

On the Environment and Climate Change



The Nichirei Group has devised the Nichirei Group Environmental Policies focused on three priority issues: prevention of global warming, promotion of sustainable recycling, and living in harmony with nature.

Since Group activities span the entire supply chain—food factories, logistics centers, and other worksites—it must play a part in the environmental initiatives and activities of both its customers and business partners.

At the same time, the Group is aware of the substantial impact that climate change is having on its business, as its support of food-related infrastructure depends on natural ecosystems for raw materials. Accordingly, the Group and its business partners undertake the following:

- Use energy efficiently in the production of food products
- Cut greenhouse gas emissions by using more efficient temperature-controlled storage and transportation
- Promote the use of renewable energy, from procurement and production, through to storage, logistics, and sales

- Nichirei Group Environmental Policy <https://www.nichirei.co.jp/english/csr/environment/concept.html>
- Nichirei Group Bio-diversity Policy
- Environmental management system <https://www.nichirei.co.jp/english/csr/environment/system.html>

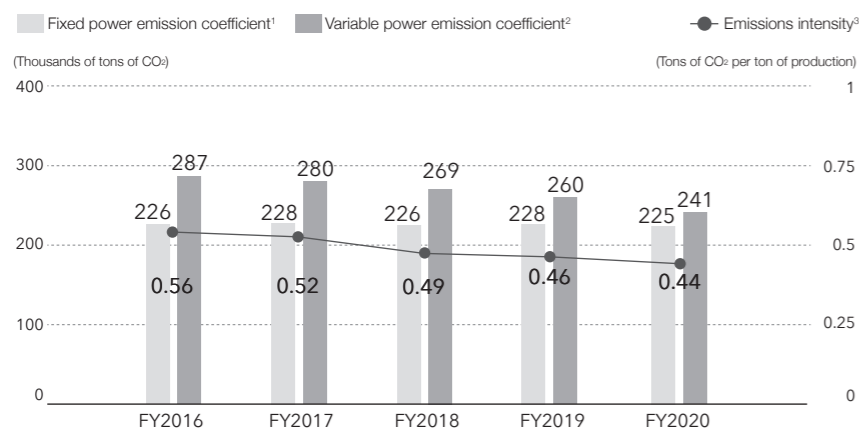
Long-term Environmental Goals and Low-carbon Policies

We will implement low-carbon policies in response to one of the material matters (see page 15) and in pursuit of our long-term environmental goals. We will actively implement the three measures during the 10-year span extending from 2021 through 2030.

Having endorsed TCFD recommendations, the Nichirei Group is promoting the following low-carbon policies

Pillar of low-carbon policy	Overview	Target scope
1 The establishment of long-term CO ₂ reduction goals	30% reduction in CO ₂ emissions (compared to fiscal 2016) in Japan, Scope 1 and 2 in 2030	Japan Scope 1 and 2
2 The promotion of CO ₂ reduction countermeasures overseas	<ul style="list-style-type: none"> • Promote data collection and other efforts at overseas worksites • Review and promote CO₂ reduction countermeasures at overseas worksites 	Overseas Scope 1 and 2
3 The promotion of CO ₂ reduction countermeasures within Scope 3	<ul style="list-style-type: none"> • Promote data collection and other efforts within Scope 3 • Review and promote CO₂ reduction countermeasures within Scope 3 	Scope 3

Nichirei Group CO₂ Emission Trends



Notes:

1. Fixed power emission coefficient: The CO₂ emission intensity unit of 0.412 [t-CO₂/MWh] announced by the Federation of Electric Power Companies of Japan in FY2010, used nationwide.
2. Variable power emission coefficient: Power conversion coefficient used by power companies in fiscal year utilized at each worksite.
3. Scope of power emission intensity: Nichirei Foods (Nichirei Foods-operated factories and affiliated factories in Japan) and Nichirei Fresh (affiliated factories in Japan). Excluding the following factories: Nichirei Foods: Nichirei Ice Inc.; Nichirei Fresh: Nichirei Fresh Farm Inc., Fresh Chicken Karumai Inc., Fresh Meat Sakudaira Inc.

Renewable Energy

■ Purchase of Green Energy

As it promotes the use of renewable energy, the Nichirei Group has installed solar power generation equipment in plants, refrigerated warehouses and other facilities, while purchasing Renewable Energy Certificates (RECs).* Each year since 2007, we have purchased certificates worth one million kilowatt hours (kWh) in biomass-generated power.

In addition, since March 2020, Nichirei Foods has purchased ten million kWh worth of RECs to cover all the electricity used to power production lines for *Honkaku-Itame Cha-Han* (fried rice).



* These represent units of environmental value (e.g., the reduction of CO₂ emissions resulting from the generation of electricity by using renewable energy sources) that can be bought and traded, allowing certificate owners to claim to have purchased electricity generated using renewable energy sources (offsetting).

■ Solar Power Generation

The Nichirei Group has installed solar power generation equipment at all its Group companies. In FY2020, the equipment generated 2,068,000 kWh of electricity and helped reduce CO₂ emissions by 1,003 tons.

Company	Locations
Nichirei Foods	<ul style="list-style-type: none"> • Funabashi Plant • Nichirei Ice Inc.
Nichirei Logistics Group	<ul style="list-style-type: none"> • Sugito DC • Matsue DC • Kushiro DC • Sakishima DC • Kyokurei Inc. Daikoku DC
Nichirei Biosciences	<ul style="list-style-type: none"> • Global Innovation Center

Chlorofluorocarbon (CFC) Initiatives

■ Natural Refrigerants and Leakage Prevention

The Nichirei Logistics Group uses natural refrigerants in both new refrigerated warehouses and facilities that it enlarges, while encouraging the replacement of equipment that uses CFC refrigerant with that which uses natural refrigerant.

In addition, since FY2014, we have stepped up inspections at distribution centers nationwide to reduce refrigerant leakage from refrigerators and introduced highly sensitive detectors that are 10 times more accurate than conventional sensors.

Since September 2018, in collaboration with Hitachi, Ltd., we have been testing methods of predicting and diagnosing refrigeration equipment failure. We have done this at our Funabashi DC, using cutting-edge IoT technology to enhance the operation of equipment and maintenance efficiency.

By visualizing energy consumption data and analyzing operational improvements, refrigeration equipment can be more efficiently operated.

■ Receives Special Review Committee Award

Nichirei Logistics Engineering Inc. (representative director, president: Tsutomu Ito), which handles engineering operations for Nichirei Logistics Group Inc., won the Special Review Committee Award in the 22nd Protect the Ozone Layer, Prevent Global Warming Awards sponsored by the NK Industrial Research Institute, operated by the Nikkan Kogyo Shimbun, Ltd.

The award was received on September 12, 2019, in recognition of efforts to reduce CFC leaks and environmental impacts through the use of systems that predict and diagnose refrigerant leaks.

In addition to further reducing our environmental footprint and responding to customer demands, we plan to better oversee refrigeration equipment maintenance and repair plan proposals, so as to provide overall support that includes recommendations for energy conservation and cost reduction through low-price purchasing.



Conceptual Diagram

