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'I' ITEM NOTE

From:	General Secretariat of the Council
To:	Permanent Representatives Committee
No. Cion doc.:	5028/20
No. prev. doc.:	5103/1/20 REV 1
Subject:	IMO - Draft Union submission to the seventh meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships of the IMO in London from 23 to 27 March 2020 on the introduction of life cycle guidelines to estimate well-to-tank greenhouse gas (GHG) emissions of sustainable alternative fuels to incentivise the uptake of sustainable alternative fuels at global level – *Endorsement*

INTRODUCTION

1. On 20 December 2019, the Commission transmitted to the Council a Staff Working Document containing a draft submission to the 7th meeting of the Intersessional Working Group on Reduction of GHG Emission from Ships (ISWG-GHG 7) of the International Maritime Organization (IMO) concerning the introduction of life cycle guidelines to estimate well-to-tank greenhouse gas emissions of sustainable alternative fuels. The deadline for transmitting the draft submission to the IMO Secretariat is 7 February 2020.

2. ISWG-GHG agreed, at its 6th meeting in November 2019, to give priority to the development of "tank-to-propeller" emission factors for alternative fuels, noting that it was important to be cognisant of upstream emissions ("well-to-tank"). It invited interested IMO member States and international organizations to cooperate and submit proposals for draft guidelines on life cycle GHG/carbon intensity for all relevant types of fuels. The draft submission is in response to that invitation and suggests to clarify a number of concepts and key principles that need to be agreed by ISWG-GHG before proceeding with the further development of life cycle guidelines.

WORK WITHIN THE COUNCIL

3. The draft submission was examined by the Shipping Working Party at its meetings on 17, 24 and 31 January 2020. At that last meeting, consensus was reached on the substance of the draft submission. It was also agreed that the Presidency would be allowed to indicate at the time of transmission that the document may be released to the public by the IMO secretariat prior to ISWG-GHG 7.

4. The Commission holds the view that the substance of the draft Union submission falls under EU exclusive competence as it is largely covered by EU legislation (notably by Regulation (EU) 2015/757 of the European Parliament and of the Council[1], Directive (EU) 2018/2001 of the European Parliament and of the Council[2] and Directive 2014/94/EU of the European Parliament and of the Council[3]). However, it is the understanding of the Shipping Working Party that the submission falls under exclusive Union competence only to the extent that its subject matter is covered by those legal acts. To the extent that the matters covered by the submission are not largely covered by those acts, the understanding is that the submission is made by the Member States under shared competence and that this submission should not be construed as exercising shared Union competence.

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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).

2 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

3 Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure (OJ L 307, 28.10.2014, p. 1).

5. Furthermore, there is no agreement on who should submit the draft submission. The Commission maintains the view that the draft submission should be made by "the European Commission on behalf of the European Union", while the Member States consider that it should be made by the Member States and the European Commission.

6. Given the urgency and importance of the matter, it was agreed at working party level to propose to transmit the submission in the name of the Member States and the European Commission, while taking good note of the position of the Commission.

CONCLUSION

7. In the light of the above, the Permanent Representatives Committee is invited to

   – endorse the text of the draft submission in the annex, with a view to its transmission by the Presidency to the International Maritime Organization by 7 February 2020.

ANNEX

INTERSESSIONAL MEETING OF THE
WORKING GROUP ON REDUCTION OF
GHG EMISSIONS FROM SHIPS
7TH session
Agenda item 5

ISWG-GHG 7/5/XX
xx February 2020
ENGLISH
Pre-session public release: ☒

FURTHER CONSIDERATION OF CONCRETE PROPOSALS TO ENCOURAGE THE UPTAKE OF ALTERNATIVE LOW-CARBON AND ZERO-CARBON FUELS, INCLUDING THE DEVELOPMENT OF LIFE CYCLE GHG/CARBON INTENSITY GUIDELINES FOR ALL RELEVANT TYPES OF FUELS AND INCENTIVE SCHEMES, AS APPROPRIATE

Introducing life cycle guidelines to estimate well-to-tank greenhouse gas (GHG) emissions of sustainable alternative fuels to incentivise the uptake of sustainable alternative fuels at global level

Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission

SUMMARY

Executive summary:	This document suggests the introduction of life cycle guidelines to estimate well-to-tank greenhouse gas (GHG) emissions. These suggested life cycle guidelines would be based on sustainability and GHG emissions saving criteria to incentivise the uptake of alternative fuels at global level.
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 27
Related documents:	MEPC 74/7/6, MEPC 74/18; MEPC 75/7/2; ISWG-GHG 1/INF.2; ISWG-GHG 3/2; ISWG-GHG 5/4, ISWG-GHG 5/5; ISWG-GHG 6/5, ISWG-GHG 6/5/1, ISWG-GHG 6/5/2

Introduction

1 The *Initial IMO Strategy on reduction of GHG emissions from ships* compels the maritime sector to peak GHG emissions and phase them out as soon as possible in this century. Furthermore, the Initial IMO Strategy sets an ambition to decline the carbon intensity of international shipping by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008.

