Environment

The KWE Group is addressing the material topics of emissions and energy, moving ahead step by step on a variety of measures to achieve carbon neutrality by 2050.

In FY2022 we took concrete action to reduce our Scope 1 and 2 CO_2 emissions, and in August 2023 we set FY2030 reduction targets for the entire KWE Group.

We will continue to focus on environmental issues that must be addressed by freight forwarders, in line with global standards.

Material Topics

Emissions Reduce CO_2 emissions to address climate change

Energy Promote the use of green energy

Objectives	Progresses in FY2022	FY2023 Onward
■ Reduce CO_2 emissions ■ Promote the use of green energy	■ Started collecting Scope 1 and 2 data for subsidiaries worldwide ■ Obtained third-party verification of FY2021 Scope 1 and 2 data (Kintetsu World Express (non-consolidated)) ■ Achieved 100% renewable energy sourced power consumption at our sites in Japan with the purchase of FIT non-fossil fuel energy certificates ■ Released KWE CO_2 Calculator estimating emissions associated with freight transport ■ Participated in 3 airline and 1 fuel supplier SAF programs ■ Promoted shift to LED lighting ■ Promoted rail transport ■ Started using trucks fueled by hydrotreated vegetable oil (HVO) ■ Promoted container round use for sea freight	■ Setting KWE Group FY2030 Scope 1 and 2 emission reduction targets ■ Considering measures to further reduce Scope 1 and 2 emissions ■ Continuing to promote SAF and participate in SAF programs ■ Implementing Scope 1 and 2 data collection system ■ Promoting shifts to LED lighting ■ Promoting rail transport ■ Promoting the use of trucks fueled by hydrotreated vegetable oil (HVO) ■ Promoting reusable containers for sea freight ■ Submitting Science Based Targets initiative (SBTi) commitment letter

Emissions & Energy

Concept & Policy

KWE Group Environmental Policy

In addition to our corporate philosophy to contribute to the development of a global community through logistics services, KWE Group sets forth the following policy to conserve the earth's valuable natural resources and strive to preserve the environment:

1. We promote global pollution prevention.
2. We comply with the environmental protection laws, regulations, and requirements in each country in which we operate.
3. We define the following items as the key environmental management objectives related to business activities:

   ■ Reducing greenhouse gas emissions

   ・Reducing electricity consumption

   ・Reducing exhaust from vehicles and equipment

   ■ Reducing waste and promoting recycling
4. We work to prevent environmental pollution in cooperation with clients, affiliated companies, and subcontractors.
5. We make KWE group employees and the public aware of our environmental protection policy through internal and external communications.

Progress

Over the 75 years since its founding, the KWE Group has built an extensive global forwarding business network of 683 sites across 300 cities and 45 countries (as of March 31, 2023). All our sites worldwide are focused on the short, mid, and long term targets that will result in achieving carbon neutrality by 2050. Short term initiatives in FY2022 included collecting data on a consolidated basis for group-wide electric power consumption, fuel use, and CO_2 emissions for our subsidiaries worldwide. We obtained third party verification of Kintetsu World Express (non-consolidated) Scope 1 and 2 emissions. We also made progress in SAF use and promoting reusable ocean container use in an effort to reduce our Scope 3 emissions.

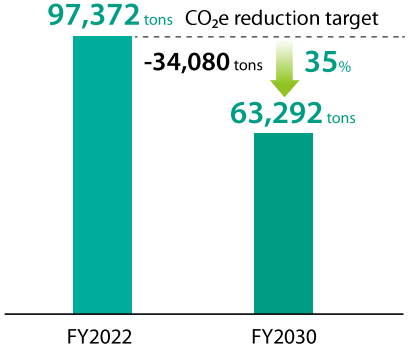
In the medium term, we set group-wide Scope 1 and 2 reduction targets in August 2023. The targets are to reduce our emissions by 35% by FY2030 from FY2022. We submitted our commitment letter to SBTi. We will be seeking third party verification of our Scope 1 and 2 CO_2 emissions worldwide while also aggregating and verifying our global Scope 3 baseline.

By consistently pursuing our short and medium term goals, we will achieve our long term target of carbon neutrality by 2050.

