

# ENVIRONMENT

## Management Approach

### Make positive contributions to climate change, resource recycling, and biodiversity as a logistics company

We are pursuing the mitigation of climate change through the reduction of greenhouse gas emissions from our business activities, and are committed to emergency transport in the event of a disaster or other contingencies, regarding it as the responsibility of a designated public institution. Through our business activities, we are also proactive in recycling resources and protecting biodiversity.



#### Main ESG Issues

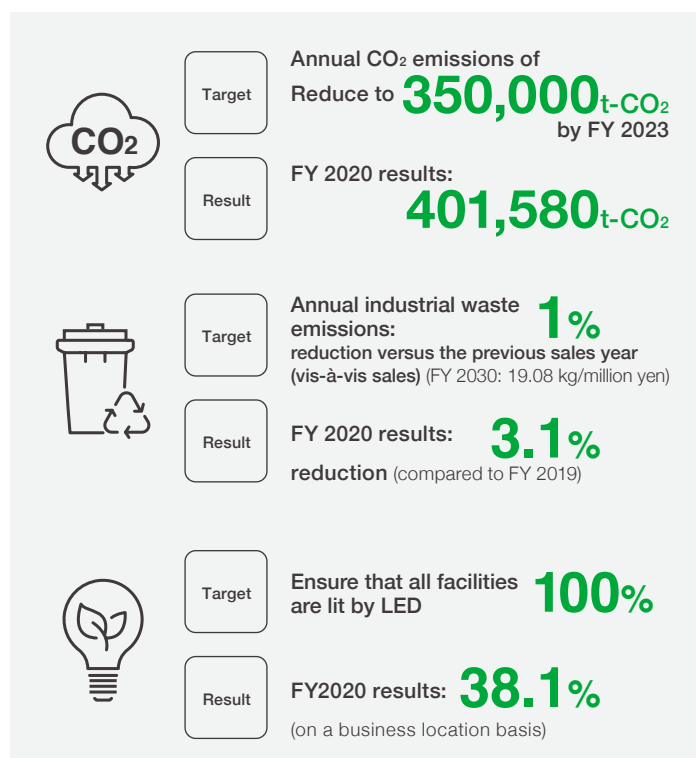
- Addressing Climate Change
- Recycling of Resources
- Preventing Pollution of the Atmosphere, Soil, Etc.
- Appropriate Use of Water
- Preserving Ecosystems

#### Specific Topics

- Environmental management
- Reduce CO<sub>2</sub> emissions by reinforcing controls on climate change
- Provide logistics technologies and services with little environmental impact
- Strengthen adaptive capacity and resilience in the face of climate change
- Promote resource recycling
- Protect terrestrial and marine ecosystems

#### The Nippon Express Group's Approaches

- Reduce greenhouse gas emissions by facilitating the shift to LED, introducing eco-friendly vehicles and encouraging modal shifts and eco-driving
- Save resources by promoting the 3Rs and increasing the number of eco-friendly products and services
- Thoroughly prevent the cross-border movement of non-native species in compliance with relevant ordinances and treaties



## Environmental Management

### Nippon Express Group Environmental Charter Policies and Targets

The Nippon Express Group focuses particularly on the Nippon Express Group Charter of Conduct. We have the Nippon Express Group Environmental Charter in place for the whole Group to fulfill our responsibilities to the Earth's environment.

Please see our website for details of the Nippon Express Group Environmental Charter.

Environmental Charter | Nippon Express <https://www.nipponexpress.com/about/csr/charter/>

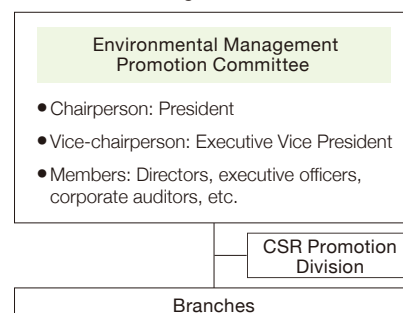
### Promotion of Environmental Management Organizations and Systems

The Group is working to implement environmental management in accordance with the Nippon Express Group Environmental Charter. We have established the Environmental Management Promotion Committee, which is chaired by the president, to create a cross-organizational framework for promoting environmental management throughout the Group. We are also working on risk management.

