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ENERGY EFFICIENCY OF SHIPS

Comments on document MEPC 82/6/1 titled "Further considerations on ships' GHG emissions data quality and integrity as a basis for current and future IMO GHG regulatory measures"

Submitted by CSC

SUMMARY

Executive summary: This document provides comments on document MEPC 82/6/1 (Austria et al.) concerning GHG emissions data quality and integrity as a basis for current and future IMO GHG regulatory measures, as well as document MEPC 82/6/17 (Austria et al.) on the possible two-step approach for the review and revision of the short-term measures. CSC strongly supports the ambition to improve data quality, transparency and accessibility of the IMO Data Collection System (DCS). While cognisant of the need for further data collection and assessment of some aspects of the carbon intensity indicator (CII) calculation, CSC argues that existing IMO DCS data is sufficient to already transform the CII from a carbon intensity metric to a truly energy efficiency metric, as well as increase the required reduction factors for the post-2026 period already in the first step of the two-step approach.

*Strategic direction, 3
if applicable:*

Output: 3.2

Action to be taken: Paragraph 14

Related documents: MEPC 80/17/Add.1; MEPC 81/6/18; MEPC 82/6, MEPC 82/6/1, MEPC 82/6/17 and MEPC 82/6/26

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.5) and provides comments on document MEPC 82/6/1 (Austria et al.), referencing experience

with the EU MRV system, proposing steps to ensure sufficient data quality and integrity, and a sound data verification process of the IMO DCS. Further, document MEPC 82/6/17 (Austria et al.) titled "A possible way forward on the review of the CII" recommends a possible two-step approach for the review and revision of the short-term measure framework.

2 MEPC 80 approved the *Review plan of the short-term GHG reduction measure* (MEPC 80/17/Add.1, annex 13), which sets the review of the CII framework to be completed by 1 January 2026, with regulation 28.11 of MARPOL Annex VI identifying that it should assess, among others: (a) the effectiveness of this regulation in reducing the carbon intensity of international shipping; (b) the need for reinforced corrective actions; (c) the need for enhancement of the enforcement mechanism; and (d) the need to revise the reduction factors (Z factors).

The IMO DCS and the review process of the CII

3 CSC supports the ambition to continuously improve the IMO DCS to increase transparent and data-driven policymaking at IMO. As the experience with the EU shipping MRV demonstrates, transparency and data accessibility to the general public is a cornerstone of data quality and public trust in the policies built thereon. The EU MRV data is often used to test and validate research outputs, including those commissioned by IMO. For this reason, drawing from experience with the EU MRV, CSC proposes that IMO reform the DCS, improving above all, data transparency, public accessibility and third-party verification.

4 While the proposal for continuous improvement of the IMO DCS is strongly supported, this process should not preclude the parallel review and revision of the CII framework. The individual ship data available through the IMO DCS is already sufficient to progress with the review ahead of the 2026 deadline.

5 To facilitate the review of the CII, document MEPC 82/6 (Secretariat) provides the Secretariat's initial analysis of the reported data and submissions on the measure. It does not identify low data quality in the IMO DCS as a hindrance to the CII review. Rather, the document lists submissions on operational factors (e.g. port waiting time, short voyages), characteristics specific to various ship types, or alternative metrics. Thus, according to the Secretariat, the data submitted to IMO DCS in its current form is sufficient to inform a revision of the CII.¹

6 While most calls to revise CII were focused on the denominator of the CII equation, which represents (proxy) transport work, CSC believes that the most urgent element in the CII calculations pertains to the numerator, which houses the CO₂ emissions value. In document ISWG-GHG 16/2/19, CSC recommends adjusting the numerator of the CII formula to ensure that CII requirements focus exclusively on improving operational efficiency and reducing fuel burn (leaving the GHG Fuel Standard to regulate the fuel uptake). This approach does not prejudice changes to the denominator of the CII equation to further increase the measure's effectiveness.

7 Since 2023, the DCS includes, inter alia, ships' attained and required CII values. The data requirements to calculate these ship-level values have been available since 2019. This data already enables a comprehensive assessment of the fleet's energy-efficiency performance since 2019, which can be used to inform the review for the post-2026 period.

¹ This further adheres to resolution MEPC.67(37), whereas cost-efficient measures to prevent pollution should be prioritized, using the best available information.

The role of energy efficiency in delivering immediate emission reduction

8 The climate targets established under the *2023 IMO GHG Strategy*, set out in resolution MEPC.377(80), uses 2008 as a baseline. However, all projections show increasing demand for maritime transport in the years to come. For this reason, actual emissions reductions by 2030 will need to be higher than those expressed relative to the 2008 baseline. Specifically, by 2030 up to 39%, or 43% well-to-wake GHG reduction, are needed to achieve the *2023 IMO GHG Strategy* 20% or 30% targets, respectively.

9 The CII, as the main driver of ship energy efficiency, is essential to contribute to this near-term goal, complementing the mid-term measures, particularly the GFS. While the deployment of zero and near-zero emission fuels and technologies will be needed to fully decarbonize maritime transport, efficiency improvements are essential to ensure their sustainable uptake and reduce the overall cost of this transition. To illustrate that figure 1 shows how improved CII energy efficiency targets allow for a more realistic and gradual deployment of alternative fuels, without compromising the objectives of the *2023 IMO GHG Strategy*.