35%

FY2030 reduction target
(vs FY2022 Scope 1 and 2)

2050
Carbon neutral



Emissions & Energy — Disclosures Based on TCFD Recommendations

Support of Task-Force on Climate-related Financial Disclosures (TCFD) recommendations

In December 2021 KWE announced its support of the recommendations made by the Task-Force on Climate-related Financial Disclosures, an organization established by the Financial Stability Board to consider the financial impacts of climate change on business and financial planning. We analyzed the risks and opportunities for our business associated with climate change and continue to provide information to our stakeholders about the potential financial impacts. At this point in time our scenario analysis is as follows.

Governance

The KWE Group Sustainability Committee, headed by the President & CEO, addresses basic policy, material issues, and risks and opportunities related to climate change. The committee meets at least twice a year, with additional meetings as necessary. The committee met four times in FY2022. The topics related to climate change that were discussed are shown below (FY2022 Agenda).

Committee members include our company directors, corporate department general managers, regional headquarters general managers, and representatives from APLL, ensuring diversity in its deliberations. Matters discussed and decided by the committee are presented to the Corporate Management Meeting[*1] and reported to the Board of Directors as needed.

Under the oversight of the Board of Directors, matters discussed and decided by the Corporate Management Meeting are disseminated to all divisions within the organization and reflected in their management plans and business operations.

FY2022 Agenda related to climate change

- Deliberation on Sustainable Aviation Fuel (SAF)
- Deliberation on TCFD recommended disclosures
- Deliberation on committing to SBTi (Science Based Targets initiative)
- Report on greenhouse gas emissions calculator for customer use
- Report on activity to reduce greenhouse gas emissions, including shift to LED lighting, shift to electric forklifts, and purchasing of non-fossil fuel energy certificates
- Progress report on collection of greenhouse gas emission data

*1: The Corporate Management Meeting is composed of the Company's full-time directors, full-time Audit & Supervisory Board members, executive officers, and division managers. It meets at least twice a month to decide important matters related to overall business policy and the conduct of business.
*2: Below 1.5°C: IEA SDS, IPCC AR6, RCP2.6, etc.
*3: 4°C: IPCC AR6, RCP8.5, etc.

Strategy

We have identified climate change as a mid to long term risk. We have analyzed long term scenarios to 2050 for potential impact on our business, with reference to International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC) scenarios (Below 1.5°C[*2] and 4°C[*3]) for risks and opportunities in order to consider the resilience of our business strategy and organization. (See p.14)

Risk Management

Our climate change-related risk working group is planning, implementing, and managing the progress of our response to the risks and opportunities we have identified. Scenario analysis began in February 2022 and is reviewed at least once a year. We are focusing on addressing the risks and opportunities shown below on p.14 based on likelihood and degree of impact. Climate change related risks will continue to be analyzed by the KWE Group Sustainability Committee, reported to the Corporate Management Meeting, and integrated into our overall risk management.

Metrics and Targets

We are using GHG emissions (CO_2e) as a metric to assess and manage the impact of climate-related risks on our business. We set the following FY2030 reduction targets for the KWE Group in August 2023. Scope 1 and Scope 2 emissions in FY2021 and FY2022 were:

	Emissions	
	Scope 1	Scope 2
FY2021	462 t	6,479 t
FY2022	345 t 50,649 t*	6,251 t 46,723 t*

Targets
Scope 1 and 2
FY2030 35% reduction from FY2022 FY2050 Carbon neutrality

* Include KWE Group companies. The rest are Kintetsu World Express (non-consolidated).

