1.8 Interpretation of Calculation Results	•The calculation results fulfill the purpose of the assessment and were determined based on the content specified in the data quality requirements and the data collection methods. The calculated results must take into account that there are uncertainties as indicated in the uncertainty analysis.

2 Product Life Cycle Stages and Exclusion Standards

2.1	Covered	Life	Cycle
	Stages		

- ·Reception of parcels at agency/parcel lockers
- ·Collection
- ·Receiving/sorting at sales offices (excluding agency and in-house outsourcing)
- ·Transport from sales offices to logistics hubs
- ·Sorting at logistic hubs (origin/relay)
- $\cdot \mathsf{Transport} \ \mathsf{between} \ \mathsf{logistics} \ \mathsf{hubs}$
- ·Sorting at logistics hubs (arrival)
- ·Transport from logistics hubs to sales offices
- ·Sorting at sales offices
- · Delivery
- $\cdot \text{Pick}$ up at agency/parcel lockers (except for agency and in-house outsourcing)
- ·IT systems and call centers
- •From procurement of raw materials to disposal of materials related to the transport of delivery services

2.2 Exclusion Criteria and Subjects

- •For electricity derived from renewable energy sources, upstream emissions were substituted for fossil fuel-derived emission factors, and the burden associated with the construction of capital goods was considered as a cutoff due to the difficulty in quantifying it. The estimated emissions for the construction of capital goods in FY2023 amount to 13,794 t CO₂e, 0.6% of total emissions, indicating that the impact on the carbon footprint is negligible.
- For the disposal of packing materials by the final consumer, cases where it was difficult to determine the weight were excluded and treated as a cutoff. The pseudo-calculated emissions from the disposal of packing materials in FY2023 are 1,284 t CO2e, 0.06% of the total emissions, indicating that its impact on the carbon footprint is negligible.
- •Considering the effort required for data collection, it was reasonably determined that the impact on the carbon footprint is minimal, and thus it was excluded from the scope.

3 Calculation Approach and Method

3.1 Referenced Standards

ISO 14067:2018

3.2 Quality Requirements for Collected Data	•The collected data is as of August 1, 2024, and the time validity range is until any changes in the data aggregation or management methods are made or until the evidence is lost. •For data such as electricity, where data collection at the functional unit level is difficult, no allocation was made, and the activity amount of the product in question was used instead.
3.3 Data Collection Methods	 Data related to activity levels will primarily be collected using primary data (physical quantity), and in cases where it is difficult to collect primary data (physical quantity), primary data (monetary value) will be used instead. In cases where it was difficult to obtain primary data, secondary data defined by the company was used. Regarding the copy paper used during the sorting of parcels, since measuring the actual amount used is difficult, the calculation was based on model scenarios.
3.4 Secondary Data (Emissions Intensity)	·IDEA ver. 3.3 ·Ministry of the Environment DB ver. 3.2 ·GLIO
3.5 Secondary Data (Scenarios)	 The transport distance, vehicle type, and loading rate for the raw material procurement stage was assumed to be 500 km for land transportation, and the loading rate for 10-ton trucks was assumed to be the average, with no return cargo. Waste (quantity with unknown disposal method) was assumed to be incinerated due to the difficulty in determining the actual situation. The amount of waste (recycled) was defined as paper waste (recycled), since most of it corresponds to paper waste. Valuable materials were excluded from the scope of calculation and the calculation objective based on consideration of the relevant calculation range and purpose. For copy paper, it is assumed that 3 sheets of A5 copy paper per roll-box pallet used for transportation will be used in the sorting process. The amount of copy paper used was calculated based on the number of roll-box pallets transported, multiplying the number of A5 sheets per pallet (3 sheets) by the weight of one sheet of copy paper (2 g). From FY2021 to FY2023, the activity amount was adjusted using the corporate goods price index for the cost paid in FY2023 based on the cost paid in FY2021 due to the large impact of price increases among companies.
3.6 Distribution	•The emissions for the entire process were allocated by the number of delivery services to calculate the emissions per functional unit.
3.7 Critical Unit Processes	Collection, transport between logistics hubs, delivery
3.8 Handling of Electricity	Regarding the emission coefficient for electricity derived from renewable energy, the emission coefficient during use was set to zero from the power company-specific emission coefficients. Since there are no accurate emission coefficients for the period from raw material procurement to manufacturing, the upstream power emission coefficient from the Ministry of the Environment's DB ver. 3.2 was used.
3.9 How Secondary Data Was Utilized	 The same database was used to calculate emissions without taking into account increases or decreases in emissions due to fluctuations in emissions factor values. As a general rule, IDEA ver. 3.3 was used for the physical quantity data. Raw material procurement transport was calculated based on the scenario set for purchased products. As a general rule, GLIO was used for the monetary data. For raw material procurement transport, the calculation was made using the emission factor based on the purchase price.