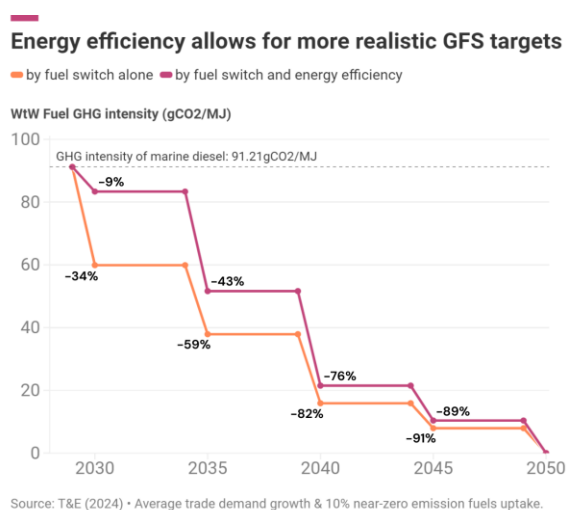


Figure 1: Strategy-aligned GFS targets for fuel GHG intensity with and without energy efficiency.

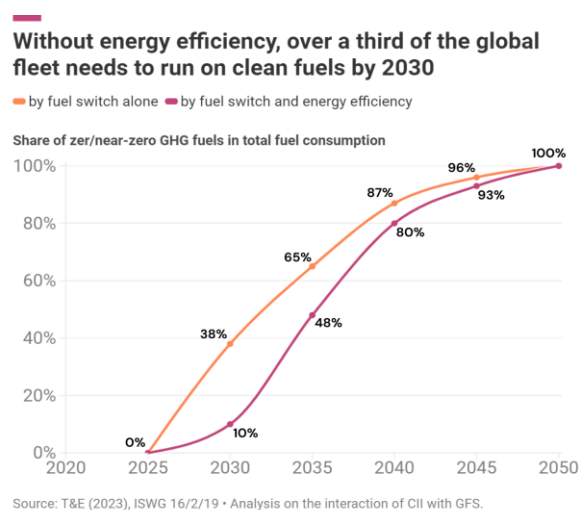


Figure 2: Required share of zero- and near-zero GHG emission fuels to meet revised IMO GHG strategy striving targets with and without energy efficiency.

10 Energy efficiency targets can deliver immediate GHG emission reductions through renewable energy technologies that minimize a ship's fuel burn; e.g. wind-assist technologies that can reduce fuel uptake of existing ships by 20%, or upwards of 30% on new builds.² A combination of technical and operational improvements (i.e. speed reduction), as well as moderate zero and near-zero emission fuel uptake, can deliver up to 47% emissions reductions by 2030.³ In addition, limiting the required uptake of expensive new zero GHG emission fuels in favour of more affordable efficiency measures delivers co-benefits, such as the reduction of underwater noise.

² Wind Ship Association (2022). *La propulsion des navires par le vent: des technologies prêtes à décarboner le transport maritime Une opportunité industrielle pour la France - Livre Blanc - Page 11.* <https://www.actu-environnement.com/media/pdf/news-39010-PDF1-2022-livreBlanc-Wind-Ship.pdf>

³ CE Delft (2023). *Shipping GHG emissions 2030, Analysis of the maximum technical abatement potential.* https://cedelft.eu/wp-content/uploads/sites/2/2023/06/CE_Delft_230208_Shipping_GHG_emissions_2030_Def.pdf

Guiding principles and priorities to revise the CII framework

11 CSC believes that the CII review process should adopt targets in line with the *2023 IMO GHG Strategy's* absolute GHG emission reduction goals. To be effective, such increased ambition must be accompanied by also adjusting the numerator of the CII formula to ensure that CII is measured in energy (e.g. MJ/transport-work) terms in order to immediately incentivize the reduction in fuel burn. However, this immediate revision should not prejudice a more comprehensive review framework – including the denominator of the equation, corrective actions, and potential enforcement mechanisms, as appropriate.

12 The revision should also consider options to improve transparency and accessibility of the IMO DCS, including attained CII ratings. Doing so would enable all relevant stakeholders, including the general public, to utilize the measure to further accelerate shipping's climate transition by, e.g. channelling public and private resources.

13 Considering the contribution of efficiency to achieving the *2023 IMO GHG Strategy's* 2030 emission reduction target and the importance of a comprehensive review of the CII framework, CSC recommends the following:

- .1 revise the numerator of the CII metric to reflect MJ-based energy efficiency;
- .2 align CII reduction factors with the 2023 IMO GHG Strategy reduction targets by 2030 and prioritize an ambitious CII with minimal complexity, while taking into account the uptake of alternative zero and near-zero emission fuels that the mid-term measures can realistically and sustainably deliver; and
- .3 maintain the CII as one of the key tools in IMO's regulatory toolbox emphasizing the central role of energy efficiency and zero-emission technologies to achieve the full decarbonization of maritime transport by mid-century and reducing the impact on the energy system.

Action requested of the Committee

14 The Committee is invited to consider the comments and information contained in this document, in particular the recommendations in paragraph 13 in proceeding with the CII review, and take action as appropriate.
