



# MEPC ES.2 Update

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November 2025

# Revised 2023 IMO GHG Reduction Strategy

## Revised GHG Strategy

With Respect to **2008** Levels

### Carbon Intensity of the Ship

Decline through further phases of the EEDI

### Carbon Intensity of international Shipping

40% reduction by 2030

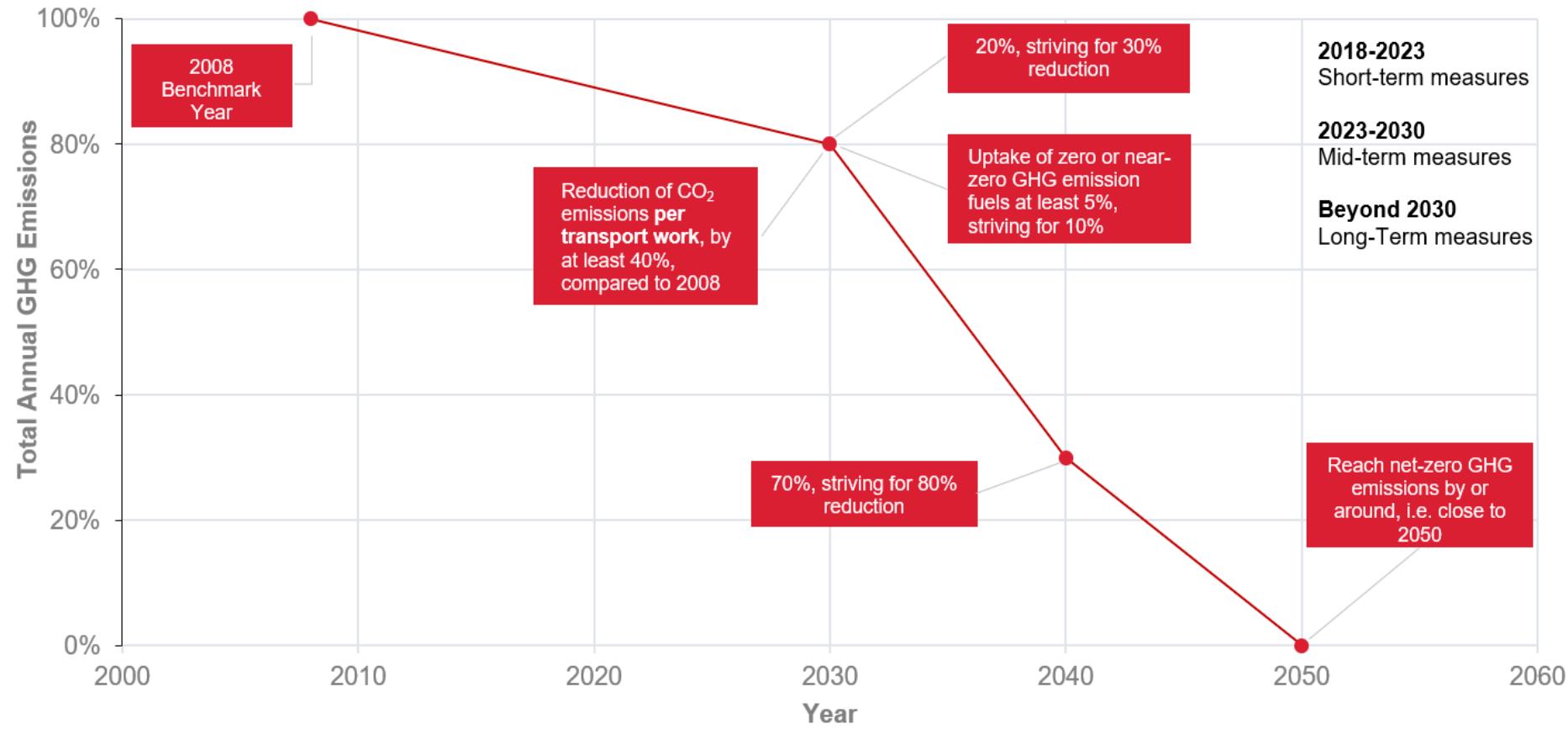
### Uptake of (near) zero GHG emission technologies/fuels

