

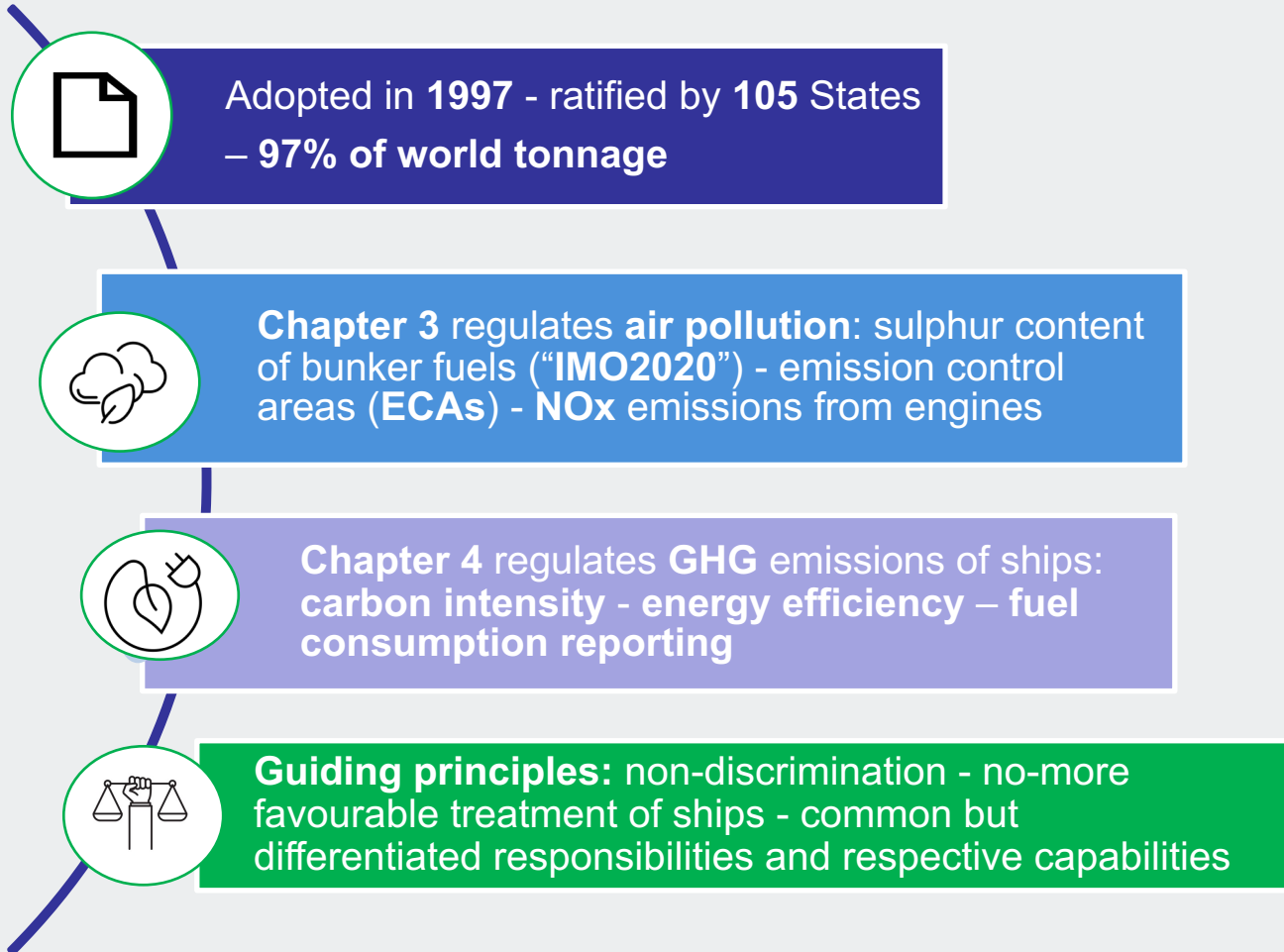
2023 IMO STRATEGY ON REDUCTION OF GHG EMISSIONS FROM SHIPS

XXVIth IMPA Congress – Tuesday, 23 April 2024

Mr. Camille Bourgeon
IMO Secretariat



MARPOL Annex VI: IMO's global regulatory framework for climate action and clean air



