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# REDUCTION OF GHG EMISSIONS FROM SHIPS

## Ports' perspective on mid- and long-term measures to serve an equitable energy transition of shipping

**Submitted by the IAPH**

**SUMMARY**

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| *Executive summary:* | With this submission, IAPH comments and builds on the findings of document MEPC 77/7/19 (World Bank) in order to highlight some of the key considerations from the ports' perspective when addressing proposals for mid- and long-term measures. The submission stresses the need of an early adoption of a global market-based measure and advocates that the targeted allocation of generated revenues to port-related investments for low- and zero-carbon fuels has the potential to both serve the targets of the Initial IMO Strategy while contributing to an equitable energy transition of shipping. |
| *Strategic direction, if applicable:* | 3 |
| *Output:* | 3.2 |
| *Action to be taken:* | Paragraph 20 |
| *Related documents:* | MEPC 76/7/12; ISWG-GHG 10/5, ISWG-GHG 10/5/2; MEPC 77/7/4, MEPC 77/7/19 and resolution MEPC.323(74) |


## Background

1 Together with the Government of Canada, the International Association of Ports and Harbors (IAPH) initiated the adoption of resolution MEPC.323(74) that invites Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships. One of the key identified actions to be promoted is the safe and efficient bunkering of alternative low-carbon and zero-carbon fuels in ports.

2 MEPC 76 adopted a *Work plan for the development of mid- and long-term measures* as a follow-up of the *Initial IMO Strategy on the reduction of GHG emissions from ships*. The work plan consists of three phases, with Phase I, until spring 2022, addressing the collation and initial consideration of proposals for measures.

3 Document MEPC 77/7/19 (World Bank) summarizes World Bank recent research on bunker fuels, addressing among others the potential of zero-carbon bunker fuels in developing countries. Its key finding is that many countries – both developed and developing – could seize business and development opportunities in shipping's energy transition, and enter the global market for zero-carbon bunker fuels.

4 This submission contributes to Phase I of the *Work plan for mid-and long-term measures* by highlighting key considerations, principles and priorities from a ports' perspective, when it comes to considering proposals for such measures.

5 In the context of this submission, IAPH refers to ports as the broader ecosystem of public and private entities that constitute a port community, including port authorities, terminal operators, energy providers, bunker suppliers/operators, etc. Worldwide there are diverse arrangements regarding the organization and governance of these communities. This is also the case for the organization of bunkering operations at ports, ranging from full private sector models to government-controlled operators.

**Key considerations for mid- and long-term measures**

6 It is widely acknowledged that energy efficiency gains alone are insufficient to achieve the GHG emissions reduction required by the Initial IMO Strategy, and that energy transition from fossil to new zero-carbon bunker fuels is an absolute necessity. Therefore, mid- and long-term measures are required to facilitate the transition to zero-carbon fuels.

7 IAPH fully supports the adopted Work plan for considering mid- and long-term measures while stressing the need to implement a global market-based measure by 2025. IAPH believes that the early implementation of a global market-based measure (MBM) is essential in bridging the price gap between conventional and low- and zero-carbon fuels and in stimulating the very substantial investments needed in the supply and value chains of such fuels.

8 Accelerating the achievement of a global MBM becomes even more urgent in view of recent evidence that the Organization targets for 2050 are unlikely to be sufficient to reach the 1.5°C target of the Paris Agreement that is vital for the survival of many low-lying nations such as small island developing States (SIDS). Therefore, an increasing number of stakeholders is calling for a 2050 level of ambition of zero emissions for the international shipping sector like document MEPC 77/7/15 (Costa Rica et al.) and the Getting to Zero *Call to Action for Shipping Decarbonization.*[1]

9 With regional instruments starting to be implemented and/or discussed in different parts of the world, the Organization needs to move decisively. Dealing with a regulatory patchwork will overall increase transaction costs for shipping stakeholders. As pointed out in document MEPC 76/7/12 (Marshall Islands and Solomon Islands), regional measures may furthermore create widening inequity for the most disadvantaged nations and the climate vulnerable ones in particular. Therefore, an effective global MBM that is accepted by regional jurisdictions as an equivalent to their initial policy would be desirable.

10 IAPH notes the current MBM proposals on the table (MEPC 77/7/4, ISWG-GHG 10/5/2 and ISWG-GHG 10/5/4) for either the implementation of a carbon levy or a combination between a cap-and-trade system together with a fuel intensity limit. During the current Phase I of considering proposals, IAPH remains neutral as to the choice of the instrument but focuses on the success factors and implications of the different instruments.

[1] https://www.globalmaritimeforum.org/getting-to-zero-coalition/call-to-action

Regardless of the type of instrument chosen, IAPH believes that decisions about allocating funds under an MBM and the identification of priorities should remain under the control of MEPC.