5%, striving for 10% by 2030

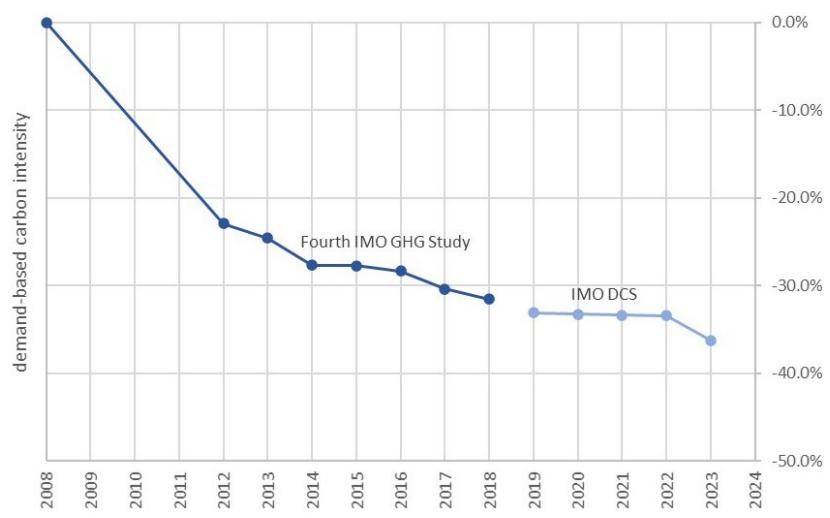
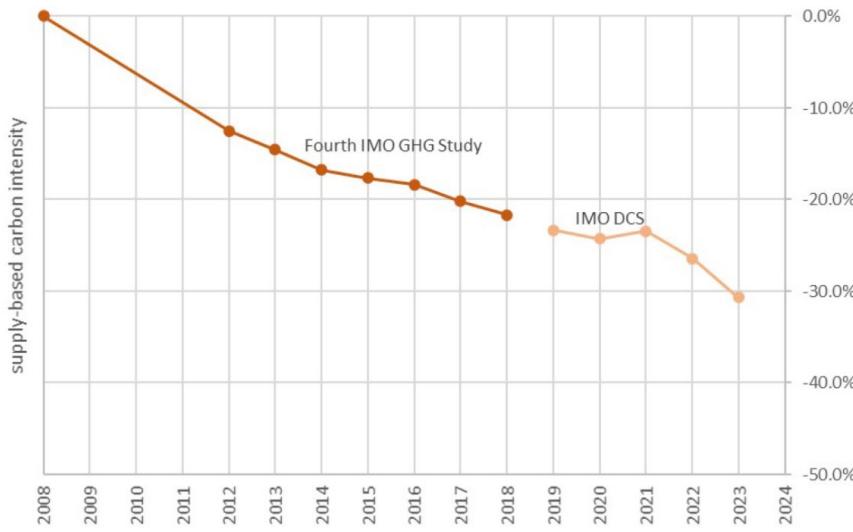
### Total Annual GHG Emissions

- 20%, striving for 30% by 2030
- 70%, striving for 80% by 2040
- Net zero by or around, i.e. close to 2050