### Environmental Management System Organizations and Systems

To further advance activities for environmental conservation, the Nippon Express Group's offices are working to obtain ISO 14001 certification, the international standard for environmental management systems, and Green Management Certification, a certification system for transportation companies that have implemented initiatives for environmental conservation.

Organizational structure for promoting environmental management



### • Obtaining Green Management Certifications

Numerous offices throughout the Nippon Express Group have been obtaining Green Management Certification, which is granted to companies that engage in business with a minimal environmental impact. As of the end of March 2021, 35 Nippon Express trucking offices and three warehousing offices have received this certification. Among Group companies, 16 trucking offices have been granted Green Management Certification.

### • Increasing ISO 14001-certified Business Locations

Since the Air Freight Business Branch received ISO 14001 certification for its operations in the Baraki area (Ichikawa, Chiba Prefecture) on June 24, 1998, 21 Nippon Express Group business locations in Japan and overseas have been similarly certified as of March 2021.

\*For the names of the locations, please see our website.

## Environmental Targets Policies and Targets

We have been working on environmental management by setting long-term targets for 2030, and we have decided to move up the target year for CO<sub>2</sub> emissions to strengthen our efforts. We will also consider setting a new long-term target consistent with the Japanese government's 2050 Carbon Neutral Declaration and 46% emission reduction target for FY2030 (compared to FY2013), based on recent international trends and regulations on climate change.

### • Reduce annual carbon dioxide emissions to 350,000t-CO<sub>2</sub> by FY2023

\*This is a non-consolidated target. The target up until now was a 30% reduction from FY2013 levels by FY2030.

### • Reduce industrial waste generation vis-à-vis sales each year by 1% from the previous year (until FY2030)

\*This is a non-consolidated target.

**FY2016 standard value: 21.96 kg/million yen**

**FY2030 target value: 19.08 kg/million yen**

\*See page 6 for the results from FY2020.

## Reduce CO<sub>2</sub> Emissions by Reinforcing Controls on Climate Change

### Our View on Climate Change Policies and Targets

The Nippon Express Group recognizes climate change as a social issue of global scale.

Abnormal weather resulting from climate change may pose obstacles to logistics infrastructure by causing the suspension of flight, shipping and railway services and the closure of highways. Worse, it may lead to an increase in our operating costs. Abnormal weather may also bring about decreases in production and shipment quantities for our clients, possibly leading to decreases in the amount of cargo we handle and our profits.

By securing two or more modes of transport, the Nippon Express Group will enhance the resilience of its operations against climate change. We will also work in cooperation with clients to make modal shifts from joint logistics and truck-centered transport to ships, railroads and other modes of transport with a low impact on the environment.

### Using the NEES System to Visualize Energy Use Organizations and Systems

Nippon Express has used its proprietary Nittsu Ecology & Economy System (NEES) to visualize energy since 2011. This system keeps us accurately updated on the consumption of diesel oil, electricity, gas and other forms of energy at approximately 2,000 business locations in Japan. NEES has enabled each of our business locations to run an environmental management system and take steps to reduce energy use. As a direct result of our efforts to save electricity and other forms of energy, the data collected have proven useful in disclosing information outside the Company and formulating new energy conservation targets.

### Accurately Controlling Fluorocarbons Organizations and Systems

Fluorocarbons not only harm the ozone layer but also have an extremely high greenhouse effect. Nippon Express strives to preserve the ozone layer and prevent global warming by reducing CO<sub>2</sub> emissions and accurately controlling fluorocarbons. There were no major leaks in 2020.

