



WHEN TRUST MATTERS

MEPC 83 – New regulations to reduce GHG and more

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Webinar presenters



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AGENDA

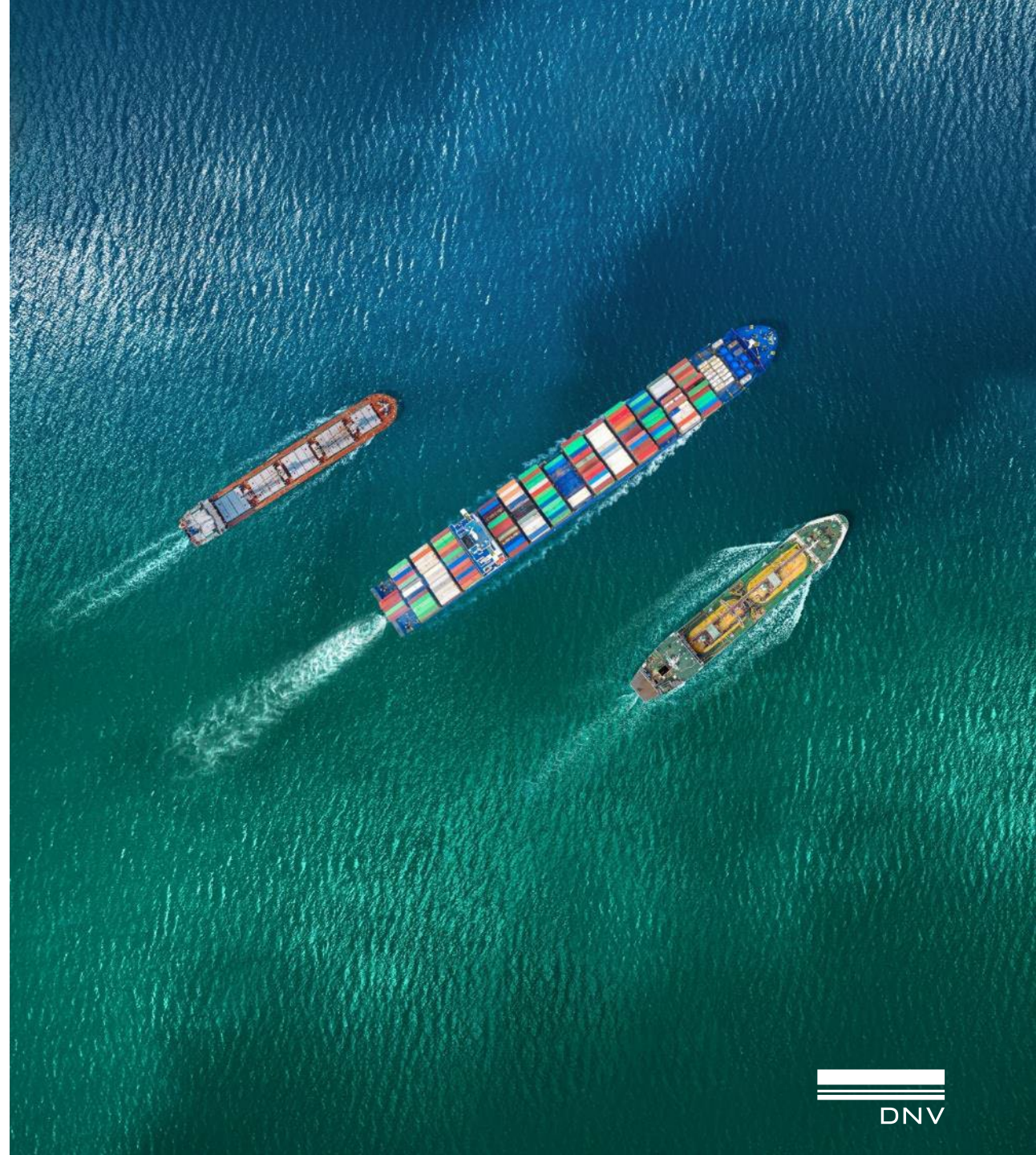
- Greenhouse gas strategy & progress on new regulations
- Review of short-term measures (CII, SEEMP, EEXI)
- New ECA, new IMO outputs, other matters
- Questions and answers