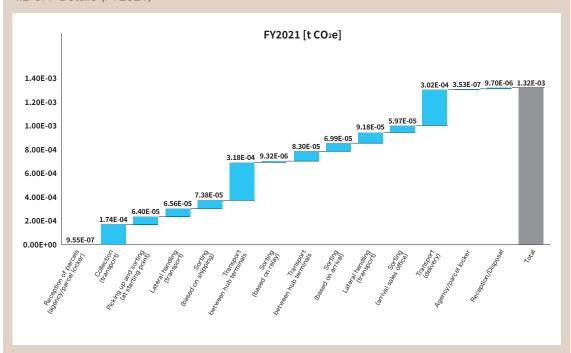
3.9 How Secondary Data Was Utilized

- ·As a general rule, the Ministry of the Environment's DB ver. 3.2 was used for waste data. Incineration, landfill disposal, and recovery quantities were calculated using IDEA ver. 3.3.
- •For waste data, the environmental impact of transport was calculated using the Ministry of the Environment's DB ver. 3.2.

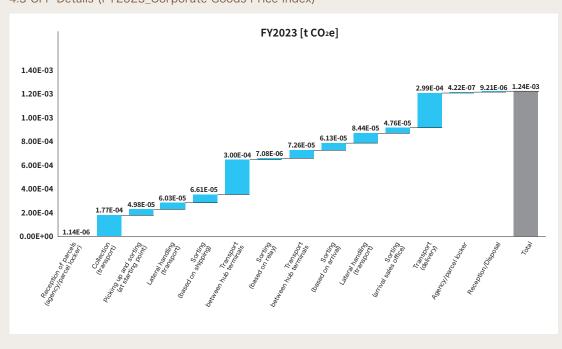
4 Calculation Results

- 4.1 CFP Values
- ·FY2021: 0.001323 [t CO2e] (1.323 [kg CO2e])
- ·FY2023 (corporate goods price index): 0.001237 [t CO2e] (1.237 [kg CO2e])

4.2 CFP Details (FY2021)



4.3 CFP Details (FY2023_Corporate Goods Price Index)



4.4 Results of Uncertainty and Sensitivity Analysis

(1) Raw material procurement and transport scenarios

Raw material procurement and transport were calculated based on the scenarios described above. The percentage of procurement transport was 0.62% in FY2021 and 0.60% in FY2023. For the transportation scenario, if the land transport distance is 250 km, the relevant emissions are halved and the amount of emissions is 0.00411 kg CO₂e in FY2021 and 0.00370 kg CO₂e in FY2023. It can be understood that the impact of the transportation scenarios on the calculation results is small because the overall emissions are as described in [4.1].

(2) Primary data (cost data)

The cost paid data was calculated based on the scenarios described in Chapter 2 of the Carbon Neutrality Report. After adjusting costs based on the corporate goods price index, the rate of change in costs paid (in-house and outsourced) was (-16.33%, +7.10%) before adjustment and (-24.20%, -2.97%) after adjustment compared to FY2021, while the rate of change in emissions was (-15.49%, +4.74%) before adjustment and (-23.44%, -5.11%) after adjustment compared to FY2021. Since the difference in the rate of change in emissions and the difference in the rate of change in costs are about the same, the effect of the correction of primary data in the corporate goods price index on emissions is considered to be small, indicating that the main factor in the variation of emissions is the content of activities.

(3) Renewable energy electricity

The renewable energy electricity was 61,381 MWh in FY2021 and 214,224,386 kWh in FY2023. As stated in the scenario, since it is difficult to ascertain the raw material procurement activities in the production of renewable electricity, we used the Japanese average upstream emission factor for electricity production from the Ministry of the Environment's DB ver. 3.2. The environmental impact from the construction of capital goods was pseudo-derived from the IDEA ver. 3.3 emission factor and the Ministry of the Environment's DB ver. 3.2 and emission factors by electric utility using the formula IDEA ver. 3.3 emission factor (national average 2018) - (emission factor by electric utility + Ministry of the Environment DB ver. 3.2). Taking into account the environmental impact on the upstream side of electricity production, the emissions associated with the use of renewable electricity would be 0.00431 kg CO2e in FY2021 and 0.01508 kg CO₂e in FY2023. When comparing the calculation results in the scenario with only this process, there is an increase of about 250% in both years. However, when considering its contribution to the total emissions, it is clear that the impact is very minimal.

