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# Shipping Market News

## Recent alternative fuels deals

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The international shipping sector is no stranger to the global movement towards alternative energy sources, carbon emission reduction and greener transport all round and continuing to grow apace. Simon J Murfitt 麥富德, a gunnercooke llp international shipping partner based in London ([simon.murfitt@gunnercooke.com](mailto:simon.murfitt@gunnercooke.com)), provides a short summary and update as to the current market news.

We hope you find the following informative and if so, please do register this link to receive further similar updates.

Date	News and Parties	Details
12/04/23	<p><b>Global LNG logistics company Atlantic Gulf &amp; Pacific (AG&amp;P) has received the first LNG cargo for the first LNG import terminal in the Philippines.</b></p> <ul style="list-style-type: none"> <li>• Global LNG</li> <li>• Vitol Asia PE Ltd</li> <li>• ADNOC</li> </ul>	<p>The commissioning cargo for the Philippines' LNG (PHLNG) terminal was delivered on board the 162,000m cbm LNG carrier Golar Glacier. This was the Philippines' first-ever LNG cargo and originated was sent from Das Island, UAE, by Vitol Asia Pte Ltd supplied under a long-term contract by its partner ADNOC.</p>
18/04/23	<p><b>Splithoff names its fuel-efficient DP2 newbuild "The Brouwersgracht"</b></p> <ul style="list-style-type: none"> <li>• Conoship</li> <li>• Mawei Ship Yard (PRC)</li> </ul>	<p>The Brouwersgracht was delivered in February 2023 from China's Mawei Shipyard. She is a 12,500-dwt vessel is equipped with two Huisman 500 mt Heavy Lift Mast cranes, and it is suitable for both heavy lift transportation and offshore installation. The vessel's design is fuel-efficient and the propulsion and power generation systems are equipped with scrubbers and Selective Catalytic Reduction (SCR)</p>

	<ul style="list-style-type: none"> <li>• Huisman</li> <li>• Spliethoff</li> </ul>	<p>systems. The vessel's concept and basic design were supplied by Conoship in close collaboration with the owner and the yard. The Brouwersgracht is the first of two vessels from the series that were ordered in October 2019, and Mawei kick-started the construction in December 2020.</p> <p>The second, to be named, vessel from the series Bloemgracht was launched from dry dock in September 2022 and moved to the outfitting quay close to its sister vessel.</p>
	<p><b>E&amp;S Tankers launches its first newbuild dual-fuel ship</b></p> <ul style="list-style-type: none"> <li>• E&amp;S Tankers</li> <li>• Man Energy Solutions</li> </ul>	<p>As informed at the time, all vessels will have dual-fuel LNG propulsion and certified Finnish/Swedish 1A ice class. German engine manufacturer MAN Energy Solutions was <b>contracted</b> to deliver integrated HyProp ECO propulsion solutions for the vessels.</p>
<p><b>19/05/21</b></p>	<p><b>Essberger orders 4+4 LNG-powered chemical tankers in China</b></p> <ul style="list-style-type: none"> <li>• China Merchants</li> <li>• E&amp;S Tankers</li> <li>• John T. Essberger Group (GER)</li> <li>• Stolt Tankers</li> </ul>	<p>Essberger has signed final agreements with China Merchants JSDC to build four 6,600 dwt stainless steel parcel chemical tankers with options for an additional four vessels. It is understood that the stainless-steel tankers will:-</p> <ul style="list-style-type: none"> <li>• IMO Type II;</li> <li>• all have dual-fuel LNG propulsion and certified Finnish/Swedish 1A ice class;</li> </ul>

	<ul style="list-style-type: none"> <li>• Jinling Shipyard Dingheng (PRC)</li> </ul>	<ul style="list-style-type: none"> <li>• be optimized in terms of hull design and equipment, resulting in a significantly improved energy efficiency of at least 30% and the ability of using shore power connection during cargo operations, according to the company; and</li> <li>• be delivered from mid-2023 and will be operated by E&amp;S Tankers to initiate the fleet renewal.</li> </ul> <p>Last year, John T. Essberger Group entered into the joint venture, E&amp;S Tankers, with Stolt Tankers to operate their combined parcel tanker fleets trading within Europe.</p>
<p>03/04/23</p>	<p><b>Wuhu Shipyard wins orders for eight methanol-ready chemical tankers -</b></p> <ul style="list-style-type: none"> <li>• Union Maritime</li> <li>• EGPN</li> <li>• SAL Heavy Lift</li> <li>• Siemens Gamesa Renewable Energy</li> </ul>	<p>China's Wuhu Shipyard ("WS") has inked a contract for the construction of eight 18,500-ton IMO Class II chemical tankers during the first quarter of this year. WS did not disclose the names of the owners behind the orders, only revealing that the companies in question were '<i>prominent domestic and foreign shipowners.</i>' Clarksons believes the four tankers have been ordered by Union Maritime and EGPN. These tankers will have a load tonnage of 18,500 tons, cargo capacity of 21,000m<sup>3</sup>, length of 149.80m, molded width of 22.80m, molded depth of 12.70m, and design draft of 8.50m.</p> <p>The ships have been designed to incorporate the latest technology, and they will be designed as methanol dual-fuel ready. WS stated that the design concept complies with the IMO Tier III emission standards. It is also understood that the ships have been specifically designed to</p>