IMO' climate commitment: well-over a decade of regulatory action through MARPOL Annex VI

IMO's existing framework of mandatory energy efficiency regulations

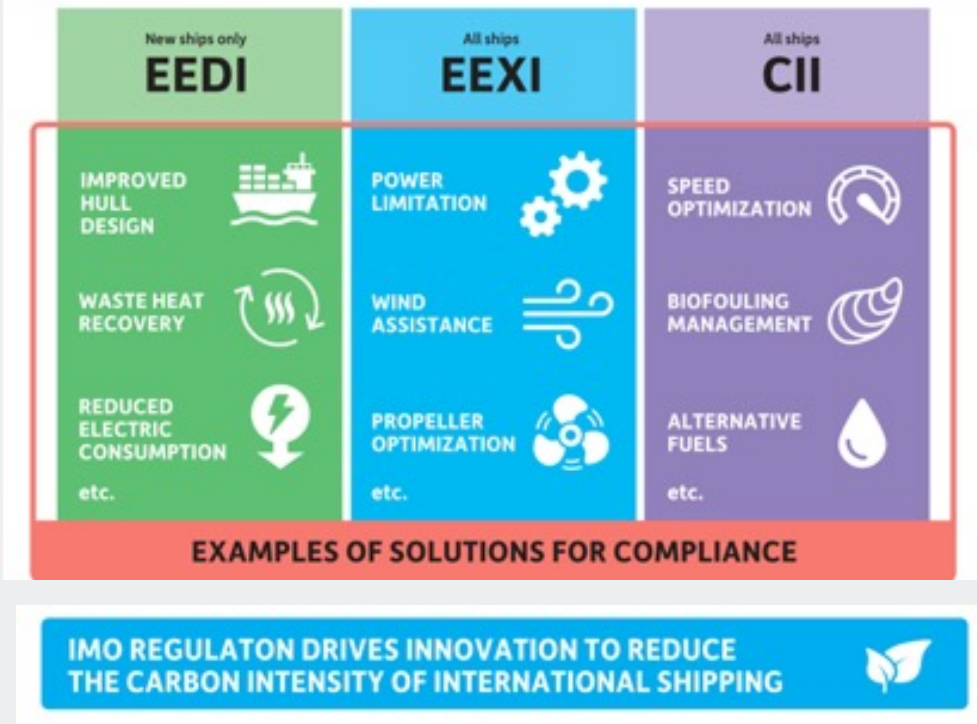
Design requirements for new builds (EEDI)

Annual fuel consumption reporting (IMO Data Collection System)

Technical energy efficiency requirements (EEXI)

Operational energy efficiency requirements (CII)

Ship Energy Efficiency Management Plan (SEEMP)



2023 IMO GHG Strategy: all the way to zero - IMO's commitment to the temperature goal of the Paris Agreement

The Washington Post
Democracy Dies in Darkness

World shipping body votes on 'historic' emissions cuts to curb warming



The graphic features the IMO logo and the United Nations emblem. It includes a globe with a green plant growing from it, a solar panel, a battery, a fuel tank labeled 'FUTURE FUELS', and a ship labeled 'NET-ZERO'. The text 'IMO GHG Strategy' is prominently displayed in white on a dark blue background, with the subtitle 'Shipping towards Net-Zero Emissions' below it.

Climat : le secteur maritime, un important pollueur, renforce ses objectifs de décarbonation

Le Monde

BBC
NEWS

What would net-zero shipping look like?

