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WORKING GROUP ON REDUCTION OF
GHG EMISSIONS FROM SHIPS
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**FURTHER CONSIDERATION AND FINALIZATION OF THE ASSESSMENT AND
SELECTION OF MEASURE(S) TO FURTHER DEVELOP IN THE CONTEXT OF
PHASE II OF THE WORK PLAN FOR THE DEVELOPMENT OF MID- AND
LONG-TERM MEASURES**

**Further information about revised IMSF&R proposal and possible draft amendments to
MARPOL Annex VI to implement the IMSF&R mechanism and establish
an IMO Maritime Sustainability Fund (IMSF)**

Submitted by ICS

SUMMARY

Executive summary: MEPC 79 noted increasing support for an economic element within a basket of measures which could provide the world fleet with the needed incentive to effectively accelerate the energy transition. ISWG-GHG 13 provisionally considered a revised IMSF&R mechanism including the establishment of an IMO Maritime Sustainability Fund. This document provides additional information, including possible draft amendments to MARPOL Annex VI, to assist a decision at MEPC 80 about the measures to be prioritized for development in Phase III and expedite approval by Parties of the necessary amendments in 2024. It reiterates the core elements of the mechanism that need to be finalized and the variables that will determine the quantum of the contribution by ships, and suggests recommendations the Group might make to MEPC 80.

*Strategic direction,
if applicable:* 3

Output: 3.2

Action to be taken: Paragraph 45

Related documents: MEPC 79/WP.1/Rev.1, MEPC 79/WP.5, ISWG-GHG 13/4/3, ISWG-GHG 13/4/4, ISWG-GHG 13/4/6, ISWG-GHG 13/4/8, ISWG-GHG 13/4/9, ISWG-GHG 13/4/11, ISWG-GHG 12/3/9, ISWG-GHG 12/3/10, ISWG-GHG 12/3/17, ISWG-GHG 10/5/2, MEPC 76/7/7, MEPC 76/7/12 and resolution MEPC.304(72)

Introduction

1 ISWG-GHG 13 recalled that in accordance with the *Work Plan for development of mid- and long-term measures as a follow-up of the Initial IMO Strategy on reduction of GHG emissions from ships*, the decision at MEPC 80 on measures to be developed as a priority may be taken in conjunction with the revision of the Initial Strategy and that, in accordance with Phase II of the Work Plan, this decision should be based on an assessment of the proposed measures, in particular their:

- .1 feasibility;
- .2 effectiveness to deliver the long-term levels of ambitions of the Initial Strategy; and
- .3 potential impacts on States (MEPC 79/WP.5, paragraph 116).

2 Having extensively considered the proposals for mid-term measures, several delegations at ISWG-GHG 13 highlighted the need for more detailed information on the proposed measures to be able to fully assess their feasibility (MEPC 79/WP.5, paragraph 142).

3 To inform a decision at MEPC 80, this document sets out further information about the proposal for a revised International Maritime Sustainability Funding and Reward (IMSF&R) measure – or "F&R" measure – using a flat rate (levy-based) contribution by ships, as set out in document ISWG-GHG 13/4/9 (ICS). Being consistent with the existing Fuel Oil Data Collection System (DSC), this new document still refers to contributions per tonne of CO₂ emitted and rewards per tonne of CO₂ prevented by the use of eligible alternative fuels. But a decision on which additional GHG emissions, if any, should be covered, and how these might be reported, can be taken during Phase III of the Work Plan.

4 To assist the Group's understanding of the proposed F&R measure with respect to feasibility, effectiveness and impact on States, the annexes to this document set out possible draft amendments to MARPOL Annex VI and accompanying draft Guidelines to implement the International Maritime Sustainability Funding and Reward (IMSF&R) mechanism and to establish an IMO Maritime Sustainability Fund (IMSF).

5 To help the Group make progress with a view to adoption of an economic measure in 2024, this document also makes suggestions, in paragraph 45, on recommendations that might be made to MEPC 80 so that the measure can be finalized and adopted as soon as possible.

6 The Group will recall that to facilitate consensus, document ISWG-GHG 13/4/9 suggested combining core elements of proposals submitted under Phase I of the Work Plan for development in Phase III, modifying the IMSF&R proposal originally set out in document ISWG-GHG 12/3/9 (Argentina et al.) whilst also taking account of similar proposals contained in documents MEPC 78/7/5 and ISWG-GHG 12/3/17 (both by Japan) for a "feebate" system, and document MEPC 76/7/12 (Marshall Islands and Solomon Islands) which also proposed a flat rate contribution system using a contribution mechanism similar to that proposed for what was then called the IMRF as set out in document MEPC 76/7/7 (Denmark et al.).

7 In summary, the immediate purpose of the revised F&R mechanism, as set out in document ISWG-GHG 13/4/9, is to accelerate shipping's transition to low- and zero-carbon fuels to reach a 'take off' point on a pathway to full decarbonization by narrowing the price gap between new and conventional fuels.

8 Importantly, to address concerns raised by many delegations, the proposed contribution by ships per tonne of CO₂ emitted to an IMO Maritime Sustainability Fund (IMSF) would initially be set at a quantum which would avoid disproportionately negative impacts on States. This can be achieved because the price gap between new and conventional fuels would be narrowed by providing rewards to the relatively small number of ships that would be using eligible alternative fuels during the initial years of implementation of the measure (i.e. up to 2030) so that the initial quantum of the contribution would thus be far smaller than the price gap whilst still achieving the goal of narrowing the price gap.

9 Cognizant of the CBDR-RC principle, as well as funding rewards the IMSF would be used, inter alia, to support the activities of a separate IMO Maritime Sustainability Board (IMSB) to expedite a just and equitable transition as well accelerating the research and development of zero-carbon fuels and technologies. With political will, ICS reiterates that as part of a basket of mid-term measures, such an economic measure could be adopted at MEPC 82 in 2024.

10 In document ISWG-GHG 13/4/9, ICS suggested that to rapidly accelerate the decarbonisation of shipping, the immediate need is to ensure that, for example, 5% of the energy used by shipping in 2030 could be produced from alternative fuels by narrowing the price gap with conventional fuels. In addition to setting reduced levels of contributions by ships using fuels with a lower carbon conversion factor, this reduction of the price gap would be achieved via a rewards programme for CO₂ emissions prevented by ships using "eligible alternative fuels". The definition of eligible alternative fuels could be decided in Phase III of the Work plan, taking account of the guidelines on life cycle GHG intensity of fuels (LCA guidelines) which are scheduled to be adopted at MEPC 80.

11 Document ISWG-GHG 13/4/9 proposed that administration of the collection of the flat rate contribution by ships per tonne of CO₂ emitted and administration of the rewards programme for ships using eligible alternative fuels would be undertaken by the IMO Maritime Sustainability Fund (IMSF), whilst, cognizant of the CBDR-RC principle, the billions of dollars of funds collected annually by the IMSF, that are not used for rewards or administration of the IMSF, would be disbursed to the IMSB to support, inter alia, maritime GHG reduction projects in developing countries.

12 Document ISWG-GHG 13/4/9 proposed that the reward rate per of tonne of CO₂ emissions prevented by the use of eligible alternative fuels should be determined by the MEPC based on the global average price of marine diesel/gas oil during the five years preceding adoption of the measure, as it would not be possible to estimate meaningfully the future cost of eligible alternative fuels with any precision. This reward rate would be expressed as a percentage of this five-year average figure, which ICS suggests should be set so as to ensure that the quantum of the contribution by ships to the IMSF required to generate sufficient funds to meet the total annual cost of the IMSF rewards programme would be politically acceptable to States concerned about the potential trade impacts. However, depending on the design of the measure, including the level of funding used for purposes other than rewards, i.e. support for the activities of the IMSB, the percentage of the average cost of conventional fuel used to determine the reward rate could be higher if there was support for this among Member States. The reward rate would also be subject to a review every five years, as would the quantum of the contribution by ships to the IMSF.

Discussions at ISWG-GHG 13

13 At ISWG-GHG 13, many delegations supported a "levy", "reward", "feebate" or "flat rate contribution" approach as an economic measure to regulate GHG emissions from shipping, as proposed in several documents including ISWG-GHG 13/4/9. Several delegations referred to the wide support of the shipping industry for this type of approach, in terms of simplicity, predictability, easiness to setup and administer, and transparency. Several delegations noted that such a measure could be adopted by 2024 (MEPC 79/WP.5, paragraph 131).

14 At ISWG-GHG 13, several delegations expressed the view that in the early phases of implementation the level of the contribution might be relatively low and could be increased in ratchets as alternative fuels become available. Several delegations also mentioned that the structure of the proposed International Maritime Research and Development Board and Fund could be used to facilitate the development of a "levy", "reward", "feebate" or "flat rate contribution" approach (MEPC 79/WP.5, paragraph 133).

15 The co-sponsors of document ISWG-GHG 13/4/8 (Austria et al.) also indicated that they could accept a flat rate (levy-based) contribution system provided this was complemented by a technical measure such as a global fuel standard (GFS). Taken together with other comments made at ISWG-GHG 13, this suggests there is a route to consensus for such an approach to be developed and finalised in Phase III, and that the Group could recommend such an approach to MEPC 80.

16 With respect to document ISWG-GHG 13/4/8 (Austria et al.), ICS supports further consideration of complementary technical measures that could address issues such as upstream emissions from fuels used by ships which have been proposed in the context of a basket of mid-term measures, including the proposal for a GFS in document ISWG-GHG 12/3/3 as further elaborated in ISWG-GHG 13/4/7 (also both from Austria et al.). However, rather than combining such a complementary technical measure with an economic measure within the same set of regulations, which would be significantly challenging to do from a drafting perspective, it is suggested that this technical measure should be developed in parallel to an economic measure as a separate chapter within MARPOL Annex VI.¹ ICS also wishes to reiterate its comments about a potential GFS as set out in document ISWG-GHG 12/3/10 (ICS).

Discussion

17 ICS suggests that to ascertain the feasibility and effectiveness of a mandatory measure for international shipping adopted by the Organization there is a need for the Committee to understand the mandatory provisions that might be adopted to implement the measure. It is also suggested that only by undertaking such a review of draft mandatory provisions can the potential impacts on States be readily and accurately appraised before commencing, as soon as possible during Phase III, a comprehensive impact assessment of the measure.

¹ In addition, ICS wishes to highlight a potential concern about the proposal by Austria et al. for the GFS to include a "Surplus Reward System" involving the exchange of "Surplus Reward Units" between shipping companies, with these units being stored in a central global registry operated by IMO, which would track their ownership and existence. As well as seeming to add excessive complexity, such a system would seem to place a large administrative burden on States and the Organization. This Surplus Reward System could also be perceived as having similarities with an economic measure based on a trading system, for which the Group has indicated little support, and a degree of overlap with an economic measure. ICS therefore suggests that these elements may need to be significantly modified if a complementary technical measure, such as a GFS, is to be further developed. ICS also notes that, if developed as separate chapters within MARPOL Annex VI, the technical measure and economic measure making up the basket of mid-term measures, can be developed at different speeds, especially as the proposal for an economic measure, such as the revised IMSF&R as set out in this document, is more mature.

