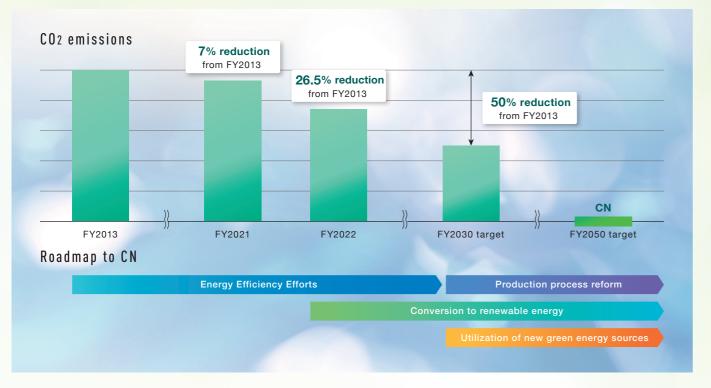
# The Challenge of Going Carbon Neutrality

As a company that conducts business using petrochemical resources, we recognize that it is a very important responsibility to go CN (Carbon Neutrality). We have set a goal of reducing CO2 emissions from our domestic business sites by 50% from the FY2013 level by FY2030, and achieving CN by FY2050.



To achieve our goals, we are promoting energy-saving activities such as fuel efficiency improvement and conversion to renewable energy as well as approaching a low-carbon society through our business.

## **Promoting Energy Conservation**

Each factories promote the reduction of fuel and electricity. At each of our plants, we are reviewing our past energy-saving activities and striving to improve fuel efficiency. Specifically, this includes fundamentally understanding the fuel usage of equipment and eliminating waste.

Procurement of renewable energy

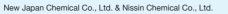
We are promoting the procurement of renewable

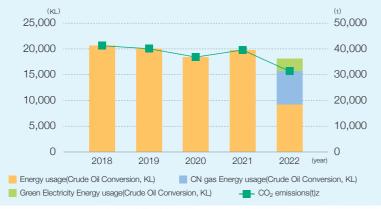
energy sources for electricity and gas used in our

manufacturing processes. We are aiming to achieve

a 100% renewable energy for electricity by FY2030.

#### Energy usage & CO<sub>2</sub> emissions





Procurement performance of renewable energy						
Plants	Kyoto Plant	Tokushima Plant	Kawasaki Plant	Sakai Plant	Kyoto R&D Center	Nissin Chemical Co., Ltd.
Green Electricity	2				1	1
CN gas	2	1		1		

\*Kawasaki Plant and Kyoto R&D Center do not use gas

# Sustainable Raw Material Procurement through RSPO Certified Oil

Together with our suppliers, we conduct procurement activities based on our CSR policy. As part of our sustainable procurement activities, we are striving for sustainable procurement of palm oil derivatives, one of our main raw materials.

Palm oil and palm kernel oil are the most commonly used vegetable oils in the world for food, cosmetics, detergents, fuel, and other applications because of their high yield per unit area and low cost compared to other vegetable oils and fats. As demand for vegetable oil increases, environmental problems caused by deforestation of tropical rainforests for plantation expansion and social problems caused by forced labor have become more prominent in Southeast Asia

We, a company that develops various products manufactured from palm oil derivatives, approved the purpose of the Roundtable on Sustainable Palm Oil (RSPO) and joined as a full member in 2015. In 2018, we obtained supply chain certification and began selling certified products.

### **RSPO Certified Products Supply Chain**

We have a supply chain for RSPO-certified products, from raw material procurement to finished products.

### Visits to supplier farms in 2022

RSPO is an initiative to ensure that the supply chain from plantation to end product is properly managed. To ensure that proper management is in place, we visited a palm plantation in Malaysia and interacted with the plantation staff.

For more details

# Research & Development

## 100% Biomass Ester Oil

We are developing 100% biomass-derived ester-based lubricants using esterification technology, which is our forte. Biomass-derived ester oils generally have low-temperature flowability issues. We have overcome this issue and have a lineup of ester oils in a wide range of viscosities from low to high viscosity.

We developed our "GREENCIZER" plasticizer series; with over 70% biomass, it has equivalent or greater cold and heat resistance than our products DOP. DINP and DUP that are made from fossil-based raw materials.





#### Voice

Last year, we visited a palm plantation in Malaysia for the first time and observed the process from harvesting palm nuts to milling at a factory. By interacting directly with the palm plantation people, we were able to realize once again that our business is supported by them.

On the other hand, however, it is also true that the strong demand for palm oil is causing deforestation and harming wild-

life. It was an opportunity for us to deeply remember that we have a responsibility to continue to contribute to the promotion of sustainable palm oil through RSPO.



## **Biomass Plasticizer**

## New crystal nucleating agent RiKACRYSTA®

RiKACRYSTA<sup>®</sup> reduces molding cooling time through its superior crystallization acceleration. This has the effect of reducing defective products and saving energy. RiKACRYSTA® will also enable horizontal recycling in material recycling, which has been difficult with current technology, and will contribute to carbon neutrality.