Assessing and Managing Climate-related Risks and Opportunities (Scenario Analysis)

	Category	Risk	Business Impact	Timeframe	1.5°C Scenario	4°C Scenario	Strategy
Transition Risk	Policy and Legal	Carbon tax	Risk: Higher operating costs due to stricter national environmental regulations	Mid - long term	High	Low	① Set GHG emissions targets and fulfill them on an ongoing basis ② Shift to eco-friendly vehicles and electric forklifts ③ Change to renewable energy source electric power ④ Pass along freight charges appropriately
	Technology	Next generation air, sea, and land vehicles	Risk: Higher operating costs due to development and introduction of new technologies	Short - long term	High	Low	① Plan investments while monitoring social trends and new technology ② Participate in pilot programs and consider implementation while evaluating cost
			Opportunity: Lower carbon tax and other regulatory costs with reduced GHG emissions	Short - long term	High	Medium	
		New fuels (such as SAF and bio-fuel)	Risk: Slower adoption and higher procurement costs with inadequate supply	Short - mid term	High	Low	① Actively participate in SAF programs and promote social implementation ② Approach governments and associations toward increasing adoption in the industry
			Opportunity: Lower carbon tax and other regulatory costs with reduced GHG emissions	Mid - long term	Medium	Low	
	Market	Modal Shift	Risk: Reduced revenue due to increase in use of sea and rail with higher demand for transport modes with less impact on the environment	Short - mid term	High	Medium	① Develop sea and rail transport services in line with customer needs and build a business model adapted to the changing market ② Develop low environmental impact air transport products leveraging SAF in collaboration with airlines ③ Propose low CO_2 emission routes and transport modes leveraging AI
			Opportunity: Development of new services and expanded business areas	Short - mid term	Medium	Low	
	Reputation	Corporate environmental reputation	Risk: Reduced revenue due to loss of orders and exclusion from bidding with falling reputation, negative impact on recruiting	Short - mid term	High	Low	① Work on improving reputation with customers by including active environmental initiatives in business strategy
			Opportunity: Increase in revenue by acquiring more business with improved reputation, increase in opportunities to hire talented human resources	Short - mid term	High	Low	
Physical Risk	Acute	Extreme weather	Risk: Reduced revenue with fall in freight volume due to difficulty in providing transport services and increased recovery costs	Short - mid term	Low	High	① KWE and service providers respond to flood and other damage in the case of logistics warehouses owned by KWE, and KWE coordinates with lessors to respond in the case of rented warehouses ② Select alternative forwarding warehouse facilities and routes to build a stable logistics network ③ Manage risks in coordination with the KWE Risk Management Committee
	Chronic	Rising sea levels with rising average air temperature	Risk: Difficulty using ports and airports in low elevation areas. Also limited usable facilities.	Mid - long term	Low	High	① Work with local authorities and business partners to respond to flood and other kinds of damage ② Manage risks in coordination with the KWE Risk Management Committee

Emissions & Energy — Specific Initiatives & Topics

Decarbonizing with Electric Forklifts

Almost 75% of the forklifts required for KWE Group terminal operations are already running on battery power. We are continuing to change those still relying on fossil fuels such as gasoline, diesel oil, and LPG to electric power.

KWE Ireland has been moving ahead on replacing fossil fueled vehicles with electric-powered vehicles and rechargeable electric forklifts in order to achieve:

- Reduced operational emissions
- Reduced running costs
- Reduced maintenance costs
- A greener, healthier work environment

Power Consumption by All KWE Sites and Affiliated Companies in Japan is Now 100% Renewable Energy Sourced

We are working on a number of initiatives to reduce Scope 2 CO_2 emissions associated with our energy consumption. In March 2023 Kintetsu World Express (non-consolidated) purchased FIT non-fossil fuel energy certificates (with tracking)[*1] totaling 29 million kWh, which reduced our Scope 2 CO_2 emissions by approximately 11,600 tons[*2] in FY2022 to essentially zero. We will continue this initiative to shrink our CO_2 emissions in Japan, as well as others to reduce emissions from our business activities worldwide.

Renewable Energy Certificate

Using the Green Power Certificate System and Supporting Renewable Energy

In 2022 we purchased a Green Power Energy Certificate[*3] for 1,200,000 kWh of electric power for use at our Misato Green Warehouse in Japan. The Misato Green Warehouse is ISO 14001 certified for environmental management and has obtained LEED certification[*4] for its green roof and walls, LED lighting, and other measures to protect the environment.