## IMO GHG Reduction Targets

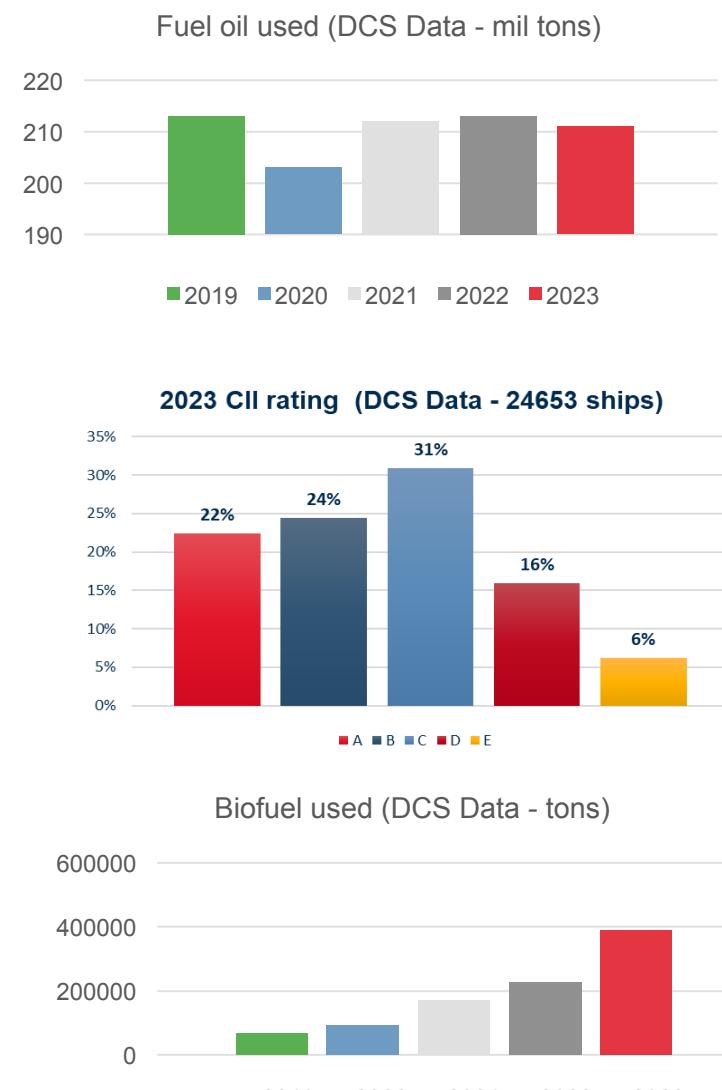


# International Shipping GHG Trends



Source: MEPC 83/6

3 | MEPC ES.2 Update



Source: MEPC 82/6/38

## GHG Emissions

International shipping GHG emissions (in CO<sub>2</sub>e) increased from 794 mil ton in 2008 to 810 mil ton in 2018

## Carbon Intensity

Supply- and demand-based carbon intensity reduction in 2018 vs 2008:

