



**BUREAU
VERITAS**

BUREAU VERITAS MARINE & OFFSHORE

IMO REGULATORY LANDSCAPE

14 NOVEMBER 2023



AGENDA

01

**MEPC 80 LATEST
ACHIEVEMENTS**

STRATEGY

02

**SHORT & MID
TERM MEASURES**

03

**WHAT'S NEXT AT
IMO**



**MEPC 80 LATEST
ACHIEVEMENTS**

IMO 2023 GHG STRATEGY

Lets start with quick quiz , only 2 questions.

1. Which of these contains the most energy

- a) A gallon of gasoline**
- b) A stick of dynamite**
- c) A hand grenade**

2. Which of these is the cheapest in USA

- a) A gallon of milk**
- b) A gallon of orange juice**
- c) A gallon of gasoline**

Source : How to Avoid A Climate Disaster , Bill Gates

REVISED IMO 2023 GHG STRATEGY

Adoption of new strategy with strengthened levels of ambition

| 2030:

- | Reduce CO₂ emissions per transport work, by at least 40% by 2030, compared to 2008 (**no change**)
- | Uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to at least 5%, striving for 10%, of the shipping energy by 2030 (**new**)
- | Reduce GHG emissions from shipping by at least 20%, striving for 30% in 2030, compared to 2008 (**new**)

| 2040:

- | Reduce GHG emissions from shipping by at least 70%, striving for 80% in 2040, compared to 2008 (**new**)

| 2050:

- | Reach net-zero GHG emissions by or around, i.e. close to 2050 (**new**).....*set as 50% in 2018*



REVIEW OF THE SHORT-TERM MEASURES

SCOPE & TIMELINE

- | Scope of review of the short-term measures will be considered at MEPC 83 (Spring 2025) and be completed by 1 January 2026:
 - | Effectiveness to reduce carbon intensity of international shipping
 - | Experiences with enforcement by flag and port States
 - | DCS enhancement
 - | Impacts on States
 - | CII correction factors and voyage adjustments (→ further amendments)
 - | Application of the Life Cycle Assessment (LCA) Guidelines

MID-TERM MEASURES

BASKET OF CANDIDATE “MID-TERM” MEASURES

A technical element: a goal-based marine fuel standard, regulating reduction of Marine Fuel’s GHG Intensity (with WtW approach as addressed in the LCA guidelines)

An economic element: a maritime GHG emissions pricing mechanism

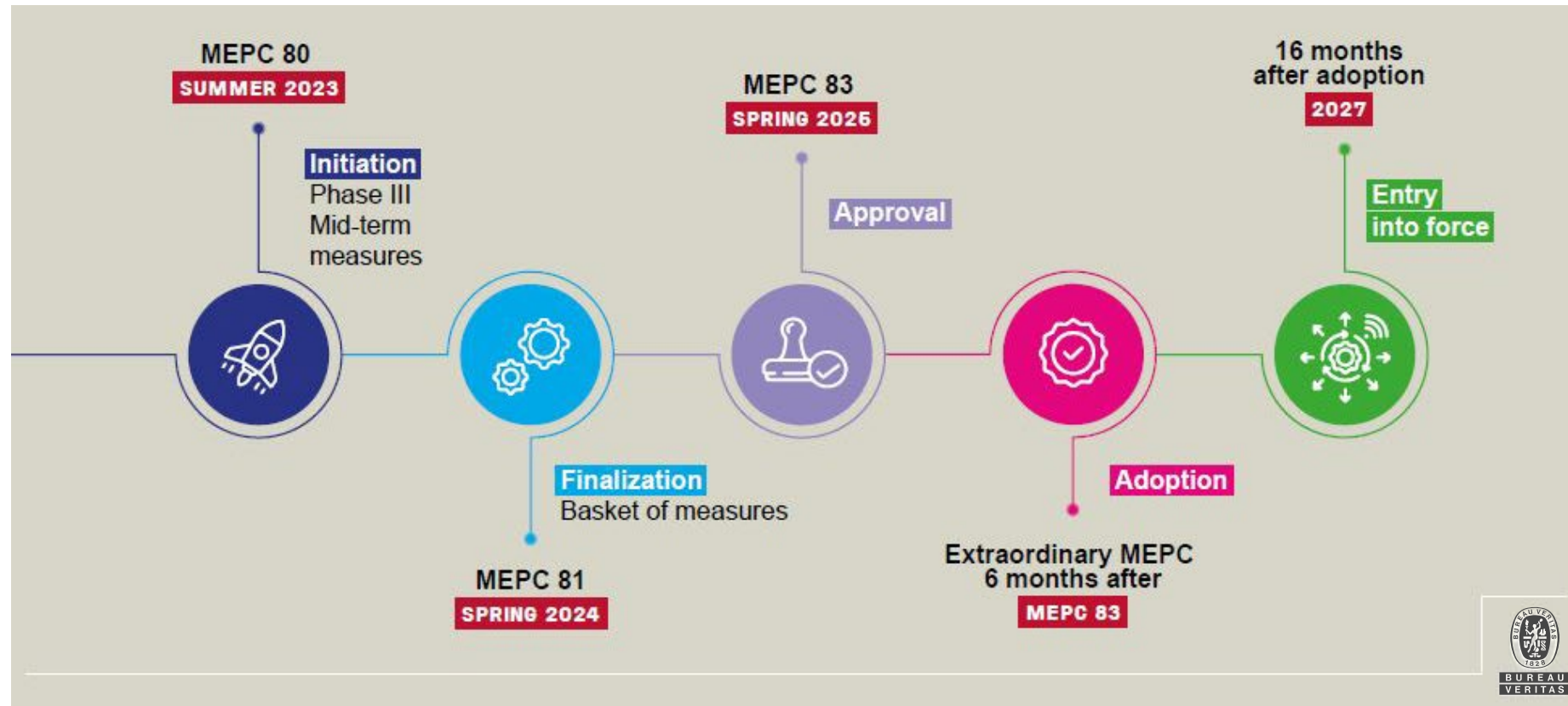
- | at least seven different mechanisms are on the table today, including a Cap-and-Trade system, a Universal Mandatory GHG Levy, a Sustainability and Reward fund
- | a comprehensive impact assessment of the mechanisms will be finalized by 2024 at MEPC 82

