

**Daiseki Eco. Solution Sold Bio-Diesel Fuel to Supply for Car Carrier in the Port of Nagoya
— Bio-Diesel Fuel Manufactured from Waste Cooking Oils Recovered by the Company
and Contributing to Realization of Carbon Neutrality —**

Daiseki Eco. Solution Co., Ltd. (“the Company”) has sold bio-diesel fuel*¹ manufactured by the Company to Toyota Tsusho Corporation (“Toyota Tsusho”), a company engaged in the marine fuels business. The bio-diesel fuel (“the biofuel”) was mixed with low-sulfur Bunker C*² by Toyota Tsusho, and supplied as fuel for a car carrier operated by TOYOFUJI SHIPPING CO., LTD. (“Toyofuji Shipping”).

This initiative is implemented as part of “Survey toward promotion of coastal carbon neutrality” in the supplementary budgets related to Ministry of Land, Infrastructure, Transport and Tourism for 2021 (passed on December 20, 2021).

1. Background and the initiative

It is said that the amount of waste cooking oils generated is approx. 400,000 tons per year in Japan, among which approx. 10,000 tons per year are domestically recycled into fuel like the above. The waste cooking oils are used most for feed materials, which amounts to approx. 200,000 tons, followed by approx. 120,000 tons for export, and approx. 50,000 tons for industrial materials. (*³)

This initiative is supposed to contribute to the realization of carbon neutrality by further recycling waste cooking oil which is still used only for limited purposes into biofuel. Furthermore, the biofuel made by the Company from waste cooking oil recovered from food plants, company/school cafeterias, and restaurants in Tokai area is used as marine fuel in the Port of Nagoya. This is one of the initiatives in the regional circulation business.

2. The Company’s previous initiatives in this business

- In 2012, the Company commenced manufacturing and selling biofuel sourced from waste cooking oil recovered from restaurants and other users.
- From 2015 until 2022, upon the request from the Nagoya Municipal Government, the Company has manufactured biofuel by recovering waste cooking oil which citizens brought into supermarkets and other facilities in approximately 80 locations in 16 wards across the City of Nagoya, and supplied the fuel to the City’s passenger buses and garbage trucks
- In 2021, the Company supplied biofuel to TOYOTA TRANSPORTATION CO., LTD. through Toyota Tsusho.
- In April 2022, the Company supplied the biofuel for the tugboats operated by SANYO KAIJI CO., LTD., an affiliate of Nippon Yusen Kabushiki Kaisha, through Toyota Tsusho.

The Company’s mission is “to contribute to society with solutions to environmental issues,” as can be conceived from its trade name. In addition to solving environmental issues through the “ingenious creation of new mechanisms (environmental revaluation structures) to add new value to things that society no longer needs, and that have a negative environmental impact,” the Company will contribute to the transition to a decarbonized society by promoting initiatives to achieve carbon-neutral status.



Refueling the tanker lorry arranged by Toyota Tsusho at Daiseki Eco. Solution Bio Energy Center



From left, the car carrier “Toyofuji Maru” (Toyofuji Shipping) being fed with biofuel from the bunkering ship “Shozan” (Toyota Tsusho)

***1 Bio-diesel fuel (BDF)**

BDF is a substitute diesel fuel, refined through the methyl esterification of vegetable fats. It is expected to provide a substitute for heavy oil and diesel fuel sourced from petrol oil. It has been designated a carbon-neutral fuel by the Intergovernmental Panel on Climate Change (IPCC) over its lifecycle because the plants from which it is sourced absorb CO₂ as they grow.

***2 Low-sulfur Bunker C**

Heavy fuel oil that meets regulations of the International Convention for the Prevention of Pollution from Ships and is manufactured and sold by petroleum wholesalers. To reduce impacts of exhaust from ships on human health and the environment, the regulation value of sulfur content concentration in fuel oil to be used in all marine areas became 0.5 mass percent or less from previous 3.5 mass percent or less, on and after January 1, 2020, in accordance with the revised International Convention for the Prevention of Pollution from Ships.

***3 Source**

“Trends in supply and demand of UCO (used cooking oil) and initiatives for used cooking oil conforming to Japanese Agricultural Standard (JAS)”

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