18 In this regard, and to expedite an urgent need for consideration and approval of the proposed amendments to MARPOL Annex VI at MEPC 81, this document provides draft regulatory text to implement the "Fund and Reward" proposal as previously set out in document ISWG-GHG 13/4/9 (ICS).

Feasibility

19 To assist the Group's understanding of the proposed IMSF&R (F&R) measure and demonstrate its feasibility, including rapid adoption by 2024, the annexes to this document set out possible draft amendments to MARPOL Annex VI to implement the International Maritime Sustainability Funding and Reward (IMSF&R) mechanism and to establish an IMO Maritime Sustainability Fund (IMSF).

20 It will be recalled that the architecture proposed for the collection of contributions from ships by the IMSF is very similar to that proposed for the International Maritime Research Fund set out in document ISWG-GHG 76/7/7 (Denmark et al.) and that this architecture achieved significant support within the Committee as well as in subsequent proposals for mid-term economic measures. This includes document ISWG-GHG 13/4/8 (Austria et al.) suggesting the structure and working arrangements of a possible "IMO Climate Transition Fund" which has similarities with the proposed IMSF.

21 In summary, the data to support the implementation of the IMSF contribution system will utilize the existing IMO Fuel Oil Data Collection System (DCS) for fuel oil consumption of ships, which will greatly minimize the administrative burden on Member States. The proposed IMSF would carry out all the functions necessary to calculate the contributions to be made by ships, collecting these contributions using a fully automated contribution system and providing evidence that the required contributions have been made which would be presented by the ship to its flag State. All that would be required of Administrations would be to issue the ship with a Statement of Compliance, which would be used as the primary means of demonstrating compliance to port State control. No contributions from ships will be collected by Governments or maritime Administrations and all contributions by ships will be made directly to the IMSF.

22 The Group will recall that ICS has previously developed a working prototype for a fully automated system to collect contributions by ships to an IMO fund, to demonstrate how this would involve minimal administrative burdens for Member States and would be feasible for the Organization to establish. This can readily be adapted for use by the proposed IMSF to administer the disbursement of rewards to ships using eligible alternative fuels. An internet link to the prototype contribution collection system can be found in document MEPC 77/7 but for the convenience of the Group this link can be found [here](#)².

23 For the F&R measure to be feasible it has to be capable of achieving consensus. In addition to expediting the production and take-up of eligible alternative fuels and providing billions of dollars annually to support maritime GHG reduction efforts in developing countries, an important advantage of the proposed reward (feebate) mechanism is that the price gap between eligible alternative fuels and conventional fuels can be reduced without requiring the quantum of the contribution by ships to the IMSF to be set at a level which would result in disproportionately negative impacts on States.

24 ICS takes no position on what the quantum of the contribution by ships to the IMSF should be, as this will be a political decision by Member States and depends on a number of variables, as listed in paragraph 38 below, which will need to be decided by the Committee during Phase III.

² <https://www.figma.com/proto/bNh4TdfFgbFZSSxWc9LEgk/IMRF-Prototype?node-id=0%3A482&scaling=scale-down&page-id=0%3A1>

25 Notwithstanding that ICS takes no position on what the quantum of the contribution by ships to the IMSF should be, and recalling that the initial impact assessment contained in document ISWG-GHG 12/3/8 (ICS) indicated that a contribution quantum in excess of US\$50 or more per tonne of CO₂ (more than US\$150 per tonne of fuel) would appear to have no disproportionately negative economic impacts on States, document ISWG-GHG 13/4/9 used an example, for illustrative purposes only, to demonstrate that an initial reward rate of, say, US\$100 per tonne of CO₂ prevented by the uptake of eligible alternative fuels would, in the first five years of implementation, have a maximum total cost of about US\$5 billion per year (although Member States could, of course, agree to set a higher reward rate). If, based on this example, which is only included to show how the measure might work, similar funds (i.e. about US\$5 billion per year) were also collected to support GHG reduction projects in developing countries and support R&D this might only require the contribution by ships to the IMSF to be set at a quantum equivalent to about US\$40 per tonne of conventional fuel oil (about US\$12.5 per tonne of CO₂ emitted). This is based on the assumption that, in the first five years of implementation, up to 48 million tonnes of CO₂ emissions would be prevented each year that would require rewards (i.e. about 5% of shipping's total annual CO₂ emissions, based on total fuel consumption by shipping of 300 million tonnes per year).

26 As explained below, the initial impact assessment submitted with document ISWG-GHG 12/3/8 (ICS) indicated that a contribution quantum in excess of US\$150 per tonne of fuel (more than US\$50 per tonne of CO₂ emitted) would be unlikely to result in disproportionately negative impacts on States. Following agreement of the variables listed in paragraph 38, it should therefore be feasible for the Committee to reach consensus on the quantum of the contribution by ships to the IMSF, provided this is supported by a comprehensive assessment of the impact on States, which the draft amendments to MARPOL Annex VI contained in the annexes to this document are also intended to help facilitate.

27 The example of the reward rate for eligible alternative fuels used in paragraph 25, would, depending on what was decided with regard to other variables, require total funds of about US\$10 billion per year, assuming contributions were collected for the consumption of about 250 million tonnes of fuel oil per year (i.e. taking account of the ships to which the requirement to make a contribution would initially be applicable). ICS would have no objection to the initial contribution being set at a higher quantum than that used for illustrative purposes in paragraph 25, but the Group may wish to consider carefully whether finance ministries would be comfortable with total contributions greater than, say, US\$10 billion being made annually to a global fund such as the IMSF.

Effectiveness to deliver the long-term levels of ambitions of the Initial Strategy

28 It is emphasized that the delivery of the long-term levels of ambition of the Initial Strategy, as may be revised by MEPC 80, will be very much dependent on the production and availability to shipping of low- and zero-carbon fuels in ports throughout the world, including developing countries, as well as technologies such as carbon capture and storage.

29 Whilst a global fuel standard may assist, this is unlikely to be effective on its own to ensure the necessary early investment in the production and uptake of new marine fuels globally unless significant economic incentives can be provided to energy producers to encourage the production of alternative fuels which can be made available to international shipping, at scale, as soon as possible, bearing in mind that shipping will be in competition with other sectors for access to low- and zero-carbon fuels. Ships typically have a 25-year life span. If a 'take-off' point can be achieved by around 2030, whereby, say, 5% of the energy used by shipping is generated from alternative fuels – so that energy producers, shipowners, ship builders and engine manufacturers have clarity about which fuels will be used by those ships being constructed for service throughout the remainder of the transition – delivery of the long-term levels of ambition, as may be agreed by MEPC 80, will remain plausible.

30 The revised F&R mechanism, as set out in document ISWG-GHG 13/4/9 and elaborated on further in this document, would be relatively simple to establish. ICS considers that the approach suggested for setting the quantum of the contribution per tonne of CO₂ emitted and the reward rate for the use of eligible alternative fuels, as well as being simple to administer and minimizing the potential for market distortion, would still be of sufficient magnitude to encourage first movers, sending a strong signal to fuel producers and the shipping industry which will expedite the production and uptake of low and zero-carbon fuels to reach a 'take off' point by 2030, on a pathway to full decarbonisation in line with the long-term levels of ambition of the GHG Strategy as may be revised at MEPC 80.

31 As explained in document ISWG-GHG 13/4/9, a ship using 10,000 tonnes of an alternative fuel such as ammonia during a calendar year, if based on a reward rate of, for example, about US\$100 per tonne of CO₂ prevented, would receive an annual reward of about US\$1.4 million for the total CO₂ emissions prevented during the calendar year. However, if the reward rate was set at twice this amount – or potentially even more for green ammonia – then the annual reward received would be higher. This and comparable levels of rewards, for the use of other low and zero-carbon fuels, would send a very strong signal to fuel producers and the shipping industry which will expedite the production and uptake of those alternative fuels. Ships opting for carbon capture devices could be considered under the provisions of regulation 4 of MARPOL Annex VI "Equivalents"³ and so exempted from the requirement to make a contribution to the IMO Fund. Additionally, ships using carbon capture devices could receive a reward for preventing CO₂ emissions.

Potential impacts on States

32 Pursuant to MEPC.1/Circ.885/Rev.1, an initial impact assessment on States of a flat rate (levy-based) contribution system was set out in annex to document ISWG-GHG 12/3/8 (ICS) which contained a detailed initial assessment, prepared with the assistance of Clarksons Research, of the impacts on States of a range of different quanta of contributions by ships per tonne of CO₂ emitted. It is suggested that as the possible quantum for the contribution made by ships to the IMSF will be within the range assessed by this initial impact assessment that it remains applicable for the proposed draft amendments to MARPOL Annex VI to implement the F&R proposal, as set out in annex 1 of this document.

33 ICS takes no position on what the quantum of the contribution should be and, as considered above, agreement upon a relatively smaller quantum might initially be appropriate to achieve consensus. But the initial impact assessment, which analysed the volatility of marine fuel oil prices over the past ten years on freight rates and the price of delivered cargo for a variety of trade routes and cargo types, with a focus on developing countries geographically remote from their markets, suggests that an initial contribution by ships set at US\$50 or more per tonne of CO₂ emitted would have no disproportionately negative impacts on the economies of States. However, the quantum of the contribution finally agreed by the Committee would need to be subject to a comprehensive impact assessment and, as suggested by ICS and others, would be subject to review every five years, taking account of any increase in the availability of eligible alternative fuels.

34 In document ISWG-GHG 13/4/4 (Argentina et al.), the co-sponsors suggested that it should be "agreed in principle that efforts are made to ensure that an average increase in the fuel cost by over [5%] is avoided or otherwise mitigated where possible". However, subject to

³ "4.1 The Administration of a Party may allow any fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex if such fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods are at least as effective in terms of emissions reductions as that required by this Annex, including any of the standards set forth in regulations 13 and 14."

confirmation by a comprehensive impact assessment, given that the initial impact assessment in document ISWG-GHG 12/3/8 indicates that an initial contribution by ships set at US\$50 or more per tonne of CO₂ emitted (some 35% of average fuel costs during the past 5 years) would have no disproportionately negative impacts on the economies of States, ICS suggests that it would be appropriate to set the initial contribution at a quantum at somewhat more than 5% of the average global price of conventional fuels during the five year period preceding the adoption of the measure without any need for mitigation (which would be very complicated to calculate and administer) bearing in mind that when the decision was taken in 2017 to implement the 2020 global sulphur cap it was anticipated that this would increase marine fuel costs by about 50%. However, this concern about the potential need to mitigate trade impacts could become more relevant should the quantum of the contribution be increased five years after implementation following a review.

