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PURPOSE

This Staff Working Document contains a draft Union submission to the International Maritime Organization's 16th Intersessional Working Group on GHG (ISWG-GHG 16). The IMO has indicatively scheduled ISWG-GHG 16 from 11 to 15 March 2024.

The draft submission presents the need for flexibility in the Greenhouse Gas Fuel Standard (GFS) and the criteria which a flexibility mechanism should meet. It also analyses how such a mechanism should be designed to meet those criteria.

The Greenhouse Gas Fuel Standard (GFS) needs to have a flexibility mechanism which ensures the environmental integrity, is accessible to all ships, incentivises the use of zero- and near-zero GHG fuels and maintains a level playing field between ships that use fuels with the required Greenhouse gas Fuel Intensity (GFI) and those that rely on the flexibility mechanism to comply. The Flexibility Compliance Mechanism, as proposed by Austria et al. in ISWG-GHG 15/3/1, meets these criteria, while the flexibility mechanisms suggested by other proponents do not.

EU COMPETENCE

Regulation (EU) 2015/757¹ (EU MRV Regulation) establishes the legal framework for an EU system to monitor, report and verify (MRV) GHG emissions. The regulation aims to deliver robust and verifiable GHG emissions data and energy efficiency indicators, 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. It entered into force on 1 July 2015.

The EU Climate Law² sets a binding Union climate target of a reduction of net greenhouse gas emissions—emissions after deduction of removals—by at least 55% by 2030 compared to 1990. 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 that the following legal acts specifically targeting GHG emissions from the shipping sector:

- the revision of the EU Emission Trading System (ETS) Directive (EU) 2023/959³ 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,⁴ to revise monitoring and reporting rules, also through the revision of the relevant implementing and delegated acts).

¹ Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC, OJ L 123, 19.5.2015, p. 55–76

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 (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

⁴ 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.

- Regulation (EU) 2023/1805⁵ (FuelEU Maritime Regulation) focuses on the use of renewable 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.

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.⁶ 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 26 January 2024.

⁵ Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC, OJ L 234, 22.9.2023, p. 48–100

⁶ 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.

**FURTHER CONSIDERATION OF THE DEVELOPMENT OF CANDIDATE MID-TERM
MEASURE(S) IN THE CONTEXT OF PHASE III OF THE WORK PLAN FOR THE
DEVELOPMENT OF MID- AND LONG-TERM MEASURES**

**The need for flexibility in the Greenhouse Gas Fuel Standard (GFS) and criteria that a
flexibility mechanism should meet**

**Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, 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 submission explains that the GFS needs to have a flexibility mechanism which ensures the environmental integrity, is accessible to all ships, incentivises the use of zero- and near-zero GHG fuels and maintains a level playing field between ships that use fuels with the required Greenhouse gas Fuel Intensity (GFI) and those that rely on the flexibility mechanism to comply. The Flexibility Compliance Mechanism, as proposed by Austria et al. in ISWG-GHG 15/3/1, meets these criteria, while the flexibility mechanisms suggested by other proponents do not.

Strategic direction, if applicable: 3

Output: 3.2

Action to be taken: Paragraph 29

Related documents: MEPC 75/INF.5; ISWG-GHG 10/5/3, ISWG-GHG 10/5/6; ISWG-GHG 12/3/3, ISWG-GHG 12/3/4; ISWG-GHG 12/3/9; ISWG-GHG 13/4/7; ISWG-GHG 13/4/11; ISWG-GHG 15/3/1; ISWG-GHG 15/3/4; ISWG-GHG 15/3/6; ISWG-GHG 15/3/7

Introduction

1 The 2023 IMO Strategy on Reduction of GHG Emissions from Ships aims to finalise a basket of candidate measure(s), comprising a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity and a GHG emissions pricing mechanism.

