Council of the European Union

Brussels, 14 August 2026
(OR. en)

12284/26

MAR 114
OMI 41
CLIMA 421
ENV 996

COVER NOTE

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	29 July 2026
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
No. Cion doc.:	SWD(2026) 260 final
Subject:	COMMISSION STAFF WORKING DOCUMENT Union submission to the International Maritime Organization's 21st Intersessional Working Group on GHG proposing adjustments to the guidelines for the calculation of the attained annual GHG fuel intensity (GFI) for ice-classed ships and navigation in ice

Delegations will find attached document SWD(2026) 260 final.

Encl.: SWD(2026) 260 final

EUROPEAN
COMMISSION

Brussels, 29.7.2026
SWD(2026) 260 final

COMMISSION STAFF WORKING DOCUMENT

Union submission to the International Maritime Organization's 21st Intersessional Working Group on GHG proposing adjustments to the guidelines for the calculation of the attained annual GHG fuel intensity (GFI) for ice-classed ships and navigation in ice

Union submission to the International Maritime Organization's 21st Intersessional Working Group on GHG proposing adjustments to the guidelines for the calculation of the attained annual GHG fuel intensity (GFI) for ice-classed ships and navigation in ice

PURPOSE

This Staff Working Document contains a draft Union submission to the International Maritime Organization's (IMO) 21st Intersessional Working Group on GHG (ISWG-GHG 21). The IMO has scheduled ISWG-GHG 21 from 20 to 24 April 2026.

The draft submission proposes a way to ensure safe and sustainable ice navigation in applying the IMO Net-Zero Framework, taking into account the technical characteristics of ice-strengthened ships when calculating the ship's attained GFI. The proposed approach reflects the increased energy needs and navigational hazards caused by sailing in ice conditions, responding to the issues identified in ISWG-GHG 20/INF.2.

EU COMPETENCE

Regulation (EU) 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC[1] establishes the legal framework for an EU system to monitor, report and verify GHG emissions and energy efficiency from shipping (MRV Regulation). The regulation aims to deliver robust and verifiable GHG emissions data, inform policy makers and stimulate the market uptake of energy efficient technologies and behaviours. It does so by addressing market barriers such as the lack of information.

The EU Climate Law[2] sets a binding Union climate targets (compared to 1990) of a reduction of net greenhouse gas emissions—emissions after deduction of removals—by at least 55% by 2030 and by 90% by 2040 (proposal by the Commission). It also includes the aim of climate neutrality by 2050 and an aspirational goal for net negative emissions after this time.

Based on the Commission's proposals of the *Fit for 55* package to reduce GHG emissions, the EU legislators adopted the following legal acts specifically targeting GHG emissions from the shipping sector:

- the revision of the EU Emission Trading System (ETS) Directive 2003/87/EC[3] by Directive (EU) 2023/959[4] to extend the EU ETS to the maritime transport sector to apply as of 1 January 2024, (together with the necessary amendments to the EU MRV Regulation,[5] to revise monitoring and reporting rules, also through the revision of the relevant implementing and delegated acts).
- Regulation (EU) 2023/1805[6] (FuelEU Maritime Regulation) focuses on the use of renewable

[1] OJ L 123, 19.5.2015, p. 55.

[2] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'); OJ L 243, 9.7.2021, p. 1–17

[3] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (Text with EEA relevance) OJ L 275, 25.10.2003, p. 32–46

[4] Directive (EU) 2023/959 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system, OJ L 130, 16.5.2023, p. 134–202

[5] Regulation (EU) 2023/957 of the European Parliament and of the Council of 10 May 2023 amending Regulation (EU) 2015/757 in order to provide for the inclusion of maritime transport activities in the EU Emissions Trading System and for the monitoring, reporting and verification of emissions of additional greenhouse gases and emissions from additional ship types , OJ L 130, 16.5.2023, p. 105–114

[6] Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use

and low-carbon fuels in the maritime sector and mandates the uptake thereof by ships calling at EU ports to apply as of 1 January 2025.