11 As the Initial IMO Strategy stipulates, for any measure under consideration, its impacts on States should be assessed and taken into account as appropriate. Particular attention should be paid to the needs of developing countries, especially SIDS and least developed countries (LDCs). Thus, the key success factor and precondition for the adoption of any measure is its potential to achieve an equitable energy transition of shipping, i.e. minimizing the negative and maximizing the positive impacts.

12 In fact, based on available IAPH data,[2] the divide between developed and developing countries in terms of port infrastructure related projects and initiatives targeting the decarbonization of shipping (such as the provision of Onshore Power Supply and that of port incentives to low-emission ships) in line with resolution MEPC.323(74) can be clearly demonstrated. This is also clearly recognized under the IMO – Norway GreenVoyage2050 project which targets capacity-building in developing countries in all four key areas identified by resolution MEPC.323(74) through the development of specific training packages.

13 In order to achieve consensus among governments on a possible MBM, any potential negative impacts of such a measure, including resulting increase of shipping costs on economies need to be clearly addressed as part of the consideration of mid- and long-term measures. Specific commitments toward technology transfer and capacity-building can play an important role towards that direction. At the same time, the potential for positive impacts of MBMs, especially in the form of mobilizing financial resources to support shipping's energy transition, deserves more attention.

**The case for MBM revenue allocation to land-based infrastructure**

14 The collection and distribution of generated revenues is an inherent crucial part of all MBM proposals. This submission advocates that a significant share of the revenue generated from an MBM should be allocated to those investments in ports, of developing countries in particular, that facilitate the decarbonization of shipping, in line with the actions proposed in resolution MEPC.323(74) that invites Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships.

15 Research by the Getting to Zero Coalition estimates that the scale of cumulative investment needed between 2030 and 2050 to achieve the current IMO target of reducing carbon emissions from shipping by at least 50% by 2050, is approximately $0.8 to 1.2 trillion. If shipping was to fully decarbonize by 2050, this would increase the total investments needed to between $1.2 and 1.6 trillion. The biggest share of investments is needed in the land-based infrastructure and production facilities for low-carbon fuels, which make up around 87% of the total investment. Storage and bunkering infrastructure account for half of these investments.[3]

16 Of the actions proposed in resolution MEPC.323(74), the provision of bunkering infrastructure for low- and zero-carbon fuels and the provision of onshore power for ships at berth require the most capital-intensive investments. These investments are furthermore subject to considerable demand uncertainty, also known as the "chicken and egg" dilemma.

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2 World Ports Sustainability Report 2020, https://sustainableworldports.org/wp-content/uploads/WORLD-PORTS-SUSTAINABILITY-REPORT-2020-FIN.pdf.

3 Getting to Zero Coalition Insight Brief January 2020, https://www.globalmaritimeforum.org/content/2020/01/Getting-to-Zero-Coalition_Insight-brief_Scale-of-investment.pdf.

Ports are unlikely to make investments in this infrastructure and related facilities if there is no obvious demand for them as the risk of being left with large, stranded assets is too high. Equally, shipping companies are unlikely to invest in zero-carbon fuels or onshore power provisions if no infrastructure is available in ports. Financial support to decarbonization investments in ports, of developing countries in particular, through revenues generated from an MBM will help solving this deadlock and ensure simultaneous global deployment of ship-based technologies and onshore infrastructure.

17 As mentioned in document MEPC 77/7/19, the lower energy density of low-carbon fuels such as ammonia and hydrogen compared to fossil fuels is likely to result in more frequent refueling and the development of more decentralized zero-carbon bunker fuel hubs. This provides opportunities for ports in developing countries to upgrade their maritime infrastructure and the potential to create new business ventures.

18 In addition to serving the shipping industry with low- and zero-carbon fuel bunkering facilities, there is a wider potential for ports to develop into energy hubs. For instance, ports could store fuels such as hydrogen which may be needed to decarbonize trucking (as not all trucks may get electrified), and equally important, they could store these fuels either for industrial applications such as heavy industries which are often located close to ports for logistical reasons, or for pure energy storage purposes. It may be much more efficient and safer to store excess electricity in the form of hydrogen in ports where all the bunkering infrastructure exists than creating new bunkering infrastructure elsewhere. Therefore, ports may serve both as the indispensable link between the land-based fuel producers and the sea-based fuel consumers, as well as the link between fuel production and other non-shipping fuel consumers.

19 Allocating a significant share of the revenue generated by an MBM to port-related investments would facilitate the global deployment and use of low- and zero-carbon fuels needed for the decarbonization of shipping. Paying specific attention to the financial support to developing countries could strengthen the support of those countries for MBMs and help a fair and equitable energy transition.

**Action requested of the Committee**

20 The Committee is invited to take into account the key IAPH considerations and perspectives in this document when considering proposals for mid- and long-term measures.