Greenhouse gas strategy & progress on new regulations

IMO Net-Zero Framework

- IMO's **regulatory response** to the revised IMO GHG Strategy adopted in 2023
- Contains integrated **technical and economic** elements
- Implemented as a **new Chapter 5 in MARPOL Annex VI**
- Amendments **approved by voting** at MEPC 83 (63 for, 16 against, 39 abstained/not present)
- **Due for adoption in October 2025** – requires acceptance by two-thirds of the parties to MARPOL Annex VI representing at least 50% of the total gross tonnage
- With adoption in October the amendments will enter into force in March 2027, and **take effect from 1 January 2028**
- Related **guidelines will be developed** in the coming years in time for implementation of the requirements





Two-tier GHG fuel intensity requirements

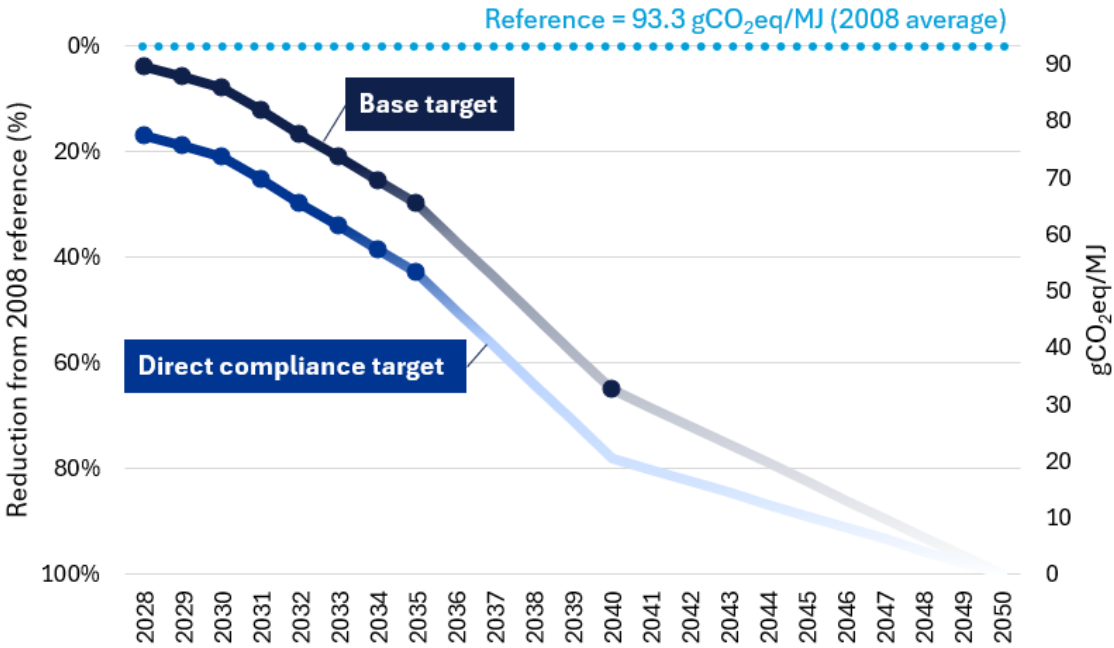
- A **technical element**, setting gradually more stringent reduction requirements to a ship's annual GHG fuel intensity (GFI)
- **Economic elements**, including
 - two-tiered pricing of GHG emissions above the GFI requirements
 - revenues will go towards
 - rewards for use of zero or near-zero GHG emission fuels
 - support for the implementation of the NZF

Scope, metric and trajectory

- **Applies to all ships above 5000 GT**, except ships trading solely domestically, platforms including FPSOs, FSUs and drilling rigs, and semi-submersible vessels
- Based on annually reported well-to-wake **GHG fuel intensity (GFI)**. Includes also electricity delivered to the ship, wind propulsion and solar power
- **Two tiers of requirement** are set on the annual attained GFI for a ship: a **Base target** and a more stringent **Direct Compliance target**. Each ship is required to meet the Direct Compliance target.