### • ECO-FREONTIA® Fluorocarbon Management System

The Act on Rational Use and Proper Management of Fluorocarbons ("Fluorocarbons Management Act") came into force in April 2015. We comply with the Act by operating ECO-FREONTIA®, our proprietary system for controlling fluorocarbons, in an effort to prevent the leakage of fluorocarbons.

This system prevents the omission of inspections and calculates the volumes of leaked fluorocarbons from the inspection data by creating a database of information about the professional-use freezers, refrigerators and air conditioners (Class I Specified Products) that are regulated under the Fluorocarbons Management Act and by sending out e-mail alerts whenever the relevant equipment undergoes a simple or periodic inspection.

### Environmentally Friendly (Low-emission) Vehicles Activities and Achievements

Nippon Express actively introduces environmentally friendly vehicles that mainly include low-emission diesel trucks such as those complying with the post-new long-term regulations, as well as CNG, hybrid and LPG trucks. As of March 31, 2021, the Nippon Express Group has a domestic fleet of 12,076 such vehicles in total.

## • Compressed Natural Gas (CNG) Trucks

The same natural gas as that for use in city gas is compressed under high pressure to fuel CNG trucks. This type of vehicle emits 20% to 30% less CO<sub>2</sub> than gasoline-fueled cars. Moreover, CNG trucks emit far fewer NOx\*1 than diesel cars and emit no PM\*2.

\*1 NOx: nitrogen oxides. \*2 PM: particulate matter.

## • Bi-fuel CNG Trucks

Mainly used for air cargo deliveries and the transport of valuables, these modified vehicles run on both CNG and regular gasoline. Once the CNG has been used up, the motor can be manually switched to gasoline.

## • Hybrid Trucks

Hybrids combine different forms of motive force, such as ordinary engines and electric motors. The energy created by the engine or braking is converted to electricity and stored to provide an auxiliary driving force when starting, accelerating or climbing.

## • LPG Trucks

Equipped with engines fueled with liquefied petroleum gas, LPG vehicles are commonly used as taxis. LPG trucks emit far fewer NOx than diesel cars and emit no PM.

## Increasing the Number of Environmentally Friendly Facilities Activities and Achievements

The Nippon Express Group is increasing its number of environmentally friendly facilities. In fiscal 2020, we generated 6,838,916.04 kWh from recyclable energy (6,744,387.04 kWh from solar power and 94,529.00 kWh from wind power). In addition, the Nippon Express Group has developed standards for the installation of equipment that are applicable to the construction of logistics facilities and offices. The standards require our equipment to be more effective in utilizing recyclable energy and reducing greenhouse gases by promoting LED use, reflect our consideration for biodiversity, enhance the safety and health of staff members and people in the neighboring communities and contribute to the continuation of our business operations.

## • Environmental Considerations in the Nippon Express Group Integrated Hub Building

The Nippon Express Group Integrated Hub Building was completed in December 2019, based on the concepts of an earthquake-proof structure to ensure the safety of the building, and a functional and comfortable environment for offices featuring excellent energy-saving performance. It boasts a cutting-edge structure with advanced eco-friendly equipment, including private electric generators, a photovoltaic facility and a building energy management system (BEMS).



## Provide Logistics Technologies and Services with Low Environmental Impact

## Promotion of Modal Shift Activities and Achievements

The Nippon Express Group facilitates cooperation between customers and logistics companies to make numerous modal shifts, switching from truck-centered transport to transport using railways and ships. Modal shifts to organically link different modes of transport such as trucks, trains, ships and aircraft reduce the environmental impact and make transport more efficient, and they also provide alternatives within business continuity plans (BCP).