- About 21% supply-based
- About 29.4% demand-based

## Fuel Oil Used

- 2022 (28,834 ships): 213 mil tonnes
- 2023 (28,620 ships): 211 mil tonnes

Fuel oil use dropped by about 1%

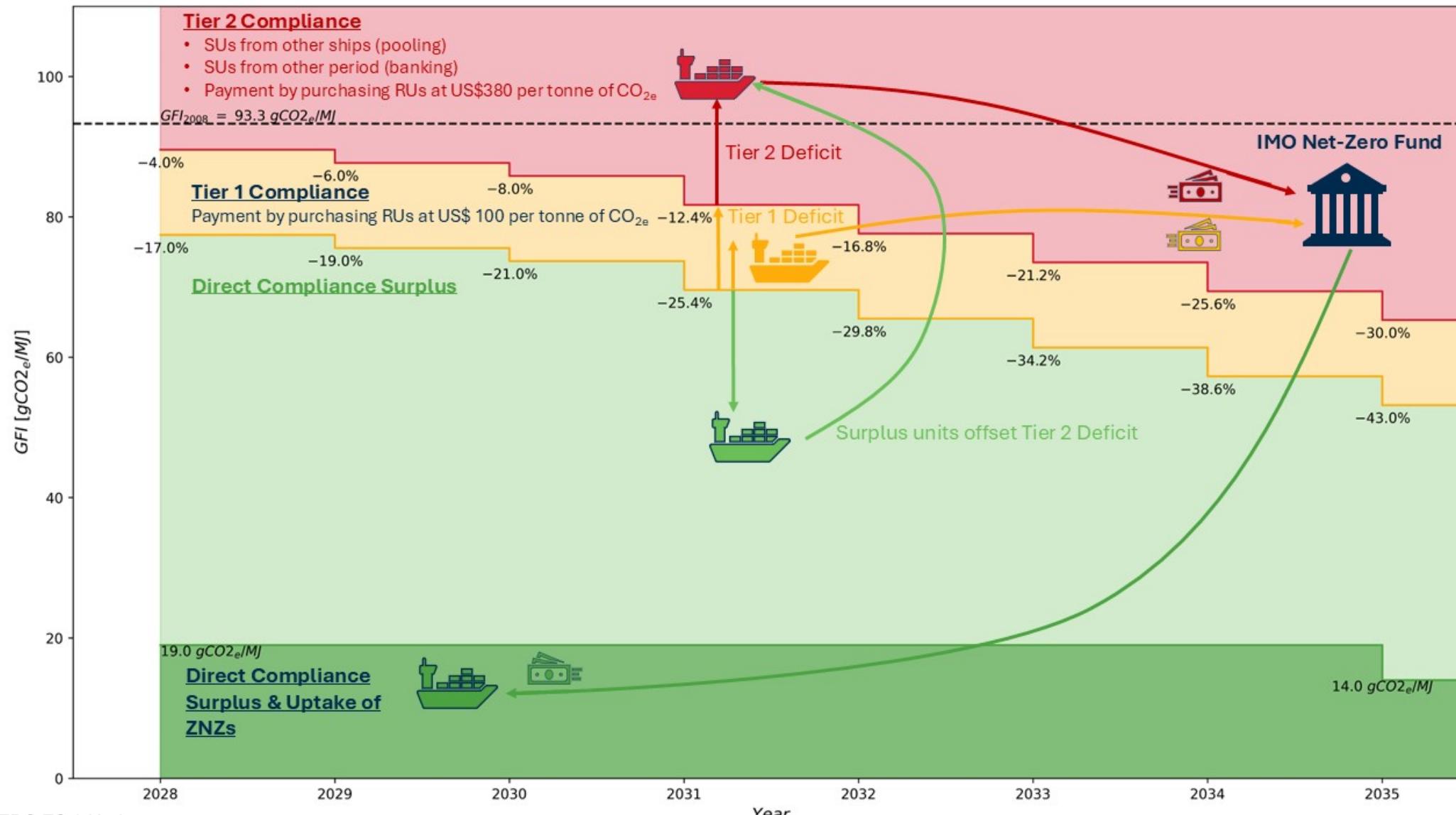
## CII Rating

Ships present improved CII rating in 2023 vs the 2019 target percentages

## Biofuels Use

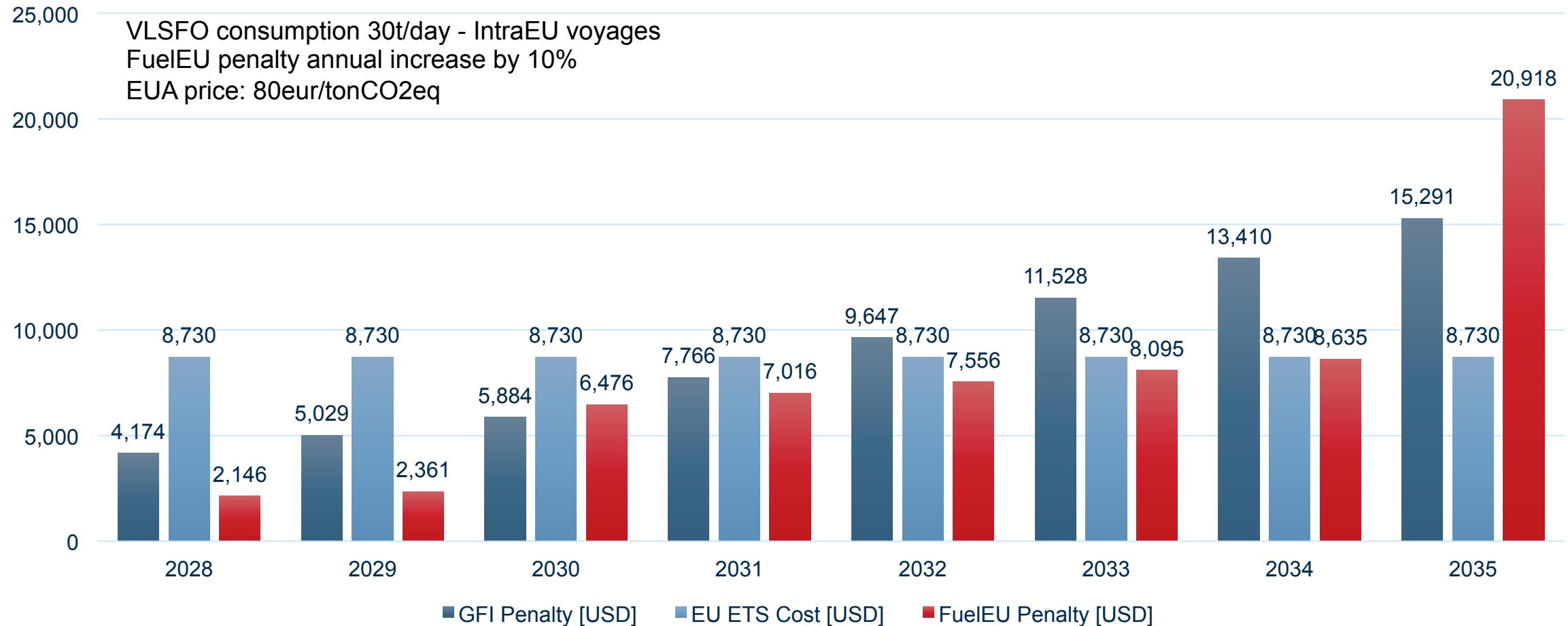
Steady increase with 73% growth in 2022 to 2023 (390,846 tonnes). Still low contribution of about 0.2% of total fuel use