Forbes

World Shipping Body Toughens Their Emissions Targets

CincoDías ⁴⁵

El transporte marítimo eleva su compromiso ambiental hasta las cero emisiones netas en 2050

2023 IMO GHG Strategy: IMO's energy efficiency framework is key to achieving the net-zero future for international shipping

2030 targets

- Reduce **carbon intensity** (CO₂ emissions per transport work) by **at least 40%** by 2030, compared to 2008
- **5%, striving for 10%, of energy used** to be (near)zero emissions fuels, technologies or energy sources
- Reduce **total GHG emissions** by **at least 20%**, striving for **30%**, by 2030 compared to 2008

2040 target

- Reduce **total GHG emissions** by **at least 70%**, striving for **80%**, by 2040 compared to 2008

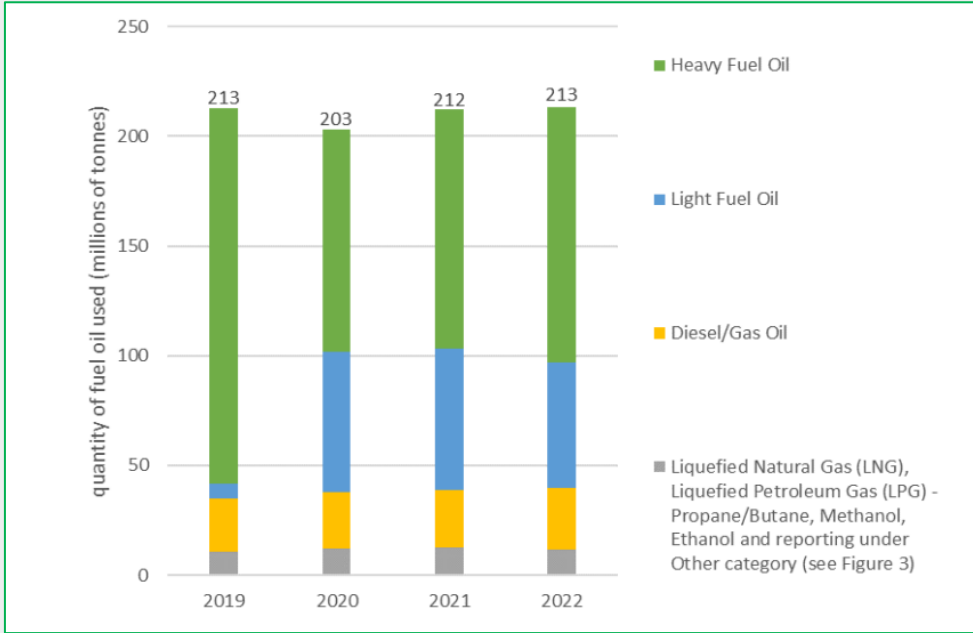
Net-zero target

- To reach **net-zero GHG emissions** by or around, i.e. close to, **2050**

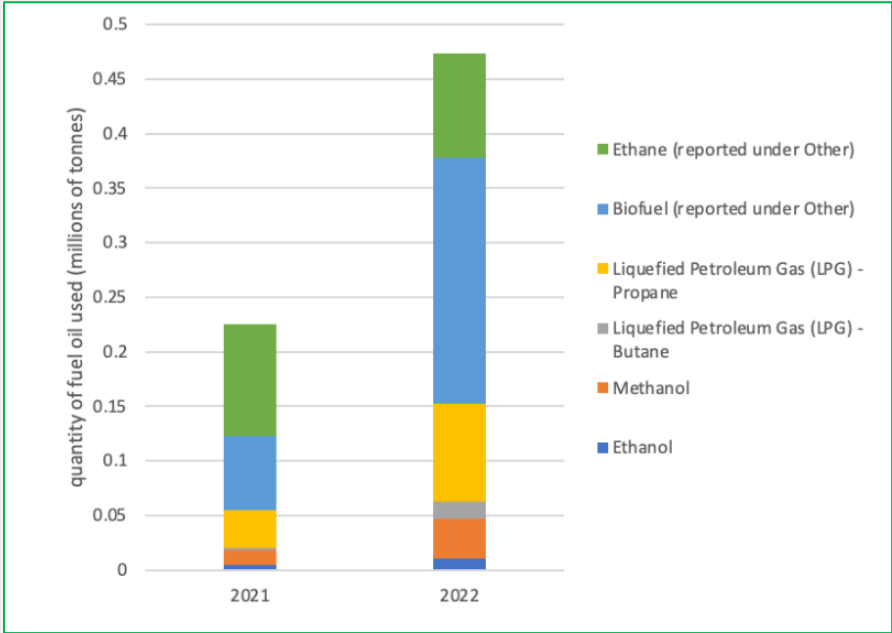
Mandatory fuel consumption reporting: cornerstone for evidence-based decision making on GHG reduction measures

IMO Secretariat reports annual analysis of report fuel consumption data

- 2022: 29,000 ships by 108 Administrations (source: MEPC 81/6)



The aggregated annual amount of each type of fuel oil consumed by all ships of 5,000 GT and above from 2019 to 2022



(Lower) The aggregated annual amount of Liquefied Petroleum Gas (LPG), Methanol, Ethanol and other fuels (ethane and biofuel) reported under the "Other" category consumed by all ship of 5,000 GT and above.