(4) Waste (recycling)

Waste (recycling) is calculated assuming it is paper waste as described in the scenario, since it is difficult to identify the material type. The change to incineration of paper waste had an impact of 0.36% on overall emissions in FY2021 and 0.30% on overall emissions in FY2023 (taking into account the corporate goods price index). It is considered reasonable to calculate based on the set scenario as paper waste is closer to the actual situation in terms of data collection and has a negligible impact on overall emissions.

Reference 1: Reduction by emission source in FY2023 (compared to reference year)

Process name	FY2021 [t COze]	FY2023 (Corporate Goods Price Index) [t CO ₂ e]	Amount reduced [t CO ₂ e]
Reception of parcels (agency/parcel locker)	0.00000095	0.00000114	-0.0000018
Collection (transport)	0.00017405	0.00017708	-0.00000304
Receipt and sorting (at delivery depot)	0.00006396	0.00004984	0.00001412
Lateral handling (transport)	0.00006564	0.00006033	0.00000531
Sorting (based on shipping)	0.00007376	0.00006611	0.0000764
Transport between hub terminals	0.00031823	0.00030037	0.00001786
Sorting (based on relay)	0.00000932	0.0000708	0.00000224
Transport between hub terminals	0.00008296	0.00007261	0.00001035
Sorting (based on arrival)	0.00006995	0.00006133	0.00000861
Lateral handling (transport)	0.00009178	0.00008435	0.00000742
Sorting (arrival sales office)	0.00005967	0.00004764	0.00001203
Delivery (transport)	0.00030249	0.00029918	0.00000331
Agency/parcel locker	0.0000035	0.00000042	-0.0000007
From procurement of raw materials such as those for TA-Q-BIN transport to disposal	0.00000970	0.00000921	0.00000049
Total	0.00132281	0.00123670	0.00008611

Reference 2: Calculation results of market and location criteria for electricity

Indirect emissions from energy sources		Activity date (2021) [kWh]	Activity date (2023) [kWh]	Emissions (2021) [t CO2e]	Emissions (2023) [t CO2e]
Market-based approach	Grid Electricity	469,841,216	337,055,788	265,747	190,643
	Renewable Energy	61,380,928	214,224,386	0	0
Location-based approach	Electricity	531,222,144	551,280,173	300,465	311,810

^{*}CFP values are calculated with a market-based approach

[Appendix C] Certificate for Retirement of Carbon Credits

1. Gansu Yumen Sanshilijingzi Wind Power Project



2. Hebei Kangbao Sanxiatian Wind Farm Project





3. Gansu Guazhou Xiangyang Phase II Wind Power Project



4. Guyuan Wuhuaping 49.5 MW Wind Power Project



5. OTLUCA HPPs run-of-river hydro project





6. Hebei Chongli County Qingsanying Second Phase 49.3MW Wind Power Project



7. Beijing Guanting Wind Power Project Phase II and Phase II addition



8. Gansu Guazhou Beidaqiao Wind Power Project



9. Madushan Hydropower Project on Honghe River in Yunnan Province, China







10. Hebei Chengde Weichang Yudaokou Pasture 150MW Wind Farm Project



11. Hebei Guyuan County Dongxinying 199.5 MW Wind Power Project







12. Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project



13. Guohua Wulate Zhongqi Chuanjing Phase II Wind Farm Project



14. Guohua Rongcheng Phase II Wind Farm Project



15. Guohua Tongliao Kezuo Zhongqi Phase I 49.5 MW Wind Farm Project



16. Bundled Wind Power Project by Giriraj Enterprises



17. Hydroelectric Project in Kinnaur District in Himachal Pradesh



18. Bundled Solar Photovoltaic Project by ACME



19. Solar Energy Project(s) by SB Energy Private Limited



20. Grid Connected Solar Energy Project



21. CECEP Gansu Yumen Changma Daba South Wind Farm Project





22. Guangxi Longan Biomass Power Project



23. Renewable Solar Power Project by Mahindra Renewables Private Limited



24. Guizhou Panjiang Low Concentration Coal Mine Methane Power Generation Project Phase 3