GHG emissions per unit of energy used on board a ship

$$GFI_{attained} = \frac{\sum_{j=1}^J EI_j \times Energy_j}{Energy_{total}}$$



| Year | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | ... | 2040 |
|--------|------|------|------|-------|-------|-------|-------|------|-----|------|
| Base | 4% | 6% | 8% | 12.4% | 16.8% | 21.2% | 25.6% | 30% | | 65% |
| Direct | 17% | 19% | 21% | 25.4% | 29.8% | 34.2% | 38.6% | 43% | | - |

Compliance approaches: buy Remedial Units (penalty), transfer of Surplus Units (pooling)

- **Compliance balance**

- GFI above Base target: generates both Tier 1 and Tier 2 compliance deficits
- GFI between Direct and Base target: generates only Tier 1 compliance deficit
- GFI below Direct target: receives Surplus Units (SU)

- **Tier 1 compliance deficit**

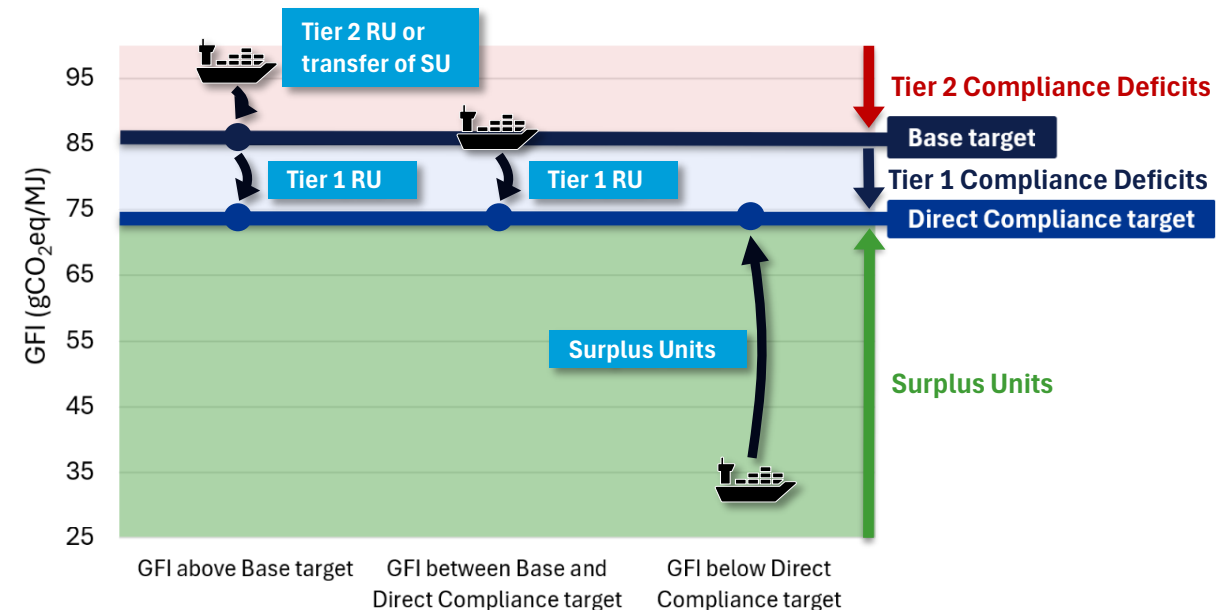
- Can only be compensated by Tier 1 Remedial Units (RU) from the IMO Net-Zero Fund

- **Tier 2 compliance deficit**

- Can be balanced with SUs from other ships, or by Tier 2 RUs

- **Compliance surplus**

- Can transfer an SU once to ships with a Tier 2 Compliance deficit (similar to FuelEU's concept of compliance pooling)
- Bank the units for later use (within two years)
- Can be cancelled as a voluntary mitigation contribution



Initial prices on Remedial Units, 2028 to 2030:

- Tier 1 RU: US\$ 100 per tonne of CO₂eq
- Tier 2 RU: US\$ 380 per tonne of CO₂eq

To be reviewed and adjusted from 2031

10 to 15 billion USD/year estimated revenue into the IMO Net-Zero Fund

- Proceeds from the sale of Remedial Units (RUs) will go into the IMO Net-Zero Fund
- To be set up and managed by the IMO
- Part of the revenues are intended to be circulated directly back to the industry as a reward for ZNZs (to be determined by 1 March 2027)
- Other purposes, focused on promoting a just and equitable transition by facilitating environmental and climate protection adaptation and resilience building

Possible uses of revenues:

- rewarding zero and near zero GHG emission technologies, fuels and/or energy sources
- researching, developing, and making available ZNZs;
- developing maritime, coastal and port-related infrastructure and equipment;
- enabling a just transition for seafarers and other maritime workforce;
- facilitating information sharing, technology transfer, capacity-building, training and technical cooperation;
- supporting development and implementation of National Action Plans;
- addressing disproportionately negative impacts on States