IMO CII: reducing the carbon intensity of the global fleet

CARBON INTENSITY INDICATOR (CII RATING)



IMPROVING THE OPERATIONAL PERFORMANCE OF EXISTING SHIPS

Each year, ships of 5,000 gross tonnage and above **collect and report fuel consumption data**. On the basis of this data, **A CARBON INTENSITY RATING IS ASSIGNED TO THE SHIP, FROM A TO E**



There are a variety of operational means to **IMPROVE THE CARBON INTENSITY OF EXISTING SHIPS** and achieve the Required CII, e.g.:

- Ship speed optimization
- Weather routing
- Just-in-time arrival
- Trim, draft, and ballast optimization



Poorly rated ships **have to implement A PLAN OF CORRECTIVE ACTIONS**, and the company is regularly audited incentives may be provided to best rated (A/B) ships



The requirements for CII rating ENTERED INTO EFFECT on 1 January 2023



Shaft/Engine power limitation systems to comply with the required EEXI

Consideration of proposal by ICS, IMPA and IHMA by MEPC 81

Amendments to the EPL/ShaPoLi Guidelines - resolution MEPC.390(81)

- Use of power override: immediate use may be achieved by procedural arrangements for pre-emptive un-limiting the ShaPoLi/EPL system
- The use of the power reserve should be distinguished from the precautionary un-limiting of a shaft or engine power limitation system.
- Specific (lighter) procedure where an EPL/ShaPoLi override is activated pre-emptively when hazards are anticipated, but the power reserve is not subsequently used
- documents to include the maneuvering characteristics of the ship with/without EPL/ShaPoLi:
 - Pilot card
 - Wheelhouse poster
 - Maneuvering booklet

Review of the short-term GHG reduction measure (EEXI-CII): to be completed by 1 January 2026, taking into account implementation and enforcement experience

Review Plan

The review shall assess:

- **effectiveness** in reducing carbon intensity
- need for **reinforced corrective actions** or other means of remedy
- need for enhancement of the **enforcement** mechanism
- need for enhancement of the **data collection** system
- revision of the **reduction requirements**

Stages of the review plan:

- Data gathering stage: from MEPC 80 to MEPC 82 (autumn 2024)
- Data analysis stage: working group at MEPC 82 to be continued by a correspondence group
- Convention and Guidelines review stage: an intersessional working group between MEPC 82 and MEPC 83 (spring 2025) and working group at MEPC 83

