

## ASIA COUNTS COST OF EU ETS

Ports and operators face a number of challenges relating to their activities with the introduction of the EU Emissions Trading System (EU ETS) and other emissions-related initiatives.

Asian shipowners with vessels sailing to and from Europe are likely to face estimated emissions liabilities of more than €1bn once the EU ETS is fully implemented, with companies registered in China and Singapore bearing the highest burden, according to OceanScore.

The Hamburg-based maritime technology firm has calculated that Asia-based Document of Compliance (DoC) holders will ultimately have to surrender a total of between 15-16 million EU Allowances (EUAs), or carbon credits, for voyages to and from the EU that are liable for 50% of emissions, while port calls and transits within the EU are liable for 100% of their emissions.

OceanScore estimates EU ETS costs for Asian owners of around €500m this year when they will be liable for 40% of their emissions, rising to 70% in 2025 and 100% in 2026 under the three-year phase-in of the regulation.

The EU ETS, implemented from 1 January 2024, will affect around 4,000 Asian-flagged vessels, or about one-third of the total 12,500 cargo and passenger ships above 5000gt that are currently subject to the EU ETS, according to the company.

These are owned or operated by 400 DoC holders, including major players like China's COSCO, Hong Kong-based Anglo Eastern Ship Management and South Korean HMM, with around half of affected vessels operated by non-EU DoC holders.

The total €1bn cost estimate for Asian shipping, based on the expected volume of EUAs set to be surrendered by regional DoC holders from 2026, is contingent on the volatile carbon price that is currently at a relatively low level of around €55 per tonne of CO<sub>2</sub> after fluctuating between €80-100 last year.

The carbon price is dictated by supply and demand for EUAs, with the volume of allowances available for trading set to be gradually reduced over time under the cap-and-trade system to incentivise investments in measures to cut ship emissions.

OceanScore's co-managing director Albrecht Grell says a total of nearly 80 million EUAs will have to be surrendered by the shipping industry once the EU ETS is fully phased in, of which 40% will come from non-EU companies, also including the UK, Norway and Turkey.

OceanScore forecasts that, at full phase-in, around 5.5 million EUAs will have to be surrendered by Chinese and Hong Kong-based entities and 5.4 million by Singaporean players, with the remainder coming from Japan (1.6 million), South Korea (1.2 million) and India (1.1 million). When other Asian countries such as Thailand and Malaysia are included, the total number of EUAs required rises to 20 million.

In a breakdown of costs exposure for individual

*Continued...*

## VOYAGE OF DISCOVERY

**'The Voyage', a sustainability film created by Associated British Ports (ABP) in collaboration with creative agency, Polar Media, has won Bronze in the 'Best Animation' category at London's Lens Awards.**

Created by ABP, the UK's largest port operator, the film helps tell the story of ABP's sustainability journey and celebrates the launch of the company's first ever sustainability strategy **'Ready for Tomorrow'**. With a female protagonist, the film invites audiences to see the world through the eyes of a woman who progresses through different stages of her life and maritime career, while witnessing and helping deliver various green energy infrastructure projects enabled by ABP's ports.

She travels from Immingham up on the Humber, where she sees the growth of green hydrogen and carbon capture and storage to Port Talbot in Wales, where the exciting floating offshore wind industry is in bloom. Along the way, she meets different animals from a seal to kittiwakes, all serving as a reminder that industrial progress needs to go hand in hand with protecting biodiversity to create a sustainable future.

For further information about ABTO

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companies, OceanScore has calculated that a company with 15 vessels would be required to surrender just over 300,000 EUAs, which would equate to a cost of €16.5m based on the current carbon price.

Voyages into and out of Europe account for around 59% of emissions covered by the EU ETS, versus 41% for voyages and port calls within Europe, but will still have a lower cost burden than domestic European traffic due to the 50% liability factor.

Long-haul voyages into the EU can be broken up by stopping at trans-shipment ports to reduce emissions exposure, but Grell says “we don’t see many people seriously discussing this” due to the negative impact on fuel costs, waiting times, additional sailing distance and other inefficiencies.

Asian players represent around 25% of the overall 1,700 DoC holders that now must relate to the regulation, which is particularly focusing the minds of European owners with an EU-centric deployment pattern for their vessels.

“Consequently, we see that European owners generally have started to prepare earlier for compliance with the EU ETS as it is closer to home and is therefore perceived as having a more tangible financial impact on their operations,” Grell says.

“It is also typically easier for companies domiciled in the EU to set up Union Registry accounts required for handling EUAs, as well as gain access to trading platforms, which is more difficult for those based in non-EU countries given sometimes quite complex Know Your Customer (KYC) processes.”

As well as these administrative obstacles, he claims non-EU players have been put at a disadvantage by having to play catch up with the late finalisation of Implementation Acts by the EU to avoid being wrong-footed when having to collect and later surrender EUAs. Among these measures, the shipowner has been assigned responsibility for reporting emissions and surrendering EUAs, although it can be transferred to the technical manager if an agreement along these lines is in place.

## NEWCASTLE FEELS IMPACT OF WEATHER

**A shift in weather and demand has had a significant impact on the Australian Port of Newcastle’s diversified trade results for 2023.**

CEO Craig Carmody says the overall trade figure, which contributed \$48bn to the economy, is not representative of a reduction in import and export volumes across a diversified trade.

“Overall, Port of Newcastle had an increase of almost 5% on total trade volume, which can be attributed to the return of China to the Australian coal market, representing a quarter of all coal exports,” Carmody says.

“The Port’s exposure to carrying volume risk is evident, put simply, if China did not lift their restrictions, the Port’s volumes would have been the lowest experienced in several years.

