The impacts of proposed legal amendments to IMO's MARPOL Annex VI on international shipping's climate transition

Analysis of circular letters submitted to the IMO regarding the Net-Zero Framework | June 2026

Introduction

Several States have submitted proposals to amend the draft legal text for the International Maritime Organization's (IMO) Net-Zero Framework under MARPOL Annex VI[1] ahead of its anticipated adoption in December 2026.

While many changes are presented as purely technical, they could have significant implications for the pace and direction of shipping decarbonisation, investment in zero- and near-zero (ZNZ) fuels, and a just and equitable transition for climate vulnerable developing countries.

This briefing provides a high-level assessment of proposals from Liberia[2], Brazil[3], Tuvalu[4], and Australia et al[5], focusing on their potential implications for complying with a number of international commitments:

[1] International Maritime Organization, Index of MEPC Resolutions and Guidelines related to MARPOL Annex VI, available at: https://www.imo.org/en/ourwork/environment/pages/index-of-mepc-resolutions-and-guidelines-related-to-marpol-annex-vi.aspx#1
[2] International Maritime Organization, 2026, Circular Letter No. 5213, available on IMO Docs.
[3] International Maritime Organization, 2026, Circular Letter No. 5214, available on IMO Docs.
[4] International Maritime Organization, 2026, Circular Letter No .5215, available on IMO Docs.
[5] International Maritime Organization, 2026, Circular Letter No. 5216, available on IMO Docs.

1. The IMO 2023 GHG Strategy's[6] goals of reaching net-zero GHG emissions from global shipping by or around 2050 and catalysing the uptake of zero- and near-zero (ZNZ) fuels to 5%, striving for 10%, of total shipping fuel by 2030.
2. The Paris Agreement's[7] goal of limiting temperature rise to 1.5°C by the end of the century, as well as developed countries providing sufficient climate finance to developing countries
3. States' international legal obligations in respect of climate change, including under customary international law and international human rights law[8].

Key findings:

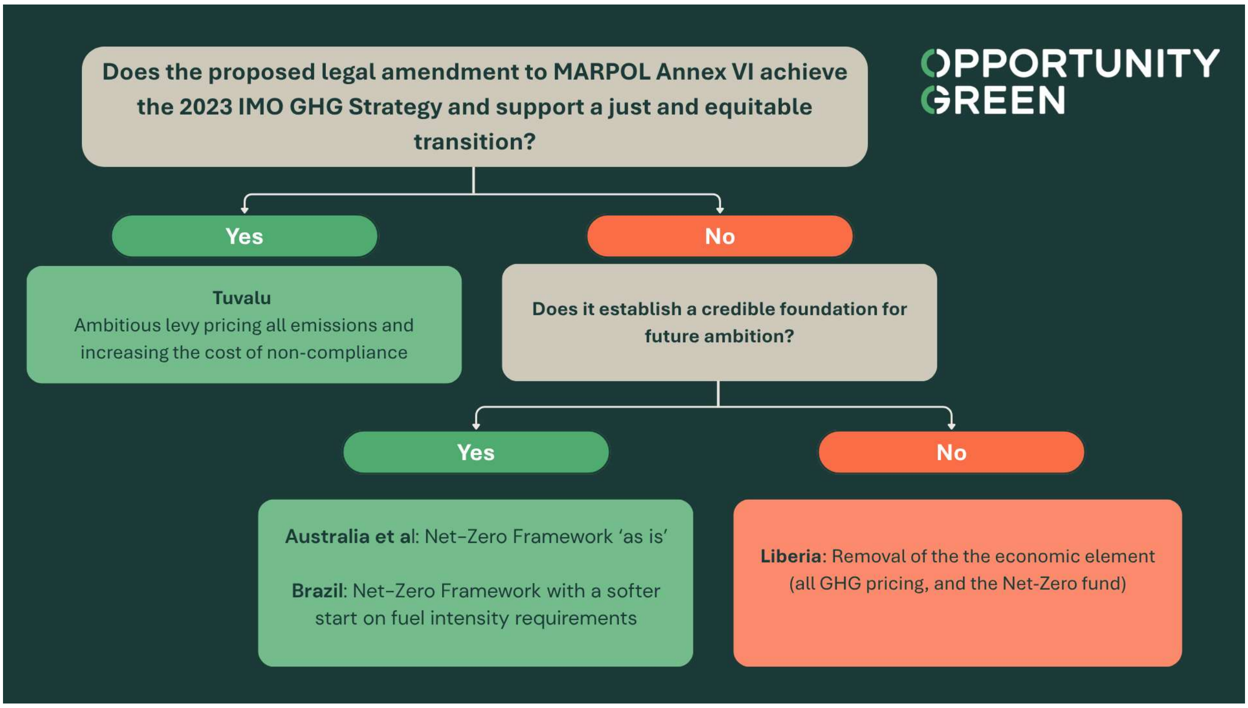
Liberia's proposal would fundamentally shift compliance towards a market-based trading system, increasing reliance on tradeable credits while weakening guaranteed price signals for investment in ZNZ fuels and removing a dedicated fund to support climate vulnerable developing countries in a just and equitable transition.