## • Modal Shift to Rail Transport

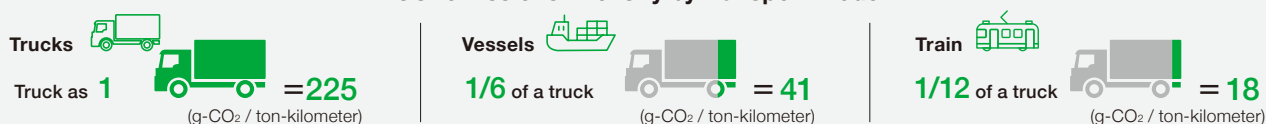
The larger the cargo volume and the longer the distance it is hauled, the more efficient and reliable railway transport is found to be in comparison to truck transport. Being eco-friendly and highly energy-efficient, rail transport is effective in reducing CO<sub>2</sub> emissions. By working with customers to make modal shifts to secure and reliable railway transport across a wide range of cargo from bulk to small lots, we address driver shortages and social challenges such as the reduction of environmental impact.

As part of our commitment to the reduction of our environmental impact, we also focus on visualization. Rail Container NAVI, our proprietary service for rail container information, allows for the checking of CO<sub>2</sub> emissions and energy consumption during the use of rail transport. CO<sub>2</sub> reduction effects can be simulated on our website simply by entering where cargo will be picked up and its destination. We have also developed 12-foot hybrid containers that can be loaded onto both trains and coastal vessels, and we offer a transport service using railroads and ships to control the impact on the environment.

## • Modal Shift to Domestic Marine Transport

Maritime transport is a mode of low-cost, long-haul transport for large cargo volumes, and it has a low impact on the environment. In 1964, the Nippon Express Group put Japan's first container vessel, Dai-ichi Tennichi Maru, into service between Tokyo and Muroran, followed by Dai-ni Tennichi Maru between Osaka and Muroran, thereby launching integrated land and sea transport services. The Group currently operates five large state-of-the-art vessels, including Himawari 8 and Himawari 9, which were launched in September and December 2017 respectively, along two scheduled routes that serve eight ports around Japan. Cargo departing from and arriving at locations far inland from the port is transported in conjunction with rail transport in an effort to reduce CO<sub>2</sub> emissions from fuel consumption.

### CO<sub>2</sub> emissions intensity by transport mode



Source: "CO<sub>2</sub> emissions in the transportation sector" from the Ministry of Land, Infrastructure, Transport and Tourism website  
[https://www.mlit.go.jp/sogoseisaku/environment/sosei\\_environment\\_tk\\_000007.html](https://www.mlit.go.jp/sogoseisaku/environment/sosei_environment_tk_000007.html)

## Encouraging Eco-driving Activities and Achievements

Aiming to reduce the environmental impact of truck transport, we encourage eco-driving to curb CO<sub>2</sub> emissions and fuel consumption, and are committed to improvements in safety.

### • Safe Eco-driving Education

We have incorporated safe eco-driving, which is characterized by the constant practice of safety, ecology and economy, into the curricula for all types of driver training. By continuing these training programs, we strive to ensure that all Nippon Express drivers engage in safe eco-driving.

The eco-driving training uses fuel consumption gauges and, to heighten employee awareness of safety, the environment and cost, Nippon Express has been certified as an eco-driving training organization by the Foundation for Promoting Personal Mobility and Ecological Transportation.

### • Digital Tachographs

Nippon Express uses the Operation Support System that links digital tachographs with work terminals (smartphones) to perform vehicle operation management, operational activities such as loading and attendance management.

We are also pairing IoT technology with our unique education and training to eliminate traffic accidents and cut CO<sub>2</sub> emissions through greater fuel efficiency.

Rate of introduction of digital tachographs	
Nippon Express Co., Ltd.	100 %
Branch operating companies	93.2 % (as of the end of March 2021)

## Top Industry Share in Transporting and Installing Wind Power Generators Activities and Achievements

Nippon Express occupies a top share, nearly 70%, in the domestic market for transporting and installing wind power generators. We greatly contribute to the popularization of renewable energy in Japan. Also, we will suitably support offshore wind power generation, which is expected to expand.