2 By 2050, total GHG emissions must be cut by at least 50 percent compared to 2008. To meet these mid- and long-term targets, the IMO urgently needs to develop policies to incentivise the uptake of sustainable alternative low-carbon and zero-carbon fuels and the transition to zero-emission ships.

3 In its report to MEPC 75, the ISWG-GHG 6 gave priority to the development of "tank-to-propeller" emission factors for alternative fuels, noting that it was important to be cognisant of upstream emissions ("well-to-tank"). The Group considered well-to-tank emissions relevant to assess the sustainability of alternative fuels and identify the GHG emissions savings that low-carbon and zero-carbon fuels can bring about in the international shipping sector.

4 In response to the invitation in MEPC 75/7/2 to submit proposals for draft guidelines on life cycle GHG/carbon intensity for all relevant types of fuels, this submission suggests to clarify a number of concepts and key principles that need to be agreed by the Group before proceeding with the further development of such guidelines. To this end, this submission attempts to reconcile the proposals put forward by Norway (ISWG-GHG 6/5), Republic of Korea (ISWG-GHG 6/5/1), United Kingdom (ISWG-GHG 6/5/2), and CESA/EUROMOT (MEPC 74/7/6).

5 As a general point, it is important that the draft guidelines keep an open approach in order to ensure that the guidelines do not exclude any potential new alternative fuels. The guidelines should ensure the possibility for new fuels to be developed.

Definitions and clarifications

6 For the sake of clarity, this submission will use the following categories for describing GHG emissions related to fuels:

.1 Tank-to-propeller (total emissions from combustion on board a ship and potential leakage)

.2 Well-to-tank (total emissions of extracting raw materials, producing, and transporting the fuel)

.3 Well-to-wake (total carbon foot print of the fuel is obtained by adding 1 and 2)

7 The individual value of the three above-mentioned concepts is recognised and it is believed that these are not mutually exclusive. While existing IMO instruments already refer to the tank-to-propeller approach, its sole use is not sufficient to assess the possible contribution of alternatives fuels to the sector's decarbonisation efforts and their overall GHG implications. The guidelines should therefore include a methodology that would allow ship operators to compare the well-to-wake performance of various alternative fuels. Well-to-tank emissions should be taken into account to complement the existing tank-to-propeller approach and assess the overall GHG implications of alternative fuels when incentivising the uptake of sustainable low-carbon and zero-carbon fuels by international shipping. Nevertheless, particular attention shall be attributed to avoiding double counting of emissions.

8 This does not mean that the IMO should regulate well-to-tank emissions or that the shipping sector should account for these emissions. It remains clear that the IMO regulates tank-to-propeller emissions, but it has to be recognised that the fuel requirements set by the IMO have direct impacts on the production, availability and distribution of marine fuels as demonstrated by the recent experience of the introduction of 0.50 percent sulphur limit in marine fuel. Thus, the impact of IMO regulations on the fuel production and supply cannot be ignored.

9 In this respect, it is important to recall that the IMO strategy itself calls for the development of *"robust life cycle GHG/carbon intensity guidelines for all types of fuels, in order to prepare for an implementation programme for effective uptake of alternative low-carbon and zero-carbon fuels"*. The reference to life cycle GHG/carbon intensity in the IMO strategy clearly suggests that the intended guidelines should cover more than the emissions produced during the on-board combustion process and also reflect the production and distribution of these fuels.

10 The importance of increasing the energy efficiency as a first necessary step to reduce GHG emissions is fully recognised. The need to develop zero-emission propulsion technology and move towards zero-emission marine fuels has also been agreed on. As a result, it is considered of the utmost importance to incentivise the uptake of sustainable alternative fuels that are low- or zero-carbon over their life cycle. The recognition of these fuels' contribution can only be realised if upstream/well-to-tank emissions are factored into a well-to-wake analysis.

11 While reflecting upstream emissions in the methodology to be established for the development of robust life cycle GHG/carbon intensity guidelines for all types of fuels, the proposed approach is not intended to duplicate reporting requirements, such as the accounting of emissions established under the Paris Agreement. The approach presented in this document is meant to provide a way to accurately establish and compare the performance of different fuel options for maritime transport.

12 The use of the carbon intensity guidelines would particularly be important to identify the performance of alternative low- or zero-carbon fuels for maritime transport. These are fuels, the production and consumption of which are sustainable because they result in low or zero carbon emissions over their life cycle.

Tank-to-propeller approach and its limitations

13 The tank-to-propeller approach has been central in reflecting carbon emissions from international shipping in existing IMO measures and corresponds to the prevalent use of carbon-based fuels in the sector.

14 By placing emphasis on the emissions from combustion, the tank-to-propeller approach rewards innovation in zero-carbon propulsion technologies. However, its use as a unique metric may also trigger unintended and adverse consequences as it may not directly incentivise ship-owners and operators to choose fuels with an overall low well-to-wake GHG footprint.

15 In order to avoid that ship-owners and operators choose propulsion systems or fuels with an overall net GHG footprint exceeding that of fossil fuels due to the omission and possibly shifting of emissions to upstream sectors, it is important to consider introducing a system allowing for an overall accounting of the GHG performance of fuels, avoiding a shift of emissions to upstream sectors.

