

Maritime Decarbonization Monthly

March 2023

*Thought of the
Month:*

“Stricter green regulations to come...”

The Big Picture

This past month European lawmakers agreed on the **world’s first regulatory framework for clean maritime fuels** as part of the ‘Fit for 55’ package. The legislation mandates an 80% reduction in GHG intensity by 2050, increasing from a 2% reduction in 2025 in tiered increments. The European Parliament and Council **surprised** the industry by passing more ambitious targets than were initially proposed. The framework marks a change in the overall equation, as the lack of regulatory mandates has made it difficult for owners to justify altering their long-term strategies to include renewable fuels. **A regulatory framework provides incentive** to develop the infrastructure required to produce and distribute alternative fuels.

What’s New

The European Commission announced a plan, known as the **Net Zero Industry Act (NZIA)**, to **incentivize clean technology manufacturing** in Europe. This follows similar legislation passed in the United States in August. The push from EU and US governments to become competitive domains for green technology development and manufacturing is a direct reflection of the importance clean technologies will play in the future. It is well established that the technology exists to decarbonize the shipping industry across all ship sizes and sectors, but bringing these technologies to the point of commercialization will require investment and commitment by specialized industrial manufacturers.

Our View

Looking at the orderbook, it is apparent that the **container segment** is leading the charge towards alternative fuels. LNG and methanol fueled ships account for 40% of boxships on order. The segment’s **carbon-conscious charterers provide justification for owners to take a chance on new technologies**. The decision to order and operate ships that burn renewable fuels has been complicated by the limited supply of renewable fuels in the near term. Obtaining the fuel has been more difficult than designing and building the ships. This conundrum has created hesitation for shipowners across all segments who are reluctant to order ships that burn alternative fuels. All of this could change with regulations that mandate the use of clean fuels.

Industry Trends

Fuels

Stolthaven Terminals and **Stolt Tankers**, units of Stolt Nielsen, are exploring the potential of ammonia as a greener alternative to traditional petroleum-based marine fuels to support the ongoing transition.

Hyundai Glovis, the logistics arm of South Korea's Hyundai Group, and compatriot energy company **GS Energy** have agreed to cooperate in eco-friendly business areas including clean ammonia and hydrogen, liquefied CO₂.

Biofuels

Marine fuel supplier **Peninsula** is commencing the supply of biofuels at its hub ports in the Strait of Gibraltar. According to the company, the International Sustainability and Carbon Certification organization permits the supply of biofuels from feedstocks that have fully traceable, sustainable, and GHG-reducing supply chains, which enables Peninsula to directly support customers seeking **drop-in biofuel solutions** to help lower their carbon emissions.

Carbon Storage

Japanese shipbuilder Mitsubishi Shipbuilding, part of Mitsubishi Heavy Industries (MHI) Group, has launched a **liquefied CO₂ transportation** demonstration test ship intended for carbon capture, utilization, and storage (CCUS). As informed, the launching ceremony for the LCO₂ carrier, dubbed the world's first, was held at the Shimonoseki Shipyard of Mitsubishi Shipbuilding in late March.