Core elements of the F&R proposal to be developed in Phase III

35 ISWG-GHG 13/4/9 set out possible core elements for a refined F&R proposal, which it is suggested, with the agreement of the Committee at MEPC 80, should be taken forward for further consideration and development in Phase III of the Work Plan, which have been used as the basis of the draft amendments to MARPOL Annex VI as set out in the annex to this document:

- .1 an IMSF&R mechanism will be established by amendments to MARPOL Annex VI;
- .2 all applicable ships will be required to make an annual contribution per tonne of CO₂ emitted to an IMSF calculated [on a Tank-to-Wake (TtW)⁴/Well-to-Wake (WtW) basis]. For the purpose of the measure, the conversion factor for the CO₂ emissions of all fuel types will be in line with the associated [TtW/WtW] value (in gCO₂/MJ) to be provided in the LCA guidelines under preparation by the Organization.⁵ However, for the avoidance of excessive complexity (as the conversion factors are similar) it is currently suggested that the conversion factor for the CO₂ emissions of "diesel/gas oil", "Light Fuel Oil (LFO)" and "Heavy Fuel Oil (HFO)" will be treated as being equal to diesel/gas oil.⁶ For a ship which combusts more than one fuel type, the CO₂ emitted from different fuel types should be calculated separately and then be aggregated as the basis to calculate the total contribution to the IMSF;
- .3 the quantum of the contribution (in \$/tCO₂) by ships to the IMSF will be agreed by the Committee and reviewed on a five-year basis taking account, inter alia, of the availability of "eligible alternative fuels", their price gap with conventional liquid fuel oil (diesel/gas oil) and the impacts on States;
- .4 a flat contribution rate (in \$/tCO₂) per tonne of CO₂ emitted by a ship will be set so that ships combusting fuels with a lower CO₂ conversion factor

⁴ In line with *2006 IPCC Guidelines for National Greenhouse Gas Inventories*.

⁵ Under preparation by the Correspondence Group on Marine Fuel Lifecycle GHG Analysis established by MEPC 78, with revised terms of reference agreed by MEPC 79.

⁶ Conversion factor between fuel consumption and CO₂ emissions, as currently set out in paragraph 2.2.1 of annex to resolution MEPC.308(73) on *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, as amended. However, this issue might be revisited when the LCA guidelines under development by the Organization are finalized. It should be noted that following implementation of the IMO 2020 global sulphur cap many ships now use "Very Low Sulphur Fuel Oil (VLSFO)".

(such as LNG or methanol), [determined on a TtW/WtW basis] taking account of the Organization's LCA guidelines, will consequently make a smaller contribution compared to ships that only use liquid fuel oil (diesel/gas oil). Some alternative fuels, with a zero-carbon factor, including some which when consumed by a ship may be eligible for rewards, will not require a contribution to be made to the IMSF;

- .5 to help narrow the price gap between conventional liquid fuel oil and "eligible alternative fuels", ships will receive rewards from the IMSF based on the CO₂ emissions which are prevented by their use of eligible alternative fuels. As alternative fuels have a different energy density to each other and conventional fuel oil, the CO₂ emissions prevented would be calculated in terms of the energy consumed in comparison to liquid fuel oil, which for the purpose of the measure would be treated as being equivalent to diesel/gas oil. Alternative fuels that are eligible for reward would be considered and specified by the Committee;
- .6 to address concerns raised about the complexity of the previous IMSF&R proposal, it is proposed that all applicable ships should be required to make a flat rate contribution to the IMSF based on their actual annual [TtW/WtW] CO₂ emissions,⁷ and that only ships that use "eligible alternative fuels" would receive a reward for CO₂ emissions prevented. In order to help move the discussion forward, it is suggested that any decision about which alternative fuels might be eligible for rewards should be deferred to Phase III of the negotiation;
- .7 the data to support the implementation of the IMSF contribution system will utilize the existing IMO Fuel Oil Data Collection System (DCS) for fuel oil consumption of ships which will minimize the administrative burden on Member States. The proposed IMSF would carry out all the functions necessary to calculate the contributions to be made by ships, collecting these contributions using a fully automated contribution system and providing evidence that the required contributions have been made which would be presented by the ship to its flag State. All that would be required of Administrations would be to issue the ship with a Statement of Compliance, which would be used as the primary means of demonstrating compliance to port State control. No contributions from ships will be collected by Governments or maritime Administrations and all contributions by ships will be made directly to the IMSF;
- .8 it is further proposed to amend the DCS to enable ships to report the "eligible alternative fuels" which they have consumed and the CO₂ emissions that have been prevented, so that this information can be reported annually to the IMSF, using the same fully automated system for calculating and collecting contributions, at the same time each year when ships will be required to report their verified annual fuel oil consumption data to the IMSF. The IMSF will use this data (which will already have been verified by a Recognized Organization at the same time that DCS fuel consumption data is verified) to calculate any rewards to ships for the use of "eligible alternative fuels" and disburse these rewards to the ships concerned;

⁷ TtW – "Tank-to-Wake" as defined in the Organization's draft LCA guidelines under preparation.

- .9 the quantum of the reward rate per tonne of CO₂ prevented will be determined taking into account the average global price of conventional liquid fuel oil during the five calendar years preceding the adoption of the measure and will be equivalent to [X%] of this average price during this period as determined by MEPC. The reward rate will be reviewed by MEPC every five years;
- .10 the contributions made to the IMSF will be disbursed for the following purposes:
- .1 to expedite the development and uptake of "eligible alternative fuels" through the provision of annual rewards to ships which use "eligible alternative fuels";
 - .2 capacity-building and negative impact mitigation in developing countries, including deployment of alternative maritime fuel production facilities and new bunkering infrastructure that may be required to expedite transition, and funding, inter alia, for the IMO GHG-Trust Fund and IMO CARES programme, to support other maritime GHG reduction projects in developing countries, especially SIDS and LDCs;
 - .3 funding for applied research and development (R&D) programmes of alternative fuels and innovative technologies; and
 - .4 administration of the IMSF including the establishment and administration of the contribution and reward mechanism to ensure that this entails no costs to the Organization.
- .11 the Committee will be required to ensure that the IMSF directs sufficient funds each year to reward ships using "eligible alternative fuels", so that the Organization can honour its commitments to energy producers and shipping companies which invest in "eligible alternative fuels". For the first five years after entry into force, the initial quantum of the contribution by ships will be set by the MEPC with the aim of ensuring that around [XX%] of the total contributions made by ships each year to the IMSF will be adequate to fund rewards to ships for CO₂ emissions prevented, on the basis that the energy from "eligible alternative fuels" consumed annually may comprise up to [5%] of the total fuel consumption by international shipping in any year. However, if during the first five years of implementation the total contributions made to the IMRF are lower than that required to meet the funding of rewards, the funding of rewards (and for administration of the contribution and reward system) will take precedence over any other uses agreed by MEPC for the contributions collected, but would in no case be more than [XX%];
- .12 governance of the IMSF and its administration of the contribution and reward mechanism will be undertaken with overall oversight by IMO Member States acting through MEPC. The use of funds allocated for purposes other than rewards and administration of the system will be determined by the IMSB which will also report to the MEPC; and
- .13 other important issues that will be necessary to ensure smooth implementation of the measure should be considered in more detail under Phase III of the Work Plan. These include, inter alia, avoidance of double

counting of emissions under any national or regional measures which might also charge ships for CO₂ emissions to which this Organization's measure applies; ensuring that any entity other than the shipowner/operator that assumes responsibility for the operation of the ship under a charter party agreement and is responsible, inter alia, for paying for the cost of the fuel, is responsible for the cost of the contribution to the IMSF; implications for the maintenance of fair competition of the gross tonnage threshold for ships, to which the regulations would be applicable when adopted; and change of ship ownership or flag State Administration during a calendar year.

36 In addition to the core elements of the measure listed above, ICS suggests that the definition of eligible alternative fuels should be limited to fuels with a (CO₂) conversion factor of not more than [xx]% of diesel/gas oil. This is to ensure that only those fuels which will contribute to the long-term ambitions of the IMO GHG Strategy will receive rewards and to reduce the amount of funding that will be required to support the rewards programme so that the quantum of the contribution needed to fund this can be set at level which will not result in disproportionately negative impacts on States. As mentioned above, consideration should also be given to rewards for CO₂ emissions prevented by other technologies such as carbon capture, and potentially, subject to further consideration, other technologies such as on-board energy production/generation and storage from sources such as solar and wind.

37 To inform a decision at MEPC 80 about which measures to prioritize, and to demonstrate how these suggested core elements for an economic measure might be implemented by possible amendments to MARPOL Annex VI, ICS has prepared a comprehensive regulatory package as set out in paragraph 39 and the annexes to this document.

Identification of variables to determine quantum of the contribution to be made by ships

38 In summary, the variables which would determine the calculation of the quantum of the contribution by ships to the IMSF under this suggested F&R measure would include the following:

- .1 total annual funding required to meet obligations of the IMSF (total annual funding required for rewards programme plus funding for other agreed purposes) which would depend on:
 - .1 the percentage alternative energy goal agreed for 2030, e.g. 5%;
 - .2 the different types of alternative fuels that were determined to be eligible for rewards (see example shown in annex 3 of this document);
 - .3 the agreed minimum percentage of total annual contributions to the IMSF that are allocated for the funding of rewards and administration of the IMSF; and
 - .4 the agreed percentage of total annual contributions to the IMSF that are allocated for all purposes other than rewards and administration of the IMSF;
- .2 the reward rate for CO₂ emissions prevented using eligible alternative fuels which will depend on:

- .1 the average global price of conventional fuel (diesel/gas oil) in the five years preceding the adoption of the measure (currently about US\$400 per tonne);
- .2 the agreed percentage of this five-year average global price on which the reward rate will be based; and
- .3 agreed estimates of the minimum annual total fuel consumption of ships, during the first five years of implementation, to which mandatory contributions are applicable (e.g. about 250 million tonnes of fuel oil per year).

Comprehensive regulatory package including proposed draft amendments to MARPOL Annex VI

39 As indicated above, ICS has taken into account the discussion at ISWG-GHG 13 and MEPC 79, in particular with regard to the issues raised relating to the operational, administrative, legal, and governance aspects of the proposal and, in response to the Committee's invitation for further details, has prepared a comprehensive regulatory proposal, set out in the annexes to this document as follows:

- .1 annex 1 – draft amendments to MARPOL Annex VI to add, *inter alia*, a new chapter 6 "International Maritime Sustainability Funding and Reward Mechanism";
- .2 annex 2 – draft MEPC resolution and annex setting out draft "Guidelines for the Establishment and Governance of the International Maritime Sustainability Board and Collection of Contributions Made to and Reward (Feebate) from the IMO Maritime Sustainability Fund under chapter 6 of MARPOL Annex VI";
- .3 annex 3 – draft MEPC resolution and annex setting out draft guidelines on the "Contribution to and Reward (Feebate) from the IMO Maritime Sustainability Fund"; and
- .4 annex 4 – draft MEPC resolution and annex setting out a draft "Charter for the Establishment and Governance of the International Maritime Sustainability Board" (which can be finalized and adopted after the draft amendments to MARPOL Annex VI have been adopted).