		<p>transport various biofuels and IMO Type II chemicals, including <b>methanol</b>.</p> <p>Over the past five years, WS has been actively pursuing opportunities in the high-end liquid cargo market. In March, WS launched the construction of SAL Heavy Lift's first two carbon-neutral heavy lift ships. The two 14,600 dwt vessels form part of a fleet of a total of six Orca-class vessels which will be equipped with dual-fuel engines able to run on <b>methanol</b>.</p> <p>Scheduled for delivery starting in mid-year 2024, the first two ships will be exclusively involved in the transportation of offshore wind turbine components in a long-term commitment with Siemens Gamesa Renewable Energy.</p>
<p>17/04/23</p>	<p><b>Norden and 123Carbon on carbon insetting</b></p> <ul style="list-style-type: none"> <li>• 123 Carbon</li> <li>• AllChiefs</li> <li>• Norden</li> <li>• Verifavia</li> <li>• Spar Shipping</li> </ul>	<p><b>Danish shipping company Norden has teamed up with carbon in setting platform 123Carbon and its partners AllChiefs and Verifavia to issue carbon inset tokens to support the decarbonisation of customer supply chains.</b> The move will enable Norden to tokenise CO2-equivalent reductions made on biofuel voyages and allocate them to industry customers who are looking to reduce their maritime Scope 3 emissions.</p>

	<p>Carbon insetting involves offsetting carbon emissions by investing in projects that reduce emissions or remove carbon dioxide from the atmosphere.</p> <p><i>“Carbon insets are not new to the market, but are in their early days in the shipping industry. However, we believe that carbon insetting will play a major role in accelerating the uptake of low-carbon fuels by connecting the demand for green freight with the supply, while bridging availability constraints,”</i> said <b>Adam Nielsen</b>, Head of Logistics and Climate Solutions at Norden.</p> <p>Norden said the goal was to connect emission reductions made by the company with customers that due to trading routes or other constraints are not able to bunker low-carbon fuels, but are still looking to decarbonise their operations or supply chains.</p> <p><i>“It is critical for industry leaders like Norden to become early adopters of innovations that will ultimately drive the agenda for carbon insetting. We are here to empower organisations to make a real difference within their own supply chains and accelerate the decarbonisation of transportation. This partnership demonstrates the value of having high quality and transparent solutions that people can rely on,”</i> said <b>Jeroen van Heiningen</b>, Co-Founder and Managing Director of 123Carbon.</p> <p>The platform support auditing companies like Verifavia, a global verification auditing body specialised in transport, to thoroughly verify all underlying documents online, after which immutable tokens are</p>
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		<p>issued on blockchain.</p> <p>In March, Norden announced a partnership with Spar Shipping on the use of biofuel.</p> <p>The duo bunkered approximately 1100 tonnes of biofuel at Dutch biofuels provider GoodFuels in Rotterdam, the Netherlands, used on two voyages bound for Asia and Africa respectively.</p> <p>It is Norden's first biofuel bunkering on chartered vessels.</p>
23/03/23	<p><b>Fit for 55: deal on new EU rules for cleaner maritime fuels</b></p> <ul style="list-style-type: none"> <li>• EU Parliament</li> <li>• EU Council</li> </ul>	<p><b>Headlines</b></p> <ul style="list-style-type: none"> <li>• Big ships to gradually reduce greenhouse gas (GHG) emissions</li> <li>• Containerships and passenger ships at major EU ports to use on shore power supply as of 2030</li> <li>• Ships fuel mix to have at least 2% of specific renewable fuels as of 2034</li> </ul> <p>EU Parliament and Council reached a deal on cleaner maritime fuels, asking to cut ship emissions by 2% as of 2025 and by 80% as of 2050, to help the EU become climate neutral.</p> <p>A provisional agreement between the European Parliament and Council negotiators sets up a fuel standard for ships to steer the EU maritime</p>