## Strengthen Adaptive Capacity and Resilience in the Face of Climate Change

### Social Responsibility as a Designated Public Institution Organizations and Systems

Nippon Express is a designated public institution in the transport industry under the Disaster Countermeasures Basic Act, the Citizens Protection Act (Act Concerning Measures to Protect the Public in Cases of Armed Attack), and the Act on Special Measures for Pandemic Influenza.

At the time of the torrential rain disaster that occurred in July 2020, we transported emergency supplies such as food, beverages, temporary toilets, and air-conditioning equipment to Kumamoto Prefecture, which suffered extensive damage, based on a request from the government.

Nippon Express has developed its crisis management and various other systems so that it is capable of continuing its business operations while safeguarding the lives and safety of employees and their families even during an emergency. Nippon Express fulfills its social responsibility as a designated public institution by transporting emergency supplies amongst other responses at the request of the national or prefectural governments.

### Strengthened Resilience at Logistics Hubs Activities and Achievements

Tokyo C-NEX, Nippon Express' largest logistics hub located in Koto-ku, Tokyo, has an earthquake-proof structure and a large emergency power generator to ensure that, in the event of a blackout, electric power can be used for eight hours per day for three days. This will facilitate the early restoration of logistics functions after a large-scale disaster.



## Promote Resource Recycling

### Perspective on Resource Recycling Policies and Targets

The Nippon Express Group has been reducing the waste generated through its business activities and advancing the 3Rs (reduce, reuse, and recycle) with the objective of realizing a recycling-based society. In particular, the Nippon Express Group focuses its efforts on reducing the waste from its business locations as well as thoroughly sorting paper and other waste for easy recycling.

### Resource Recycling Activities and Achievements

Nippon Express undertakes the transport of waste, which plays a role in resource recycling. Using rail and marine containers, we engage in the wide-area transport of mercury waste from municipalities and companies around the country to disposal contractors. In addition, PCB (polychlorinated biphenyl) waste entails significant hazards and its transport to disposal facilities must be carried out by trained personnel.

Using rail containers which have a low environmental impact, we performed wide-area transport of enormous amounts of waste resulting from the Great East Japan Earthquake, the Kumamoto Earthquake, the Reiwa 1 East Japan Typhoon and other recent disasters.

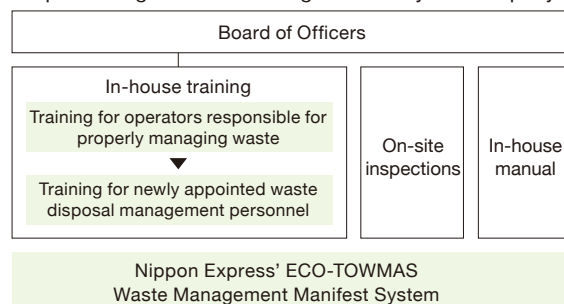


## Reducing and Properly Managing Waste Organizations and Systems

### • Waste Management System

To properly manage waste, Nippon Express shares information regarding waste with the Board of Officers and disseminates instructions. In addition to providing in-house training and conducting work site inspections, Nippon Express uses a system of managing waste manifests to confirm that the waste generated by the Company is being disposed of properly. In October 2002, because of a violation of the Waste Disposal Act, Nippon Express received a severe penalty, with its designation as a wide-area recycling industrial waste processor revoked by the Ministry of the Environment. To prevent such errors from recurring in the future, Nippon Express has strengthened its structures and is committed to properly managing the waste generated by the Company through means such as establishing a system and conducting training for all employees. There were no major leaks in 2020.