NEXT STEPS ?

- | **A comprehensive impact assessment will be finalized at MEPC 82 (autumn 2024)**
- | Further work at ISWG-GHG 16 (Spring 2024) and next MEPC meetings
- | Expected adoption in MEPC 83 in 2025
- | Expected entry into force in 2027



TIMELINE FOR MID-TERM MEASURES



ADOPTION OF AMENDMENTS

- **Form of the Ballast Water Record Book**
(Amendments to Appendix II of the BWM Convention)

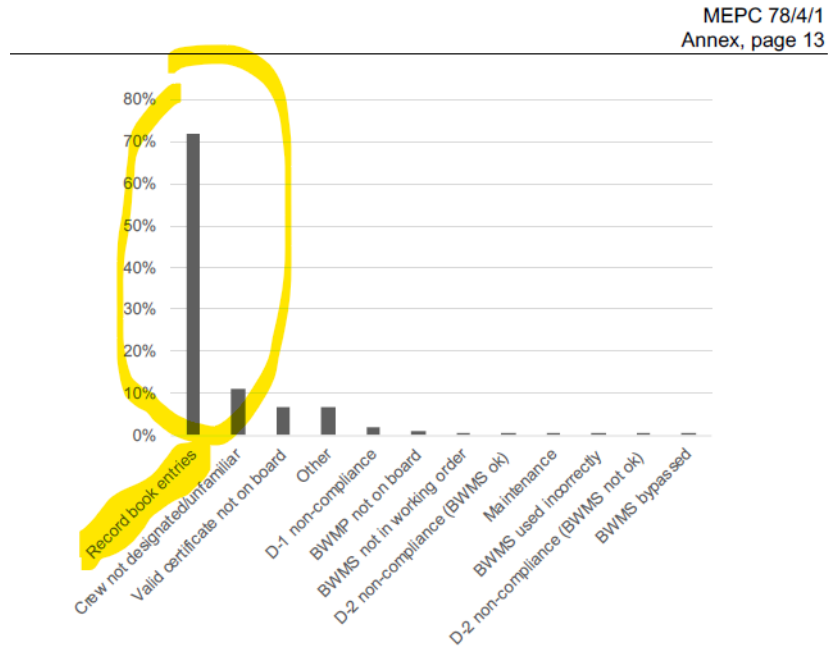


Figure 5: Unsatisfactory survey outcomes as reported by port States (including "other")



ACTION ON AIR & WATER POLLUTION

Exhaust Gas Cleaning Systems (EGCS)

- Amendments to MARPOL Annex VI to regulate discharges into the sea were deferred PPR 11 (February 2024) for further discussion.
- IMPACT could be serious considering installed EGCS



Green light for PPR 10 outcome

- 2023 Biofouling Guidelines (to minimize transfer of invasive aquatic species)
- 2023 Thermal waste treatment devices Guidelines
- 2023 Inventory of Hazardous Materials devices Guidelines and the associated MEPC resolution
- Draft amendments to regulation 13.2.2 of MARPOL Annex VI on a marine diesel engine replacing a “steam system” and the associated guidelines
- Operational Guide on the Response to Spills of Hazardous and Noxious Substances (HNS)* approved at MEPC 80. PPR 11 will continue working on the development of guidance for in-water cleaning.
- Protocol for the verification of ballast water compliance monitoring devices