Zero and near-zero technologies and rewards

- ZNZs include **technologies, fuels and energy sources** to be evaluated on a well-to-wake basis
- **Not only fuels**, will include e.g. wind and solar, and possibly onboard CCS
- Initial GFI thresholds:
 - Until end-2034 – **max 19.0 gCO₂eq/MJ**
 - From 2035 - **14.0 gCO₂eq/MJ**
 - To be reviewed every five years
- Ships will be eligible for rewards, with method to be defined by **1 March 2027**



Business implications



- The **IMO decarbonization trajectory is set**, and is significantly more stringent than FuelEU Maritime
- **Zero and near-zero fuels** are essential. About **25 to 30 MTOE** low emission fuels will be needed to comply with the requirements in 2030
- Annual revenues estimated to **10 to 15 billion USD/year** parts of which will be used to reward ZNZ fuels.
- **Energy efficiency** improvements remain important
- Regulatory **complexity and overlap will increase**, and compliance will become tougher
- Knowing and understanding your own **emissions data** will be business critical

Review of short-term measures (CII, SEEMP, EEXI)



SEEMP CII phase 1 review concluded

CII reduction rates 2027 – 2030 agreed

| Year | 2027 | 2028 | 2029 | 2030 |
|------------------|---------|---------|---------|---------|
| Reduction factor | 13.625% | 16.250% | 18.875% | 21.500% |

Work plan for second phase of review

- Commences in 2026, concludes spring 2027. Addresses CII issues as well as potential SEEMP enhancements

Data Collection System (DCS) and data access

- Definition of “underway” changed to be the period between “full ahead on passage” (FAOP) and “end of sea passage” (EOSP)
- DCS accessibility enhanced while anonymization will be strengthened

Air pollution

Measurement of non-CO2 GHG emissions

- Guidelines for **test-bed and onboard measurements** of methane (CH₄) and nitrous oxide (N₂O) emissions were finalized
- The guidelines may become **accepted under the EU ETS and FuelEU Maritime** regulations

Onboard carbon capture (OCCS)

- Work plan agreed on the **development of a regulatory framework** for the use of OCCS
- The work is set to be **finalized in 2028**