# Annual GFI Compliance Approaches



# Daily Compliance Cost: GFI vs ETS vs FuelEU

## Daily Compliance Cost (\$): GFI vs ETS vs FuelEU



# Penalty Projection per Fuel MT

■ Tier 2 Deficit  
■ Tier 1 Deficit  
■ Direct compliance

Penalty projection per fuel MT [USD/MT]

	WtW [gCO2e/MJ]	2028	2029	2030	2031	2032	2033	2034	2035
<b>VLSFO</b>	95.48	-139	-168	-196	-259	-321	-384	-447	-510
<b>HSHFO</b>	92.78	-98	-126	-155	-218	-280	-343	-406	-468
<b>LFO</b>	91.25	-76	-105	-134	-198	-262	-326	-390	-454
<b>MDO/MGO</b>	93.93	-123	-153	-183	-250	-316	-383	-449	-516
<b>LPG (Butane)</b>	74.74	25	8	-5	-24	-43	-77	-149	-221
<b>LPG (Propane)</b>	74.08	31	14	-2	-21	-39	-66	-137	-209
<b>LNG (LP 4S Otto)</b>	93.69	-133	-167	-201	-276	-351	-426	-501	-576
<b>LNG (LP 2S Otto)</b>	84.23	-33	-42	-50	-104	-179	-254	-328	-403
<b>LNG (HP 2S Diesel)</b>	76.09	13	-2	-11	-31	-51	-105	-180	-255
<b>LNG (Steam)</b>	75.35	20	2	-8	-28	-47	-92	-166	-241
<b>B30 (VLSFO)</b>	77.5	0	-8	-15	-31	-47	-107	-168	-229
<b>Biodiesel</b>	31.9	337	323	309	279	249	218	188	157
<b>Ammonia (NG)</b>	123.64	-263	-277	-290	-319	-348	-377	-406	-435
<b>Hydrogen (NG)</b>	132.4	-2099	-2184	-2269	-2456	-2643	-2830	-3017	-3205
<b>Methanol (NG)</b>	102.86	-125	-139	-153	-184	-215	-246	-277	-308
<b>Methanol (Green)</b>	21.26	224	216	209	192	176	160	143	127
<b>Ammonia (Blue)</b>	48.64	107	100	93	78	63	47	32	17
<b>Ammonia (Green)</b>	22.64	204	197	190	175	159	144	129	114

VLSFO, HSHFO, MDO/MGO from 2024 LCA Guidelines - LFO, LPG, Grey-Ammonia/Methanol/Hydrogen from FuelEU - LNG from MEPC 83/INF.11  
 Blue/Green-Ammonia from MEPC 83/INF.11 - Biodiesel from MEPC 83/7/32 - Green-Methanol from MEPC 83/7/10 – Surplus Units price at 200 USD/

# Provision for Alignment of the EU Regional Measures

- Despite the extensive deliberations and the submission of a finalized draft text, **consensus could not be reached**.
- Following a roll-call vote, the Committee decided to **adjourn the meeting for a period of one year**, based on the following considerations:
  1. Institutional Division.
  2. Heightened Tensions and Fragmentation.
  3. Need for Broader Consensus.

Voting Results	Yes	No	Abstain	Not Present
Member States	57	49	21	8

Adjourn the MEPC Extraordinary Session for one year?

