

**POSSIBLE PROPOSAL BY THE  
INTERNATIONAL SHIPOWNER ASSOCIATIONS TO ESTABLISH AN  
INTERNATIONAL MARITIME GHG REDUCTION RESEARCH AND  
DEVELOPMENT FUND (IMRF)**

**Preliminary Brief for National Association Boards**

**Introduction**

In April 2018, IMO adopted an Initial GHG Strategy (to be revised by 2023) which establishes a number of very ambitious GHG reduction targets. These targets include the phase-out of GHG emissions ‘as soon as possible this century’ and the reduction of the total annual GHG emissions from international shipping by at least 50% by 2050 compared to 2008.

In order to implement the IMO GHG Strategy, the IMO Marine Environment Protection Committee (MEPC) has invited proposals on Long Term Measures for GHG reduction to MEPC 74 (May 2019) and MEPC 75 (Spring 2020). Detailed discussions on Long Term Measures – including proposals on so called Market Based Measures (MBMs) – are therefore expected to be put forward during 2019.

The principal international shipowner associations that represent the industry at IMO (BIMCO, CLIA, ICS, INTERTANKO, IPTA and WSC) have therefore established a joint Working Group on Long Term Measures for GHG Reduction (LTM Group).

The LTM Group, which met on 12 December 2018, has agreed to suggest that the industry associations might jointly come forward, at an appropriate time, with a detailed proposal for the industry to establish an ‘International Maritime GHG Reduction Research and Development Fund (IMRF)’.

It is suggested that this industry-run IMRF would be financed by mandatory ‘R&D contributions’ by shipping companies, per tonne of fuel purchased for consumption, which would be enforced by IMO Member States and verified using the existing IMO Fuel Oil Data Collection System.

Decisions about the use of monies held by the IMRF would be taken by an ‘International Maritime GHG Research and Development Board (IMRB)’ which would also be established by the shipping industry and its international associations.

The monies collected via R&D contributions from shipping companies would finance substantial research and development of zero (and ‘near zero’) GHG fuels, energy carriers, new propulsion systems and other appropriate technologies that would help the international shipping sector to significantly reduce its GHG emissions in the longer term, consistent with the levels of ambition established by the IMO GHG Strategy.

It is not currently envisaged that the quantum of the R&D contribution would be explicitly referred to in any initial public proposal. However, if the industry-led IMRB agreed an initial budget for the IMRF of between US\$250 million and US\$500 million *per year* for research and development, the R&D contribution might initially be set (based on the current total fuel consumption of the world fleet) at between US\$1 and US\$2 per tonne of fuel. This is significantly less than what might have to be paid if an MBM is developed for international shipping, either by IMO or through unilateral/regional action.

**The respective Boards/Executive Committees of the international associations are invited to approve this concept ‘in principle’ and agree that work within the LTM Group on further developing this proposal should continue, so that the industry will be in a position to submit a detailed proposal to IMO. Any definite decision on how, if or when a full proposal might eventually be submitted to IMO, or otherwise communicated to governments, will be deferred until a later date and be subject to the final approval of the respective international shipowner associations.**

In the event that the industry eventually decides to move forward with a full proposal (and IMO Member States agreed to this) it is unlikely that ships would actually be required to make any R&D contributions until the mid-2020s.

### **Reasons for Making this Proposal**

Building on previous discussions within the industry over the past two years, the LTM Group is seeking to develop a joint industry proposal for a Long Term Measure for GHG reduction that might be acceptable to all sectors of the industry, as well as being likely to gain support from a broad cross section of IMO Member States.

It is important to understand that the implementation of the IMO GHG Strategy presents the industry with some serious challenges.

First, there is the enormous practical challenge of achieving the required GHG reduction targets given the current non-availability of commercially viable technology.

The LTM Group has concluded that the 50% total GHG cut can realistically only be achieved with the research and development and widespread deployment, by a large proportion of the fleet before 2050, of zero (or ‘near zero’) GHG fuels, energy carriers and propulsion systems. This might include, for example, intensive research and development of a combination of hydrogen/ammonia fuel cells and battery technologies using renewable energy sources. At the moment these new fuels, energy carriers and technologies require extensive development in order to evolve from their current limited application to small coastal ships and technology demonstration projects to being commercially viable for widespread use by international shipping, including deep sea trades.