	<p>sector towards the uptake of renewable and low-carbon fuels and decarbonisation.</p> <p><b>Cutting maritime emissions</b> - The current agreement within MEPs is that t ships will have to gradually reduce greenhouse gas (GHG) emissions by cutting the amount of GHG in the energy they use (below 2020 level of 91.16 grams of CO2 per MJ) by 2% as of 2025, 6% as of 2030, 14,5% as of 2035, 31% as of 2040, 62% as of 2045 and 80% as of 2050. This would apply to ships above a gross tonnage of 5000, which are in principle responsible for 90% of CO2 emissions, and to all energy used on board in or between EU ports, as well as to 50% of energy used on voyages where the departure or arrival port is outside of the EU or in EU outermost regions.</p> <p>It was also agreed that these levels would be reviewed by 2028 to decide whether to extend emission-cutting requirements to smaller ships or to increase the share of the energy used by ships coming from non-EU countries.</p> <p>The deal also gives more credits, as an incentive, in the form of offsetting emissions to those ship owners who use renewable fuels of non-biological origin ("<b>RFNBO</b>") from 2025 to 2034. The deal also set a 2% renewable fuels usage target as of 2034 if the Commission reports that in 2031 RFNBO amount to less than 1% in fuel mix.</p>
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Containerships and passenger ships will be obliged to use on-shore power supply for all electricity needs while moored at the quayside in major EU ports as of 2030. It will also apply to the rest of EU ports as of 2035, if these ports have an on-shore power supply. It is hoped that this change will significantly reduce air pollution in ports.

Exemptions for the certain vessels:-

- staying at port for less than two hours;
- using own zero-emission technology;
- making a port call due to unforeseen circumstances; or
- emergencies,

all will apply.

EP rapporteur Jörgen Warborn (EPP, SE) stated: *“This agreement sets out by far the world’s most ambitious path to maritime decarbonisation. No other global power has drafted such a comprehensive framework to tackle maritime emissions. This is truly ground-breaking.”*

### **Background information**

Transport was responsible for about a quarter of the EU’s total CO2 emissions in 2019, of which 14% came from water navigation, according to European Environment Agency. New rules on alternative fuel infrastructure and maritime fuel are part of the “Fit for 55 in 2030 package”, which is the EU’s plan to reduce greenhouse gas emissions

		<p>by at least 55% by 2030 compared to 1990 levels in line with the European Climate Law.</p>
<p>08/03/23</p>	<p><b>Maritime UK unveils offshore wind plan</b></p> <ul style="list-style-type: none"> <li>• Maritime UK</li> <li>• ORE Catapult</li> <li>• Associated British Ports</li> <li>• Renewables UK</li> </ul>	<p>Maritime UK has launched its Offshore Wind Plan that makes a series of recommendations for how the UK maritime sector, the offshore wind sector and beyond, and how governments and others can work together to maximise growth.</p> <p>It outlines how the growth of offshore wind can provide opportunities across the maritime supply chain in sectors like ports, shipbuilding, crewing and professional services.</p> <p>The plan was unveiled at the ORE Catapult’s Operations &amp; Maintenance Centre of Excellence in Grimsby, with the support of Associated British Ports.</p> <p>Opportunities identified in the Offshore Wind Plan include building vessels in the UK to support developments and further growing UK ports as centres for manufacturing and</p> <p>ORE Catapult estimates that 149 Surface Operation Vessels (SOVs) will be needed to serve rapidly expanding offshore wind developments in Europe by 2030, and up to 309 by 2050.</p>

		Maritime UK chair Robin Mortimer said: <i>"The maritime sector already plays a key role in our collective efforts to deliver a cleaner and more sustainable future by the middle of this century."</i>
22/12/22	<p><b>Shipping Industry Balks at Green Energy Transition</b></p> <ul style="list-style-type: none"> <li>• Clarksons</li> <li>• Sail Cargo Inc</li> </ul>	<p>Certain shipowners are ordering greener vessels but others are deterred by limited fuel supplies, costs and the long route to emissions targets.</p> <p>Ocean shipping is making its biggest energy transition since switching to oil from coal decades ago, but the shift to low, or no-carbon fuels so far has been slow and expensive.</p> <p>Part of the problem is that shipowners are split on which fuel should be the new industry standard and how soon they can recoup investments to meet environmental targets established by governments and industry regulators.</p> <p>The price tag on investments needed in new ships, alternative fuel production and other infrastructure has been pegged at \$3 trillion over the next few decades, according to shipping-services provider Clarksons.</p> <p>Solar, Wind, LNG, Ammonia, Hydrogen, Methanol are the most discussed and developed at the moment. By way some examples:-</p>