### Proper management of waste generated by the company



### • Release Amounts Subject to Notification Under the PRTR Act

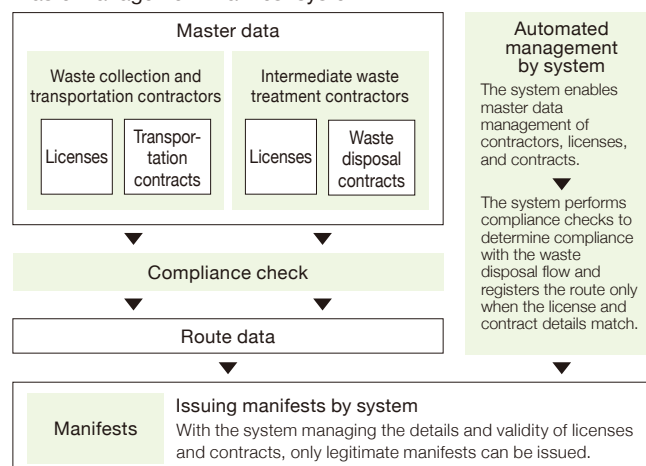
Although none of Nippon Express' business locations are required to submit notifications under the Act on Confirmation, etc., of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (the "PRTR Act"), business sites that handle chemical substances subject to the Act are listed on the environment data page.

### • ECO-TOWMAS® Waste Management Manifest System

Since October 2014, Nippon Express has been employing the ECO-TOWMAS® Waste Management Manifest System to properly manage industrial waste generated by the Company. When Nippon Express' business locations dispose of industrial waste, ECO-TOWMAS® automatically performs compliance checks to determine whether the disposal is being properly outsourced by comparing the information entered at the locations with the license and contract details of the company to whom disposal is to be entrusted. If ECO-TOWMAS® determines that there is a lack of compliance, the system will not issue manifests.

ECO-TOWMAS® also supports electronic manifests. After the Company transitioned to electronic manifests, the use rate of electronic manifest routes reached 99.3% and the issue rate of electronic manifests was 93.1% as of March 2021.

### Waste management manifest system



## Environmentally Friendly Products Activities and Achievements

Nippon Express makes active use of reusable materials (packing materials that can be used repeatedly) in its moving services, thereby achieving environmentally friendly removals operations. Using its own original reusable tableware trunks, Nippon Express can transport tableware by simply placing it inside the cushioned trunks. This results in no newspaper or cardboard boxes being used, reducing waste when moving. Furthermore, the reusable tableware trunks enable rapid moving and have a good reputation among customers.



Reusable protection material for moving operations (tableware trunk)

## Protect Terrestrial and Marine Ecosystems

### Preventing Alien Species from Crossing Habitat Boundaries Organizations and Systems

Nippon Express makes the utmost efforts to prevent the unexpected transportation of alien species that threaten ecosystems, human lives, agriculture, forestry and fisheries.

Each Nippon Express business location takes extra care to keep out invasive alien species such as fire ants based on information provided by the Ministry of the Environment, the Ministry of Land, Infrastructure, Transport and Tourism, and local governments. However, if alien species are detected, Nippon Express cooperates with the relevant locations and shipping customers in immediately exterminating the alien species and handles the fumigation of the containers.

In case an invasive alien species poses a hazard, Nippon Express establishes packing-unpacking procedures specific to the shippers and regions concerned. Whenever such an alien species has been found, work processes will be immediately stopped and appropriate measures, such as extermination, will be taken.

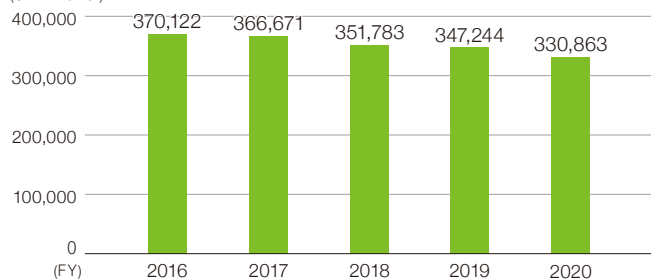
### Conservation of Marine Ecosystems Organizations and Systems

For the conservation of marine ecosystems, Nippon Express tries to reduce emissions of contaminated water, waste, ballast water and other pollutants from our ships into the sea. Himawari 8, one of our ships, is equipped with a marine instrument from an incorporated nonprofit organization, VOS Nippon, to provide salinity, temperature and pH measurements of the water along the coasts of Japan. The data is used to make forecasts of meteorological, hydrographic and fishing conditions and for research on ocean currents, biological environments and other phenomena in coastal waters.

