

# Maritime Decarbonization Monthly

January 2023

*Thought of the Month:*

*“Politicians urged to set more ambitious green fuel regulations”*

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## The Big Picture

More than **40 signatories**, representing the entire green fuels value chain, have written a **joint letter urging policymakers** to seek proactive and **ambitious** measures in the FuelEU Maritime discussions. In the letter, the signatories encouraged legislators to seize the opportunity to make the **EU a global leader** in green shipping by creating a regulatory mechanism that would encourage the use of environmentally sustainable e-fuels. Without such a regulation it will be difficult for ship owners and operators to rationalize committing to zero emissions fuels, which are currently scarce and expensive in comparison to traditional bunker fuels. If regulations mandating the use of these fuels in the future were to exist, investment in the infrastructure necessary to decrease cost and increase availability of e-fuels would become realistic.

## What's New

The **EU's legislative bodies** have reached an agreement on the inclusion of **shipping** in its **emissions trading scheme (EU ETS)**. Subject to final adoption, commercial cargo vessels with a capacity of more than 5,000 GT operating in the EU will have to purchase and surrender emission allowances for their CO2 emissions beginning in **2024**.

## Our View

Despite widespread discussion about environmentally friendly fuels, ship owners are still waiting for **realistic commercial options**. The London-based Greek Shipping Cooperation Committee (GSCC) acknowledged that shipowners are still waiting for "truly green" fuel solutions as part of the transition to decarbonize ship operations. Many shipowners have started to investigate a wide range of clean fuels and new technologies, but the **question of which fuel** and technology will have commercial **viability** is still unanswered. Large owners have the ability to invest in a diverse range of decarbonization technologies, hoping one will eventually become the solution to low carbon fleetwide operations. However, it is not realistic or sensible for small and medium sized owners to gamble their future on unproven technologies. **Fuel infrastructure** is the most capital-intensive component of the transition, and once a solution is adopted it will take time to develop the production and distribution value chain. In the medium-term, the GSCC emphasized the need for a simple incentive such as a **fuel levy** until safe alternative fuels are available in the long term.

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## Industry Trends

### Fuels

Singapore-based shipping company **Pacific Carriers Limited** (PCL) and compatriot **PaxOcean Holdings Pte** (PaxOcean) have teamed up with classification society ABS to explore the use of **methanol** for the PCL's fleet. ABS will evaluate the means and impact of retrofitting a PCL vessel with a propulsion system powered by methanol as an alternative low-carbon fuel option.

**Hapag-Lloyd** has signed a Memorandum of Understanding (MoU) with **Mabanaft** to explore the potential for the supply of **ammonia** as a bunker fuel in and around the Ports of Hamburg and Houston. A major focus will be to assess the viability of safe handling of clean ammonia as a bunker fuel.

### Biofuels Trials

Oil major **Chevron** has teamed up with Singapore-based shipping giant Ocean Network Express (ONE) to complete inaugural **biofuel** bunkering on a 4,800 TEU containership. The transaction saw the transfer of 992.2MT VLSFO-B24 biofuel in deep tanks from bunkering tanker Marine Rose to containership MOL Endowment.

### CCS Value Chain

**Nippon Steel Corporation**, **Mitsubishi Corporation**, and **ExxonMobil Asia Pacific** have signed a MoU to jointly study **carbon capture and storage** (CCS) and the potential CCS value chains in the Asia Pacific region. The companies are expected to conduct research on the capture of CO<sub>2</sub> emissions from Nippon Steel's domestic steelworks and evaluate the necessary infrastructure development.

### New Vessel Designs

**Mitsui OSK Lines** and **Mitsui & Co** have received approval in principle (AiP) from ClassNK for the design of a large **ammonia-powered bulk carrier**. The AiP covers a 210K dwt newcastlemax fueled by ammonia. The vessel will feature two ammonia fuel tanks on deck to maximize the cruising range for various routes and to make the most effective use of cargo space.

