

The Value of Sustainability in the Shipping Industry Today



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BY [CHRISTINE MAVROMICHALIS](#) 2018-05-06 20:11:30

For the past few weeks, we have been witnessing a series of debates and discussions over sustainability in shipping and the importance of cutting down CO2 emissions in order to protect the sea environment from increasing pollution. Last month in London, at a phenomenal four-day deliberation of the IMO delegates, an historic carbon dioxide reduction deal was reached, agreeing that emissions must be cut by 50 percent by 2050.

IMO's delegates also decided there should be a 40 percent improvement in ship efficiency by 2030 (compared to 2008) and a 50-70 percent improvement by 2050. The meeting was attended by over 100 IMO Member States who agreed on IMO's initial strategy which was adopted by IMO's Marine Environment Protection Committee (MEPC), during its 72nd session. Two countries only objected this deal: United States and Saudi Arabia.

The most important outcome from this emissions reduction deal is that for the first time in history, the global maritime industry committed to an effort battling climate change, in line with the Paris Agreement (2015) that targets greenhouse emissions mitigation, adaptation and finance as of 2020. On top of that, the IMO member states agreed to promote programs that will help developing countries to meet the requirements of the environmental regulation that is expected to surface, such as the "Capacity Building for Climate Mitigation in the Maritime Industry."

But what are the parameters of this strategy?

According to IMO, there are levels of ambition set for the international shipping sector. More specifically: The Initial Strategy identifies levels of ambition for the international shipping sector noting that technological innovation and the global introduction of alternative fuels and/or energy sources for international shipping will be integral to achieve the overall ambition. Reviews should take into account updated emission estimates, emissions reduction options for international shipping, and the reports of the Intergovernmental Panel on Climate Change (IPCC). Levels of ambition directing the Initial Strategy are as follows:

1. carbon intensity of the ship to decline through implementation of further phases of the energy efficiency design index (EEDI) for new ships to review with the aim to strengthen the energy efficiency design requirements for ships with the percentage improvement for each phase to be determined for each ship type, as appropriate;
2. carbon intensity of international shipping to decline to reduce CO₂ emissions per transport work, as an average across international shipping, by at least 40 percent by 2030, pursuing efforts towards 70 percent by 2050, compared to 2008; and
3. GHG emissions from international shipping to peak and decline to peak GHG emissions from international shipping as soon as possible and to reduce the total annual GHG emissions by at least 50 percent by 2050 compared to 2008 whilst pursuing efforts towards phasing them out as called for in the Vision as a point on a pathway of CO₂ emissions reduction consistent with the Paris Agreement temperature goals. (source: IMO.org)

What does this mean for shipowners?

Although the implementation of the limits in the shipping industry's output of carbon dioxide emissions will not kick in before 2023 (which is the deadline set for the limits coming into force), shipowners looking to invest in new ship building with unit deliveries from/after 2020 should be well aware of the changes expected in naval architecture. Clearly, the sulfur cap and the ballast water management 2020 enforcement are the real headache for fleet owners at the moment. However, zero carbon fuels are expected to be developed in the near future, and soon.

Shipowners will be required to comply with new environmental regulations and policy measures that will be enforced globally. Some short-term suggestions such as slow steaming may temporarily contribute to the reduction of emissions but then again, that is not a sustainable solution for the long-run (until 2023). Notably, a mechanism calculating the carbon dioxide emissions' output of ships is expected to be in place, which could mean fines or penalties imposed on shipping companies whose fleets' estimated emissions output exceeds the carbon dioxide emissions limits.

So, perhaps this is the time for shipowners to re-evaluate their investment strategy and look for alternative cost-efficient solutions that will enable risk mitigation and a more environmental-friendly, sustainable shipping industry. One idea on the table that may prove a reality by 2030 is the ending of use of fossil fuels and the beginning of utilization of alternative carbon-free fuels in replacement of the heavy fuel oil which is the fossil fuel used in marine diesel engines.

Another sustainable alternative is the use of an innovative, ultra-low sulfur fuel such as Plaxx (which is being developed and tested in diesel engines), derived from the efficient recycling of mixed plastic waste and in compliance with the new emission rules.

According to the IMO, there may be a policy implemented that will require shipowners to pay sums for research funding in alternative fuels. Everything suggests it is quite likely for those fleet owners planning to order ships in the 2020s that they will have to drop fossil fuels and opt for non-fossils at some point in the life span of these vessels.

Another thing to keep in mind is that charterers and ship financiers are paying close attention to these drastic developments on the environmental, regulatory and technological front, and it will be interesting to see the reshuffling in the market players, the implications in the charter rates, the adjustments in the business plans of several private equity-backed companies and the approach of the P&I Clubs. Exciting times ahead for the global shipping industry indeed!

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