40 The proposed draft amendments set out in annex 1 of this document include provisions for the new chapter 6 to MARPOL Annex VI as follows:

- .1 regulation 32 - Application;
- .2 regulation 33 - IMO Maritime Sustainability Fund (IMSF);
- .3 regulation 34 - International Maritime Sustainability Board (IMSB);
- .4 regulation 35 - Contribution by ships to the IMSF;
- .5 regulation 36 - Rewards (feebates) disbursed by the IMSF;
- .6 regulation 37 - Dates for implementation;

- .7 regulation 38 - Review of this chapter; and
- .8 appendix XII - Form of the Statement of Compliance with the IMSF.

41 In addition, consequential draft amendments to the following regulations of MARPOL Annex VI are proposed to include the Statement of Compliance with the IMSF:

- .1 regulation 6 – Issue or endorsement of Certificates and Statements of Compliance;
- .2 regulation 8 – Form of Certificates and Statements of Compliance;
- .3 regulation 9 – Duration and validity of Certificates and Statements of Compliance; and
- .4 regulation 10 – Port State control on operational requirements.

42 The draft "Guidelines for the Establishment and Governance of the International Maritime Sustainability Fund and Collection of Contributions to and Rewards (Feebates) from the IMSF under chapter 6 of MARPOL Annex VI" with accompanying draft MEPC resolution, which are set out in annex 2 of this document, provide guidelines for the elements of the governance structure of the IMSF and the process for collection of contributions as follows:

- .1 purpose of the IMSF;
- .2 management of IMSF;
- .3 oversight of the IMSF by the MEPC;
- .4 collection of the contributions from ships to IMSF;
- .5 funding of rewards (feebate) from the IMSF;
- .6 reward rate for CO₂ emissions prevented by use of eligible alternative fuels;
- .7 funding of support to activities of the International Maritime Sustainability Board; and
- .8 funding of R&D projects and programmes.

43 The draft MEPC resolution and accompanying annex set out in annex 3 of this document contain, inter alia, the requirements, as per the proposed draft regulations 35.1 and 36.1 of MARPOL Annex VI, for calculating the contribution and reward elements of the proposed F&R mechanism, and furthermore indicate the entity responsible for the cost associated with the contribution.

44 The proposed draft regulation 34 of MARPOL Annex VI set out in annex 1 to this document requires the Organization to establish a Charter for the IMSB. A draft Charter for the establishment and governance of the IMSB and accompanying MEPC resolution is set out in annex 4 of this document.

Action requested of the Working Group

45 The Group is invited to recommend to MEPC 80:

- .1 that the economic measure to be prioritized for development, as part of a basket of mid-term measures, should be as simple as possible to implement and based on a flat rate (levy-based) contribution system that will provide, via an IMO fund, rewards (feebates) to ships that use eligible alternative fuels, as well as providing support to GHG reduction efforts in developing countries, especially SIDS and LDCs;
- .2 that the contribution by ships to an IMO fund should be set at a quantum which will avoid disproportionately negative impacts on States, and that the price gap between low-/zero-carbon fuels and conventional fuels should be narrowed by providing rewards to the relatively small number of ships that would be using eligible alternative fuels during the initial years of implementation of the measure (up to 2030) so that the initial quantum of the contribution would thus be far smaller than the price gap whilst still achieving the goal of narrowing the price gap, sending a clear signal to energy producers and shipowners that will accelerate the production of low- and zero-emission fuels;
- .3 to further consider this refined IMSF&R measure as set out in this document and the identified core elements as set out in paragraph 35, with a view to agreeing to recommend that these core elements should be further developed and finalized under Phase III of the Work Plan together with the necessary regulatory framework, so that the measure might be approved at MEPC 81;
- .4 that a decision on which alternative fuels might be eligible for rewards for CO₂ emissions prevented should be deferred until Phase III of the Work Plan, as should a decision about any other GHG emissions to which contributions or rewards might apply, and that a final decision about the treatment of upstream emissions and whether or not the calculation of contributions/rewards should initially be based on Tank-to-Wake emissions only should be deferred until Phase III when the LCA guidelines will have been further developed;
- .5 to note the variables which, under this refined IMSF&R measure, might be used to determine the quantum of the flat rate contribution by ships to the IMSF as summarized in paragraph 38 of this document; and
- .6 that, with a view to being in a position to commence, as soon as possible, a comprehensive assessment of the proposal's feasibility, effectiveness and impact on States, note for further consideration in Phase III the package of possible draft amendments to MARPOL Annex VI to implement the IMSF&R mechanism, and the associated draft guidelines as set out in annexes 1 to 4 of this document.

ANNEX 1

POSSIBLE DRAFT AMENDMENTS TO MARPOL ANNEX VI (Establishment of the IMO Maritime Sustainability Funding and Reward Mechanism)

Regulation 6

The title of the regulation is amended (deletion shown as ~~strike through~~, addition shown underlined) as follows:

Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting, ~~and operational carbon intensity rating~~ and the IMO Maritime Sustainability Fund (IMSF)

A new title and paragraphs 9 and 10 are added as follows:

Statement of Compliance – IMO Maritime Sustainability Fund (IMSF)

9 Upon receipt of the IMSF Annual Account Statement pursuant to regulation 35.5 of this Annex, the Administration, or any organization duly authorized by it, shall determine whether the contribution has been made to the IMSF in accordance with regulation 35.1 of this Annex by verifying whether the information provided in the IMSF Annual Account Statement is consistent with the ship's fuel oil consumption data pursuant to regulation 27.3 of this Annex and, if so, issue a Statement of Compliance related to the IMSF no later than six months from the beginning of the calendar year. In every case, the Administration assumes full responsibility for this Statement of Compliance.

10 With respect to a ship not registered in a Party to this Annex, the Statement of Compliance related to the IMSF may be issued by the appropriate Administration of any Party to this Annex, if satisfied that the contribution required under regulation 35.1 of this Annex has been made to the IMSF for the previous calendar year for that ship. A Statement of Compliance so issued shall have the same force and receive the same recognition as a Statement of Compliance issued under paragraph 9 of this regulation.

Regulation 8

The title of the regulation is amended (deletion shown as ~~strike through~~, addition shown underlined) as follows:

Form of Certificates and Statements of Compliance related to fuel oil consumption reporting, ~~and operational carbon intensity rating~~ and the IMO Maritime Sustainability Fund

A new title and paragraph 5 are added as follows:

Statement of Compliance – IMO Maritime Sustainability Fund

5 The Statement of Compliance pursuant to regulations 6.9 and 6.10 of this Annex shall be drawn up in a form corresponding to the model given in appendix [XII] to this Annex and shall at least be written in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

Regulation 9

The title of the regulation is amended (deletion shown as ~~strike through~~, addition shown underlined) as follows:

Duration and validity of Certificates and Statements of Compliance related to fuel oil consumption reporting, ~~and operational carbon intensity rating~~ and the IMO Maritime Sustainability Fund

A new title and paragraph 13 are added as follows:

Statement of Compliance – IMO Maritime Sustainability Fund

13 The Statement of Compliance issued pursuant to regulations 6.9 and 6.10 of this Annex shall be valid for the calendar year in which it is issued and for the first six months of the following calendar year. All Statements of Compliance shall be kept on board for at least five years.

Regulation 10

Port State control on operational requirements

A new paragraph 7 is added as follows:

7 In relation to chapter 6 of this Annex, any port State inspection shall be limited to verifying, when appropriate, that there is a valid Statement of Compliance related to the IMSF on board, in accordance with article 5 of the present Convention.

A new chapter 6 is added as follows:

Chapter 6 – International Maritime Sustainability Funding and Reward Mechanism

Regulation 32

Application

- 1 This chapter shall apply to all ships of 5,000 gross tonnage and above.
- 2 The provisions of this chapter shall not apply to:
 - .1 ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly; and
 - .2 ships not propelled by mechanical means, and platforms including FPSOs and FSUs and drilling rigs, regardless of their propulsion.

Regulation 33

IMO Maritime Sustainability Fund

1 The Organization shall establish an IMO Maritime Sustainability Fund (IMSF) for the purpose of administering the collection of contributions by ships, as required by regulation 35, and the funding of the International Maritime Sustainability Funding and Reward (IMSF&R) mechanism, to be administered by the Organization, taking into account Guidelines adopted by the Organization.¹

¹ By MEPC resolution adopted at the time of adoption of these amendments. Draft resolution set out in annex 2 to this document.

- 2 The funds contributed by ships to the IMSF shall be used for the following purposes:
- .1 to expedite the development and uptake of low- and zero-carbon fuels through the provision of annual rewards (feebates) to ships for the CO₂ emissions prevented by use of eligible alternative fuels;
 - .2 administration of the IMSF and an IMO Maritime Sustainability Board (IMSB) including the establishment and administration of a contribution and reward (feebate) mechanism ensuring this entails no costs to the Organization; and
 - .3 support projects and programmes, as may be decided by the Marine Environment Protection Committee, to be supervised by the IMSB, including:
 - .1 capacity-building and negative impact mitigation in developing countries, especially SIDS and LDCs, including deployment of alternative maritime fuel production facilities and new bunkering infrastructure that may be required to expedite transition;
 - .2 funding, inter alia, for the IMO GHG-TC Trust Fund and IMO CARES programme, to support other maritime GHG reduction projects in developing countries, especially SIDS and LDCs; and
 - .3 funding for applied research and development (R&D) programmes of alternative fuels and innovative technologies.

3 The contributions made to the IMSF shall only be used for the purposes specified in paragraph 2 of this regulation.

4 Provided that the total contributions from ships to the IMSF in any calendar year shall be adequate to meet the purposes set out in paragraphs 2.1 and 2.2 of this regulation, [X]% of the total contributions made to the IMSF in any calendar year shall be used to support the activities of the IMSB.

5 To ensure that the Organization shall honour its commitments to energy producers and shipping companies which invest in eligible alternative fuels, during the first five years after entry into force of this Chapter, the initial quantum of the contribution by ships shall be set by the Marine Environment Protection Committee so that at least [XX]% of the total contributions made by ships each calendar year to the IMSF shall be adequate to fund rewards to ships for all CO₂ emissions prevented, taking into account Guidelines adopted by the Organization, on the basis that the energy from eligible alternative fuels consumed annually by international shipping may comprise [5%] of the total energy consumption by international shipping in any calendar year.

6 If the total contributions made by ships to the IMSF in any calendar year are less than required to meet the funding of rewards (feebates) and the administration of the IMSF&R mechanism, the percentage of the total contributions collected annually to be designated for the purposes set out in paragraph 2.3 of this regulation may be reduced.

Regulation 34

International Maritime Sustainability Board

1 The Organization shall establish an International Maritime Sustainability Board (IMSB) in accordance with the Charter established by the Organization as required in paragraph 2, to supervise the projects and programmes set out in regulation 33.2.3 of this Annex.

2 The Organization shall establish a Charter² for the establishment and governance of the IMSB (IMSB Charter), taking into account Guidelines adopted by the Organization.³

3 The Marine Environment Protection Committee shall oversee the activities and governance of the IMSB in accordance with the rules and regulations of the Organization, taking into account Guidelines adopted by the Organization.⁴

Regulation 35

Contribution by ships to the IMO Maritime Sustainability Fund

1 Subject to regulation 37 of this Annex, within four months after the end of each calendar year, each ship of 5,000 gross tonnage and above to which this Chapter applies shall make a contribution to the IMSF. The contribution for each ship to which this regulation applies shall be fixed at a rate and value to be determined by the Organization.⁵

2 For ships emitting zero CO₂ emissions, taking into account Guidelines adopted by the Organization⁶, the contribution required under paragraph 1 of this regulation shall be zero.