Both the EU ETS Directive and the FuelEU Maritime Regulation contain review clauses for the event that IMO adopts a global fuel standard or a market-based measure. More precisely, the FuelEU Maritime Regulation in its Article 30(5) and the EU ETS Directive in its Article 3gg(1).

Compliance with the new obligations stemming from the extension of the EU ETS to maritime transport and the FuelEU Maritime Regulation will build on the monitoring, reporting, and verification system established by the EU MRV Regulation.

Any IMO measure on GHG matters, which will require the monitoring, verification and reporting of GHG emissions from shipping, could affect the EU MRV Regulation as well as the EU ETS Directive and the FuelEU Maritime Regulation.

Therefore, the EU has exclusive competence for GHG emissions in shipping.

In light of all of the above, the present draft Union submission falls under EU exclusive competence, pursuant to article 3(2) TFEU.[7] This Staff Working Document is presented to establish an EU position on the matter and to transmit the document to the IMO prior to the required deadline of 6 March 2026.

of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC, OJ L 234, 22.9.2023, p. 48–100

[7] An EU position under Article 218(9) TFEU is to be established in due time should the IMO Marine Environment Protection Committee eventually be called upon to adopt an act having legal effects as regards the subject matter of the said draft Union submission. The concept of '*acts having legal effects*' includes acts that have legal effects by virtue of the rules of international law governing the body in question. It also includes instruments that do not have a binding effect under international law, but that are '*capable of decisively influencing the content of the legislation adopted by the EU legislature*' (Case C-399/12 Germany v Council (OIV), ECLI:EU:C:2014:2258, paragraphs 61-64). The present submission, however, does not produce legal effects and thus the procedure for Article 218(9) TFEU is not applied.

INTERSESSIONAL MEETING OF THE
WORKING GROUP ON REDUCTION OF
GHG EMISSIONS FROM SHIPS
21st session
Agenda item 2

ISWG-GHG 21/2/XX
March 2026
Original: ENGLISH
Public release: ☒

DEVELOPMENT OF THE NEW AND/OR REVISION OF EXISTING GUIDELINES, PROVISIONS, GUIDANCE AND OTHER DOCUMENTS, AS APPROPRIATE, FOR SUPPORTING THE UNIFORM AND EFFECTIVE IMPLEMENTATION OF THE IMO NET-ZERO FRAMEWORK

Adjustments to the guidelines for the calculation of the attained annual GHG fuel intensity (GFI) for ice-classed ships and navigation in ice

Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission, acting jointly in the interest of the European Union

SUMMARY

Executive summary:	This document proposes a way to ensure safe and sustainable ice navigation in applying the IMO Net-Zero Framework, taking into account the technical characteristics of ice-strengthened ships when calculating the ship's attained GFI. The proposed approach reflects the increased energy needs and navigational hazards caused by sailing in ice conditions, responding to the issues identified in ISWG-GHG 20/INF.2.
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 18
Related documents:	MEPC 83/WP.11, MEPC 83/17, MEPC 76/3/5, MEPC 76/7/21, MEPC 76/INF.67, ISWG-GHG 18/2/5, ISWG-GHG 16/2/7, ISWG-GHG 20/INF.2, ISWG-GHG 20/2/6

Introduction

1 At ISWG-GHG 20 (October 2025), there was broad support for using the annex to document ISWG-GHG 20/2/6 as a basis for the guidelines for the calculation of the attained annual GHG fuel intensity (GFI calculation guidelines). Following consideration, the Group invited interested Member States and international organizations to work together on the development of these guidelines, using the annex to document ISWG-GHG 20/2/6 as a basis, and submit an updated proposal to a future session.

2 Also at ISWG-GHG 20, some delegations stressed the importance of addressing the specificities of ice-classed ships in the Group's further work. As stated in ISWG-GHG 20/INF.2, while aiming for the complete decarbonization of ice-classed ships in accordance

with the 2023 IMO GHG Strategy and avoiding any increase of emissions on the transport system level, continuous safe and sustainable navigation in ice conditions should remain a point of specific attention.

3 In this document the co-sponsors propose that the additional energy needs attributable to the technical characteristics of ice-classed ships should be reflected in the calculation of a ship's attained annual GFI.