The deployment of zero (or ‘near zero’) GHG fuels, energy carriers and propulsion systems will require a serious long term commitment by all relevant stakeholders to

research and development. However, this will require considerable funding of a scale which neither individual industry stakeholders nor IMO Member States will realistically be able to provide.

It is therefore proposed that the industry should take collective responsibility for providing the funding necessary to help support this major research and development effort via a mandatory system of financial R&D contributions per tonne of marine fuel purchased for consumption by ships.

Second, there is the important political challenge of ensuring that IMO makes sufficient progress, by 2023, towards adopting Long Term Measures for implementing the GHG Strategy which, as well as being acceptable to the industry, can command consensus support among IMO Member States.

This is to prevent the market distortion that would result from unilateral/regional GHG regulation against visiting ships which is likely to be applied to international shipping if IMO fails to make adequate progress on Long Term Measures by 2023. The European Union has openly threatened this, but this danger potentially also exists in many other jurisdictions, including Canada and individual U.S. States.

Long Term Measures proposed by governments, including MBMs – which might involve ‘carbon pricing’, ‘emissions trading’ or obtaining CO<sub>2</sub> reduction ‘offsets’ as a substitute for genuine emissions reduction by shipping – have proved very controversial during previous discussions at IMO. Moreover, they are not generally supported by the international shipowner associations, potentially increasing fuel costs by hundreds of dollars per tonne and – if the measures are poorly designed – exposing the industry to the risk of serious market distortion. In reality, the prospects for IMO making quick progress on MBMs might be small. But in the absence of an alternative Long Term Measure being adopted by IMO this would then expose the industry to the serious risk of regional MBMs being imposed on international shipping, potentially including participation in local emissions trading systems or the payment of local carbon taxes.

In order for IMO to make rapid progress on a Long Term Measure which will prevent unilateral/regional action while positively helping the industry to deliver on the IMO GHG target for 2050, it is suggested that a new industry proposal is therefore needed which IMO Member States on all sides of the debate might be able to support..

It should be noted that this suggested industry proposal is not an MBM. However, in order to ensure the support of the EU and other ‘progressive’ governments’, the LTM Group has currently concluded that care will be needed to avoid presenting any new proposal for an industry R&D fund as an alternative which is solely designed to prevent the separate development of an MBM by IMO (however unlikely this may be in practice due to the expected opposition to MBMs from many non-EU States).

As an alternative to government proposals for Long Term Measures that are likely to be damaging to the industry's interests, or which would otherwise be unlikely to achieve the necessary consensus among IMO Member States in time to prevent unilateral/regional action, the LTM Group therefore suggests that the international industry associations propose to establish an International Maritime GHG Reduction Research and Development Fund (IMRF) funded by R&D contributions from shipowners per tonne of fuel purchased for consumption.

### Outline of the Proposal

*NB: Many of the detailed elements of the proposal are still subject to discussion within the LTM Group, including the tactics and timing of how any proposal might be communicated to governments.*

This industry-run IMRF would be financed with mandatory 'R&D contributions' by shipping companies, per tonne of fuel purchased for consumption.

The IMRF would be overseen by the IMRB that would also be established and controlled by the industry. **Importantly this means that the quantum of the R&D contribution per tonne of fuel would be set by the industry itself.** However, it is currently proposed that IMO would have a role in scrutinising or 'approving' the quantum per tonne of fuel to provide reassurance to any nations that might be concerned about the potential impacts on trade.

The payment of the R&D contribution would be enforced by IMO Member States by an amendment to Annex VI of the MARPOL Convention requiring ships to carry documentary evidence that necessary contributions have been paid to the IMRF, with the correct contributions being verified by flag States using the existing IMO Fuel Oil Data Collection System. The attraction of this approach is that such an amendment to MARPOL could be agreed by IMO relatively quickly without the need to adopt a brand new Convention which, as well as taking far more time to develop, would then take many years to enter into force (making the unilateral imposition of an MBM more likely).

The quantum of the R&D contribution per tonne of fuel would depend on the budget agreed for the IMRF (which would be determined by the industry-run IMRB).