	<p>The largest solar-powered ship and has completed 60,023 km circumnavigation without using fossil fuels in 2012 is the ship "<i>Turanor Planet Solar</i>".</p> <p><b>Rectangular sail ships.</b> The breakthrough of traditional WASP technology vessels in Japan, such as the "<i>Shin Aitoku Maru</i>" was the first oil tanker with modern sails mounted on its deck.</p> <p><b>Triangular sail ships.</b> In 1986 a passenger ship with the largest "<i>Wind Star</i>" triangular sail was built with components consisting of masts, brackets and sails. A total of 4 masts installed on its deck with a length of 50 meters each cover an area of 2000 m<sup>2</sup> using six lateen polymer screens. The ship can sail at a speed of 12-13 knots and can supply power to propel the ship for 90% of operating or sailing time, increasing energy efficiency by about 25%. Walker Wingsail ships. The main component of the walker wing sailing ship is to use a multielement three-plane sail in the form of symmetrical foil, and there is a flap to adjust the angle of attack of the sail. The foil and the flap gap make the high-energy airflow from the lower surface to the wing's upper surface and adds a greater lifting force.</p> <p><b>Flettner rotor sail ships.</b> The Flettner rotor works to rotate the cylinder exposed to the wind and generate a Magnus force that converts wind energy into thrust. However, Flettner's past rotor sail technology did not perform as well as steamers and diesel. The main reason is that the very large screen size of the Flettner rotor causes two serious drawbacks. One is that more deck space is required, and the other is an adverse effect on ship stability. "<i>E-Ship I</i>" is a 10,000 DWT cargo ship</p>
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		<p>with Flettner rotor sails. It can increase the ship's energy efficiency by 30% under favourable working conditions, with four Flettner rotor sails 27 m high and 4 m in diameter on deck [33].</p> <p>Another Flettner rotor sailing vessel, "<i>M/V Estraden</i>") built-in 2015, is equipped with two Flettner rotor sails 18 m high and 3 m in diameter, producing a main engine equivalent of 2 MW for propulsion.</p> <p>Ship engines that run on ammonia, hydrogen and biofuels are all being tested. The primary problem at the moment is fuel supply which these fuels not yet being available in the volumes needed. Also all of these "new" "clean" fuels come with potential drawbacks.</p> <ul style="list-style-type: none"><li>• Hydrogen tanks occupy a lot of cargo space;</li><li>• ammonia is highly toxic if spilled in the water; and</li><li>• some biofuels require large areas of farmland to be devoted to plants such as sugar cane which brings its own potential for environmental damage.</li></ul> <p>Companies are just now placing orders for ships that will make up the world's fleet in the coming decades and there is much uncertainty about the future. The growth of the shipping sector shows that there is enough market demand to necessitate a diversity of solutions. For instance, the success of SAILCARGO INC proves there are enough people willing to pay extra for zero</p>
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		<p>emission value added products simply because they can see the very real and direct impact a zero-emission ship makes.</p>
<p>05/01/23</p>	<p><b>Renewable construction contract adds nearly \$100m to Keppel backlog</b></p> <ul style="list-style-type: none"> <li>• Keppel Corp</li> <li>• Keppel O&amp;M</li> </ul>	<p>Singapore yard group continues to strengthen its foothold across the value chain of offshore renewables. Keppel Corp continues to build its green newbuilding orderbook with an order for an offshore substation (“OSS”) in a deal worth SGD 130m (\$97m).</p> <p>The newbuild contract, secured by Keppel Offshore &amp; Marine (Keppel O&amp;M), has been secured from an unnamed international renewable energy company.</p> <p>Keppel’s work scope comprises the engineering, procurement, construction, testing and commissioning for the complete substation.</p> <p>The OSS, which will have a capacity of 600 MW and is scheduled to be completed during 2025, will be deployed in an offshore wind site in the Asia Pacific region.</p>
<p>18/12/22</p>	<p><b>Norway's electric ferries</b></p> <ul style="list-style-type: none"> <li>• Kolumbus (Nor)</li> </ul>	<p>In Stavanger, Norway’s “<i>capital of oil</i>”, ferry services are saying goodbye to fossil fuels. Celebrated as the “Ship of the year”, the Medstraum is the world’s first 100% electric high-speed ferry. The batteries are safely arranged above the deck, powering two electric motors. The ship doesn’t need to rely on fossil fuels as a backup. It’s also much smaller and more compact than a diesel engine.</p>



