

Outcome of the 81st session of IMO's Marine Environment Protection Committee (MEPC) on GHG discussions

Members will recall that at MEPC 80 in July 2023, the IMO adopted a revised Strategy on Reduction of GHG Emissions from ships which provided a framework of emission reduction targets – see [IMO's GHG Strategy](#).

To deliver these reduction targets, a key element of IMO's 2023 GHG Strategy is the development of a so-called "basket of measures" in the mid-term, i.e. between 2023 – 2030, comprising technical and economic elements, as set out below:

- 1) A Technical element: A goal-based marine fuel standard (GFS) regulating the phased reduction of marine fuel's GHG intensity towards the 2050 goal, and
- 2) An Economic element: Based on a maritime GHG emissions carbon pricing mechanism.

To progress the development of legislation necessary to implement the technical and economic elements set out above, two meetings of the Marine Environment Protection Committee (MEPC) have been scheduled for 2024.

The first of these meetings ([MEPC 81](#)) took place just before Easter, with the 16th session of its dedicated GHG Working Group meeting the previous week to commence in-depth discussions on:

- ◆ the development of candidate mid-term measure(s) – 1) and 2) above
- ◆ further development of the Life Cycle GHG Assessment (LCA) framework, for marine fuels, and
- ◆ proposals related to onboard CO₂ capture.

Further information on the LCA Framework and onboard CO₂ capture is set out below.

Development of mid-term "candidate measures"

In terms of the development of mid-term candidate measures, while the Working Group saw merit in the development of a Global Fuel Standard (GFS) alongside a GHG pricing mechanism, different views were expressed on how to achieve this. Member States were divided between taking:

- ◆ an integral approach, where technical and economic elements would be *integrated* into the goal-based marine fuel standard through flexible compliance strategies, such as pooling, or
- ◆ a separate approach, by introducing a complementary GHG pricing mechanism covering all emissions *in addition* to the goal-based marine fuel standard.

Combining both a technical and an economic measure will be complex, whichever option is chosen and so further information on this will be published separately.

It was agreed that a two-day expert workshop on the further development of the basket of candidate mid-term GHG reduction measures will be held intersessionally and its outcome reported to MEPC 82 in September 2024.

How the development of the candidate measures will be progressed

The GHG Working Group which will meet again in September 2024 just before MEPC 82 has agreed to focus its discussions on the following five key elements:

- 1) goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity
- 2) flexible compliance strategies and relevant reporting and verification requirements
- 3) GHG emissions pricing mechanisms
- 4) revenue collection and distribution, and
- 5) assessment of the remaining work and indicative planning in accordance with the timelines set out in the Strategy.

Approval of a new Net Zero framework

While much of the work is ongoing and is timetabled to be finalised at MEPC 83 in Spring 2024, one important decision taken at MEPC 81 was an agreement on an IMO "Net Zero framework" outlining the structure of potential new Chapter five within MARPOL Annex VI, with the understanding that this outline could be used as a starting point for consolidating the different proposals into a possible common structure (see [New MARPOL Annex VI Framework](#)).

Further discussions on other key issues

As outlined above, further discussions are scheduled on:

- ◆ further development of the Life Cycle GHG Assessment (LCA) framework, for marine fuels, and
- ◆ proposals related to onboard CO₂ capture.

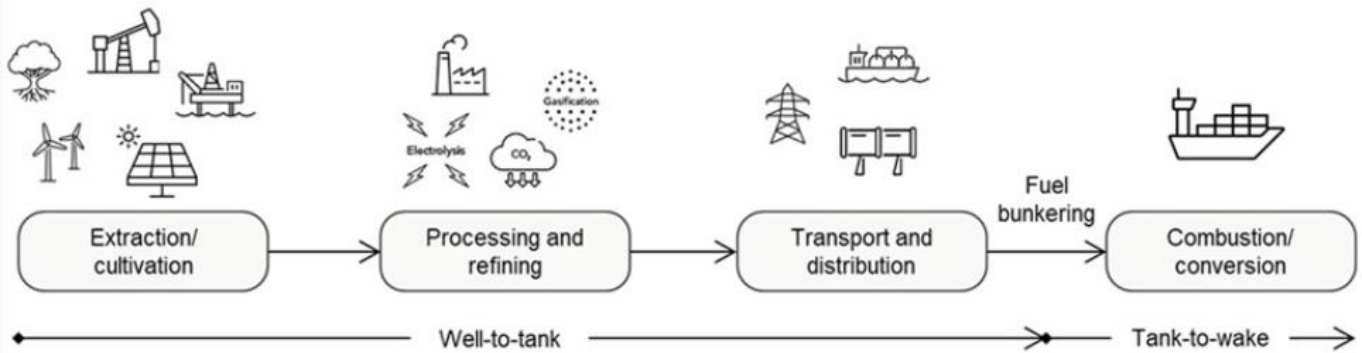
Life Cycle Assessment framework

The 2023 IMO Strategy states that:

'The levels of ambition and indicative checkpoints should take into account the well-to-wake GHG emissions of marine fuels as addressed in the Guidelines on lifecycle GHG intensity of marine fuels (LCA guidelines) developed by the Organization with the overall objective of reducing GHG emissions within the boundaries of the energy system of international shipping and preventing a shift of emissions to other sectors.'