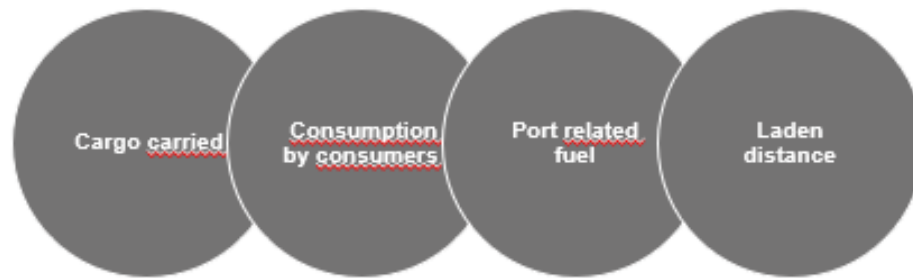
ENERGY EFFICIENCY

EEDI, DCS

Matters related to the EEDI calculation

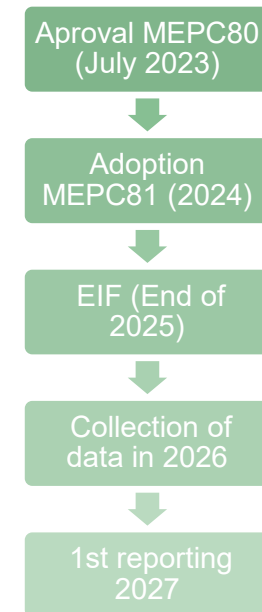
- | Application of Engine or Shaft power limitation (Impact on Nox Technical Code??)
- | Clarify the filling rate for a gas fuel tank

Revision of the IMO ship fuel oil consumption Data Collection System (DCS)



| Accessibility & Transparency

| Laden distance travelled , total onshore power , innovative tec, etc



LCA GUIDELINES

MARINE ENVIRONMENTAL PROTECTION
COMMITTEE
80th session
Agenda item 7

MEPC 80/7/4
28 April 2023
Original: ENGLISH
Pre-session public release: [X]

REDUCTION OF GHG EMISSIONS FROM SHIPS

Final report of the Correspondence Group on Marine Fuel Life Cycle GHG Analysis
Submitted by China, Japan and European Commission

- Identify fuel production pathways and feedstocks
- Develop the Fuel Lifecycle Label (FLL)
- Develop methodologies to calculate WtT & TtW GHG emissions
- Develop guidance on verification & certification

Part I: Carbon content	Part II: Feedstock Nature	Part III: Production pathway	Part IV: Fuel type	Region of the world ^(*)	GHG _{comb} [gCO _{2e} /MJ]	Sr
Carbon	Biogenic	Main products / wastes / Feedstock mix	HVO		-20.7	0
Carbon	Captured carbon	Captured carbon / Electrolysis / electricity mix	Diesel		-47.6 [§]	0

The fuel is certified as a biofuel from a waste stream

The fuel is certified as synthetic fuel made from captured carbon and hydrogen from electrolysis

Default emission factors and carbon source factor based on the FLL information. Defaults to fossil if not certified

Fuel lifecycle label

Certified values by means of laboratory testing or direct emissions measurements should be allowed

Hydrogen-fueled ship





THE USE OF BIOFUELS (DCS AND CII)

New MEPC Circular providing an INTERIM GUIDANCE pending IMO LCA Guidelines



The 2022 Guidelines (MEPC.352(78)) allow for obtaining the CO2 Emission Conversion Factor (Cf) from the fuel oil supplier, supported by documentary evidence, when the fuel type isn't covered by the guidelines

$$Cf(\text{biofuel}) = \text{Well to Wake GHG emissions (gCO2eq/MJ)} \times LCV \text{ (MJ/g)} > 0$$



Provided that:

- | The biofuel is certified according to a scheme approved by the ICAO's certification schemes
 - | The biofuel meets the **CORSIA Sustainability Criteria for CORSIA Eligible Fuels**
 - | Well-to-wake GHG emissions intensity (gCO2eq/MJ) ≤ 32,9 (gCO2eq/MJ)(*)
- (*)35% of the well-to-wake emissions of fossil MGO of 94 gCO2e/MJ, giving 65% reduction compared to MGO (highest indicative threshold for GHG values for the use of biofuels in the EU RED II)