		<p>Mikal Dahle, the TRAM Project Manager at Kolumbus who operates the Medstraum ferries said:_</p> <p><i>"In total the Medstraum's electric motors gives us 1500 kilowatt hours of energy. A typical electrical car would be between 70 and 90-kilowatt hours, so this is at least 15 times that in this vessel."</i></p> <p>The ferry can easily handle a 90-minute, multi-stop commuter route between Stavanger and the nearby islands. It carries 150 passengers and has space for bicycles, all while offering a smooth, noiseless, and sustainable ride.</p> <p>It's part of the public transport system in the area. The crew says piloting it is just like the old ferries, and right on schedule.</p> <p><i>"When we use electric motors, it's much faster to start. It's like a car. It's no problem to be on time, because we have the power and the speed, so it's easy,"</i> said the ferry's captain Arnulf Bie.</p> <p>This technology is going to be really helpful for meeting Norway's increasingly strict environmental regulations, which require all future ferries to be zero and/or low-emission.</p>
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<p>06/12/22</p>	<p><b>North Star raises £140m to boost renewables fleet</b></p> <ul style="list-style-type: none"> <li>• North Star (Scot)</li> <li>• Scottish National Investment Bank</li> <li>• Partners Group</li> <li>• Allianz Global Investors</li> </ul>	<p>Scottish shipping firm North Star based in Aberdeen has raised £140m from investors to support the expansion of its fleet for offshore wind projects in the North Sea. The money includes a £50m commitment from the Scottish National Investment Bank, as well as other investors. North Star aims to add 40 new service operations vessels (SOVs) to its fleet by 2040. SOVs provide accommodation for wind technicians and access to equipment in the field.</p> <p>North Star:-</p> <ul style="list-style-type: none"> <li>• Is owned by global private equity firm Partners Group,</li> <li>• has bases in Aberdeen, Lowestoft and Newcastle;</li> <li>• has been operating in the North Sea for 135 years;</li> <li>• has 1,300-strong workforce; and</li> <li>• it currently manages and operates 42 offshore support vessels.</li> </ul> <p>North Star entered the offshore wind market last year after winning long-term SOV contracts for the Dogger Bank Wind Farm. As a result, four new vessels will be delivered from 2023, financed by a £127m facility secured from Allianz Global Investors.</p>

<p>17/05/22</p>	<p><b>New data shows future fuel demand for shipping industry equal to entire current global production of renewables</b></p> <ul style="list-style-type: none"><li>• International Chamber of Shipping</li><li>• Germany's University of Applied Sciences</li></ul>	<p>According to a new report "<i>Fuelling the Fourth Propulsion Revolution</i>" there is:-</p> <ul style="list-style-type: none"><li>• a huge and immediate need for renewable-based fuels in shipping which represents an opportunity for investors; and</li><li>• shipping will carry more than half of the world's net-zero fuels by 2050</li></ul> <p>net-zero fuel production costs are expected to be up to 20% lower in Latin America and Africa.</p> <p>This Report asserts that the global shipping industry will require the equivalent of the world's entire current renewable energy demand in order to replace fossil fuel use and in doing so highlighted an 'enormous opportunity' for investors and governments represented by the global shipping industry's need for new, green fuels.</p> <p>To reach the industry's 2050 (net) zero goal, shipping's fuel needs would require electricity from renewable sources to increase by up to 3,000 TWh. This is the equivalent of the entire world's <u>current</u> renewable energy production.</p> <p>The Report also found that to achieve the IEA's Net Zero Emissions by 2050 scenario, the world would need an 18-fold increase in existing renewable production cap. Using the global trading of hydrogen as an</p>
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		<p>example, the Report identified substantial potential benefits for exporting and importing countries, particularly in the Global South. This is due to the expected production cost differentials of such fuels across the world (expected range of €72.60/MWh to €156.40/MWh in 2050).</p> <p>The cost range reflects the abundance of renewable potential, such as solar and wind power, in many African and Latin American countries, which can generate the electricity needed in the production of hydrogen fuels at much lower cost.</p> <p>Estimates show a production potential of more than 10,000 TWh for (net) zero carbon fuels in coastal regions worldwide. Shipping views investment in these areas as key to helping countries realise the potential gains present in their bilateral agreements.</p> <p>To date, there continues to be a lack of investment in zero-emission technologies, with the IEA highlighting that the total amount of corporate R&amp;D investment for maritime has decreased, from \$2.7 billion in 2017 to \$1.6 billion in 2019. By 2050, at least half of (net) zero fuels traded globally are expected to be moved by ships, according to the International Renewable Energy Agency (IRENA). This could make the world's maritime sector a key enabler of the decarbonisation of land-based industrial sector.</p>
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