Green Power Certificate

*1 FIT non-fossil fuel certificate: A certificate attesting to the environmental value of not emitting CO_2, including through electricity generated from non-fossil fuel sources such as solar power, wind power, and biomass.
*2 Greenhouse gas tonnage calculated using electric power company adjusted emission factors.
*3 The Green Power Certificate System is a framework for trading renewable energy certificates that represent the environmental value of renewable energy. Certification is conducted by the Japan Quality Assurance Organization.
*4 LEED: Leadership in Energy and Environmental Design. Certification issued by the U.S. Green Building Council based on building operations, site management, energy efficiency, and other evaluation categories.

100% Renewable Energy at Our Headquarters in Japan

Our headquarters in Japan are located in the Shinagawa Intercity in Tokyo. The building has earned superior ranking from the environmental performance Comprehensive Assessment System for Built Environment Efficiency (CASBEE) certification, and all the power consumption at this location from April 2022 onward is obtained from 100% renewable energy sources. In addition to improvements in the energy efficiency of the local area heating-cooling system, KWE switched to LED bulbs for shared lighting. Renewable energy sources for electric power, such as solar, can also be leveraged for RE100[*1], when the environmental value is certified and tracked with renewable fuel certificates[*2] leading to further reductions in our Scope 2 emissions.

Third-party Verification of GHG Emissions

In December 2022, our FY2021 GHG emissions and energy consumption figures (KWE non-consolidated) were verified by SGS Japan based on ISO14064-3:2019 standards. We will continue to ensure accuracy and reliability of our emissions data through third party verification as we move ahead on reducing CO_2 emissions.

April 1 2021–March 31 2022 Scope 1 and 2 greenhouse gas emissions and energy consumption (Kintetsu World Express (non-consolidated))

Other Initiatives Across Our Global Sites

Below are some other initiatives we are taking to reduce emissions at our facilities worldwide with the aim of decarbonizing and reducing the risks of climate change.

Narita Terminal and Penang Logistics Center

We started generating solar power for use at our Narita Terminal in 2009. From 2017 to 2019 we replaced a total of 40 warehouse air conditioners with more efficient models and updated the office air conditioning equipment in 2020, resulting in reduced CO_2 emissions.

Our Penang Logistics Center in Malaysia installed a solar power generating system in January 2023, generating enough energy to cover about 40% of the center's electricity consumption.

LED Lighting and Updated Elevators

LED bulbs are more energy efficient and have longer lifespans than their fluorescent counterparts, resulting in lower CO_2 emissions. We are now shifting to LED lighting inside all our terminals worldwide. The change reduces safety and quality risks. We are also planning to update to high efficiency elevators at No.2 Baraki Terminal and Osaka Nanko Terminal.

Narita Terminal solar power generation

Penang Logistics Center solar panels

Kintetsu Logistics Systems Yokkaichi Terminal
LED lighting

*1 RE100: A collaborative initiative in which businesses commit to 100% renewable energy for the electricity they use in their operations. By bringing together businesses as consumers, it is intended to send a signal to policymakers and investors to accelerate the energy transition.
*2 Non-fossil fuel certificate: A certificate attesting to the environmental value of not emitting CO_2, including through electricity generated from non-fossil fuel sources such as solar power, wind power, and biomass. Tracking information includes the identification of the type of energy source and the specific power plant generating the energy.

LED Lighting - FY2022

Country	Expected Reduction in Emissions
Japan[*1]	5.63t CO_2/yr
U.S.	5.48t CO_2/yr
China[*2]	14.1t CO_2/yr
Taiwan	9.51t CO_2/yr
Singapore	10.45t CO_2/yr
Malaysia	0.23t CO_2/yr
Philippines	0.89t CO_2/yr
Total	**46.29t CO_2/yr**

*1. Kintetsu Logistics Systems Yokkaichi Terminal, Kintetsu Cosmos HQ office
*2. KWE Shenzhen, KWE Zhongshan

HVO Fuel for Truck Transport

We are promoting the use of hydrotreated vegetable oil (HVO) fuel for trucks to reduce our Scope 3 CO_2 emissions. The use of HVO vegetable and waste cooking oil as a sustainable, non-fossil fuel for trucking has many benefits:

- Up to 90% reduction in GHG emissions compared to conventional diesel fuel
- Functions well in every kind of diesel engine, without modifications
- HVO is odorless, contributing to a pleasant working environment
- Easy to use in lower temperatures with reduced exhaust outputs
- Easy to store without diminished quality
- Helps reduce noise levels by 1 - 3 dB at all times compared to conventional fuel

The widespread use of this type of alternative fuel is advancing, particularly in Europe. We are promoting the use of HVO to reduce our Scope 3 CO_2 emissions.