Proposals reflecting upstream emissions with the well-to-wake approach

16 By taking into account emissions related to the production cycle of fuels, the well-to-wake approach could enable a more complete picture of the environmental performance of alternative fuels. Furthermore, it could also incentivise the uptake of existing technologies with a lower GHG footprint than conventional fossil fuels. Because of the global commitment to peak emissions as early as possible in this century, it would indeed be important to start reducing emissions immediately using existing technologies and "drop-in" alternative fuels.

17 The assessment of existing and new technologies that produce low- or net zero-carbon emissions from a well-to-wake perspective would require the use of a commonly agreed life cycle GHG methodology. This would incentivise the uptake of clean, renewable, and sustainable alternative fuels. This methodology should rely on a set of criteria, which should be translated into specific well-to-tank values, as described below, reflecting upstream emissions in a well-to-wake approach.

18 The guidelines should continue to rely on tank-to-propeller emissions as the primary metric. This will continue to incentivise the use of low- or zero carbon propulsion technologies/fuels. However, the guidelines should also define a methodology to reflect well-to-tank emissions.

19 The guidelines should apply to all relevant marine fuels. When defining well-to-tank values, the guidelines should consider criteria on sustainability and GHG emissions savings, which reflect already existing regulatory standards, in particular:

.1 Biofuels, bioliquids or gas, and biomass-derived fuels should fulfil a set of sustainability and GHG emissions saving criteria. This reflects already existing regulatory standards and agreed practices. Note that in the European Union, Directive (EU) 2018/2001[4] promotes renewable energy and sets a target for its overall share. It defines the sustainability and GHG emissions savings criteria as well as GHG methodology that such bio-based renewable fuels need to fulfil to count towards the renewable targets defined by the directive.

.2 For synthetic, electricity-based fuels (power-to-x) similar sustainability and GHG emissions saving criteria should be developed. Directive (EU) 2018/2001 sets a GHG saving threshold that such fuels have to meet as well as conditions on additionality of renewable power used in the production of such fuels. A specific GHG methodology for the calculation of the emission savings of such fuels as well as a methodology to provide evidence of additionality will be adopted into law by 2021.

20 The sustainability and climate performance of fuels should be established based on, but not limited to, the above-mentioned criteria, and priority should be given to the least GHG-emitting fuels and propulsion systems, favouring zero emissions solutions, in a well-to-tank perspective.

Principles related to the well-to-tank values

21 The well-to-tank values could be used in combination with the existing tank-to-propeller approach to reflect the performance of fuels in use. In doing so, the values would allow operators to choose less carbon-intensive fuels from a life-cycle perspective. It will create a mechanism to reflect the benefits and disadvantages of different fuels and technologies and provide ship operators with correct signals and incentives so that they can assess the effectiveness of various actions. As well-to-tank values will depend on the type of fuel used by ships in operations (and the

[4] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.

source of production of this fuel), they are not intended to be used in design measures such as the EEDI.

22 Well-to-tank values applied to the fuel consumed would create a means to compare the environmental performance of different fuel options, allowing to account for GHG emission savings produced by low- and zero-carbon fuels and ensuring that, overall, fuels produced sustainably and with the lowest GHG emissions are incentivized in the transition to truly zero-emission fuels.

23 Well-to-tank values and the life cycle guidelines should in principle be applied to alternative fuels. Their possible application to fossil fuels could be further considered. Well-to-tank values would ensure that zero-emissions fuels produced in a sustainable way from low-carbon/renewable pathways are incentivised as compared to fossil fuels. In addition, it would enable demonstrating savings from sustainable alternative fuels options that apply to existing technologies (e.g. uptake or blending of biofuels).

24 Well-to-tank values could be combined with existing default values for tank-to-propeller emissions. In this case, the well-to-wake emissions of a bio-diesel or a blended bio-diesel should first rely on the default downstream emission values set for diesel and proportionally be corrected by its well-to-tank impact. Equally, while tank-to-propeller emissions from hydrogen can be set at zero, its life-cycle analysis may depend on the sustainability pathway for hydrogen production.

25 Reflecting these well-to-tank values would be of key importance for low- and zero-carbon fuels, which do not require special technical arrangements (“drop-in fuels”), and of which the usage cannot be “pre-certified” in design/technical measures such as the Efficiency Energy Design Index.

26 The performance and corresponding well-to-tank values of such fuels could be documented via the Bunker Delivery Note (reflecting the above-mentioned sustainability and GHG-saving criteria). The well-to-tank values should be included in the Bunker Delivery Note by an amendment as appropriate.

Action requested of the Working Group

27 The Group is invited to:

.1 take note of the principles suggested in this submission and comment on the suggested approach for the development of the life cycle GHG/carbon intensity guidelines;

.2 consider and comment on paragraphs 16-26 suggesting to reconcile the tank-to-propeller and well-to-tank approaches by introducing well-to-tank values based on sustainability and GHG emission saving criteria.