Technology

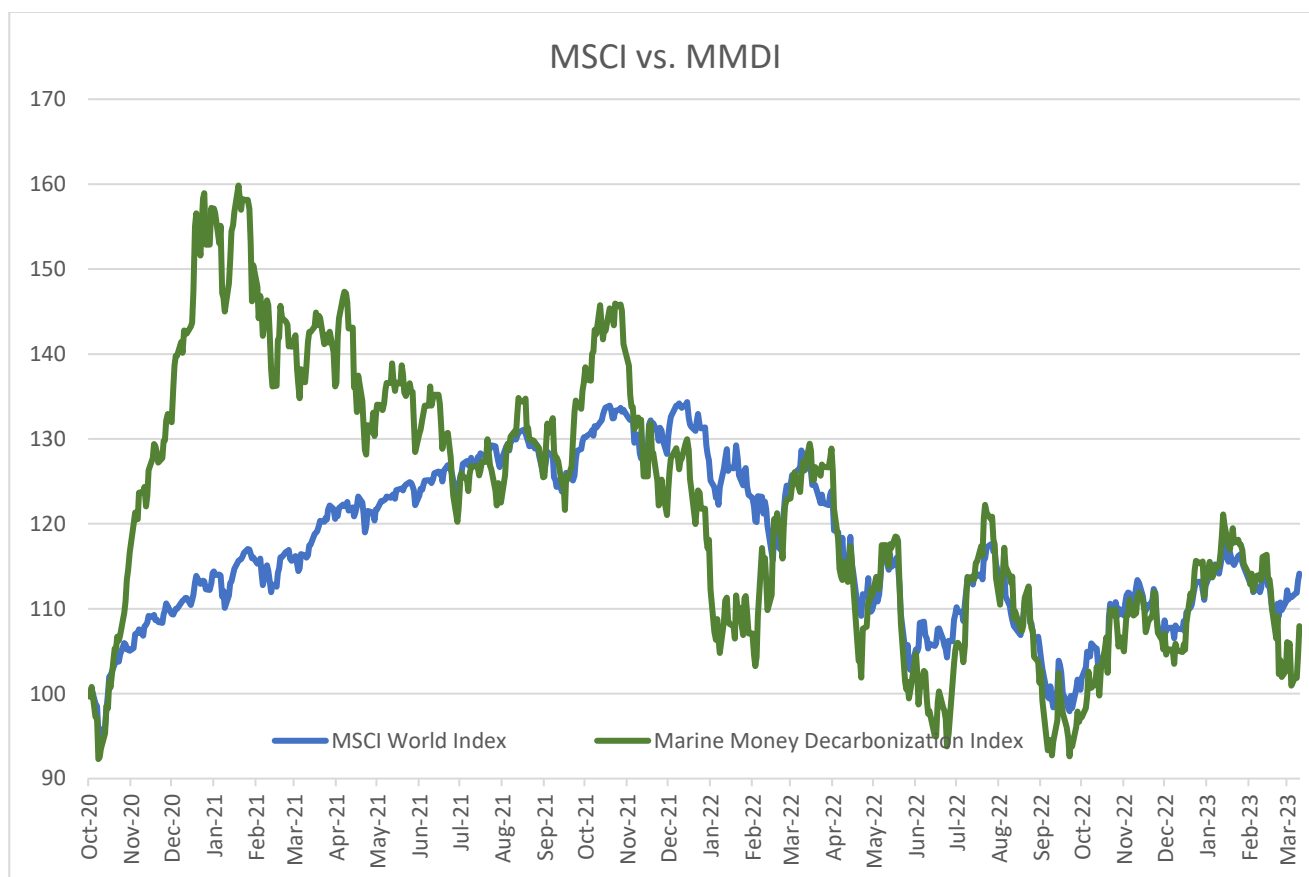
China Classification Society has issued approval in principle to Jiangnan Shipbuilding for a new low-carbon emission very large gas carrier (VLGC) equipped with a carbon capture system. The conceptual design of this VLGC is based on a liquefied petroleum gas dual-fuel ship type that has the largest cargo capacity in the world.

New Vessel Designs

Norwegian tech provider Kongsberg Maritime has been contracted to supply design, engineering, and equipment for three methanol-ready, wind-assisted tankers being built for Danish tanker operator Terntank. As part of a contract valued at NOK 120 million (approx. €10.5 million), Kongsberg will supply steering gear, rudders, controllable pitch propellers, tunnel thrusters, and thruster control systems, integrated automation systems including Vessel Insight, propulsion control systems, and deck machinery.

Green Ships

Taiwanese bulk carrier company U-Ming Marine has hosted a christening ceremony for the fourth **210,000 dwt eco-friendly bulk carrier** built by Qingdao Beihai Shipbuilding Heavy Industry Co. The ship was named Cape Mars and it is the last of four 210,000 dwt series under U-Ming's latest Cape fleet renewal plan. The vessel was built with the concept of energy conservation and environmental protection hence it is equipped with the latest MAN B&W engines, flow guides, vortex generators, low-resistance antifouling paint, and digitalized fleet safety management system.



Relevant Prices

Fuel Prices

	Price	YOY
Crude Oil, Brent	79.48 \$/bbl	-26.3%
Natural Gas, Henry Hub	2.19 \$/MMBtu	-61.3%
LNG, Korea/Japan	12.70 \$/MMBtu	-62.8%
Coal, Rotterdam	140 \$/mt	-49.4%
VLSFO, Rotterdam	561 \$/mt	-36.0%
Methanol, China	36.71 \$/mt	-13.4%
Palm Oil, Malaysia	36.76 \$/mt	-36.5%

Stock Indices

Marine Money Decarbonization Index	334	-13.9%
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Carbon Emission Allowances

EU Emission Allowances	97.29 \$/kt	17.4%
UK Emission Allowances	91.62 \$/kt	-2.2%

Note: All prices as of last closing prior to the report; Sources: Bloomberg and Breakwave Advisors

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