## Environmental Data

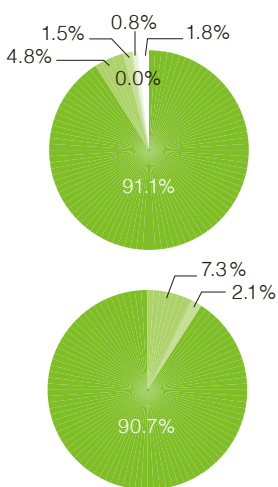
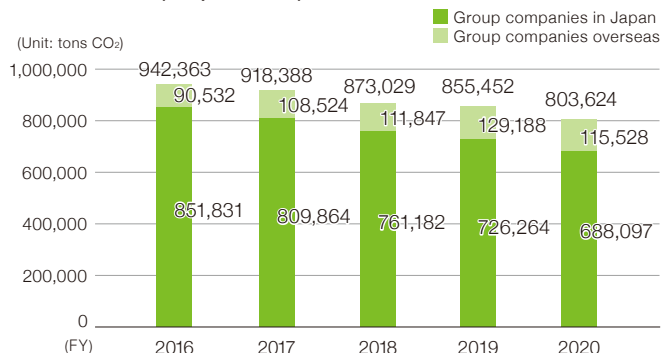
### Energy consumption in Nippon Express Group (crude oil equivalent)

(Unit: kiloliter)



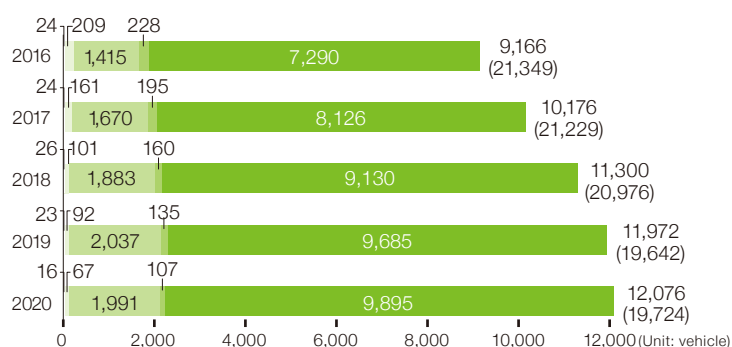
\*1 The data shown here aggregate the energy consumption by Nippon Express and its consolidated companies in Japan and overseas (equivalent to Scope 1 and 2).  
\*2 For natural gas, 13A city gas (heat value of 45 GJ/thousand cubic meters) applies.

### CO<sub>2</sub> emissions (Scope 1 and 2)

(Unit: tons CO<sub>2</sub>)


### Number of eco-friendly vehicles owned (Group companies in Japan) (As of March 31 for each fiscal year)

Electric vehicles CNG trucks Hybrids LPG trucks  
Vehicles conforming to the new long-term regulations or post-new long-term regulations



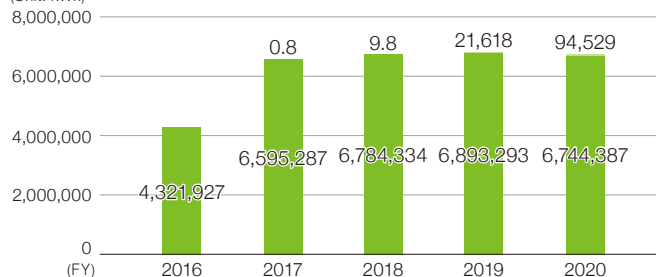
\*4 The parenthesized figure represents the total number of vehicles owned.