Truck transport using HVO

KWE Benelux started providing HVO fueled truck transport to major high-tech customers in February 2023, reducing trucking emissions by 90%.

Reusable Containers and Matching Services

We are promoting reusable container use and matching service for sea freight to help reduce Scope 3 emissions. Reusable containers in this context means using empty import containers for export from the destination instead of immediately returning them to the origin. This technique reduces the cost of shipping and the burden on the environment. Container matching services find the optimal match between an empty container and export cargo, facilitating container reuse.

KWE Indonesia was able to reduce annual GHG emissions by 35 tons in FY2022 by reusing contains with the help of matching services. We will roll out the use of this technique to more sites worldwide to reduce our Scope 3 CO_2 emissions.

Container Matching Services

After arrival, imported freight is devanned[*3] at customer site A

The empty container is moved to customer site B, matched to optimal export cargo and then exported

*3 Devanning: Unloading a container

Promoting Shift to Rail Transport

Shifting shipping transport modes from air, sea, and truck to rail where possible is an effective way to reduce KWE's Scope 3 CO_2 emissions . In May 2021, KWE Japan began actively pursuing domestic rail shipping options, both to reduce environmental impacts and to secure domestic cargo capacity.

In collaboration with Japan Freight Railway Company, we provided rail transport to a customer in July 2022 that had previously been using trucking to ship from Tokyo to Niigata. This solution was possible in light of increasing awareness of the importance of decarbonization, and as a way to address the 2024 problem[*1] concerning trucking in Japan. The customer was eager to collaborate, stating that they wanted to help fulfill their social responsibility as a corporation, despite lead times for rail being longer than those associated with trucking. Niigata is about 350 km away from the Port of Tokyo. Using rail instead of trucking between these locations reduced per-shipment emissions by 75%. We will continue to actively offer our customers the option of rail instead of truck for long-distance transport in order to reduce Scope 3 CO_2 emissions.

Rail transport (terminal station image)

*1. 2024 problem: Truck driver overtime will be limited starting in 2024 by the Work Style Reform Law, creating problems for the logistics industry.

KWE CO_2 Calculator

The KWE CO_2 Calculator went online in June 2022, providing customers with estimated CO_2 emissions for their air and sea shipments and helping to visualize Scope 3 emissions, as part of our worldwide decarbonization efforts. The online calculator uses data from EcoTransIT World provided by IVE mbH[*2], using shipment origin, destination, and cargo volume inputs. KWE customers can enter their shipment waybill number to get an estimate. As part of its responsibility as a freight forwarder, KWE is working on setting specific targets and goals to reduce direct CO_2 emissions from its operations (Scope 1 and 2). We are also taking the first step to reduce our indirect emissions (Scope 3) that result from customer use of KWE-purchased airline and ocean carrier services by enabling the visualization of greenhouse gas emissions using the KWE CO_2 Calculator.

KWE CO_2 Calculator

*2. The EcoTransIT World CO_2 calculator provided by IVE mbH is used by over 120 international freight forwarders and other global enterprises to estimate greenhouse gas emissions attributable to cargo transport.

KWE Thailand is Recycling Resources

In June 2022 KWE Thailand joined Canon Marketing (Thailand) Co., Ltd. in a corporate social responsibility activity, presenting Canon with plastic bottle caps for its charitable recycling program. The bottle caps are recycled, after which the plastic is re-processed to make items like tableware. These items are then donated to orphanages or for other charities. In October 2022, KWE Thailand donated plastic drink bottles to a Buddhist temple that is in charge of a recycling program to help protect the environment and recover resources. The plastic bottles are made into synthetic fiber which is used to make clothing or and small cloth items. KWE Thailand will continue participating in these kinds of activity in the future and increase its efforts to recycling resources.