4 This adjustment is needed to maintain a level playing field between ice-strengthened and not-ice-strengthened ships, and maintain a high level of safety of navigation between ice-bound ports and other ports, while avoiding creating regulation that would increase total GHG emissions on the transport system level, as cautioned in ISWG-GHG 20/INF.2.

Ice-classed ships are key to safe and lower-emission ice navigation

5 As noted in ISWG-GHG 20/INF.2, safe navigation in ice conditions requires ice-classed vessels and, in most cases, icebreaker assistance. At the level of an individual ship, ice-classed ships consume more fuel than ships designed for open water only. Their hull forms and propellers, reinforced for ice loads, are less hydrodynamically efficient, increasing fuel consumption. Hence, GHG emissions increase by about 5% relative to purely open water designs. Ice-classed ships also incur significantly higher fuel and capital costs.[8] Due to ice-strengthening of the hulls, ice-classed merchant ships also have lower deadweight compared to open water ships with similar displacement.

6 Ships with sufficient structural strength, ice-reinforcement, appropriate hull form, and engine power are less likely to experience accidents or ice-related damage in ice conditions, improving overall maritime safety. Fleets with limited ice navigation capability on the other hand require more icebreaker support, which shifts fuel consumption and emissions from merchant vessels to government-operated icebreakers.

Government icebreaking services

7 In accordance with Article 3, paragraph 3, of the MARPOL Convention, ships owned or operated by a State and used for the time being for Government non-commercial icebreaking services will fall outside the scope of the IMO Net-Zero regulatory framework. However, in line with the same paragraph, the co-sponsors consider that these icebreaking services should be done, so far as is reasonable and practicable, in a manner consistent with the decarbonisation pathway set out in the 2023 IMO GHG Strategy.

Amending the GFI to avoid unintended effects for ice navigation

10 The present proposal responds to the considerations set out in ISWG-GHG 20/INF.2 by addressing the additional energy consumption attributable to the technical characteristics of ice-classed ships under open-water operation, for the purposes of calculating a ship's attained annual GFI.

11 Maritime safety considerations are a key aspect of sailing in ice conditions. Ice-class requirements entail design features that are necessary for safe operation in ice conditions, but result in hull forms and propeller designs that are less optimal for operation in open water.

[8] Solakivi, T., Kiiski, T. & Ojala, L. On the cost of ice: estimating the premium of Ice Class container ships. Marit Econ Logist 21, 207–222 (2019). https://doi.org/10.1057/s41278-017-0077-5

12 An approach to the GFI calculation that does not account for additional energy consumption associated with the technical characteristics of ice-classed ships can create unintended incentives that discourage investment in higher ice classes. The proposed solutions below seek to avoid these unintended effects while preserving the integrity of the GFI framework.

13 At the transport system level, failing to account for additional energy consumption associated with the technical characteristics of ice-classed ships could also lead to unintended outcomes. In particular, it could create incentives to use less capable ships in ice conditions in order to improve annual GFI performance. This may lead to a shift in fuel consumption and associated emissions from merchant ships to icebreaker operations, rather than a reduction in total energy use and emissions at the transport system level.

14 These system-level effects may have implications beyond the GFI calculation itself. If left unaddressed, they could affect the continuity and reliability of maritime transport in ice-bound regions. This includes year-round accessibility to ports and fairways and the resilience of supply chains in regions where seasonal ice conditions are a structural feature of the transport system.

15 To address the above operational realities, the co-sponsors propose that the GFI calculation takes due account of the additional energy consumption resulting from the technical characteristics of ice-class ships compared to non-ice-class ships.

Additional energy resulting from the technical characteristics of ice-classed ships

16 For the purpose of the distinction between the energy consumption of ice-class and non-ice-class ships, the approach applies a fixed adjustment of [5%] to represent energy use attributable to the technical characteristics of ice-classed ships. This adjustment is applied to the energy consumption by the ice-class ships in open water, as well as to open-water equivalent consumption when the ice-class ship operates in ice conditions, as further specified in the annex.