YES	NO	ABSTAIN
ALGERIA, ANGOLA, ARGENTINA, AZERBAIJAN, <b>BAHAMAS</b> , BAHRAIN, BANGLADESH, BELIZE, <b>CHINA</b> , COLOMBIA, N. KOREA, ECUADOR, EGYPT, ERITREA, ETHIOPIA, GHANA, GUATEMALA, INDIA, IRAN, IRAQ, ISRAEL, JAMAICA, JORDAN, KAZAKSTAN, KENYA, KUWAIT, LEBANON, <b>LIBERIA</b> , LIBYA, MADAGASCAR, MALAYSIA, MOROCCO, NIGERIA, OMAN, PAKISTAN, <b>PANAMA</b> , PARAGUAY, PERU, QATAR, RUSSIAN FEDERATION, SAINT KITTS AND NEVIS, SAINT VINCENT AND THE GRENADINES, SAUDI ARABIA, SERBIA, SIERRA LEONE, SOMALIA, THAILAND, TRINIDAD AND TOBAGO, TUNISIA, TURKEY, UAE, TANZANIA, USA, URUGUAY, VENEZUELA, VIET NAM, YEMEN	AUSTRALIA, BELGIUM, BRAZIL, BULGARIA, CANADA, CHILE, COOK, ISLANDS, CROATIA, CZECHIA, CONGO, DENMARK, ESTONIA, FIJI, FINLAND, FRANCE, GERMANY, ICELAND, IRELAND, ITALY, KIRIBATI, LATVIA, LITHUANIA, LUXEMBOURG, <b>MALTA</b> , <b>MARSHALL ISLANDS</b> , MEXICO, MONACO, MONTENEGRO, NAMIBIA, NETHERLANDS, NORWAY, PALAU, POLAND, PORTUGAL, ROMANIA, SAMOA, SAN MARINO, SEYCHELLES, <b>SINGAPORE</b> , SLOVENIA, SOLOMON ISLANDS, SOUTH AFRICA, SPAIN, SWEDEN, SWITZERLAND, TONGA, TUVALU, <b>UK</b> , VANUATU	ANTIGUA AND BARBUDA, BARBADOS, CAMBODIA, CÔTE D'IVOIRE, <b>CYPRUS</b> , GEORGIA, <b>GREECE</b> , HAITI, HONDURAS, INDONESIA, JAPAN, MALAWI, NEW ZEALAND, PAPUA NEW GUINEA, PHILIPPINES, S. KOREA, SENEGAL, SRI LANKA, SURINAME, TOGO, UGANDA.

# Key Points of Contention

## Acceptance Procedure



- Tacit agreement vs Explicit agreement

## Concerns on Regulatory Fragmentation



- Recognition of the IMO NZF as the sole global mid-term measure for international shipping.

## Impact on the Maritime Industry



- Increased compliance costs
- Administrative burdens
- Possible financial strain imposed on nations

# Next Steps

## IMO's Forward Work on the NZF

- Shift focus on re-engagement and consensus-building among Member States.
- The deliberation on the adoption of the NZF in the MEPC Extraordinary Session which will **resume in one year**.
  - If adopted under the tacit acceptance procedure, the framework would enter into force **16 months later**.