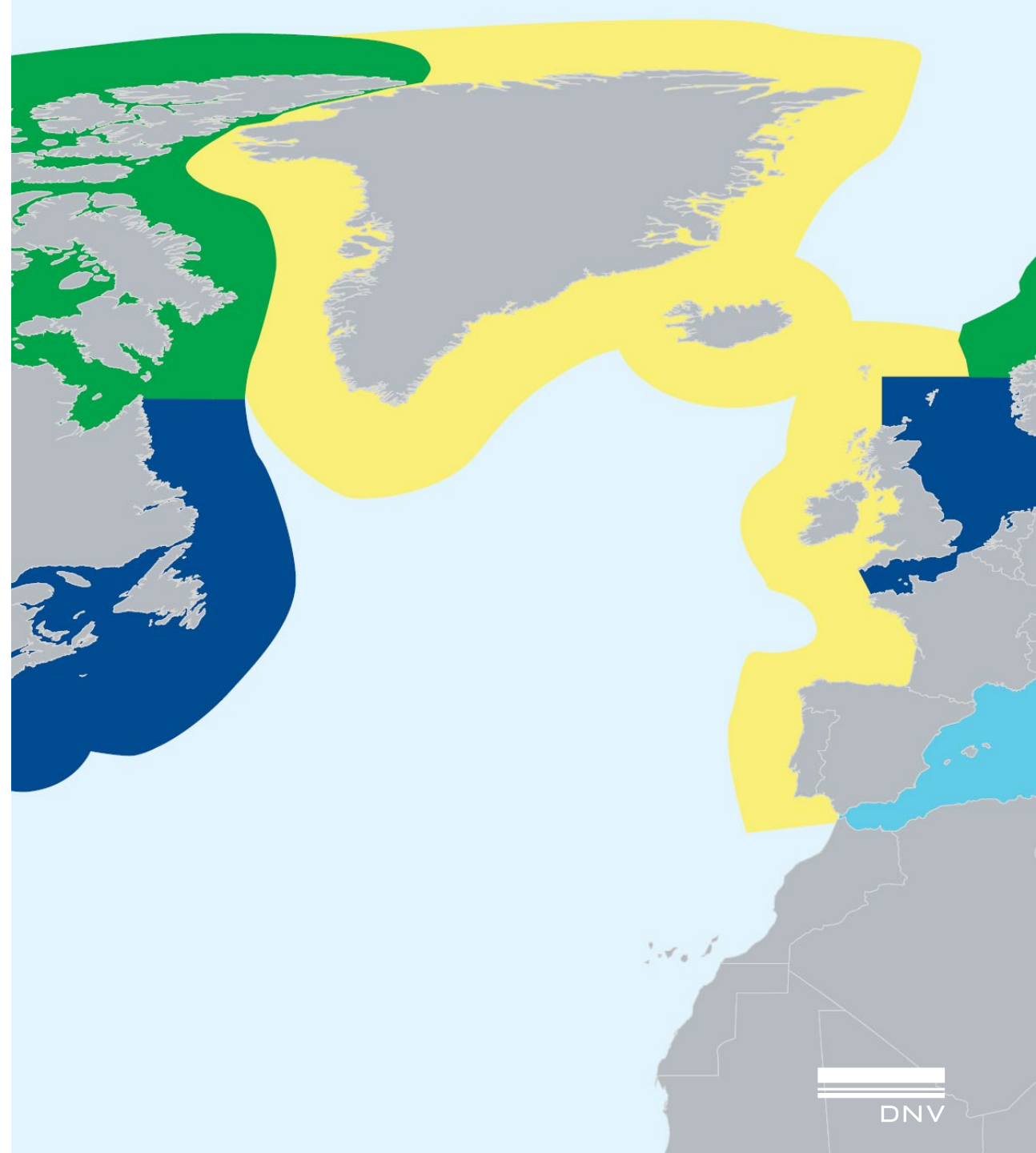


New ECA, new IMO outputs, other matters

New North-East Atlantic ECA approved

Adoption expected in October 2025

- 0.10% fuel sulphur content requirement expected to take effect **from 2028**
- Tier III NOx requirements **expected to apply** to ships contracted on or after **1 January 2027**, or in the absence of a building contract, constructed (keel-laid) on or after **1 July 2027**, or delivered on or after **1 January 2031**
- Note that **these dates may change** upon the formal adoption of the amendments