3 Within three months after the end of each calendar year, each ship shall provide the IMSF with fuel oil consumption data as reported to the Administration, or any organization duly authorized by it, in accordance with regulations 27.3, 27.4 or 27.5 of this Annex.

4 No later than one month after receiving the contribution from each ship, as required under paragraph 1 of this regulation, the IMSF shall provide an IMSF Annual Account Statement to each ship confirming that the total contribution to be made to the IMSF for that ship for the previous calendar year, including the portion thereof as provided for in paragraphs 6 and 7 of this regulation, has been made.

5 Following receipt of the IMSF Annual Account Statement, the ship shall promptly provide the Administration, or any organization duly authorized by it, with the IMSF Annual Account Statement.

6 In the event of the transfer of a ship from one Administration to another, the contribution made by the ship in accordance with paragraph 1 of this regulation shall cover the period of the calendar year corresponding to the losing Administration.

7 In the event of a change from one Company to another, the contribution made by the ship in accordance with paragraph 1 of this regulation shall cover the portion of the calendar year corresponding to the previous Company.

8 In the event of change from one Administration to another and from one Company to another concurrently, paragraph 6 of this regulation shall apply.

² A draft Charter for the establishment and governance of the IMSB is set out in annex 4 to this document.

³ By MEPC resolution adopted at the time of adoption of these amendments. Draft resolution set out in annex 2 to this document.

⁴ By MEPC resolution adopted at the time of adoption of these amendments. Draft resolution set out in annex 2 to this document.

⁵ By MEPC resolution adopted at the time of adoption of these amendments. Draft resolution set out in annex 3 to this document.

⁶ Guidelines to be developed on eligible alternative fuels, including consideration of Well-to-Wake (WtW) or Tank-to-Wake (TtW) emissions based on the LCA guidelines.

Regulation 36

Rewards (feebates) disbursed by the IMO Maritime Sustainability Fund

1 Each ship using an eligible alternative fuel shall receive a reward (feebate) from the IMSF based on a reward rate per tonne of CO₂ emissions prevented each calendar year as may be determined by the Organization, taking into account Guidelines adopted by the Organization.⁷

2 Within three months after the end of each calendar year, each ship wishing to receive a reward (feebate) for CO₂ emissions prevented during the previous calendar year shall provide the IMSF with fuel oil consumption data with respect to eligible alternative fuels as reported to the Administration, or any organization duly authorized by it, in accordance with regulations 27.3, 27.4 or 27.5 of this Annex.⁸

3 No later than one month after receiving the data specified in paragraph 2 of this regulation, the IMSF shall provide a Provisional IMSF Reward (Feebate) Statement for each ship which sets out the total rewards to be made for CO₂ emissions prevented during the previous calendar year by the use of eligible alternative fuels, including the portion thereof as provided for in paragraphs 5 and 6 of this regulation.

4 No later than one month after receiving confirmation from the Company operating the ship that the Provisional IMSF Reward (Feebate) Statement is correct, the IMSF will disburse the reward (feebate).

5 In the event of the transfer of a ship from one Administration to another, the reward (feebate) received by the ship in accordance with paragraph 1 of this regulation shall cover the period of the calendar year corresponding to the losing Administration.

6 In the event of a change from one Company to another, the contribution made by the ship in accordance with paragraph 1 of this regulation shall cover the portion of the calendar year corresponding to the previous Company.

Regulation 37

Dates for implementation

1 Implementation of the requirements stipulated under regulation 35 of this Annex shall commence on a date after the IMSF has been established in accordance with the requirements of regulations 33 of this Annex, and that the IMSF is ready to commence operations.

2 Implementation of the requirements stipulated under regulation 36 of this Annex shall commence on a date 12 months after implementation of the requirements stipulated under regulation 35 of this Annex.

3 The Organization shall review and confirm that the requirements under regulations 33 and 34 of this Annex have been met no later than 12 months after entry into force of chapter 6 of this Annex. The Parties, based on the review undertaken by the Organization, shall decide whether the IMSF is ready to commence operations. If the IMSF is not ready to commence operations then a further review should be undertaken within six months.

⁷ By MEPC resolution and annex adopted at the time of adoption of these amendments. Draft resolution set out in annex 3 to this document.

⁸ Amendment required to include alternative fuels eligible for rewards

Regulation 38

Review of this chapter

1 After an operational period of five years, beginning on the date that this chapter enters into force, the Organization shall review the status of this chapter and amend the relevant provisions if necessary.

2 Upon completion of the IMSF's and IMSB's work programmes, and with the approval of the Organization, the IMSF and the IMSB shall cease operations. Upon such a determination, chapter 6 of this Annex and its requirements shall be dissolved, unless the Parties determine otherwise.

APPENDIX [XII]

Form of the Statement of Compliance – IMO Maritime Sustainability Fund

STATEMENT OF COMPLIANCE – IMO MARITIME SUSTAINABILITY FUND

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the Party)

by
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship⁹

Name of ship

Distinctive number or letters.

IMO Number¹⁰

Port of registry

Gross tonnage.

THIS IS TO DECLARE:

1. That the ship has submitted to this Administration an IMSF Annual Account Statement required by regulation 35.5 of Annex VI of the Convention, which is consistent with the ship's fuel consumption data pursuant to regulation 27.3 of Annex VI of the Convention, covering ship operations from (01/01/yyyy) through (31/12/yyyy).

This Statement of Compliance is valid until (dd/mm/yyyy)

Issued at:
(place of issue of Statement)

Date (dd/mm/yyyy)
(date of issue) (signature of duly authorized official issuing the Statement)

(seal or stamp of the authority, as appropriate)

⁹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

¹⁰ In accordance with the IMO ship identification number scheme (resolution A.1078(28)).

ANNEX 2

RESOLUTION MEPC.XXX(XX)

(Adopted on [same date as adoption of draft amendments for Establishment of the International Maritime Sustainability Funding and Reward Mechanism])

[20XX] GUIDELINES FOR THE ESTABLISHMENT AND GOVERNANCE OF THE INTERNATIONAL MARITIME SUSTAINABILITY FUND, AND COLLECTION OF CONTRIBUTIONS AND DISBURSEMENT OF REWARDS (FEEBATES) UNDER CHAPTER 6 OF MARPOL ANNEX VI

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that it adopted, by resolution MEPC.XXX(XX), Amendments to the annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (regulations on greenhouse gas emissions reduction research and development in MARPOL Annex VI),

RECALLING FURTHER that it adopted, by resolution MEPC.229(65) Promotion of technical cooperation and transfer of technology relating to improvement of energy efficiency of ships,

RECALLING FURTHER the Organization's Strategic Plan 2018 to 2023, adopted by resolution A30/Res.1110, that identifies that to achieve the goal of uniform implementation, the Organization will continue to develop and execute projects to provide targeted capacity building and technical cooperation that fosters, promotes and supports implementation efforts, especially those of developing countries, and will continue to pay particular attention to the needs of small island developing States (SIDS) and least developed countries (LDCs),

NOTING that the aforementioned amendments to MARPOL Annex VI, which included a new chapter 6 on an International Maritime Sustainability Funding and Reward Mechanism entered into force on [XXX],

NOTING ALSO that regulation 33 of MARPOL Annex VI, as amended, requires the Organization to establish an IMO Maritime Sustainability Fund (IMSF) for the principal purpose of providing financial support to International Maritime Sustainability Funding and Reward (IMSF&R) mechanism,

NOTING FURTHER that regulation 34 of MARPOL Annex VI, as amended, requires the establishment of a Charter for the governance of an International Maritime Sustainability Board (IMSB) and its relationship with the Organization,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require the adoption of relevant guidelines for uniform and effective implementation of the regulations and to provide sufficient lead time for the Organization and Administrations to prepare,

HAVING CONSIDERED, at its [eighty-XXX] session, draft [20XX] Guidelines for the establishment and governance of the International Maritime Sustainability Board and collection of contributions to and rewards from the IMO Maritime Sustainability Fund under chapter 6 of MARPOL Annex VI,

1 ADOPTS the [20XX] Guidelines for the establishment and governance of the International Maritime Sustainability Fund and collection of contributions to and rewards (feebates) from the IMO Maritime Sustainability Fund under Chapter 6 of MARPOL Annex VI (the [20XX] Guidelines), as set out in the annex to the present resolution;

2 INVITES the Organization to take the annexed [20XX] Guidelines into account when developing and implementing the requirements set forth in Chapter 6 of MARPOL Annex VI, as amended;

3 AGREES to keep the [20XX] Guidelines under review in light of the experience gained with their implementation.

ANNEX

[20XX] Guidelines for the establishment and governance of the International Maritime Sustainability Fund and collection of contributions and disbursement of rewards (feebates) under Chapter 6 of MARPOL Annex VI

Introduction

1 The purpose of these guidelines is to direct the Organization's governance and the operation of IMO Maritime Sustainability Fund (IMSF) to be established under Chapter 6 of MARPOL Annex VI.

IMO Maritime Sustainability Fund

Purpose of the IMSF

2 The principal purpose of the IMSF is administer the collection of contributions by ships to provide financial support to the International Maritime Sustainability Funding and Reward (IMSF&R) mechanism.

3 [The [Revised IMO Strategy on Reduction of GHG emissions from ships [(MEPC.XXX(80))], identifies that the Organization recognizes that developing countries, in particular LDCs and SIDS, have special needs with regard to capacity-building and technical cooperation.]

4 In addition to funding rewards (feebates) to ships for CO₂ emissions prevented by the use of eligible alternative fuels, the IMSF is to provide funding for the IMO Maritime Sustainability Board (IMSB) to support maritime GHG reduction efforts of developing countries, in particular LDCs and SIDS, including deployment of alternative maritime fuel production facilities and bunkering infrastructure for the supply of low-carbon and zero-carbon fuels for use by international shipping, as well as support for R&D and, inter alia, the IMO GHG-TC Trust Fund.

Management of IMSF

5 The IMO Maritime Sustainability Fund (IMSF) should be established, managed and operated without cost to the Organization, and once the IMSF is operational, costs can be recovered from the IMSF.

Oversight of the IMSF by the Marine Environment Protection Committee

6 The Committee should establish arrangements, inter alia, for the approval of the annual budget and expenditure of the IMSF, and oversight of the IMSF's management functions.