## ISWG-GHG 20 (October 20 to 24, 2025)

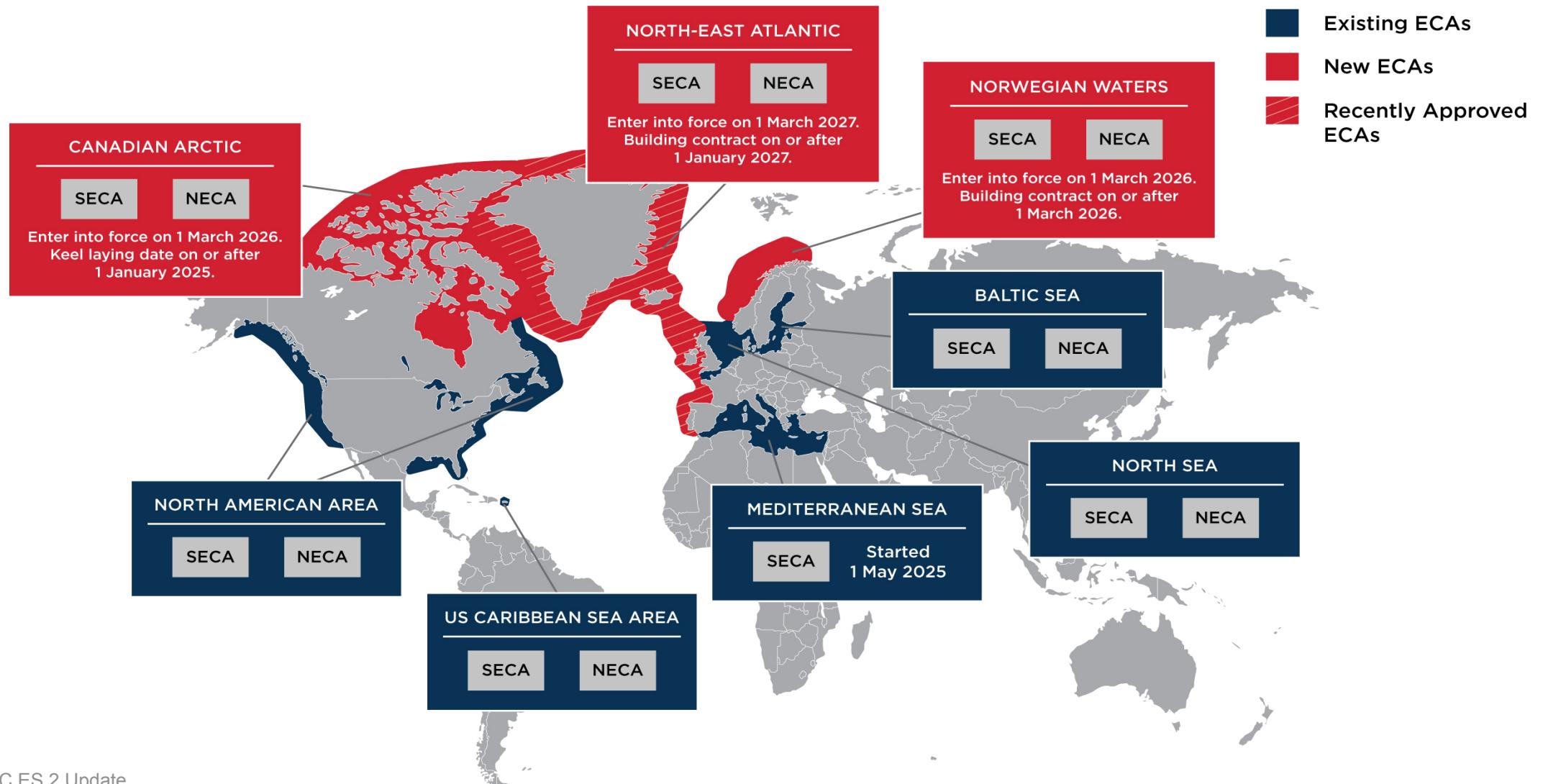
1. Development of new and/or revision of existing guidelines, provisions, guidance for supporting the implementation of the IMO Net-Zero Framework.
2. Further consideration of the development of the IMO Life Cycle GHG Assessment (LCA) framework.
3. Finalization of the draft terms of reference for the Fifth IMO GHG Study.



# IMO Work Plan for the Safe Use of Alternative Fuels

IMO GUIDELINE	2023	2024	2025	2026	2027	2028	2029	2030
	CCC9	CCC10	CCC11	CCC12	CCC13	CCC14	CCC15	CCC16
Interim guidelines for <b>Ammonia</b> as fuel								
Interim guidelines for <b>Ammonia Cargo</b> as fuel								
Interim guidelines for <b>Hydrogen</b> as fuel								
Revised interim guidelines for <b>Methanol/Ethanol</b> as fuel								
Interim guidelines for <b>Low-Flashpoint Oil Fuels</b>								
Revised interim guidelines for <b>Fuel Cell power installations</b>								
Interim guidelines for <b>OCCS</b>								
Revised interim guidelines for <b>Ammonia</b> as fuel								
Revised interim guidelines for <b>LPG</b> as fuel								

# Global ECA Standards





# Thank you!

[www.eagle.org](http://www.eagle.org)