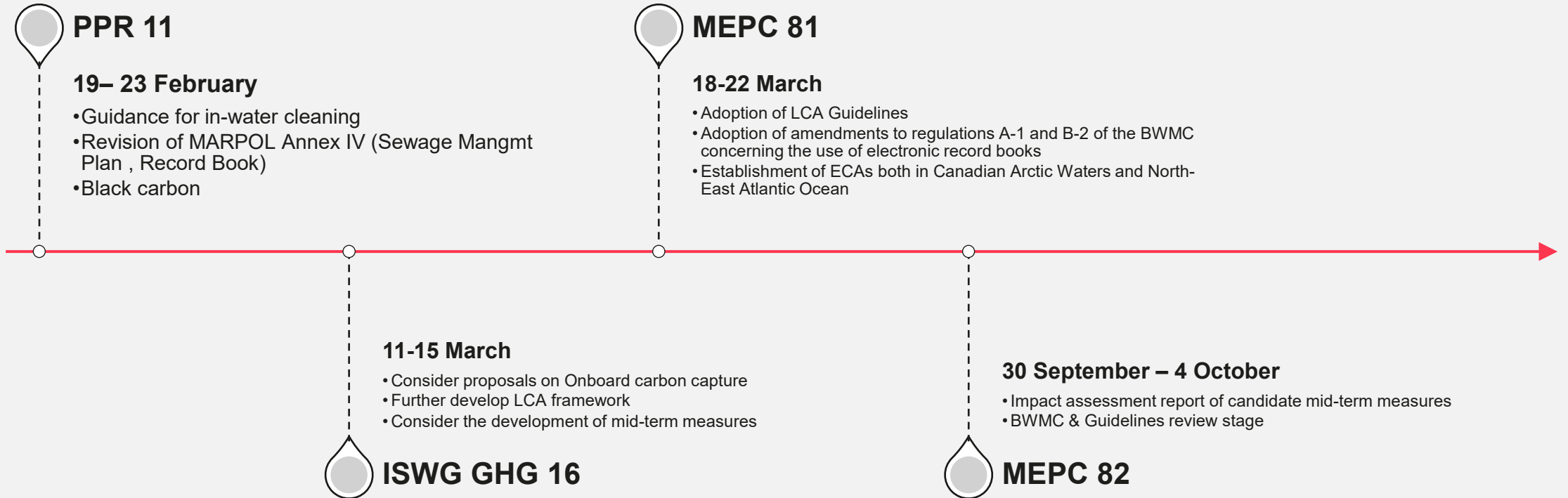


- | For **blends**, the Cf should be based on the weighted average of the Cf for the respective amount of fuels by energy
- | A Proof of Sustainability or similar documentation from a recognized scheme should be provided along with the BDN **Bunker Delivery Note**



WHAT'S NEXT AT IMO

Next 2024 meetings at IMO related to environment protection



ELECTION OF NEW IMO SECRETARY GENERAL

Arsenio Antonio Dominguez Velasco

- | Appointed by IMO Council on 18th July 2023
- | Landslide election
- | **A robust profile**
 - | Naval architect
 - | Panama flag
 - | MEPC Chair & Director of Environment at IMO
- | **A mandate with challenging waters**
 - | High pressure towards net zero around 2050
 - | Reluctance & consensus for technical measures implementation
- | A clear message emphasizing the significance of climate change



‘I’m not afraid of disturbing things a little bit to actually get change’

CARBON CAPTURE

| Context:

- | More and more pilot projects currently on-going with On-board Carbon Capture technologies installed on-board.
- | How this should be considered in GHG indexes (CII EEDI EEXI) ?

| Several proposals submitted to MEPC80

| MEPC80 agreed to defer to ISWG-GHG-16

- | To ensure work in a structured manner
- | To aim for a more holistic approach as part of the further development of the LCA framework



MARITIME SAFETY COMMITTEE

MSC 107 OUTCOME

STEPS IN THE WORK PROGRAMME FOR MSC 108 (MAY 2024)

1

Proposal for a new output to facilitate a regulatory framework to support the safe delivery of IMO's strategy on reduction of GHG emissions from ships submitted by EU countries (including UAE) and NGOs.



2

Establishment of working and drafting groups at MSC 108 :

- “development of a safety regulatory framework to support the reduction of GHG emissions from ships using new technologies and alternative fuels”



3

Correspondence Group 1st round of discussions started in October 2023 :

- identify and update a list of fuels to support GHG reduction
- Conduct an assessment for each identified fuel and technologies

OUTCOME OF SUB-COMMITTEE ON CARRIAGE OF CARGOES & CONTAINERS (CCC 9), 9TH SESSION 20-29TH SEPT, 2023

- | **IMO progressed but did not finalize:**

- | Interim guidelines for the safety of ships using **ammonia as fuel**
- | Interim guidelines for the safety the safety of ships using **hydrogen as fuel**

Both interim guidelines will be approved at **MSC 109** (December 2024)

- | **Further consideration**

- | Correspondence group on alternative fuels
- | Intersessional Working Group

Thank you for your attention

Please feel free to reach us if you have any questions



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