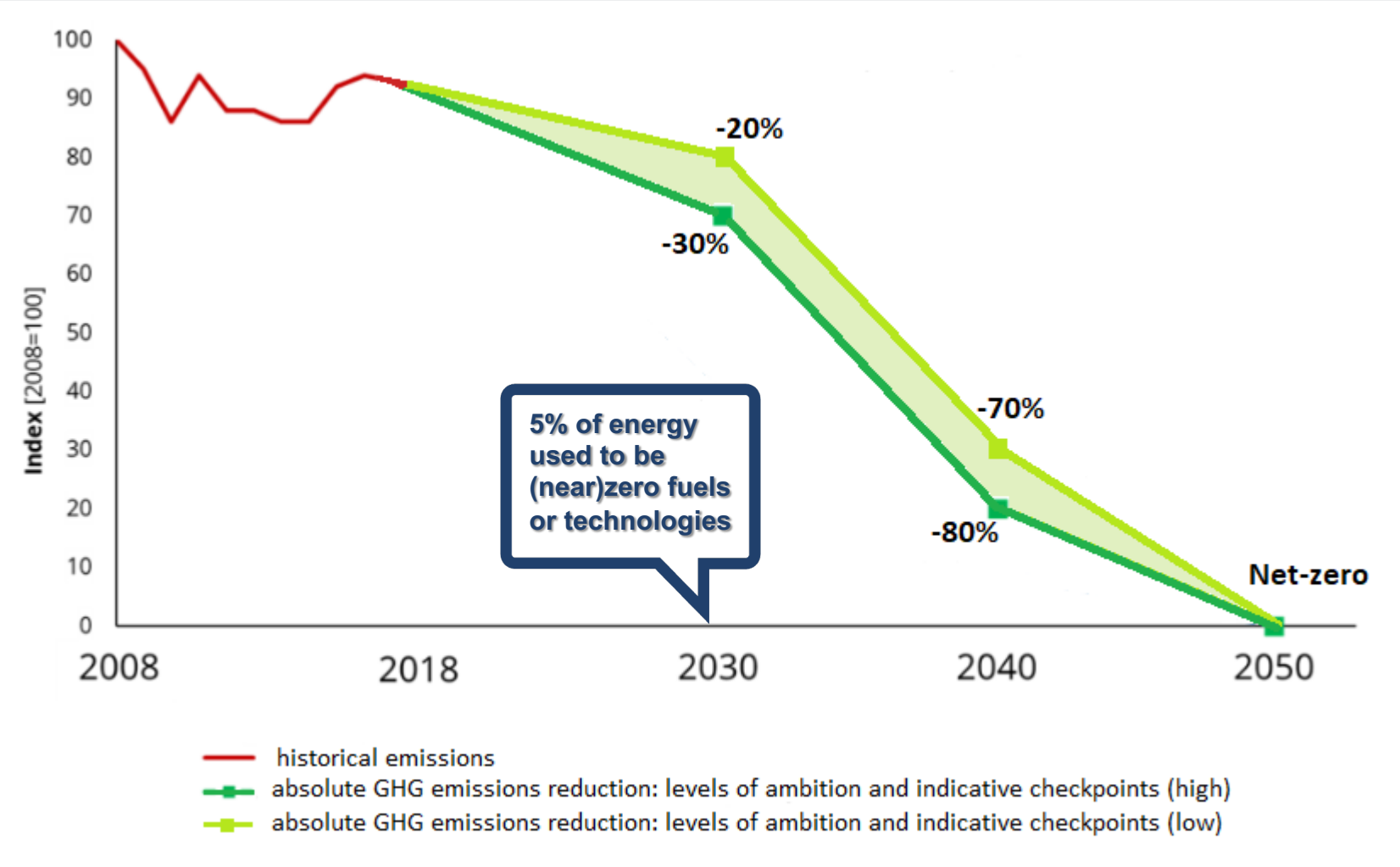
Review of the short-term GHG reduction measure (EEXI-CII): invitation to share experience with IMO

Possible review elements:

- Reinforced focus on the **SEEMP** to assess energy efficiency improvements?
- **multi-metric CII compliance** reflecting different ship types/sizes?
- Further **voyage-breakdown** to assess compliance (port vs. sea passage)?
- A more **'energy-based'** approach?