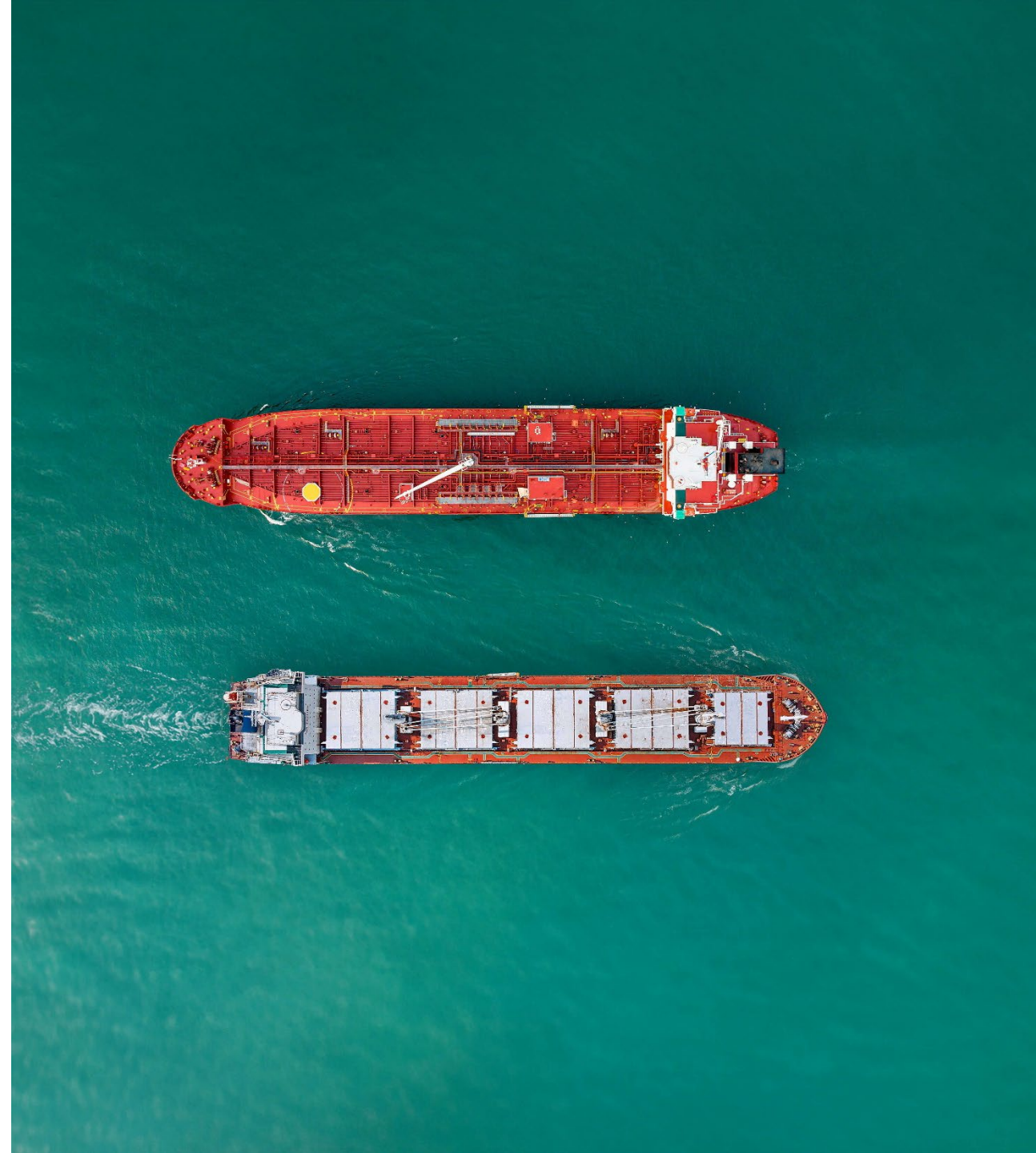


New outputs agreed

- Development of a **legally binding framework** for the control and management of ships' biofouling
- Review and amendment of the NOx Technical Code to provide for certification of engines **using non-carbon-containing fuels** or mixtures
- Assessment of the **implementation of the Hong Kong Convention** through an experience-building phase
- Development of guidelines for the **management of ammonia slip** from ammonia fuelled ships

Other matters

- **Adoption** of amendments to the NOx Technical Code
 - Allowing for the use of multiple engine operational profiles for a marine diesel engine
 - Re-certification of existing engines
- Circular **approved**, with guidance on **in-water cleaning** of ships in line with the 2023 Biofouling Guidelines
- **Amendments** to the BWM Convention in process, scheduled for approval at MEPC 84
- Interim circular **approved**, allowing conventional bunker ships certified as oil tankers under MARPOL Annex I to carry **biofuel blends** containing up to 30% biofuel.
- **Adoption** of amendments to **Inventory of Hazardous Materials** guidelines clarifying the relevant threshold for cybutryne when sampling from hull / wet paint containers
- **Adoption** of the 2025 Action Plan to Address **Marine Plastic Litter** from Ships



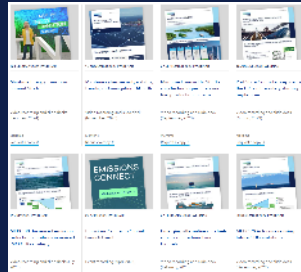
A selection of related DNV resources and services

Technical & Regulatory News



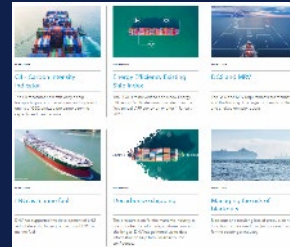
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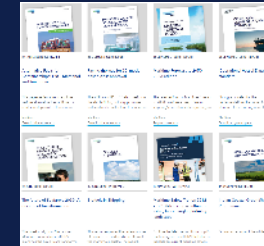
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Theme pages DCS, CII, SEEMP III, etc.



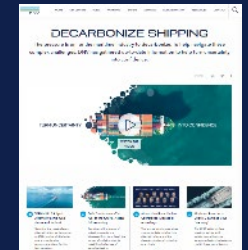
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Publications Alternative fuels, Maritime Forecast, etc.



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Decarbonization hub



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Emissions Connect



[EU ETS – Emissions Trading System - DNV](#)



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GHG compliance – EU MRV, IMO DCS, ETS...



[Maritime \(dnv.com\)](http://Maritime(dnv.com))

Emissions Insights incl. preliminary CII rating (customer portal)



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