2 Several proposals have been made on the design of the goal-based marine fuel standard:

- .1 China has proposed the IMSF&F (ISWG-GHG 15/3/4, building on ISWG-GHG 12/3/9) under which ships must meet a required greenhouse gas fuel intensity (GFI), expressed on a tank-to-wake (TtW) basis, with the obligation for the fuels which are used to demonstrate compliance, to meet sustainability criteria. Ships that have a lower attained GFI than required would receive surplus reward units (SRUs). Ships that have a higher attained GFI than required would receive deficit units (DUs), which would have to be balanced by either an equal amount of SRUs, an equal amount of remedial units (RUs), a mixture of both or by out-of-sector offsets. The SRUs would not have a fixed price, but the RUs would be sold for a predetermined price, which would be set below the price gap between conventional and sustainable fuels/energy.
- .2 The International Chamber of Shipping (ICS) has proposed, as part of a combination of measures, a regulation which requires ships to use a fixed fuel mix with a GFI 5% lower than the baseline by 2030 and 30% by 2040, while postponing a decision whether such a reduction should be calculated on a TtW or a well-to-wake (WtW) basis (ISWG-GHG 15/3/6 and ISWG-GHG 15/3/7). Overcompliance would not be rewarded. Ships that are not able to purchase compliant fuel oil to meet the required GFI would need to notify their Administration with a Fuel Oil Non-Availability Report (FONAR).
- .3 Austria et al. have proposed a Greenhouse Gas Fuel Standard (GFS) with a Flexibility Compliance Mechanism (FCM) (ISWG-GHG 15/3/1), also as part of a combination of measures. The GFS would require ships to meet a certain GFI, expressed on a WtW basis, while the FCM would generate flexibility compliance units (FCUs) for ships that achieve a lower GFI than required. Ships with a higher attained GFI would be allowed to hand in FCUs to comply, which they may have generated in previous years or acquired from other ships. In the case of a shortage of FCUs, ships would be able to hand in Greenhouse Gas Remedial Units (GRUs), which would be purchased from the central Register at a dissuasive price higher than the price gap between conventional fuels and zero- and near-zero GHG fuels.
- .4 Norway has proposed a GFS similar to the one of Austria et al., albeit with a different flexibility mechanism (ISWG-GHG 13/4/2). Instead of handing in FCUs, ships that do not meet the required GFI would be required to pay a defined GHG contribution to the IMO GHG TC-Trust Fund. The GHG contribution should be significantly higher than the cost gap between low- and zero-GHG fuels meeting the GHG intensity standard and conventional fuels.
- .5 Marshall Islands and Solomon Islands have proposed a GFS which would require ships to meet a certain GFI, expressed on a well-to-wake (WtW) basis (ISWG-GHG 13/4/11). Their proposal does not include a flexibility mechanism.

3 The overview of GFS proposals in paragraph 2 shows that the main differences between the proposals are the calculation basis for the GFI trajectory (a TtW or a WtW basis) and on whether or not flexibility should be offered and, if so, how. This submission highlights the importance of allowing ships flexibility in their compliance. It presents criteria which a flexibility mechanism should meet and it analyses how such a mechanism should be designed to meet those criteria.

How a GFS would function without flexibility or with specific types of flexibility

4 A GFS without flexibility would require all ships to meet the required GFI individually. Ships that would not be able to sail on compliant fuels and ships that encounter non-availability of compliant fuels would not be able to comply. In this situation, they would not

receive a document of compliance and, in principle, be forced out of the fleet. In practice, to avoid this, ships would probably exert enormous pressure on engine manufacturers to come up with solutions and on bunker fuel suppliers to deliver fuels with the required GFI around the globe. In order to limit the costs of compliance, ships would opt for blends of fossil fuels (liquid and gaseous) with their fungible renewable alternatives (e.g. biofuels, green methanol and biomethane), which just meet the required GFI. As the GFI reduces gradually over time, the fossil share of the blend would decrease. In this situation, without flexibility, because there would be no incentive to go beyond the required GFI, best performing fuel options, including radically new fuels, like green hydrogen and green ammonia, would not be taken up, as their costs are initially higher than the cost of blends of today's technologically and commercially mature fuel options, e.g. VLSFO and bioliquids.

5 In short, without flexibility there is a small risk that non-compliant ships are forced out of the fleet, and a large probability that the fuel transition would in the first stages be dominated by blends of only marginally better alternative fuel options with fossil fuels, resulting in delayed investments in zero and near-zero GHG fuels, ships and refuelling infrastructure. The co-sponsors find that the fuel transition should encourage the use of zero- and near-zero fuels from the start in view of the very demanding time constraints for reducing emissions in line with the 2023 IMO Strategy. An early uptake of zero and near-zero GHG fuels will also result in an earlier reduction in their costs as a result of innovations and economies of scale.

6 A GFS with a notification requirement for non-compliance would result in an unpredictable number of ships choosing a FONAR similar to Regulation 18.2 of MARPOL Annex VI, overusing compliant fuels, as this would be the cheapest solution. This may result in distortive effects on compliant fuels' fair availability and undermine the environmental effectiveness of the GFS. Further, non-uniform acceptance criteria for FONARs between flag States could undermine the level playing field between ships and deter and defer timely investments.

7 A GFS with a flexibility mechanism in which the price of RUs is below the price gap between fossil fuels and zero- and near zero fuels would make it financially more attractive for ships to purchase RUs than to either purchase compliant fuels or to purchase FCUs (which, in a market equilibrium, would be priced at the price gap or the marginal GHG abatement cost). Because there is no link between the number of RUs created and any past, current or future emissions reduction, such a flexibility system would allow for the fleet not to meet, on average, the required GFI. This would undermine the predictability of the emission reduction trajectory and put the emissions reduction targets of the 2023 Strategy in jeopardy.