7 The specific responsibilities of the Committee should include, but not be limited, to:

- .1 providing general oversight on the strategic direction and annual budget of the IMSF;
- .2 ensuring that the IMSF performs its duties and responsibilities consistent with the requirements of Chapter 6 of MARPOL Annex VI;

- .3 ensuring that sufficient funds are available in any calendar year to fund the rewards for which ships using alternative fuels are eligible, adjusting the reward rate and/or the funds used to support the activities of the IMSB as may be required in subsequent calendar years;
- .4 approving the overall annual operating budget for the IMSF;
- .5 undertaking independent financial audits of the IMSF concerning the management and administration of its funds and related investments to ensure that the IMSF fully meets its fiduciary responsibilities, including the accounting of funds expended; and
- .6 advising upon recommendations made by the IMSB to modify and adjust the IMSF strategy and budget, as appropriate

Collection of contributions from ships to IMSF

8 The IMSF should establish an IMSF account for each ship to which Chapter 6 of MARPOL Annex VI applies, in accordance with the IMO ship identification scheme ([resolution A.1078\(28\)](#)) to which contributions can be submitted by the Company responsible for that ship as defined by paragraph 2.8 of regulation 2 of MARPOL Annex VI.

9 No later than one month after receiving the data as specified in regulation 35.4 of MARPOL Annex VI, the IMSF should provide a provisional statement for each ship which sets out the total contribution to be made to the IMSF for the previous calendar year, as required under regulation 35.1 of MARPOL Annex VI.

10 No later than one month after receiving the contribution from each ship, as required under regulation 35.1 of MARPOL Annex VI, the IMSF shall provide an IMSF Annual Account Statement to each ship confirming that the total contribution to be made to the IMSF for that ship for the previous calendar year has been made, in accordance with regulation 35.5 of MARPOL Annex VI.

11 The mechanism for the IMSF to collect contributions should allow the Company, as defined by paragraph 2.8 of regulation 2 of MARPOL Annex VI, that is responsible for making contributions on behalf of the ship, to make a single annual contribution calculated from the data reported to the IMSF in accordance with regulation 35.4 of MARPOL Annex VI. In addition, the mechanism should allow the Company the option to make contributions in advance, on a quarterly basis or as frequently as may be required, based on fuel oil purchased for consumption by the ship.

Funding of rewards (feebates) by the IMSF

12 Funding of rewards by the IMSF should be as follows:

- .1 for ships using eligible alternative fuels, as defined by Guidelines adopted by the Organization, that are delivered to and intended for combustion purposes for propulsion or operation on board a ship;
- .2 determined using eligible alternative fuels data submitted by the ship to the Administration pursuant to the requirements of regulation 27 of MARPOL Annex VI (IMO Data Collection System); and

- .3 at a reward rate agreed by the MEPC of US\$ per tonne of CO₂ emissions prevented compared to using marine diesel/gas oil, calculated in terms of the energy consumed by combusting diesel/gas oil.

13 Funding of support for this purpose should be decided by the Committee, and for first five years after entry into force of Chapter 6 of Annex VI should comprise at least [65]% of the total contributions made by ships in accordance with regulation 35 of Chapter 6 of MARPOL Annex VI during any calendar year.

14 Funding of rewards to ships should not commence until the second calendar year following entry into force of Chapter 6 of MARPOL Annex VI.

15 The necessary funding for rewards by the IMSF should be reviewed by the Committee within five years following the entry into force of Chapter 6 of MARPOL Annex VI.

Reward rate for CO₂ emissions prevented by use of eligible alternative fuels

16 For the first five years of implementation, the reward rate per tonne of CO₂ emissions prevented will be determined by the Committee using the average global price of marine diesel/gas oil during the five-year period preceding adoption of Chapter 6 of MARPOL Annex VI, expressed as [xx]% of this amount as decided by the Committee.

17 The reward rate will be reviewed within five years of the entry into force of Chapter 6 of MARPOL Annex VI.

Funding to support activities of the International Maritime Sustainability Board

18 Funding of support for the purposes set out in regulation 33.2.3 of Chapter 6 of MARPOL Annex VI should be decided by the Committee and, provided IMSF funds are used for these purposes, GHG reduction projects and programmes supported by this funding may be administered by other United Nations agencies.

Funding of R&D projects and programmes

19 Funding of R&D projects and programmes by the IMSF and administered by the IMSB should be as follows:

- .1 for projects and programmes to be undertaken solely or jointly by grantees in developed countries only, the grantee(s) may be required to provide an appropriate level of co-funding as may be agreed between the IMSB and the grantee(s);
- .2 for projects and programmes to be undertaken solely or jointly by grantees in developing countries, no co-funding will be required; and
- .3 for projects and programmes to be undertaken jointly by grantees in one or more developed countries plus one or more developing countries, no co-funding will be required.

International Maritime Sustainability Board (IMSB)

Management of IMSB

20 The IMSB should be established, managed and operated without cost to the Organization, and once the IMO Maritime Sustainability Fund (IMSF) is operational, costs can be recovered from the IMSF.

IMSB Charter

21 The IMSB Charter should set out, inter alia, the primary objectives of the IMSB, critical principles and operating parameters including, without prejudice to existing national laws and regulations.

22 With respect to support for R&D, the Charter should set out treatment of intellectual property rights, collaboration with related R&D initiatives, selection procedures for the IMSB Board of Directors, conflict of interest provisions, criteria and procedures for eligibility and review of R&D proposals made to the IMSB including technology readiness levels (TRLs); and other criteria as may be necessary.

Oversight of the IMSB by the Marine Environment Protection Committee

23 The Committee should establish arrangements, inter alia, for the approval of the annual budget and expenditure of the IMSB, oversight of the IMSB's management functions and work in accordance with the IMSB Charter, and approval of the appointment of the IMSB's senior officers.

- 24 The specific responsibilities of the Committee should include, but not be limited, to:
- .1 providing general oversight and advice to the IMSB and its Board of Directors on the strategic direction and annual budget of the IMSB;
 - .2 ensuring that the IMSB performs its duties and responsibilities consistent with the objectives set forth in the IMSB Charter;
 - .3 approving the overall annual operating budget for the IMSB after considering recommendations and other relevant information provided by the IMSB and its Board of Directors;
 - .4 undertaking independent financial audits of the IMSB concerning the management and administration of its funds and related investments to ensure that the IMSB fully meets its fiduciary responsibilities, including the accounting of funds expended for GHG reduction projects and programmes, grants, and other funding provided by the IMSB using IMSF funds; and
 - .5 advising upon recommendations made by the IMSB to modify and adjust the IMSB strategy and budget, as appropriate.

ANNEX 3

RESOLUTION MEPC.XXX(XX)
(Adopted on [same date as adoption of draft amendments for Establishment of the International Maritime Sustainability Board and IMO Maritime Sustainability Fund])

**CONTRIBUTION TO AND REWARD FROM THE
IMO MARITIME SUSTAINABILITY FUND**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that it adopted, by resolution MEPC.XXX(XX), Amendments to the annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (IMO Maritime Sustainability Fund),

NOTING that the aforementioned amendments to MARPOL Annex VI, which included a new Chapter 6 requiring the Organization to establish an IMO Maritime Sustainability Fund (IMSF), entered into force on [XXX],

NOTING ALSO that regulation 35.1 of MARPOL Annex VI, as amended, requires each ship to make a contribution to the IMSF,

NOTING FURTHER that regulation 36.1 of MARPOL Annex VI, as amended, requires each ship using eligible alternative fuels to receive a reward from the IMSF,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require the Organization to determine a fixed rate and value for the contribution,

ACKNOWLEDGING that the contribution to the IMSF will only be used to provide funding required for the purposes specified under regulation 33.2 of MARPOL Annex VI,

HAVING CONSIDERED, at its [eighty-XXX] session, a draft Contribution to and Reward from the IMO Maritime Sustainability Fund,

1 ADOPTS the Contribution to and Reward from the IMO Maritime Sustainability Fund, as set out in the annex to the present resolution;

2 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the contribution to the attention of shipowners, ship operators, charterers, port State authorities and any other interested parties.

ANNEX

**CONTRIBUTION TO AND REWARD FROM THE
IMO MARITIME SUSTAINABILITY FUND**

[NB: This will need to be adjusted to reflect the LCA guidelines to be adopted at MEPC 80 including treatment of upstream emissions. The rate of contribution shown and the examples of eligible alternative fuels are for illustrative purposes only¹]

Contribution to the IMO Maritime Sustainability Fund

1 Pursuant to regulation 35.1 of MARPOL Annex VI, the contribution made to the IMO Maritime Sustainability Fund for each ship shall be calculated as follows:

Rate of contribution: [US\$12.4766] per tonne of CO₂ emitted by the ship

For liquid fuel oil including Diesel/Gas Oil, Light Fuel Oil (LFO) and Heavy Fuel Oil (HFO):² equivalent to [US\$40] per tonne of liquid fuel oil consumed by the ship

For LPG:³ equivalent to [US\$37.80] per tonne of LPG consumed by the ship

For LNG: equivalent to [US\$34.31] per tonne of LNG consumed by the ship

For methanol: equivalent to [US\$17.16] per tonne of methanol consumed by the ship

For Ethanol: equivalent to [US\$23.87] per tonne of ethanol consumed by the ship

For Ammonia: equivalent to [US\$0.00] per tonne of ammonia consumed by the ship

For Hydrogen: equivalent to [US\$0.00] per tonne of hydrogen consumed by the ship

For Bio-diesel: equivalent to [US\$35.76] per tonne of bio-diesel consumed by the ship

For HVO: equivalent to [US\$40] per tonne of HVO consumed by the ship.

2 In the case of a ship equipped with a dual-fuel main or auxiliary engine, the ship shall provide the IMSF with fuel oil consumption data for both types of fuel, as provided to the Administration in accordance with regulation 27.3 of MARPOL Annex VI.

3 Notwithstanding the requirement under regulation 35.1 of MARPOL Annex VI for a ship to make a contribution to the IMSF, the entity ultimately responsible for paying for the cost of the fuel oil should ultimately be responsible for meeting the cost of the contribution. When a ship is operating under a charter party clause which requires the charterer to pay for the fuel oil purchased for consumption on that ship, the cost of the associated contribution to the IMSF for that ship should be the responsibility of the charterer.

¹ Fuel types and calculations based on document ISWG-GHG 11/2/3 (Australia et al.) Table 2 - Tank to Wake default emission factors.

² For the purpose of calculating the contribution to the IMSF, the CO₂ emission of all types of liquid fuel oil are treated as being equal to Diesel/Gas Oil.

³ The CO₂ emissions of butane LPG is regarded as equal to propane.

4 To avoid double counting of CO₂ emissions, both in measures adopted by the Organization and other regional or national measures, the mandatory contribution by a ship to the funding mechanism established for international shipping should not be duplicative, and emissions or fuel consumption for the basis of such a contribution should be accounted for only once.

Reward from the IMO Maritime Sustainability Fund

5 Pursuant to regulation 36.1 of MARPOL Annex VI, the reward from the IMO Maritime Sustainability Fund for each ship using eligible alternative fuels⁴ shall be calculated as follows:

Rate of Reward: [US\$XX] per tonne of CO₂ emissions prevented

For Methanol: equivalent to [US\$XX] per tonne of methanol consumed by the ship, based on an energy density ratio by mass compared to diesel/gas oil of 0.466;⁵

For Ammonia: equivalent to [US\$XX] per tonne of ammonia consumed by the ship, based on an energy density ratio by mass compared to diesel/gas oil 0.436;²

[NB: Other eligible alternative fuels may be added by the MEPC when this Guideline is adopted, provided the conversion factor is no more than [XX]% of diesel/gas oil.]