Canon Marketing (Thailand) and KWE Thailand employees

Plastic bottles collected for recycling

Reduced Use of Paper

KWE is actively reducing the use of paper documents in its operations. This initiative serves not only to reduce the environmental impact of operations but also to improve service quality with reduced operation times, higher employee and customer satisfaction, and more business in the future.

Kintetsu World Express in Japan has been working on digitizing internal forms and procedures since 2021. The company is seeing positive results from improved efficiency while saving over 50,000 sheets of paper annually.

KWE recently performed a trial run of automatically select documents to the customer in electronic format instead of paper. This trial resulted in clear benefits including fewer delays at KWE and fewer reminders from customers. "Going paperless" also creates the opportunity to streamline verification and other manual operations as well, for even higher quality in the future.

Business Cards from More Sustainable Material

In October 2021 Kintetsu World Express in Japan changed to business cards made from the limestone based material Limex* instead of paper. Using Limex saves 10 liters of water for every box of 100 cards compared to paper, and unused cards - for example, due to HR transfers - can be recycled into new cards. This helps raise awareness of global warming and other environmental issues among employees as well as contribute to KWE's sustainability efforts.

Business card printed on Limex

* Limex was developed and is produced and distributed by TBM Co., Ltd.

Biodiversity

KWE Thailand Participates in Wild Bird Protection and Tree Planting

In October 2022 KWE Thailand participated with Canon Marketing (Thailand) in a joint corporate social responsibility activity with the Bird Branch Project to protect wild birds at the Si Nakhon Khuean Khan Botanical Garden in the outskirts of Bangkok. KWE employee constructed birdhouses from recycled wooden pallets donated to the botanical garden. Over 70 participants, including 9 from KWE Thailand, put up birdhouses around the botanical garden, planted trees, and fertilized the land. KWE Thailand intends to continue participating in these kinds of activities to promote biodiversity.

Bird Branch Project

Emissions & Energy — Upcoming Initiatives

Participating in SAF Programs to Reduce Scope 3 CO_2 Emissions

To fulfill our responsibility as a freight forwarder, we are addressing Scope 3 emissions by expanding our participation in sustainable aviation fuel (SAF*1) programs. Scope 3 emissions account for the large majority of our emissions profile.

*1 Sustainable aviation fuel (SAF) is produced from dry biomass, waste cooking oil, animal fat, and other replenishable resources, reducing life cycle CO_2 emissions by approximately 80% compared to conventional jet fuels.

SAF Program Participation and Scope 3 Emissions Reduction Projects

Date	September 2021 October 2022	April 2022	October 2022	March 2023
Business partner	All Nippon Airways	Cathay Pacific Airways	Lufthansa Cargo AG	Shell Aviation
Program	SAF Flight Initiative: For the Next Generation	Corporate SAF Pilot Programme	Sustainable Choice - Bulk Agreement	SAF Book-and-Claim Pilot Program
Highlight	KWE used the first SAF cargo flight out of Japan	The first full-scale corporate customer SAF program in Asia (both passenger and cargo)	100% carbon neutral transport accounting for emissions from fuel production to departure airport	Uses blockchain technology to ensure secure allocation of SAF's environmental attributes to companies and airlines

Promoting SAF Use in the Future

Air freight accounts for just under 50% of KWE Group consolidated net sales, but it is the majority contributor to our emissions profile. We will continue actively leveraging SAF programs to reduce our Scope 3 emissions and to provide our customers with low carbon options.

At this time the Japanese SAF program business model, that KWE is a part of is still undeveloped compared to European and the U.S. markets. We are taking several different approaches in the industry in Japan and neighboring countries.

As part of our creative effort, in February 2023, we participated as a forwarding industry representative in a SAF symposium panel discussion held by the Ministry of Land, Infrastructure, Transport and Tourism and the Agency of Natural Resources and Energy. The panel discussed the future of aviation decarbonization, with regards to SAF, and KWE offered our opinion and discussion points on the presented issues.

Left: Toshiya Teramoto, Sustainability Group, Corporate Planning and Administration, speaking as a representative of the forwarding industry.
Right: The lively panel discussion on the topic of what is needed to increase opportunities for SAF use.