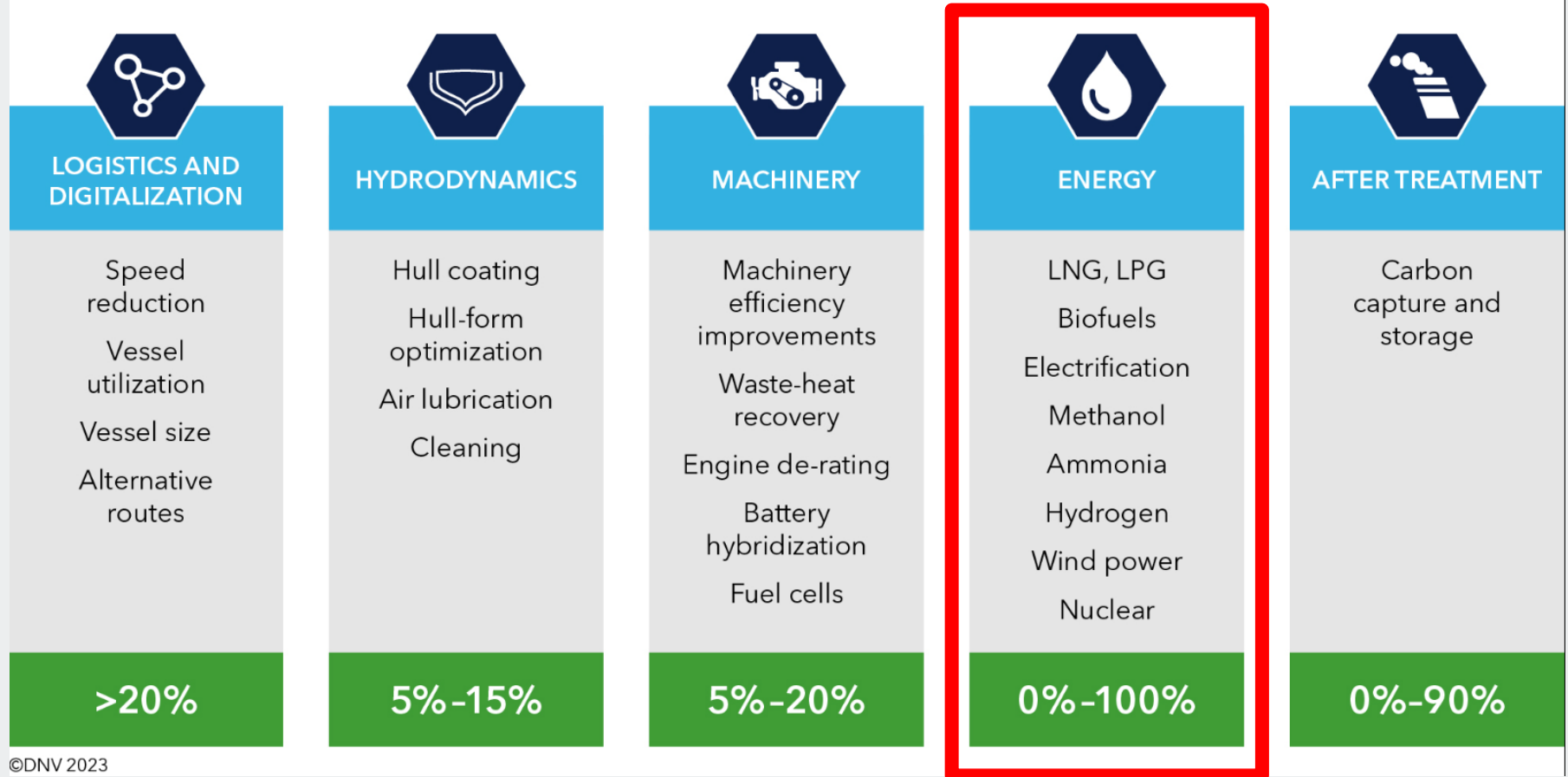


2023 IMO GHG Strategy: existing energy efficiency framework to apply in synergy with the future GHG Fuel Intensity Target and GHG pricing mechanism



The highest potential for emissions reduction lies in alternative fuels

Solutions that can contribute to decarbonize shipping, and their GHG reduction potential



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2023 IMO GHG Strategy: providing the regulatory and investment certainty to facilitate the global transition to net-zero shipping

