

GHG Global Fuel Standard (GFS)

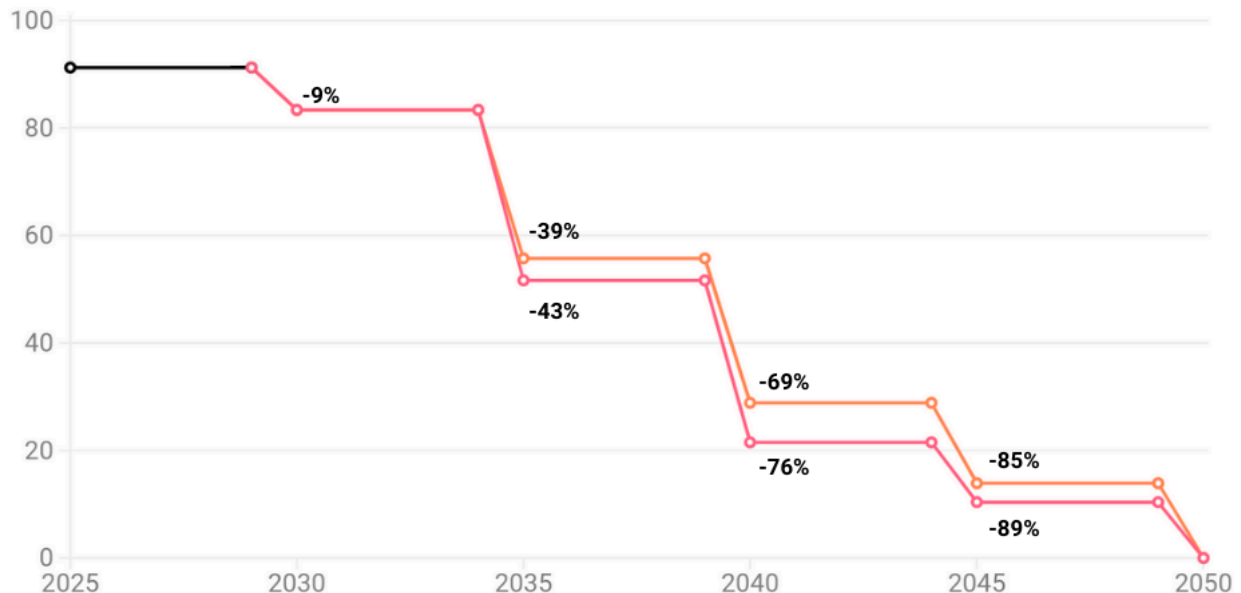
To deliver on the objective of the IMO 2023 GHG strategy, the GFS should determine the maximum GHG intensity of energy used on board (i.e. GFI targets). They should:

- account for emissions on a well-to-wake CO₂e basis to ensure all all fuels are treated equally;
- be realistic and predictable to encourage investments in clean, sustainable, and scalable green e-fuels with potential for deep emissions reductions;
- ensure early uptake of these fuels in this decade and discourage investments in less sustainable options and prevent an expensive fuel switch in the long term.

GFI Targets on a WtW basis

■ Baseline ■ IMO targets ■ IMO striving targets

WtW GHG intensity (gCO₂e/MJ)



Source: T&E (2024). Analysis assumes average trade demand in a Paris Agreement compliant world, i.e. average of OECD_RCP26_G & SSP2_RCP26_L, higher CII efficiency targets.

To achieve at least 5% of zero or near-zero emission fuels by 2030, additional tools must be built within the GFS: a dedicated sub-target and a reward factor for these sustainable fuels (until 2030). They can secure early investments that can kickstart the production of these fuels globally, and allow for achievable targets for the coming decade.