Brazil's proposal largely preserves the agreed NZF architecture but delays the tightening of fuel intensity requirements, to secure broader political support, but rectifies this with higher mid-term ambition.

Tuvalu's proposal would significantly strengthen climate ambition, ensuring that all emissions are priced from 2029 onwards, increasing the cost of non-compliance and removing flexibility mechanisms that could weaken decarbonisation incentives.

Australia and co-sponsors propose moving ahead with the NZF 'as is', with date changes to reflect the 12-month adjournment.

[6] International Maritime Organization, 2023 IMO Strategy on Reduction of GHG Emissions from Ships, available at: https://www.imo.org/en/ourwork/environment/pages/2023-imo-strategy-on-reduction-of-ghg-emissions-from-ships.aspx
[7] United Nations Treaty Collection, 2026, Paris Agreement, available at: https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en
[8] International Court of Justice, 2025, Obligations of States in respect of Climate Change, available at: https://www.icj-cij.org/case/187



Liberia: removal of the economic element

Liberia's proposes a substantially different model to the NZF, centered on a fuel standard combined with tradable compliance credits, banking and borrowing of Surplus Units (SUs), thereby creating what is effectively a carbon market for international shipping.

Compliance would be achieved primarily through trading mechanisms rather than mandatory payments into a Net-Zero Fund. The proposal also links future increases in greenhouse gas fuel intensity (GFI) stringency to periodic assessments of the affordability, availability, and scalability of commercially viable fuels.

Under this approach, there is a risk of weakening investment signals for fuels that can deliver deep lifecycle emissions reductions but are not yet commercially available at scale, as investment decisions become increasingly driven by expectations about the future market value of compliance credits rather than by a predictable compliance cost established through mandatory remedial payments. This could reduce confidence for investors as viability depends on stable long-term incentives. If credit prices remain low or volatile, shipowners may have less motivation to invest in sustainable fuels.

Furthermore, conditioning future increases in GFI stringency on assessments of fuel availability and affordability would delay regulatory tightening, reinforcing this cycle. In practice, this risks encouraging continued reliance on fossil fuels, liquified natural gas (LNG), and biofuels which are unable to deliver the emissions reductions needed to achieve the IMO's 2023 GHG Strategy targets or put international shipping on a pathway consistent with the Paris Agreement[9].

In addition, removing the Net-Zero Fund eliminates a key mechanism for financing a just and equitable transition. Without dedicated revenue collection and fair redistribution there would be fewer resources available to support implementation and capacity building and strengthen resilience in developing countries and uphold IMO's commitment to leave no country behind[10]. It would also drastically reduce the sector's contribution to mobilising finance for developing countries and weaken alignment with States' broader obligations to cooperate in addressing climate change and its impacts.

Brazil: NZF with delayed fuel intensity targets

Brazil's submission preserves the overall architecture of the NZF as approved at MEPC 83, introducing modifications aimed at improving political consensus and implementation.

The most significant change is a slower phase-in of GFI thresholds for both base and direct compliance tiers. In practice, the proposal delays stringency trajectory by two years in the early implementation period, while steepening mid-term reductions from 65% to 70% in 2040. It also aligns the direct compliance GFI limit with the base GFI in the first two years, effectively removing the need for Tier 1 Remedial Units (RUs) during that period and reducing the cost of generating Surplus Units.

Year	Original Base Target	Brazil's Proposed Base Target	Original NZF Direct Compliance Target	Brazil's Proposed Direct Compliance Targets
2029	6%	3%	19%	3%
2030	8%	4%	21%	4%
2031	12.4%	6%	25.4%	19%
2032	16.8%	8%	29.8%	21%
2033	21.2%	12.4%	34.2%	25.4%
2034	25.6%	16.8%	38.6%	29.8%
2035	30%	21.2%	43%	34.2%
2036	-	25.6%		38.6%

Table 1: Brazil's proposed changes to the direct compliance targets 2029-2036

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[9] Opportunity Green, 2025, Don't be fossil fooled: Say No To LNG, available at: https://opportunitygreen.org/alternative-fuels/insights/say-no-to-lng-liquefied-natural-gas/ & Transport and Environment, 2025, CrOP30: Why burning food for land-hungry biofuels is fuelling the climate crisis, available at: https://www.transportenvironment.org/articles/crop30-why-burning-food-for-land-hungry-biofuels-is-fueling-the-climate-crisis

[10] Opportunity Green, 2026, Why we need the economic element in the IMO Net-Zero Framework, available at: https://opportunitygreen.org/shipping/briefings/need-economic-element-in-imo-net-zero-framework/

The proposal may make adoption of the NZF more acceptable to a broader range of Member States by reducing early compliance burdens and increasing cost predictability.

However, this flexibility comes at the expense of weaker short-term incentives for investment in ZNZ fuels, making it harder to achieve the IMO's 2030 fuel use targets. Although the proposal seeks to compensate through steeper GFI reductions in the 2040s, this approach would nevertheless result in higher cumulative emissions and therefore may also reduce alignment with a 1.5°C pathway under the Paris Agreement and could be viewed as reducing the urgency of mitigation efforts at a time when States are increasingly expected under international law to take timely and effective measures to address climate change.

