



MSC BIOFUEL SOLUTION

April 2025

External

MSC JOURNEY TO NET ZERO



MASSIVE INVESTMENTS IN THE ENERGY EFFICIENCY OF OUR ASSETS

- **Newbuild programme** with larger and more efficient vessels
- **Retrofit programme** (improved bow, propellers and hull design, data-driven monitoring systems)

EXPLORATION OF LOW- AND ZERO-CARBON FUELS


- Ongoing **trials** and **R&D partnerships** to address **technical, safety** and **sustainability issues**
- **Strategic alliances** with **bunker suppliers** to promote **availability** at scale

DECARBONIZING SUPPLY CHAINS TODAY THROUGH OUR MSC BIOFUEL SOLUTION

- Biofuel is bunkered **on demand**, with extra costs paid upfront by customers
- Our customers **benefit from the CO₂ savings** along their supply chain, while **MSC reduces emissions** across our operations



MSC BIOFUEL SOLUTION



MSC has also adopted **biofuel as a transitional fuel** in our ocean operations

The biofuel is a **blend** of conventional fuel and biocomponent

MSC bunkers **responsibly sourced and certified second-generation biocomponent** derived from **used cooking oil (UCO)**

MSC Biofuel Solution is based on the **carbon insetting and mass balance** mechanism.

A WIN-WIN SOLUTION

PARTNERING WITH OUR CUSTOMERS

MSC bunkers biofuel upon the request of customers, allowing them to achieve their emissions reduction targets.

MSC charges customers the difference in cost (versus conventional fuel) delivering the CO₂ savings generated by the biofuel bunkered.

MSC Biofuel Solution can be adapted to each customer request, covered by a separate contract:

- BCO - sustainability surcharge on top of the freight
- NVOCC/FFW - separate contract for specific amount of Bio Component, not correlated to freight contracts.

REDUCING CUSTOMERS' EMISSIONS THROUGH CARBON INSETTING

While biofuel is not currently available at all ports, it is possible to offer CO₂ savings to customers along any trade lane and route as biofuel is bunkered and used across MSC's network (climate change does not depend on the physical location of where CO₂ is emitted!).

A VERIFIED INSETTING PROGRAMME USING SUSTAINABLE BIOFUELS

Customers will receive an MSC-issued Retirement Statement containing information on the CO₂ savings achieved, as well as a Verification Statement issued by an external party (DNV) that verifies the robustness and accuracy of the carbon insetting process.



HOW IT WORKS

CUSTOMERS INTERESTED IN SUSTAINABLE SHIPPING

BCOs want to reduce the CO₂ emissions of their shipments. MSC Biofuel Solution reduces emissions by delivering CO₂ savings achieved within the shipping value chain.

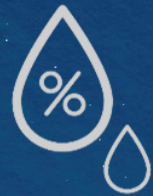
FFs want to resell the CO₂ savings delivered by MSC Biofuel Solution to their own customers.



MSC CALCULATES QUANTITY OF BIOFUEL NEEDED

For BCOs: to achieve a reduction in CO₂ emissions against the baseline emissions

For FFs: to transfer the generated CO₂ savings to their customers.



MSC PROCURES AND BUNKERS BIOFUEL

And obtains the **Proof of Sustainability** (certification) from the biofuel supplier.



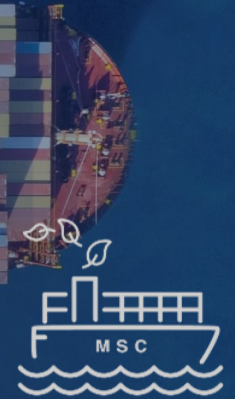
EXTERNAL AUDITORS

Verify the carbon insetting process, providing MSC with an **external Verification Statement**.



MSC PROVIDES CUSTOMER WITH 2 DOCUMENTS

1. Retirement Statement
2. External Verification Statement



PRICING

Biofuel price is composed by biocomponent and conventional fuel. The percentage of each is based on the CO₂ reduction requested by the customer.

Our offer is **the most transparent** on the market because is connected to real indexes available:

- Biocomponent on Argus Rotterdam
- Conventional fuel on Platts Bunkerwire

We can offer **customized solutions**:

- Fixed price
- Floating price (average of the month – subject to volatility of the market).

MSC charges customers the difference in cost (versus conventional fuel) delivering the CO₂ savings generated by the biofuel bunkered.

MSC Biofuel Solution can be adapted to each customer request, covered by a separate contract:

- **BCOs** - sustainability surcharge on top of the freight
- **FFs** - separate contract for specific amount of biocomponent, not correlated to freight contracts.