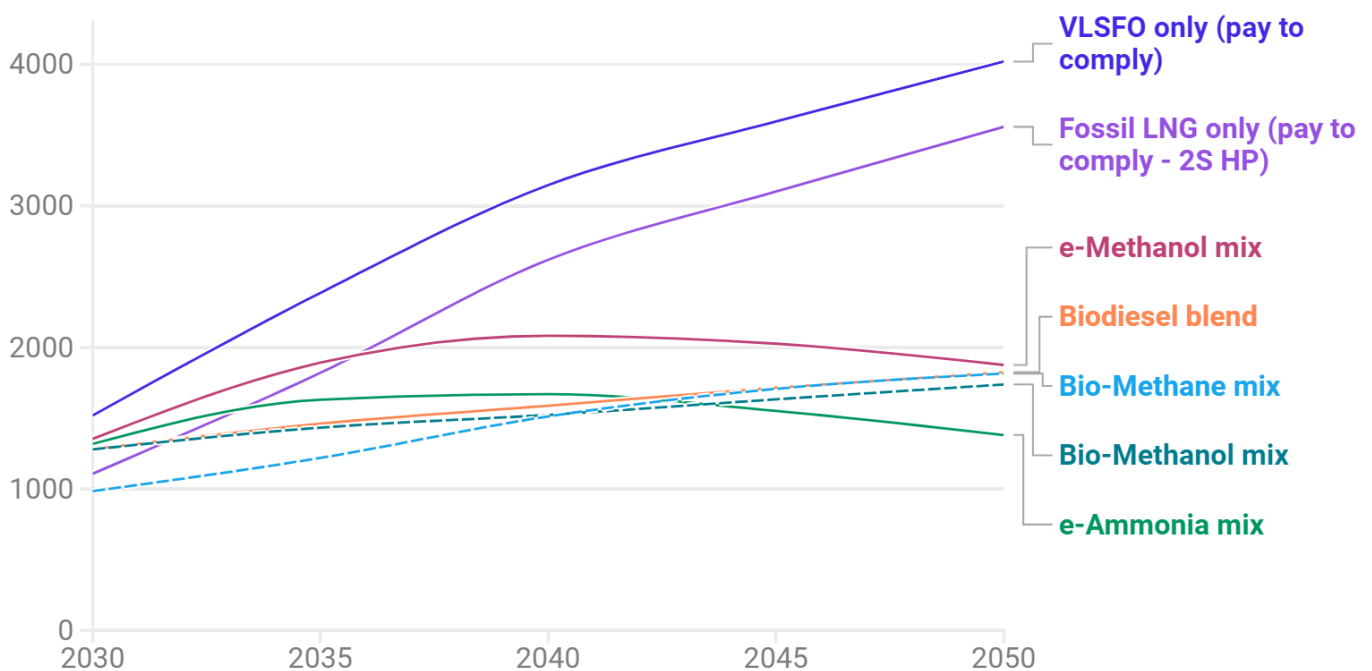
The GFS and GHG pricing: Making clean fuels cost-competitive

Similar to conventional fossil fuels, many biofuels have received subsidies and decades-long policies promoted in other parts of the economy. Yet, these fuels cause significant GHG emissions and environmental damage.

Much cleaner hydrogen-based e-fuels do not yet have established supply chains and remain expensive. With a GHG price of \$150-300/tonne CO₂e, green e-fuels would be competitive much earlier, while the revenues would support investments into their production where they are most needed.

Competitiveness of different fuels under GFS and GHG levy

Cost of compliance (\$/tonne of VLSFOeq fuel mix)



Source: Transport & Environment (2024); DNV (2024)

Notes: Analysis assumes that ships co-combust/blend only the minimum level of alternative fuels needed to meet the GFS targets and that this is technically possible with DF engines. The levy is based on a WtW basis. For 2045/50, if a given fuel mix is unable to meet the required reduction in emissions intensity, we calculate costs from 100% use of the low-emission fuel.

A sub-target and a reward factor would increase early demand signals for hydrogen-based fuels, leading to faster adoption, without harming other compliance options in the short term.