In addition, although an IMO Fund could still receive revenues from Tier 2 Remedial Units, substantial revenue generation would likely be postponed until around 2032, meaning that climate vulnerable developing States would be left without financial support to ensure a just and equitable transition.

Tuvalu: carbon pricing applied to all emissions

Tuvalu's proposal is the most ambitious under consideration. It inserts the impact of the original proposal made by Tuvalu and other Pacific islands to impose a levy on all GHG emissions from international shipping into the architecture of the NZF by increasing the threshold for direct compliance to 100% (see table 2). This means that direct compliance with the GFI would require zero emissions to be produced. Because direct compliance is increased to zero emissions, there is no window for surplus units to be issued, and these are therefore eliminated. Therefore, any emissions above zero would be priced through the purchase of remedial units, with revenues gathered into the Net-Zero Fund.

Year	Base target (unchanged)	Original NZF Direct Compliance Target	Tuvalu's Proposed Direct Compliance Targets
2029	6%	19%	100%
2030	8%	21%	100%
2031	12.4%	25.4%	100%
2032	16.8%	29.8%	100%
2033	21.2%	34.2%	100%
2034	25.6%	38.6%	100%
2035	30%	43%	100%

Table 2: Tuvalu's proposed changes to the direct compliance targets 2029-2035

Moreover, Tuvalu's proposal increases the cost of remedial units for tier 1 emissions – between the direct compliance and base thresholds) from USD 100 to USD 300 per tonne CO2eq on a well-to-wake basis. The price of tier 2 emissions (above the base threshold) remains at USD 380 per tonne CO2eq.

The implications of these changes are positive for both emissions reductions and a just and equitable transition. The increased price of all emissions serves as a strong market signal and a direct incentive for shipowners to transition to ZNZ fuels. It also reduces the viability of false solutions like LNG and biofuels and instead incentivises true ZNZs such as wind propulsion (WPS) and e-fuels. Increased revenues being collected into the Net-Zero Fund from the sale of more, and more expensive, RUs, will mean increased flows to both ZNZ rewards, further increasing the incentive and capacity of ships to transition, and to developing countries to advance a just and equitable transition.

This proposal is substantially similar to what is laid out in MEPC 84//7/28 and MEPC 84/7/36. In these submissions, the preference was to retain the NZF 'as is' because, despite its lack of ambition threatening the national security of the Pacific Island sponsors, they recognised that it was the only viable compromise. However, they noted that if the text were reopened for substantive amendments, they would submit this proposal for consideration.

Tuvalu's proposal offers the strongest chance for meeting the goals of the 2023 IMO GHG strategy, the Paris Agreement and States' international legal obligations, as laid out above. It also offers the strongest support to a just and equitable maritime transition.

Australia, Canada, South Africa and UK: NZF preserved as agreed at MEPC 83

The text submitted by Australia et al preserves the NZF as-is in its entirety. The only amendments made in the text are to the dates to reflect the one-year delay in adoption.

Although the regulations set out in the current NZF alone are not sufficient to achieve the goals of the 2023 IMO GHG Strategy or align global with the goals of the Paris Agreement[11], they would lead to concrete emissions reductions and represent a delicate balance between the extremes of ambition and conservativism that is widely considered to be the only politically viable option. In other words, no other proposal is likely to be able to garner the necessary support to be adopted at MEPC 85/ES.2. It is also expected to generate some US $10bn per year[12] from carbon pricing which will be split between ZNZ rewards and supporting a just and equitable transition.

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[11] Opportunity Green, 2025, The IMO must champion ambition and equity in shipping climate talks, available at: https://opportunitygreen.org/climate-justice/press-releases/imo-must-champion-ambition-equity-in-critical-shipping-climate-talks/
[12] Transport & Environment, 2025, Assessing the impact of the IMO's draft Net-Zero Framework.

Therefore, the NZF as-is supports progress towards the 2023 IMO GHG strategy, the Paris Agreement and States' other international legal obligations, as laid out above. It also supports a just and equitable transition of global shipping.

Conclusions and Recommendations

- The only proposal capable of achieving the goals of the 2023 IMO GHG Strategy, aligning the global shipping sector with the 1.5C goal of the Paris Agreement and complying with States' legal obligations is Tuvalu's proposal of a 100% direct compliance threshold.
- However, this ambitious proposal is unlikely to receive sufficient support to pass a vote on adoption. Therefore, supporting this proposal risks not achieving any agreement.
- The NZF 'as is', as updated in the proposal by Australia et al, is the only remaining option capable of delivering meaningful emissions reductions, supporting investment in ZNZs, and delivering a just and equitable transition.
- The failure to reach any agreement is likely to result in the proliferation of multiple regional shipping emissions reductions schemes, which may not be compatible and which may negatively impact the efficiency of shipping operations worldwide.
- Member States are encouraged to consider this analysis carefully in developing their position going into MEPC 85/ES.2.