8 Hence, a flexibility mechanism which makes it economically more attractive to buy RUs than to use compliant fuels will undermine the emissions reduction goal of the GFS and of the Strategy.

9 Pooling towards compliance has emerged informally as a compliance option. It would allow ships to voluntarily form a pool and calculate one attained GFI for all the ships in the pool. Pooling could be considered, providing it is designed in such a way that it does not hinder compliance predictability to the single ship and it does not increase administrative burden for stakeholders. Pooling of ships flying different flags would probably mean that the flag States of all the ships in a pool would need to verify the GFS report for the entire pool; this would considerably increase the administrative burden for the flag States.

10 In short, a flexibility mechanism based on voluntary pooling could be considered but should not hinder the compliance of ships not included in a pool nor increase the administrative burden for flag States.

11 A GFS with a penalty for non-compliance but without rewarding overcompliance, would only make it economically more attractive to comply than to pay a penalty if the level of the penalty were set above the price gap between fossil fuels and zero- and near-zero GHG fuels. While such a system would probably result in the achievement of the emission reduction target, it would not provide incentives for ships to opt for best performing zero or near zero GHG fuels. The technological and commercial maturity of such best performing fuel options would in fact need to be fostered by recognising and rewarding overcompliance. There would be no mechanism to partly compensate ships for the extra cost of using zero and near-zero GHG fuels, which are more expensive than early-generation biofuels or LNG. This means that a GFS with only a penalty for non-compliance would not result in a significant uptake of zero and near-zero GHG fuels until the GFI becomes very low. Consequently, the transition to zero-emission shipping, which requires these fuels, would be delayed. This delay would increase the costs of reaching the goals of the 2023 Strategy.

12 In summary, a flexibility system which penalises non-compliance but does not incentivise overcompliance would achieve on the emission reduction targets if the penalty was set above the price gap between fossil fuels and zero- and near-zero GHG fuels, but it would fail to facilitate a sufficiently timely start of the fuel transition. The production and supply of zero and near-zero GHG fuels can only be built up gradually over many years; if there is no incentive for this building up to start early, there is a risk that the sector will encounter significant shortages of such fuels later on, when their use becomes unavoidable to achieve on low levels of required GFI. In any case, any delay in scaling up the production and supply of zero- and near-zero GHG fuels would increase the overall cost of the transition and may jeopardise the attainment of the emissions reduction targets of the Strategy.

Criteria for flexibility

13 Based on the analysis above, it becomes clear that a GFS cannot be implemented without an adequate flexibility mechanism, which meets the following criteria:

- .1 complying with the GFS should come at a lower cost than relying on flexibility options that make non-compliance the choice of preference, thus resulting in a smaller reduction effect on emissions or negating any positive impacts. If this criterion is not met, the emissions reductions resulting from the GFS will be lower than planned in an unpredictable manner, and the achievement of the environmental goals of the 2023 Strategy will be jeopardised.
- .2 the flexibility mechanism should be accessible to all ships under similar conditions. If this criterion is not met, ships with limited or no access to compliant fuels will be disadvantaged.
- .3 the flexibility mechanism should incentivise the use of best performing zero- and near-zero GHG fuels from the start. If this criterion is not met, the fuel transition will be delayed and it will become much more costly to reach the goals of the 2023 Strategy.
- .4 the flexibility mechanism should maintain a level playing field and ensure that all ships contribute to achieving the fuel transition, regardless of whether they can use compliant fuels or not.

The Flexibility Compliance Mechanism (FCM) proposed by the co-sponsors

14 Austria et al. (ISWG-GHG 15/3/1) proposed, as an integral part of the GFS, a Flexibility Compliance Mechanism (FCM), which meets the criteria set out in paragraph 13. Before demonstrating how it meets those criteria, this section briefly describes the FCM.

15 The FCM recognises and rewards overcompliance by ships: if a ship attains a GFI below the required GFI, it will be granted FCUs upon its request. The number of FCUs is determined by the difference between the attained and the required GFI, and the amount of energy used by the ship. Thus, an FCU represents a unit of GHG emissions avoided (expressed in tonnes of CO₂e).

16 Ships have accounts in a central GFS Registry in which they can store FCUs, receive GRUs and from which they can hand in FCUs or GRUs for compliance. The Registry also allows ships to transfer FCUs to other accounts, i.e. to other ships. The Registry ensures that FCUs are secure and that they can be used only once for compliance.