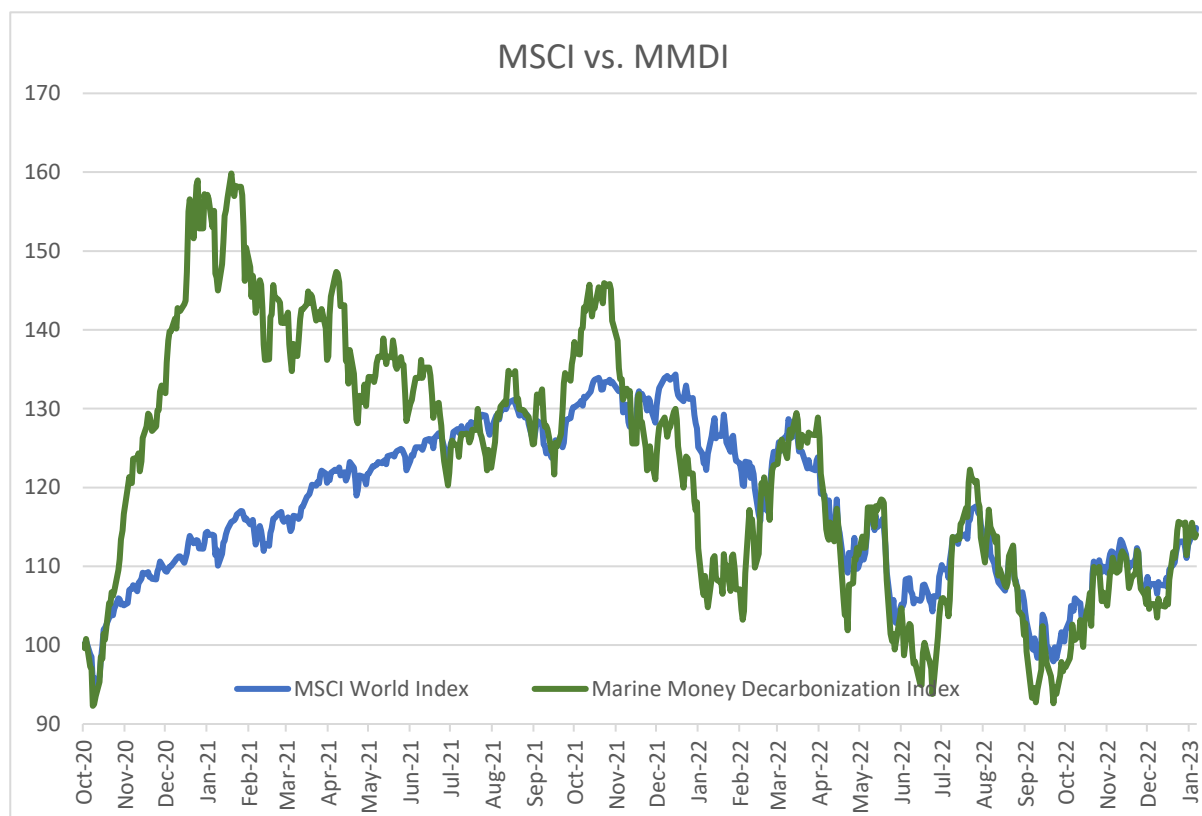
**Dapeng Princess**, the world's largest shallow draft liquefied natural gas (LNG) carrier, completed its sea and gas trials on 28 December 2022. The vessel was built by Chinese shipbuilder Hudong Zhonghua Shipbuilding for Shenzhen Gas and is classed by China Classification Society.

### Technology

Dutch ship design company **AURELIA** has joined forces with naval architecture designer **NEPA SHIPPING** and **ALOFT SYSTEMS** on a green retrofitting project of a 205K dwt bulk carrier. The project set out to demonstrate how a combination of innovative solutions and smart decisions can be used to reduce GHG emissions, while still maintaining the safety and efficiency of the vessel. The goal is to make the Newcastlemax compliant with the CII index in the upcoming three years.

### Green Ships

Ubuntu Harmony, a recently launched LNG dual-fueled Capesize+ bulk carrier, has been loaded with its first cargo of iron ore from Kumba operations in South Africa according to UK-based Anglo American. The mining company charters the vessels from Taiwanese bulk carrier company U-Ming Marine.



## Relevant Prices

### Fuel Prices

|                        | <u>Price</u>   | <u>YOY</u> |
|------------------------|----------------|------------|
| Crude Oil, Brent       | 84.43 \$/bbl   | -7.4%      |
| Natural Gas, Henry Hub | 2.68 \$/MMbtu  | -45.0%     |
| LNG, Korea/Japan       | 19.03 \$/MMbtu | -23.0%     |
| Coal, Rotterdam        | 165 \$/mt      | 19.6%      |
| VLSFO, Rotterdam       | 610 \$/mt      | -7.2%      |
| Methanol, China        | 41.20 \$/mt    | -0.2%      |
| Palm Oil, Malaysia     | 34.82 \$/mt    | -35.7%     |

### Stock Indices

|                                    |     |      |
|------------------------------------|-----|------|
| Marine Money Decarbonization Index | 358 | 7.4% |
|------------------------------------|-----|------|

### Carbon Emission Allowances

|                        |             |        |
|------------------------|-------------|--------|
| EU Emission Allowances | 98.09 \$/kt | 1.5%   |
| UK Emission Allowances | 90.74 \$/kt | -11.3% |

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

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