ETS

WHITE PAPER

THE MARITIME ETS MAZE

The shipping industry is entering uncharted waters with multiple Emissions Trading Systems (ETS) now governing maritime emissions. Here's where we stand and what's coming next.

WHAT ARE THE RELEVANT EMISSIONS TRADING SYSTEMS FOR MARITIME?

Find out all about the three relevant Emissions Trading Systems (ETS) for the maritime industry.

WHAT WE CONSIDER THE ETS CHALLENGE

Read what WEC Lines' Head of Fleet Network Efficiency, Mark Kaptein, feel is the challenge in today's world.

The Maritime ETS Maze

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EU ETS: The trailblazer (2024-Present)

The European Union emissions trading system was the first large GHG emissions trading scheme. It was launched in 2005 with the goal of "learning by doing". Since then, the EU ETS has seen significant changes, one of which is the inclusion of the maritime industry in 2024. Ships over 5,000 GT face carbon pricing on 100% of intra-EU voyages and 50% of international routes to/from EU ports. EU ETS is a cap-and-trade system. Each year the EU auctions a decreasing number of allowances (EUAs). Companies must monitor and report their emissions and surrender enough EUAs to cover their annual emissions, each EUA representing 1 ton of CO2. Allowances can be traded on the open market, thus setting a market price on CO2 emitted within the EU.

UK ETS: Charting Its Own Course

UK ETS replaced UK's participation in the EU ETS on 1 January 2021. The UK is implementing its maritime ETS from 2026, initially covering domestic voyages with 100% emissions coverage for ships ≥5,000 GT.

The UK is also considering extending to emissions at berth for ALL vessels and to UK-EEA routes with 50% coverage.

One complication is the disparity in pricing of routes between Northern Ireland and Great Britain and Republic of Ireland and Great Britain. Ships traveling between the Republic of Ireland and Great Britain would be subject to 50% emissions coverage under EU ETS. Ships traveling between Northern Ireland and Great Britain, however, would be subject to 100% emissions coverage under UK ETS. This might lead to re-routing of cargo to reduce exposure to ETS obligations.

One solution would be to extend the scope of UK ETS to 50% of emissions from ships traveling between UK and the European Economic Area.

Above is not just speculation. We've already seen the same dynamic play out with EU ETS. Since voyages to/from EU ports from outside the EU are subject to 50% coverage, lines can reduce their exposure by adding a UK call before entering the EU.

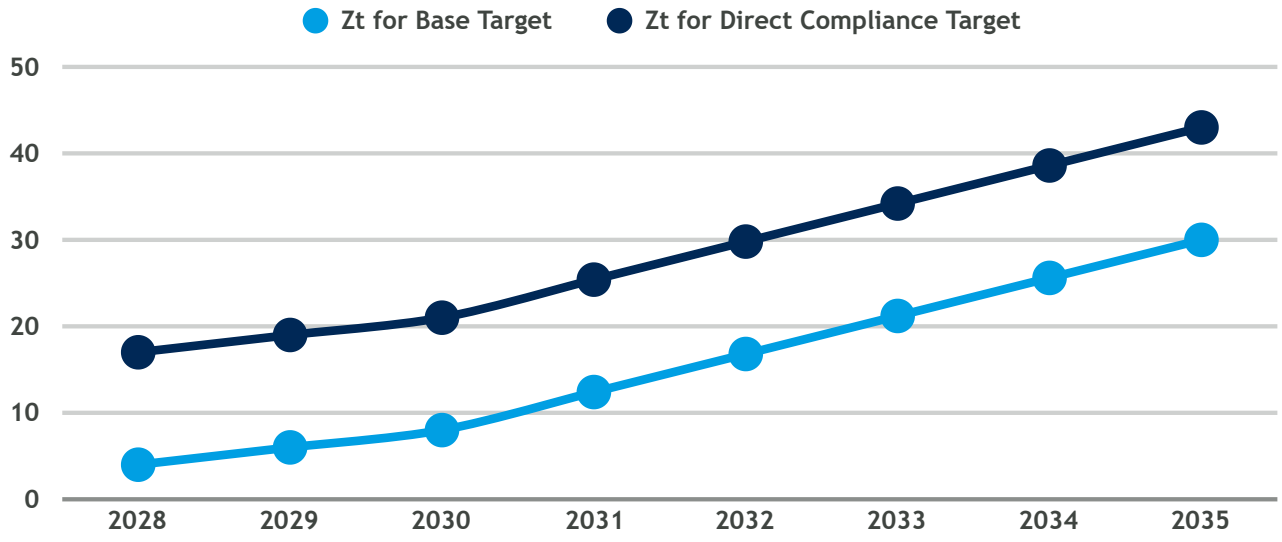
Under the proposed solution, voyages between the UK and EU would be subject to 100% emissions coverage (50% EU ETS and 50% UK ETS). This approach would not significantly deter shipping lines from adding a UK call to avoid EU ETS obligations, since the UK ETS would only apply to voyages between UK and EU ports. Voyages originating from outside the EU and calling at UK ports before entering EU waters would remain outside the scope of UK ETS coverage for the non-EU to UK leg of the journey.

IMO Net Zero Framework: The Game Changer

IMOs Marine Environment Protection Committee (MEPC 83) approved the "IMO Net-Zero Framework" in April 2025. Expected to be adopted in October 2025 and enter force in 2027, this global system would launch in 2028. A bit more complicated than the EU ETS but more predictable in terms of cost.

IMO's Net-Zero Framework sets two a two-tiered annual target of GHG fuel intensity (GFI) reduction. A base target annual GFI and a direct compliance target annual GFI. The yearly reduction - as shown below - will be based on the average well-to-wake GFI of international shipping in 2008, which was 93,3 gCO_{2eq}/MJ.

Yearly reduction factors, Z_T, are determined until 2035:



With the addition that Z_T for the base rate shall be set to 65% in 2040.

Ships performing between the base and direct compliance target are required to buy remedial units at $100,- per ton CO2eq. Ships exceeding the base target need to purchase remedial units priced at $380 per ton CO2eq. On the other hand, ships outperforming the direct compliance target earn tradeable units which can be banked for up to 2 years for future use, traded to underperforming ships or voluntarily cancelled.

Since the prices for the remedial units are set by IMO (and reviewed periodically) these are much more stable compared to the EU ETS' market-based mechanism. On the other hand, EU market prices are significantly lower than IMOs remedial unit prices.

The Compliance Challenge

Shipowners now face a complex web of overlapping regulations. A vessel trading between UK-EU routes could simultaneously be subject to UK ETS, EU ETS and the IMO Framework. This creates a significant administrative burden and potential for double taxation.

Outlook

We're witnessing the messy start-up of global maritime decarbonization regulation. The industry's adaptation to this multi-system environment requires technological innovation and operational efficiency, exactly what's needed to meet shipping's net-zero ambitions.

While the current landscape is complex, since the IMO framework is designed as a global baseline it offers a pathway toward harmonization.

The question isn't whether shipping will decarbonize, but how quickly the regulatory framework will streamline to support this critical transition.

Questions?

Contact us today via
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WEC LINES