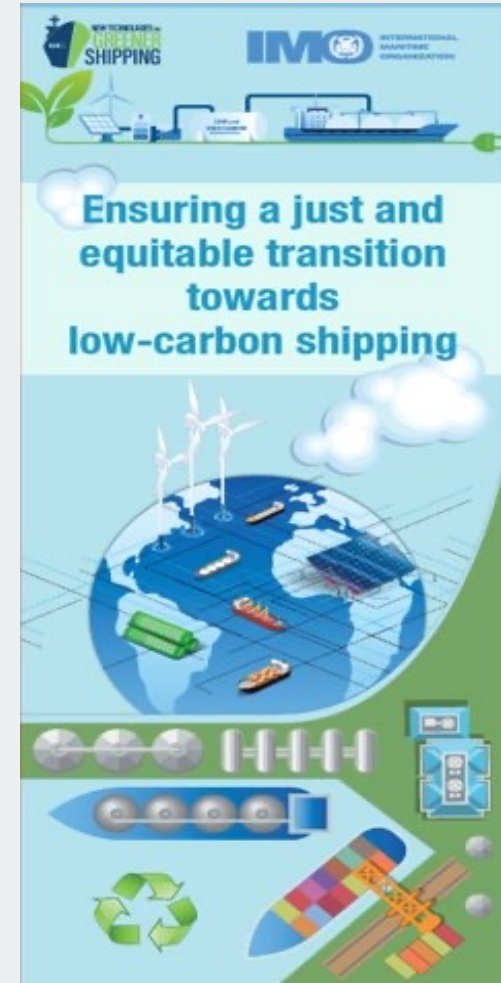
Basket of mid-term GHG reduction measures

To promote the energy transition and provide the world fleet with a needed incentive, IMO will adopt by autumn 2025:

- a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity; and
- a maritime GHG emissions pricing mechanism

Contributing to a level playing field and a just and equitable transition

- GHG reduction measures to take into account:
 - **well-to-wake** GHG emissions of marine fuels
 - potential **synergies with existing measures**, e.g. CII, to incentivize energy efficiency and operational practices
 - **impacts on States** to be assessed and taken into account as appropriate before adoption of the measures



Outcomes of MEPC 81: Development of IMO's regulatory framework is on track

IMO 'net-zero framework'

- Agreed possible draft outline of an “**IMO net-zero framework**”, including a possible new Chapter 5 in MARPOL Annex VI with regulations on:
 - **GHG Fuel Standard**, incl. alternative compliance mechanisms and a central GFI registry
 - **Economic mechanism(s)** to incentivize the transition to net-zero, incl. central management/oversight of collected revenue and distribution of revenue
- Member States and international organizations **invited to work together** intersessionally on preparing a **consolidated proposal**, using the draft possible outline of the "IMO net-zero framework“

Life-cycle assessment

- Revised (2024) Life-cycle GHG intensity (LCA) guidelines adopted
- Establishment of a GESAMP Expert Group on LCA issues
- Correspondence Groups established on non-CO2 GHG emissions and on onboard carbon capture

Next steps: maintaining growing momentum in the development of the regulatory framework enabling the transition of global shipping to net-zero



MSC 108: May

- Development of a safety regulatory framework to support the GHG reduction using new technologies and alternative fuels

GHG-EW 5: [July]

- Expert Workshop on preliminary findings of the comprehensive impact assessment, incl. modelling of carbon revenue

ISWG-GHG 17: [September]

- Further development of the basket of measures
- Results of the comprehensive impact assessment
- Terms of reference for the 5th IMO GHG Study

MEPC 82: October

- Continue development of the basket of measures
- Review of the short-term measures: data analysis stage

Join us on <https://futurefuels.imo.org/>

The screenshot shows the top navigation of the Future Fuels website. On the left is the 'FUTURE' logo with the tagline 'FIELD TRIAL PROJECT FOR LOW-CARBON SHIPPING'. On the right is the 'IMO INTERNATIONAL MARITIME ORGANIZATION' logo. Below these are navigation links: 'About the Project', 'Latest Information', 'Future Insight', 'News and Events', and 'Training and Cooperation'. A search icon is also present. A blue horizontal bar contains four menu items: 'Fuel Uptake', 'Fuel Supply', 'Fuel Prices', and 'Fuel Consumption (DCS)'. Below this bar is a banner image showing a ship's wake and a stack of colorful shipping containers. The main content area features a breadcrumb 'Home > Latest Information' and a section titled 'Latest Information' with a sub-header: 'The most up-to-date data on alternative fuels uptake and supply, current fuel prices, and information from the IMO Data Collection System (DCS)'. Three featured articles are displayed: 'Fuel Uptake' (with an image of a ship's deck), 'Fuel Supply' (with an image of a container ship), and 'Fuel Prices' (with an image of an LNG tanker). Each article includes a brief description and a 'Discover More' button.



Thank you for your attention



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