CERTIFICATION

WHAT WE GET FROM BUNKER SUPPLIERS

ISCC certificate (Proof of Sustainability - origin & CO₂ saving of the biocomponent)

WHAT WE GIVE TO CUSTOMERS

The **Retirement Statement** issued by MSC includes the following elements:

- Baseline emissions for the requested shipping service
- Emissions related to drop-in biofuel blend (B10, B20,...) for the same service
- CO₂ savings transferred
- Biofuel specifications based on bunker supplier's Proof of Sustainability

Customers also receive an external **Verification Statement** that verifies the carbon insetting process.

Example using the ISCC Certificate sample that should accompany your bio blend BDN:

GHG Emission RED II
EI= 9.6 gCO₂eq/MJ

FAQs



FAQs

1

What is the difference between CO₂ and CO₂e?

CO₂e is a measure that was created by the United Nations' Intergovernmental Panel on Climate Change (IPCC) in order to make the effects of different greenhouse gases comparable (because every gas has a different global warming potential). CO₂e essentially describes the global warming potential of all greenhouse gases. In other words, the impact of different greenhouse gases is expressed in terms of the amount of CO₂ that would result in the same amount of warming. Put simply, CO₂e gathers all greenhouse gases into one place.

2

How does MSC calculate CO₂ savings for our customers?

MSC first calculates the baseline CO₂e emissions associated with the shipment based on in-house methodology for average fuel consumption rates according to the trade lane/route, followed by a calculation of the amount of biofuel required to deliver the CO₂ savings requested by the customer. MSC has developed a robust accounting ('book-and-claim') system to transfer CO₂ savings which is externally verified to ensure there is no double counting of CO₂ savings by ensuring they are 'retired' for the exclusive benefit of the customer.

3

Is all biofuel the same?

Derived from a number of different biomass feedstocks, biofuel can be used as a drop-in blend that can result in CO₂ savings of up to 84% compared to fossil fuel alternatives. MSC only uses responsibly sourced and certified sustainable, second-generation biofuel and to date has only bunkered UCOME (Used Cooking Oil Methyl Ester), derived from waste or residue streams that are processed into biofuel. Second-generation biofuels do not directly compete with food crops for agricultural land¹.

4

Where does the product come from?

The feedstock is available everywhere, and the main producer and exporter is Asia.



¹ International Energy Agency, 2020

FAQs

5

How is the price of biofuel determined?

The price of biomass feedstock used in the biofuel blend is determined based on market spot rates. Usually, MSC fixes a price that equals the average of spot rates over the preceding month, plus a small quota related to our administrative costs for running the accounting system as well as to cover external verification. Customers using MSC Biofuel Solution are only charged the difference between the cost of biofuel bunkered and that of the replaced conventional marine fuel.

6

What does the Mass Balance concept mean?

The Mass Balance Concept allows us to deliver CO₂ savings to our customers, regardless of the bunkering port, trade lane or route of the concerned service – with the biofuel used within our global maritime network.

7

What is the difference between carbon insetting and carbon offsetting?

Carbon insetting (on which MSC Biofuel Solution is based) delivers immediate direct CO₂ savings within MSC's value chain. Carbon offsetting refers to projects that deliver future emissions reductions outside of the shipping value chain e.g. through reforestation of deforested areas.

8

Does MSC pursue both carbon insetting and carbon offsetting equally?

MSC's decarbonisation target is to achieve net zero by 2050, without relying on external carbon offsetting. MSC Biofuel Solution delivers direct CO₂ savings to our customers through carbon insetting their supply chain (Scope 3) emissions; at the same time, we also benefit from reduction of our own (Scope 1) emissions. MSC Carbon Neutral Programme is an offering to customers who wish to offset their Scope 3 emissions – and we take no credit against our own decarbonisation targets.

FAQs

9

Will purchasing MSC Biofuel Solution impact my Fuel EU/ETS surcharge?

Yes, Fuel EU and ETS surcharges will be discounted at the same rate equivalent to the biofuel reduction percentage that the customer wishes to reduce the CO2 emissions footprint with (e.g., 84% Biofuel = 84% discount on ETS & Fuel EU).

10

Which is the validity of the quotation?

The offer remains valid until the next updated Excel file with the price is received (approximately 2weeks), or unless advised otherwise by the MSC Biofuel Solution Global team in Geneva.

11

When the certificate and invoice (lumpsum) will be sent?

They will be provided in December of the calendar year.

12

Until when new contracts can be set up?

We can set up new contracts until 10 September of calendar year because the biofuel must be purchased, supplied and burned before the end of the year otherwise we cannot issue the certificates.