⁴ Eligible alternative fuels to be decided by the Committee.

⁵ Energy density ratio derived from draft LCA guidelines expected to be adopted by MEPC 80.

ANNEX 4
RESOLUTION MEPC.XXX(XX)
(Adopted on [XXXX])

**CHARTER FOR THE ESTABLISHMENT AND GOVERNANCE OF THE
INTERNATIONAL MARITIME SUSTAINABILITY BOARD**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that it adopted, by resolution MEPC.XXX(XX), Amendments to the annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (regulations on greenhouse gas emissions reduction research and development in MARPOL Annex VI),

NOTING that regulation 33.1 of MARPOL Annex VI, as amended, requires the Organization to establish an International Maritime Sustainability Board (IMSB), in accordance with the Charter to be established by the Organization, pursuant to regulation 33.2 of MARPOL Annex VI,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require the adoption of relevant guidelines for uniform and effective implementation of the regulations and to provide sufficient lead time for the Organization and Administrations to prepare,

HAVING CONSIDERED, at its [eighty-XXX] session, the draft Charter for the Management of the International Maritime Sustainability Board under Chapter 6 of MARPOL Annex VI,

1 ADOPTS the Charter for the Management of the International Maritime Sustainability Board (IMSB) under Chapter 6 of MARPOL Annex VI as set out in the annex to the present resolution;

2 AGREES to keep this Charter under review.

ANNEX

**Charter for the Establishment and Governance of the
International Maritime Sustainability Board (IMSB)**

Article 1
Establishment

(1) The International Maritime Sustainability Board (IMSB) is established by the Organization pursuant to regulation 34.2 of MARPOL Annex VI, in accordance with guidelines adopted by the Organization.

(2) The IMSB shall be established, managed and operated without cost to the Organization. Once the IMO Maritime Sustainability Fund (IMSF) is operational, costs can be recovered from the IMSF. Start-up funds required to establish the IMSB shall also be repaid from the IMSF.

Article 2
Mandate

(1) The mandate and purpose of the International Maritime Sustainability Board (IMSB) is to support:

- (a) capacity-building and negative impact mitigation in developing countries, especially SIDS and LDCs, including deployment of alternative maritime fuel production facilities and new bunkering infrastructure that may be required to expedite transition;
- (b) funding, inter alia, for the IMO GHG-TC Trust Fund and IMO CARES programme, to support other maritime GHG reduction projects in developing countries, especially SIDS and LDCs; and
- (c) funding for applied research and development (R&D) programmes of alternative fuels and innovative technologies.

(2) The IMSB and its projects and programmes shall be funded using funds provided by the IMO Maritime Sustainability Fund (IMSF) and other supplementary sources of funding including co-funding of specific programmes and projects undertaken through the IMSB.

(3) Provided IMSF funds are used for purposes set out under regulation 33.2.3 of Chapter 6 of MARPOL Annex VI, GHG reduction projects and programmes supported by the IMSB using IMSF funding may be administered by other United Nations agencies.

Article 3
Objective of the IMSB

(1) The primary objective of the IMSB is to meet the above mandate through the disbursement of funds contributed to the IMSF in support of those purposes identified by regulation 32.2.3 of Chapter 6 of MARPOL Annex VI and Article 2 of this Charter.

(2) The IMSB shall achieve this objective in a manner that is transparent, credible, and trusted, while remaining aligned with the objectives of the IMO GHG Strategy.

Article 4
Management and Organization of the IMSB

(1) The IMSB shall be composed of the IMSB Board of Directors, an Executive Director, Administrative Director, Chief Financial Officer, General Counsel, and other professional and administrative staff to perform the managerial functions and responsibilities necessary to the successful operation of the IMSB (see figure 1 set out in appendix 1 to this document).

(2) The IMSF will provide the financial resources necessary to support the programmatic work of the IMSB that will include grants and contracts to qualified entities and other qualified parties undertaking projects and programmes authorized by the IMSB. The IMSF will also provide the necessary financial resources to support the IMSB Secretariat including salaries, office space, and all other related expenses.

(3) The IMSB Board of Directors shall consist of [11] individuals, including a Chairperson, who are non-governmental professionals with extensive experience and recognized expertise in one or more of the following fields: shipping, ports, low- and zero-carbon fuels and technologies, environmental policy, energy policy and other expertise relevant to the mandate of the IMSB.

(4) The IMSB Board of Directors shall be geographically balanced (e.g. with reference to the five United Nations regions), and equitably represent developing and developed countries. The IMSB Board of Directors shall endeavour to make all reasonable efforts to ensure gender balance in all appointments including to the IMSB Board of Directors.

(5) The term lengths for the Board of Directors shall be initially staggered, with four members serving one-year terms, four members serving two-year terms, and three members serving three-year terms. The standard term length after each initial term shall be three years, and Board Members will be able to serve a maximum of two terms. To serve a second term a Board Member must again be nominated and selected via the same process that a new nominee would face. Using this process, each year, approximately one-third of the Board's seats shall rotate to new nominees, or in some cases, will be retained for a Board Member's second term. Consequently, the Board of Directors will always have members with sufficient IMSB-specific experience.

(6) The initial Chairperson of the Board will be selected by the IMO Secretary-General from a list of candidates provided by the IMSB Nominating Committee. The remaining [10] initial IMSB Board Members will then be selected by the Chairperson from a list of candidates named by the IMSB Nominating Committee.

(7) The IMSB Nominating Committee shall be composed of [21] members. Of these [21] members, [10] shall be Government representatives, [8] shall be from the shipping industry, and [3] shall be from academia and environmental NGOs. The IMSB Nominating Committee may utilize professional assistance for nominating prospective Board Members consistent with paragraph 7 below. Once the IMSB Board of Directors has been established, subsequent nominations to ensure continuity of the Board (consistent with the term lengths outlined in paragraph 4) shall be made by the IMSB Nominating Committee with the approval of the IMSB Board of Directors. Interviews and other evaluations may be performed as the IMSB Nominating Committee, Executive Director, and IMSB Board of Directors deem appropriate.

(8) The IMSB Nominating Committee shall ensure that nominees for the IMSB Board of Directors are non-governmental professionals with experience, *inter alia*, in: shipping, shipping, ports, low-carbon and zero-carbon fuels and technologies, environmental policy, energy policy and other expertise relevant to the mandate of the IMSB. Specific criteria and guidance outlining expertise and experience are set out in appendix 2 of this document.

(9) The IMSB Board of Directors shall be responsible for making high-level decisions concerning strategy and management of the IMSB. These responsibilities shall include: development of specific needs to deliver the IMSF's objectives, providing guidance to the Executive Director, and identification, definition, and ongoing refinement of the specific research priorities consistent with the mandate of the IMSB.

(10) The IMSB Board of Directors shall have the authority to set its own processes and procedures for reviewing and evaluating proposals on an individual and/or group basis, and shall have the final say on approval of grants and contracts that have been recommended to it by the IMSB staff.

(11) The IMSB Board of Directors may, if appropriate, recommend an increase or decrease in the funding of the IMSB should the IMSB Board of Directors conclude that the amount of funding currently authorized warrants adjustment.

(12) The Chairperson of the Board shall rotate every [2-4] years. The initial term of the inaugural Chairperson should be [X] years.

(13) The Chairperson of the Board's responsibilities shall include convening and leading meetings of the IMSB Board of Directors and assisting the Executive Director in communications with the Organization and other parties as appropriate.

(14) With respect to the initial establishment of the IMSB, the IMSB Board of Directors shall select an IMSB Executive Director and Chief Financial Officer from a list of candidates provided by the IMSB Nominating Committee. Following a rigorous interview process, the Board of Directors shall select the most qualified person for the respective positions. Subsequent IMSB Executive Directors and Chief Financial Officers will be chosen by the IMSB Board of Directors.

(15) The responsibilities of the IMSB Executive Director shall include overall management and direction of the IMSB. The IMSB Executive Director and Chairperson of the Board of Directors shall be responsible for presenting the annual operating budget to the MEPC and reporting on the IMSB's work and progress to the MEPC, and other bodies, as appropriate.

(16) The Chief Financial Officer (CFO) of the IMSB shall oversee the operating budget of the IMSB, and financial management of the programmatic contracts and grants, and all related fiduciary obligations consistent with the budget approved by the IMSB Board of Directors and the MEPC. The CFO shall report to the IMSB Executive Director and shall regularly liaise with the Organization on the management of the IMSF, contributions to the IMSF, and other aspects of the IMSF, as the IMSB sees fit.

(17) The IMSB Executive Director shall hire an Administrative Director to administer and oversee the objectives of the IMSB and provide advice to the Executive Director and the IMSB Board of Directors. The Administrative Director shall report to the Executive Director.

(18) The IMSB Executive Director, with the approval of the IMSB Board of Directors, shall consider qualified candidates and make a selection for the position of General Counsel. The General Counsel will provide legal counsel to the Executive Director, Administrative Director, and the IMSB Board of Directors. In addition, the General Counsel will be responsible and have authority to oversee all matters where a conflict of interest may arise. In this context, the General Counsel shall review and have access to all the Organization's administrative and managerial reports regarding the IMSB, funding awards, hiring procedures, hiring decisions, nominations and appointments to the IMSB Board of Directors, and other areas of the IMSB as necessary to ensure that there are no conflicts of interest. Any conflicts of interest identified shall be reported to the IMSB Board of Directors by the General Counsel in a timely manner.

(19) The Chairperson of the IMSB Board of Directors, IMSB Executive Director, Administrative Director, and Chief Financial Officer, as appropriate, shall present regular reports on the management and status of GHG reduction programmes, and related matters to the MEPC.

(20) The IMSB Executive Director [with the approval of the IMSB Board of Directors] shall have the authority to hire professional and administrative staff as is necessary to ensure the smooth and efficient operation of the IMSB. The IMSB Executive Director shall also have the authority to delegate specific managerial authorities as he or she deems necessary.

Article 5

Conflict of Interest Provisions

(1) The selection of the IMSB Board of Directors, IMSB Executive Director, Chief Financial Officer, the Administrative Director, and the General Counsel (hereafter referred to as the IMSB Officers) shall be subject to strict conflict of interest provisions to ensure that the management, direction and decision-making within the IMSB are undertaken in a manner that is free of political and commercial conflicts of interest or the appearance of such conflicts. It is critical that nominees for IMSB Officers are free from notable conflicts of interest, both commercial and political. Therefore, any nominee should be vetted in light of specific criteria identified in appendix 2 of this document, and subject to review and approval of the IMSB General Counsel.

(2) The IMSB Officers and the performance of their responsibilities shall be subject to a defined set of conflict of interest provisions as set out in appendix 2 of this document.

