Towards an IMO agreement on net-zero shipping

The International Maritime Organization (IMO) Member States have reached an agreement on a draft Net-Zero Framework for global shipping as a result of the 83rd Marine Environment Protection Committee (MEPC 83).

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A draft agreement has been reached on standards for controlling ship emissions up to 2035 and on a mechanism of bonuses or penalties applicable to deviations from these standards. The agreement should be formally adopted in October 2025 at an extraordinary session of the Marine Environment Protection Committee, and come into force in 2027

An historic agreement

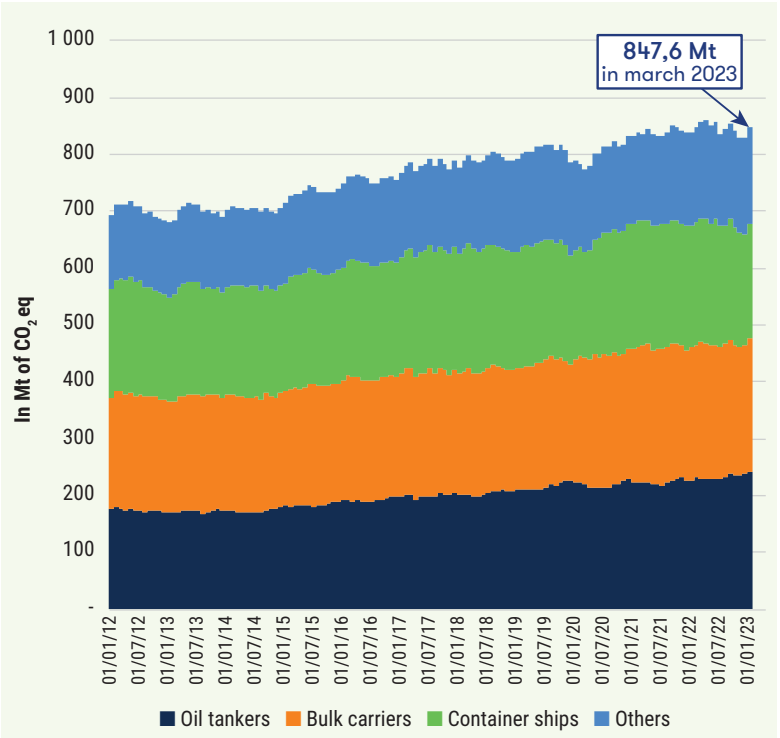
On Friday 11th of April, the Marine Environment Protection Committee (MEPC) approved draft amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL) contained in a new 'Net-Zero Framework'[1].

This framework consists of a set of legally binding measures designed to implement the carbon neutrality ambitions of the IMO's strategy for reducing emissions from ships. It is a compliance system, applicable to all ships of 5,000 gross tonnage and above, based on the calculation of the 'attained annual GFI' (GFI = GHG fuel intensity), i.e. the weighted average of the GHG emission intensity of all the fuels used on board during a calendar year, using a well-to-wake approach.

This annual GFI is compared with a target annual GFI (GFI_T), which is two-tiered:

- The **Base target annual GFI**, calculated from the referenc GFI_{2008} on the basis of reduction factors ranging from 4% in 2028 to 30% in 2035. It is expected to rise to 65% in 2040.
- The **Direct compliance target annual GFI**, calculated on the basis of reduction factors ranging from 17% in 2028 to 43% in 2035.

If the annual GFI obtained is lower than the direct compliance target, the ship is considered in direct compliance and is eligible to receive 'surplus units' (SU) expressed in tonnes of CO_2 eq for its positive compliance balance. These surplus units can be passed forward or transferred.



Evolution of global greenhouse gas emissions from maritime transport (in Mt of CO_2 eq/year). *Source: CNUCED (2023).*

If the compliance balance relative to the direct compliance target is negative, a Tier 1 compliance deficit is created.

In addition, if the compliance balance is also negative relative to the base target, a Tier 2 compliance deficit is added to the Tier 1 deficit.

Ships must compensate for the Tier 1 compliance deficit by purchasing remedial units (RU) acquired by means of GHG emissions pricing contributions to the IMO Net-Zero Fund at a price set at $100 per tonne of CO_2 eq until 2030.

1. *This framework is included in a new chapter 5 of MARPOL Annex VI.*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Tier 2 deficit can be offset in three ways:

- The use of surplus units set aside in previous periods;
- Transferring surplus units from other ships;
- Purchasing Tier 2 remedial units from the IMO Net-Zero Fund, but at a price set at $380 per tonne of CO_2 eq until 2030.

Revenues from the Net-Zero Fund may be used to support the uptake of zero or near-zero greenhouse gas emission technologies, in particular sustainable marine fuels, or to support national energy transition projects in developing countries. The European Commission estimates that this system will generate between 11 and 13 billion dollars in revenue per year.

A political gamble, which paid off

The agreement was approved by a vote of the MEPC committee by 63 countries, including the European Union, China, India, Brazil, Canada and Japan, despite opposition from 16 countries and abstentions from 25 other countries. Although the text failed to achieve the consensus as is usually the case with UN texts, it stands as a success - the outcome of lengthy negotiations and efforts to compromise between divergent points of view.

It was the economic element of the deal which was particularly contentious. The more ambitious countries, including the European Union and the Pacific Islands States, were broadly in favour of a carbon tax applied to all shipping emissions from 2028, rather than just for the emissions exceeding the set trajectory.

On the other hand, following an original proposal by China, some countries preferred the introduction of a trading system - a proposal supported by several emerging countries, many of which are fossil fuel exporters such as Brazil, Saudi Arabia and South Africa.

It was the compromise put forward by Singapore, known as the *J9*, that finally served as the basis for the committee's negotiations. As previously mentioned, this credit trading system is based on two trajectories: a base trajectory, with an easier target, and another, more ambitious one, known as direct compliance.

In a context where the United States was largely absent from the committee meeting, hindering negotiations with threats of retaliation, the agreement stands as a major victory.

EdEn welcomes this agreement, which will create the world's first legally binding framework for reducing greenhouse gas emissions from shipping. It is a solid and ambitious basis for more sustainable maritime transport.

EdEn welcomes the introduction of a global pricing mechanism for ship emissions, from which part of its revenue will be recycled to support the use of alternative fuels. Deployment and scaling-up of these solutions will be key to decarbonising marine propulsion in the long term.

With the adoption of the FuelEU Maritime Regulation, the European Union has paved the way for accelerating the deployment of alternative marine fuels by introducing carbon intensity levels for the energy used on board. However, the lack of financial support towards this costly sector remains a key barrier to its deployment. Earmarking of ETS revenues to decarbonise the maritime sector remains an outstanding bottleneck, which EdEn continues to support.

In addition, it remains to be ensured that the provisions of this new agreement are consistent with the European regulatory framework. The European Union will have to assess the interaction of this new international framework with current EU maritime regulations in order to avoid a double burden on shipping companies. Particularly, it will be key to avoid any inconsistencies or contradictions between the two systems in order to ensure fair international competition.

EdEn also reminds that electrification significantly contributes to the decarbonisation of port infrastructures and smaller ships.