The Life Cycle Assessment (LCA) refers to the assessment of GHG emissions from the fuel production to the end-use by a ship ("Well-to-Wake"). It results from the combination of a "Well-to-Tank" part (from primary production to carriage of the fuel in a ship's tank, also known as upstream emissions) and a "Tank-to-Wake" (also called "Tank-to-Propeller") part (from the ship's fuel tank to the exhaust, also known as downstream emissions). This is shown in the diagram below.

Generic Well to Wake Supply Chain



MEPC 80 adopted Guidelines on life cycle GHG intensity of marine fuels (LCA guidelines) [RESOLUTION MEPC.376\(80\)](#).

The LCA guidelines allow for a Well-to-Wake calculation, including Well-to-Tank and Tank-to-Wake emission factors, of total GHG emissions related to the production and use of marine fuels.

At MEPC 81 revised guidelines on lifecycle GHG intensity of marine fuels (2024 LCA Guidelines) were adopted RESOLUTION MEPC.391(81) which include:

- ◆ revised calculations for default emission factors
- ◆ an updated template for submission of well-to-tank default emission factors, and
- ◆ A new template for submission of well-to-tank default emission factors.

Further development of the LCA framework

In terms of further development of the Life Cycle GHG Assessment (LCA) framework, for marine fuels, it was agreed that work should continue, coordinated by the United States, to address “other social and economic sustainability themes and aspects of marine fuels” for possible inclusion in the LCA Guidelines.

Proposals related to onboard CO₂ capture

In terms of onboard CO₂ capture, MEPC 81 established a Correspondence Group on measurement and verification of non-CO₂ GHG emissions and onboard carbon capture, under the coordination of Norway, which will report of MEPC 83 in Spring 2025. This Group will also consider:

- 1) how to develop a framework for the measurement and verification of actual tank-to-wake methane (CH₄) and nitrous oxide (N₂O) emission factors and a Carbon slip
- 2) how to develop a methodological framework for associated certification issues, in support of the application of the LCA Guidelines, and
- 3) how to identify the relevant gaps in existing instruments, and propose recommendations, with a view to developing necessary regulatory or recommendatory instruments. [\[08\]](#)

Comprehensive Impact Assessment (CIA)

Alongside the development of the basket of candidate mid-term measures, a Steering Committee comprising 32 Member States (Argentina, Australia, Bahamas, Belize, Brazil, Canada, Chile, China, Cook Islands, Denmark, Ecuador, Egypt, Finland, France, Germany, India, Japan, Liberia, Marshall Islands, Netherlands (Kingdom of the), New Zealand, Norway, Republic of Korea, Russian Federation, Singapore, Sweden, Tonga, Türkiye, Tuvalu, United Arab Emirates, United Kingdom and United States) has been established which is conducting a comprehensive assessment of the impact on member states of such measures, in particular, disproportionately negative impacts (DNIs) on Small Island Developing States (SIDS) and Least Developed Countries (LDCs).

The outcome of this assessment will be a decisive element of the decision-making process in terms of the carbon price which is applied to drive the Industry away from fossil fuels and encouraging the uptake of zero or near-zero GHG emission fuels. At the same time as ensuring that any disproportionately negative impacts on states is addressed through dispersal of the proceeds collected to those member states impacted.

The CIA will consider the impact of the proposed measures on issues, including:

- ◆ geographical remoteness and connectivity to main markets
- ◆ cargo value and type
- ◆ transport dependency
- ◆ transport costs
- ◆ food security
- ◆ disaster response
- ◆ cost effectiveness
- ◆ socio-economic progress and development.

Next steps

IMCA's [Marine Policy & Regulatory Affairs](#) (MPRA) Committee is following this work closely and will be providing further update and guidance for members as the work progresses at IMO. If Members have any questions, please contact Margaret Fitzgerald, Head of Legal & Regulatory Affairs.

A further update on other environmental measures approved by MEPC 81 will be issued separately.

Find out more about IMCA's GHG activity in the new [ProjectGHG campaign hub](#) on the IMCA website.

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