It is not currently envisaged that the quantum of the R&D contribution would be explicitly referred to in any initial industry proposal to governments. However, in order for this proposal to be taken seriously by IMO Member States, it might be necessary to allow for the possibility that the budget for the IMRF, and thus the quantum of the R&D contribution, might potentially be increased at some point in the future once tangible research and development projects requiring additional funding have been identified. It is emphasised, however, that the IMRF budget (and thus the quantum of the contribution per tonne of fuel) would be decided by the industry itself via the IMRB.

This new proposal, which is necessarily complex, is still a work in progress. The LTM Group is currently working on a detailed 'concept paper' that might be used, once finalised, to help explain the full proposal to governments, if and when the timing is considered to be right. Subject to conversations with governments, parts of this document might then form the basis of a detailed submission to IMO during 2020.

The latest draft of this concept paper sets out a mechanism for the collection of the mandatory R&D contributions in a manner that would maintain the level playing field and ensure that all eligible ships contribute.

However, more work needs to be done on the governance and constitution of the IMRF (and the IMRB) and the principles governing how any monies collected might best be utilised for research and development purposes (although many of these detailed decisions might actually be taken by the industry-run IMRB itself, if and when it is established).

If international associations agree to support this concept 'in principle' and that the LTM Group should continue its work, these and many other important aspects of the proposal would still need to be finalised before any detailed submission was made to IMO in 2020.

### **Other Elements of the Possible Draft Proposal**

To repeat, the full proposal being developed by the LTM Group, while intended to be as simple as possible, is complex. But the following are just some of the many elements, which are still being finalised, about which the Boards/Executive Committees of the international shipowner associations will need to be aware.

The monies collected would in effect be held 'in trust' by the IMRF on behalf of the global shipping industry. Once transmitted to the IMRF the monies would no longer belong to individual companies.

The 'shipowner' (as defined by the ISM Code) would be legally responsible for transmitting the R&D contribution per tonne of fuel purchased for consumption to the IMRF.

The entity that is ultimately paying for the cost of the fuel purchased, which could be the charterer rather than the shipowner, would be legally responsible for paying for the cost of the R&D contribution. This would be addressed by an amendment to MARPOL Annex VI.

To facilitate reimbursement to shipping companies from any third parties, such as charterers, that would be legally and contractually committed to cover the cost of the

R&D contribution, the contributions would be made on behalf of the ship by the 'shipowner' on a 'contribute as you go' basis, i.e. whenever bunker fuel is purchased.

The industry itself would develop a fully automated system that would allow shipping companies to make R&D contributions directly to IMRF Accounts established for every individual ship (matching their IMO number), allowing ships to do this on a 'contribute as you go' basis..

The mandatory R&D contributions would be made by shipping companies directly to the IMRF (not via flag states or bunker suppliers). However, an amendment to MARPOL Annex VI would make it mandatory for ships to have flag State certification to demonstrate that R&D contributions have been made to the IMRF, commensurate with the ships' verified fuel consumption.

The verification of contributions made on behalf of ships under this global R&D contribution system would be overseen by flag State administrations using the existing IMO Fuel Oil Data Collection System without involving non-maritime authorities in those States in which bunker fuel is purchased. This is to ensure a level playing field and avoid any perception that the R&D contribution is a 'tax' (which is politically problematic).

Arrangements would also be in place so that R&D contributions will be made by any ships registered with flag States that do not accede to the new MARPOL Annex VI regulation and that they can receive the required documentary evidence of contributions having been made.

Consistent with the IMO 'No More Favourable Treatment' principle, compliance by ships, regardless of the flag State, would be checked by port State control authorities in those IMO Member States that accede to the new IMO regulation. In addition, the IMRF would be able to compare contributions made by each ship with the fuel consumption data available via the IMO Fuel Oil Data Collection System.

The majority of the LTM Group is currently of the view that, in principle, all international ships should be required to make R&D contributions to the IMRF, including ships below 5,000 gross tonnage which are not currently subject to the IMO Fuel Oil Data Collection System (which would be used to verify that contributions have been made). However, this aspect of the proposal still requires further development.

It is proposed that a lower R&D contribution per tonne of fuel should be set for alternative fuels or energy sources that generate less GHG than conventional fuel oil. Again, this particular aspect of the proposal still requires further work.