Proposal

17 The co-sponsors propose amendments to the GFI calculation guidelines, consisting of: (a) the addition of definitions related to the ice adjustment to section 2 (Definitions); (b) the addition of a new subsection 4.4.6 to section 4 (GFI calculation); and (c) the addition of Annex X, all as set out in the annex to this document.

Action requested of the Working Group

18 The Working Group is invited to consider the information provided in this document, in particular the proposal put forward in paragraph 20 on including adjustments to the draft GFI calculation guidelines set out in the annex and take action as appropriate.

***

ANNEX

DRAFT GUIDELINES FOR THE CALCULATION OF THE ATTAINED ANNUAL GHG FUEL INTENSITY (GFI)

2 DEFINITIONS

2.x+1 *Ice class* means the notation assigned to the ship by the competent national authorities of the flag state or an organisation recognised by that state, showing that the ship has been designed for navigation in sea-ice conditions

2.x+3 A *voyage period* is a period of time during which the ship is engaged in a voyage and for which energy consumption and distance travelled are recorded for the purposes of these Guidelines.

2.x+4 *Ice-bound port* means a port for which the coastal State or other competent authority has issued ice-class restrictions for ships calling at that port during the voyage period.

4 GFI CALCULATION

4.4.6 Exclusion of additional energy consumption for ice-classed ships

A ship may request the exclusion of additional energy consumption from the calculation of the parameter $Energy_j$, as follows:

> a ship having ice class IA or IA Super, or an equivalent ice class, established based on HELCOM Recommendation 25/7, may request the exclusion of additional energy consumption attributable to the technical characteristics of a ship having ice class IA or IA Super, or an equivalent ice class; and

Where additional energy consumption is excluded pursuant to the subparagraph above, the parameter $Energy_j$ shall be calculated in accordance with Annex X.

Annex X to the GFI calculation guidelines

General principle

For ice-classed ships, the energy consumption to be taken into account for the purposes of calculating $Energy_j$ is determined in accordance with this Annex.

For ships having ice class IA or IA Super, or an equivalent ice class, a standardised element corresponding to [5%] of the ship's total energy consumption while under way during the reporting period may be applied, as specified in this Annex.

1 Scope and methodology

This Annex describes the methodology to be applied, for the purposes of applying paragraph 4.4.6 of these guidelines, to:

— determine the additional energy consumption attributable to the technical characteristics of a ship having ice class IA or IA Super, or an equivalent ice class, in accordance with subparagraph 4.4.6(a); and

—

— determine the value of $Energy_j$ after the deduction of the additional energy consumption determined in accordance with this Annex, for each fuel *j*.

For fuel oils, the energy values used for the purposes of this Annex shall be determined by multiplying the monitored mass of fuel oil by the corresponding lower calorific value.

2 Determination of energy consumed underway Where required for the purposes of applying this Annex, the total energy consumed for all voyages during the reporting period, $E_{voyages,total}$, is calculated as follows:

$$E_{voyages,total} = \sum_{j=1}^{J1} \left(\sum_{k=1}^{K} E_{\ total,j,k} - \sum_{k=1}^{K} E_{not\ under\ way,j,k} \right)$$

Where:

J_1 the total number of fuel types used during the reporting period;

K the total number of consumer types onboard the ship;

$E_{total,j,k}$ the total energy consumption of fuel type *j* by consumer type *k*;

$E_{not\ under\ way,j,k}$ the consumption of fuel type *j* by consumer type *k* while the ship is not under way; and

3 Additional energy consumption

For ships having ice class IA or IA Super, or an equivalent ice class, a standardised additional energy consumption, $E_{additional}$, may be calculated as follows:

$$E_{additional} = 0.05 \times E_{voyages,total}$$

4 Allocation of additional energy consumption to $Energy_j$

The sum of the additional energy allocated across the fuel types *j* shall be equal to the total additional energy consumption:

$$\sum_{j}^{J} E_{j\ additional,j} = E_{additional}$$

For each fuel type *j*, the additional energy allocated under this section, $E_{additional,j}$, shall not exceed the total energy content of that fuel type consumed during the reporting period:

$$E_{additional,j} \leq E_{total,j}$$