\*The calculation method for vehicles that comply with the new long-term regulations and post new long-term regulations has been revised and, in addition to vehicles that meet the existing heavy-duty vehicle fuel efficiency standards, vehicles that meet +5%, +10%, or +15% of the heavy-duty vehicle fuel efficiency standards are included. Similarly, the number of units before FY2020 has been revised.

### Power generated from renewable energy resources (FY2020: Group companies in Japan)

Solar power generation Wind power generation

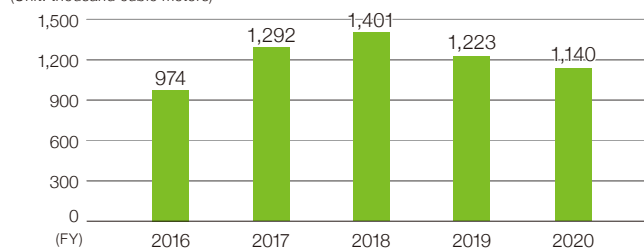
(Unit: kWh)



\*3 Renewable power generation, electricity used in-house and electricity sold are not included in the Nippon Express Group's energy use.

### Water usage

(Unit: thousand cubic meters)

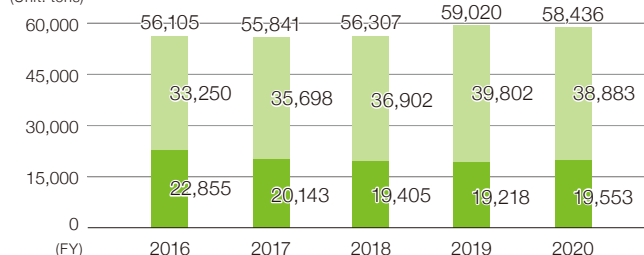


\*5 Data for Nippon Express on a non-consolidated basis until FY 2017, and for the domestic Group total from FY 2018 onward

### Waste volume (Group companies in Japan)

General waste Industrial waste

(Unit: tons)



### LED lighting for facilities

(Nippon Express Co., Ltd. only)

	Unit	FY 2018	FY 2019	FY 2020
Based on offices	%	21.8	33.1	38.1

### PRTR-related emissions of notifiable substances

(FY2020: Nippon Express)

Business segment	Number of offices	Total amount of substances handled (kg/year)	Main substance name	Main use
Targeted business category but amount handled is below the threshold subject to notification	5	229	Fenitrothion	Insecticide and insect control in warehouses
Not reportable business category but office uses reportable substance	13	9,422	Methyl bromide	Fumigation work in operations incidental to import customs clearance

**Fluorocarbon Management Act**

(FY2020: Nippon Express)

(Act on Rational Use and Appropriate Management of Fluorocarbons)

	Applicable equipment (number of systems)
Class I specified products	9,290

Types of fluorocarbon	Actual leakage amount (kg)	Calculated leakage amount (tons CO <sub>2</sub> )
R410A	269	563
R401A	20	24
R407C	4	7
Total	—	595

**• Third-party verification of CO<sub>2</sub> emissions data**

Nippon Express commissioned SGS Japan Inc. to conduct third-party verification of CO<sub>2</sub> emissions data (CO<sub>2</sub> emissions from fossil fuel use in Japan) for FY2019 based on ISO 14064-3:2006.

We are planning to obtain third-party verification also on CO<sub>2</sub> emissions data for FY2020.

We will ensure accuracy and reliability by receiving verification from a third party and will continue to work on further reducing CO<sub>2</sub> emissions.

Please see our website for details of the Third Party Verification Report.  
[https://www.nipponexpress.com/pdf/about/csr/environment/co2\\_emission.pdf](https://www.nipponexpress.com/pdf/about/csr/environment/co2_emission.pdf)