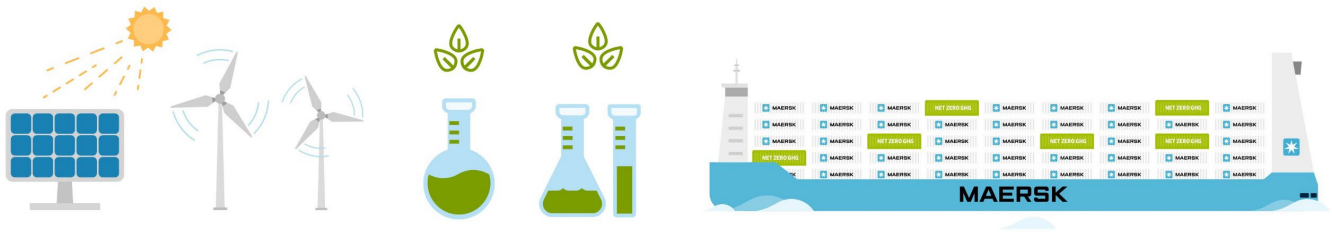


A.P. Moller – Maersk: Safeguarding green fuel environmental sustainability



Maersk has requirements for biomass feedstocks and green fuels covering all uses across APMM and is governed by three pillars:

1. Certification: All biofuels must be certified by a 3rd party to ensure credibility. All fuels must have a proof of sustainability (PoS) or equivalent under a mass balance scheme to support any emission saving claims made against a fuel. Maersk accepts RSB and ISCC certified fuels and is an active member of both certification schemes and engages in the development of certification standards for new fuels and production methods.
2. Lifecycle GHG savings: Fuels must meet the minimum reductions in Article 29(10) of the EU Renewable Energy Directive (2018/2001) which is 65% for biofuels and 70% for e-fuels compared to fossil reference fuel.
3. Feedstocks: Maersk only accepts wastes and residues as feedstocks. Forestry waste and residues must originate from FSC certified forest or equivalent. Maersk does not accept any first-generation crops (e.g., corn, soy, rapeseed, palm, sugar cane, sugar beet, sunflower, energy crops) or feedstock commonly used for feed purposes. Maersk does not accept any first-generation woody biomass. Maersk does not accept any feedstock related to palm oil including waste and residue feedstocks derived from palm oil production (e.g., palm oil mill effluent (POME), empty fruit bunches, palm fatty acid Distillate (PFAD), spent bleach earth oil).

New green fuels like methanol are assessed based on lifecycle analysis (LCA). In addition to climate change, we consider a broad range of environmental indicators, such as biodiversity, ecosystems, resources and materials depletion, human health and ecotoxicity, air and water quality. We use consequential LCA in our decision support, which means that we also consider indirect effects of fuel use such as indirect land use and other marginal effects. This is important to avoid shifting the burden of GHG emissions and impacts from one stakeholder to another.

For e-methanol, we will only be using biogenic CO₂ as feedstock and combine it with green hydrogen to produce the methanol. Biogenic CO₂ is a waste product from, e.g., upgrade of biogas to biomethane, biomass-fired power plants, pulp and paper mills and ethanol plants and is today otherwise emitted to the atmosphere. The hydrogen must be “green”, i.e. produced from electrolysis of water using renewable electricity. The electricity demand for industrial-scale production of e-fuels is massive. Hence, in line with the EU Renewable Energy Directive and its delegated acts, Maersk requires that the renewable electricity used for production of e-fuels is additional, meaning that new renewable electricity capacity is added. Visit <https://www.maersk.com/sustainability> for greater details.