17 The FCM allows ships that do not meet the required GFI to continue to operate and to contribute to the fleet-wide effort to reduce the GFI. It provides these ships with two options:

- .1 The ship can hand in FCUs, which can be created by the same ship in a previous compliance period; exchanged within a fleet or a voluntary pool; or purchased from another ship.
- .2 The ship can buy GRUs from the GFS Registry (at a slightly higher price than the price gap between conventional fuels and zero- and near-zero GHG fuels) and hand them in.

The number of FCUs or GRUs to be handed in is determined by the difference between the attained and the required GFI, multiplied by the amount of energy used by the ship.

18 There is no obligation for ships to participate in the FCM. They can also comply by achieving the required GFI of the fuels and energy they use.

The FCM ensures the environmental integrity of the GFS

19 The FCM ensures that the environmental goal of the GFS – the WTW reduction in GHG emissions – is realised even when some ships do not attain the required GFI. This is because:

- .1 When a ship hands in FCUs to make up for its excess emissions, caused by the fact that it didn't attain the required GFI, these FCUs have been based on emission reductions *beyond the GFI requirement*, either by the same ship in a previous year or by other ships.
- .2 When a ship buys GRUs, the revenues are used to reduce GHG emissions within the boundaries of the energy system of international shipping. GRUs are priced at a level that allows for at least the same emissions reduction in the energy system as the excess emissions for which they are used. The emission reductions financed with GRU revenues cannot be used again to comply with the GFS. Thus, no double counting of GHG emissions reductions can occur in the system.

20 A ship that does not hand in enough FCUs or GRUs to cover its emissions above the required GFI will not obtain its statement of compliance and therefore not be allowed to operate until this situation is solved.

The FCM is accessible to all ships and has a minimal administrative burden

21 Every ship will get an account in the GFS Registry, linked to its IMO Number. This will allow each ship to receive new FCUs, buy GRUs, hand in FCUs and GRUs or transfer FCUs to other ships. Because every single ship will have an account, the FCM will be equally

accessible to small and large shipping companies. Because the account will be available online 24/7, the FCM will be accessible wherever a shipping company is located.

22 Although all ships will have a GFS account, actual use of the FCM will be optional. Ships that use fuel with the required GFI will not need to use their account.

23 The FCM allows for different forms of organising flexibility. Ships that want to do so can form pools for compliance, which could take the form of voluntary agreements to exchange FCUs and/or collectively buy GRUs. In that case, the Registry will facilitate the exchange of FCUs within the pool. Ships can also stay outside of any pool and, if needed, exchange FCUs bilaterally with another ship or buy GRUs from the Registry. In short, the FCM does not prescribe whether, and, if so, how shipping companies organise their compliance.

24 Based on fees for similar systems, the costs of maintaining the Registry will amount to a few hundreds of dollars per ship per year.⁷

The FCM provides incentives to use zero and near-zero GHG fuels from the start and ensures a level playing field

25 Ships with an attained GFI that is better than the required GFI will be granted FCUs. The better the attained GFI, the more FCUs will be granted. These FCUs can be stored or sold or transferred to ships with a GFI that is worse than the required GFI. The value of the FCUs will cover a share of the extra costs of using zero or near-zero GHG emission fuels.

26 The expected equilibrium price of an FCU is linked to the marginal GHG abatement cost. Putting aside the specific case of using GRUs, shipping companies have two options: either to comply by using compliant fuel or to comply by handing in FCUs. Because these options should have the same costs at the margin, the FCU price is linked to the price difference between renewable and fossil fuels. A global maritime GHG pricing mechanism applying a cost to all GHG emissions associated with the energy used by ships would increase the costs of using fossil fuels and thereby reduce the FCU price.

27 Because ships that have an attained GFI worse than the required GFI need to buy FCUs from other ships or GRUs from the Register, they do not get any unfair advantage from operating on conventional fuels. Rather, they contribute financially to meeting the fleet-average required GFI.

Conclusions

28 A Greenhouse Gas Fuel Standard needs to have flexibility in order to allow all ships to continue to sail. The Flexibility Compliance Mechanism, as proposed by Austria et al. in ISWG-GHG 15/3/1, would ensure a level playing field, incentivise the use of zero and near-zero GHG fuels from the start, be accessible to all ships and ensure that the environmental goals of the GFS are achieved. For this last objective, it is important that GRUs are priced above the expected equilibrium price of the FCUs.

Action requested of the Group

29 The Group is invited to consider the elements presented in this document and take action as appropriate.

⁷ Even though the FCM is not an emissions trading scheme (ETS), the tasks and functionalities of the Register resemble those of an ETS register. In the EU ETS, the annual charges for having an account vary per Member State. Most Member States charge a few hundred euros per year. Source: [Union Registry \(europa.eu\)](https://ec.europa.eu/eu-ets-registry/).