Article 6

Acquisition and Management of Resources

(1) Pursuant to regulation 33.2.3 of MARPOL Annex VI, the IMO Maritime Sustainability Fund (IMSF) shall provide the financial support for the administration, management, and operation of the IMSB. The IMSB may also accept and utilize financial contributions provided to the IMSB on a voluntary basis by Governments, institutions, and other entities.

(2) Consistent with the budget approved by the IMSB Board of Directors and the MEPC, the IMSB Executive Director shall possess the authority to approve contracts, purchases, and other actions necessary for the effective operation of the IMSB. Contracts and grants relating to specific activities require approval of the IMSB Board of Directors and are subject to the provisions specified under Article 7.

Article 7
Administration of Grants and Contracts

(1) A system shall be established and put in place by the IMSB, in which qualified applicants may submit proposals for activities including GHG reduction projects as requested by the IMSB through a "Request for Proposal" (RFP), solicitation of contract proposals, or through other mechanisms as deemed appropriate by the IMSB Executive Director. The IMSB will also develop a process and criteria for reviewing unsolicited proposals consistent with Article 3 of this document.

(2) Qualified applicants may include any Government, public, private, or non-profit institution or consortium with the experience and expertise necessary to undertake the work and provisions called for in a given grant or contract supported by the IMSB.

(3) The IMSB professional staff shall review proposals based on their merit, feasibility, proposed cost, and scientific and technical potential. The review of these proposals may be undertaken by other United Nations agencies.

(4) In reviewing proposals the IMSB staff (or, with the agreement of the IMSB, staff of other agencies) may utilize appropriate peer review measures and engage external consultants with appropriate expertise to determine the merit and feasibility of proposals, and to assess progress made in the case of existing activities.

(5) Those proposals considered to have the most merit shall be recommended to the IMSB Board of Directors for final review and determination of whether to approve the activity, the duration of the activity, and the specific level of funding to be approved. Decisions concerning grants and contracts made by the IMSB Board of Directors shall require the affirmative support of a majority of the IMSB Board Members that are eligible and participating when voting on a given motion. If a given IMSB Board Member or Members have been determined to have a potential conflict of interest on a specific proposal, that/those IMSB Board Member(s) will be excluded from voting or otherwise participating in the Board's discussion of the specific proposal under consideration.

(6) The IMSB and its Board of Directors shall consider, inter alia, the following criteria during its evaluation and assessment of specific research and development project proposals:

- (a) potential to meet the low-carbon and zero-carbon objectives identified in Article 3 of this Charter;
- (b) potential to increase the supply and availability of low- and zero-carbon fuels to international shipping in the ports of developing countries and the decarbonisation of international shipping;
- (c) potential to increase the technology readiness levels (TRLs) of low- carbon and zero-carbon technologies suitable for maritime application;
- (d) energy density, feasibility, and potential to be applied in specific maritime ship types and trades, including the spatial and energy demands of transoceanic voyages;
- (e) safety considerations that examine risks to the ships' crew, shore-side personnel, and relevant risks to the general public;
- (f) potential to be used in conjunction with existing bunkering infrastructure;

- (g) impacts on competition and maintenance of a level playing field, in particular, avoidance of grants being made directly to shipowners, shipyards, energy producers, or other parties that might cause market distortion; and
- (h) specific project proposal criteria as specified by the IMSB.

(7) Contracts and other payments (e.g., salaries, office space, and other expenses) that are primarily related to internal management and administrative responsibilities of the IMSB may be approved by the IMSB Executive Director. The IMSB Executive Director may also delegate such approvals to the Chief Financial Officer.

Article 8

Administration of Grants and Contracts for R&D projects

(1) All development grants and contracts for research and development projects shall be subject to the grantee's acceptance of specific terms to be established by the IMSB, including, but not limited to:

- (a) The intellectual property policy for all grants and contracts shall be as follows: All research and development grants and contracts shall without prejudice to existing national laws and regulations be subject to the grantee's acceptance of specific terms concerning intellectual property rights associated with inventions arising from the grant or contract. These terms, which shall be determined by the IMSB in discussion with the grantee or contractor on a case by case basis, shall be designed to further two equally important purposes:
 - (i) to encourage broad participation in the work funded and directed by the IMSB by providing grantees an opportunity to obtain intellectual property rights in the results of work funded by the IMSB; and
 - (ii) to ensure that the intellectual property associated with discoveries and knowledge created by work funded by the IMSB is available for incorporation into inventions and derivative works created by parties other than the grantees performing the work leading to such discoveries and knowledge.
- (b) The objectives specified in 7a shall be fulfilled by the IMSB through grant conditions that may include, inter alia, a requirement that all utility patents and utility patent applications claiming inventions made pursuant to an IMSB grant or contract shall be licensable to anyone in the world on Fair, Reasonable, and Non-Discriminatory (FRAND) terms, so that such inventions can be widely adopted by the international community;
- (c) Grantees or contractors shall provide regular updates on substantive progress made and use of funds provided to date;
- (d) Grantees or contractors shall return unused funds (if any remain) at the completion of the proposed project to the IMSB, which shall then deposit such remaining funds back into the IMSF; and
- (e) The IMSB shall be authorized to terminate a given work project and its funding if in the judgement of the IMSB Board of Directors the recipient has failed to satisfactorily perform the stipulated work in a timely manner or has failed to properly account for or manage IMSB funds. The IMSB will hold the sole authority to terminate funding of a given work project.

(2) The IMSB should prepare a "model grant agreement" document that offers a framework for the project partners (grantees) in the management of IPR. This document should include:

- (a) policy recommendations for project partners (grantees) on identification, exploitation, protection and dissemination of IP;
- (b) "Code of Practice" that contains guidance on implementation; and
- (c) a detailed annex on example cases, specific rules, consequences of non-compliance, etc.

(3) The IMSB should allocate a professional officer (IP officer) responsible for supporting project partners (grantees) in establishing agreements on IPR and monitoring the implementation of the recommendations.

(4) The "model grant agreement" should cover, inter alia, the following issues:

- (a) designation by the project partners (grantees) of a contact point responsible for IPR management who will liaise with the IP officer throughout the project to ensure that the IP is appropriately disseminated;
- (b) clarification and identification of IP related topics including: identification of IP owned by grantees beforehand (Background IP); ownership of results (Foreground IP) and its protection; and access rights and any licence fees with respect to Background and Foreground IP;
- (c) arrangements with regard to any non-disclosure agreement (NDA) that might cover a period of time after completion of the project to protect any existing IP or any IP generated prior to decisions on IP dissemination or patent filing; and
- (d) arrangements with regard to any retention of Background IP created or developed before the date of the agreement and access to Background IP [and the extent to which, if any, this may be considered as match-funding].

(5) The IMSB should develop a policy to promote easy dissemination of the results from all R&D projects, including publication of findings in open access databases and the establishment of a repository accessible to all Member States and other relevant stakeholders. The repository should contain both existing public domain information and IMSB project reports.

(6) The IMSB should establish a database for IP, including patents and licence status, from IMSB projects [and, as may be appropriate, prior technologies related to potential IMSB projects]. IP should be included within the database, regardless of whether patents have or will be applied for.

(7) To support knowledge sharing among all Member States, the IMSB should promote and support grant applications that include collaboration with organizations from multiple Member States, including those located in different regions and in both developed and developing countries.

Article 9
Coordination

(1) Taking into consideration Article 3, the IMSB shall work as practical, to coordinate its activities with other institutions working on related efforts.

Article 10
Supervision and Oversight by MEPC

(1) The IMSB shall be subject to the oversight of the MEPC pursuant to regulation 34.3 of MARPOL Annex VI.

(2) Oversight responsibilities of the MEPC shall include:

- (a) providing general oversight and advice to the IMSB and its Board of Directors on the strategic direction and budget of the IMSB;
- (b) ensuring that the IMSB performs its duties and responsibilities consistent with the objectives and mandate set forth in this Charter;
- (c) advising upon recommendations made by the IMSB to modify and adjust the IMSB strategy and budget as appropriate;
- (d) reviewing and approving the IMSB's annual operating budget after considering recommendations and other relevant reports and information provided by the IMSB and its Board of Directors. In the event that the MEPC does not approve the proposed annual operating budget, the IMSB shall prepare a modified budget within 45 days of the initial decision; and
- (e) reviewing, and, if necessary, undertaking independent financial audits of the IMSB to ensure that the IMSB fully meets its fiduciary duties, including the accounting of funds expended for specific development programmes, grants, contracts and other funding provided by the IMSB using IMSF funds.

(3) The IMSB shall provide regular reports to the MEPC on the progress of IMSB programmes, and other matters and updates as appropriate.

(4) Consistent with regulation 34 of MARPOL Annex VI, the MEPC shall review and approve the IMSB annual budget. Decisions on the funding of individual R&D projects will be the sole responsibility of the IMSB and its Board of Directors.

Article 11
Dissolution

- (1) Pursuant to regulation 38.1 of MARPOL Annex VI, beginning on the date that chapter 6 of MARPOL Annex VI enters into force, the Organization shall review the status of chapter 6 of MARPOL Annex VI and amend the relevant provisions if necessary.
- (2) Pursuant to regulation 38.2 of MARPOL Annex VI, upon completion of the IMSB's work programme, and with the approval of the Organization, the IMSB shall cease operations. Upon such a determination, chapter 6 of MARPOL Annex VI and its requirements shall be dissolved, unless the Parties to MARPOL Annex VI determine otherwise.

Appendix 1

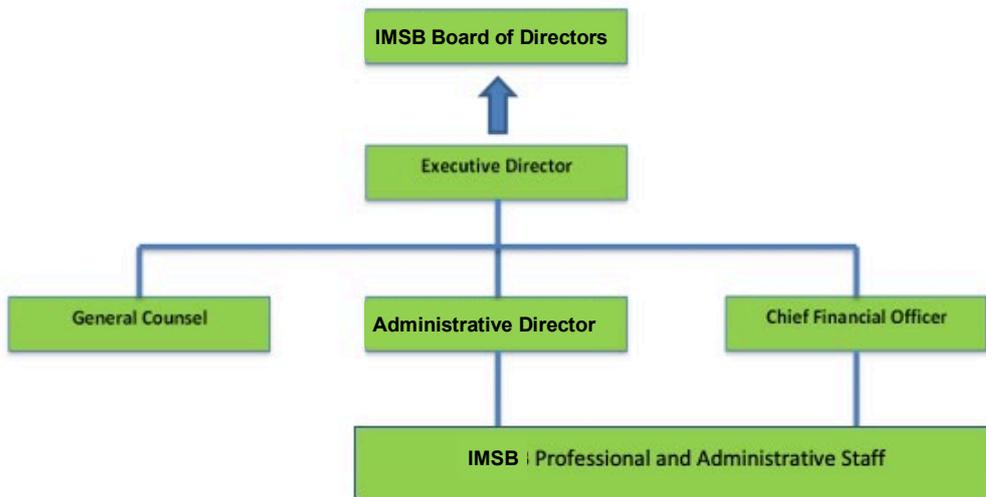


Figure 1 Management and Organization of the IMSB

Appendix 2

Vetting criteria and conflict of interest provisions for IMSB officers

[to be developed at a later stage]