“For Port of Newcastle and our region, we need to ensure we continue down our path of diversification. Last year’s results highlight how we cannot continue to rely on a single commodity, we cannot wait and relive what occurred when the steel industry left Newcastle,” he says.

## SEAFARER SAFETY IN SPOTLIGHT

Seafarer safety is paramount in the context of the Red Sea and attacks on international shipping. During a meeting with shipping industry representatives in January, International Maritime Organization (IMO) Secretary-General Arsenio Dominguez reiterated the message that seafarers are innocent victims in the volatile Red Sea situation.

In addition, freedom of navigation must be upheld to guarantee global trade and the flow of goods by sea. Furthermore, there must be caution and restraint to avoid further escalation of the situation in the Red Sea and broader area, Dominguez said, referencing the UN Security Council Resolution 2722 (2024) on the Red Sea.

Shipping industry representatives emphasised that the safety of crew is paramount. The meeting provided the opportunity to exchange views and look ahead to the steps

that the IMO can take, including sharing information and potential future discussions during the next scheduled Maritime Safety Committee (MSC 108, 15-24 May 2024).

The meeting was attended by representatives of the International Chamber of Shipping, BIMCO, Oil Companies International Marine Forum, Association of Independent Tanker Owners, International Association of Dry Cargo Shipowners, Cruise Lines International Association and World Shipping Council.

Secretary-General Dominguez also had a productive meeting with representatives of the Member States of the Djibouti Code of Conduct to discuss the situation in the Red Sea, focusing on the need to enhance the maritime security capabilities of the countries in the region. The key areas of safety of seafarers, freedom of navigation and de-escalation were reiterated by countries in the region.

# PORT AND TERMINAL OPERATIONS FOR BULK CARGOES – Short Course

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## DECARBONISATION CHALLENGE HITS HOME

SEA-LNG has produced an overview of the current position regarding the use of liquefied natural gas (LNG) in decarbonisation. This resource outlines the progress anticipated in 2024. The document includes data, infographics and facts about the LNG pathway.

SEA-LNG says the reality of the magnitude of the decarbonisation challenge has started to hit home for many in the maritime industry during the past year. From 1 Jan 2024, there were only 312 months – 1,356 weeks or 9,497 days – until 2050, when shipping must achieve its net-zero target. Regulations such as the International Maritime Organization's Carbon Intensity Indicator (effective from 2023), the inclusion of shipping into EU ETS (2024) and FuelEU Maritime (2025) are putting immediate and growing pressure and added costs on shipowners and operators in relation to their greenhouse gas (GHG) emissions. How to meet these goals with practical, realistic and safe solutions in 312 months is a dilemma the industry must address in a concerted and coordinated manner, the organisation says.

*A View from the Bridge 2023-2024* will shine a light on some of the grey areas from alternative fuel discussions in

2023 and important considerations for 2024.

There is a growing awareness of the fact that all the alternative fuels being discussed today share the same generic pathway: from fossil to bio-derived fuels, (or blue fuels using carbon capture and storage) and eventually to electro-fuels produced from renewable electricity. There is also a recognition that all these fuels are currently fossil, also known as grey. The use of grey methanol, grey ammonia and grey hydrogen as marine fuels will generate more GHG emissions than the traditional marine fuels they are looking to replace. This means they are not viable solutions for decarbonisation even in the short term.

By contrast, grey LNG offers an immediate reduction in GHG emissions of up to 23%, after accounting for methane slip, for the two-stroke engines which are fitted to the vessels that move most of the world's shipping tonnage.

Consequently, the methanol, ammonia and hydrogen used by shipping will need to be green, or at least a blend with large volumes of green fuels, simply to achieve parity with very low sulphur fuel oil) and comply with regulations such as FuelEU Maritime.

## TELESTACKER DEVELOPMENT

Superior Industries, a US-based manufacturer and global supplier of bulk material processing and handling systems, has launched version 14.0 of its TeleStacker Conveyor PilePro Automation programme.

Among the changes is the introduction of an updated touch screen with a higher resolution to enhance visibility in outdoor settings. Additionally, the screen's protective housing has been fortified to withstand fluctuations in temperature more effectively, ensuring great performance in various conditions.

Also new, each screen is now loaded with an on-demand view of the owner's manual. A PDF viewer provides screen-specific instructions from the owner's manual for each step in the automation user experience.

# THE WOLFSON CENTRE FOR BULK SOLIDS HANDLING TECHNOLOGY AT THE UNIVERSITY OF GREENWICH, MEDWAY.

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We also provide a range of short courses to help delegates identify potential bulk materials handling problems and advise on how to avoid and/or overcome these issues. They fall under 4 main categories

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- » Commissioning and Troubleshooting 'Hand's On' Pneumatic Conveying Systems

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- » Storage and Discharge of Powders and Bulk Solids
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- » Port and Terminal Operations for Bulk Cargoes
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### Specialist areas of concern:

- » Caking and Lump Formation in Powders and Bulk Solids
- » Undesired De-blending and Separation in Processes and Equipment
- » Electrostatics in Powder Handling
- » Numerical Modelling of Solids Handling and Processing
- » Powder Handling and Flow for Additive Manufacturing

## IACS INTRODUCES AMMONIA STANDARD

The International Association of Classification Societies (IACS) has recently adopted a New Unified Requirement (URH1) on Control of Ammonia Releases on Ammonia Fuelled Vessels.

As the maritime industry forges ahead with its efforts to meet the goal of net-zero emissions by 2050, IACS continues to provide strong support by facilitating the safe adoption of the technological innovations, zero-carbon fuels and alternative energy sources that are fundamental to achieving this ambitious target.

In recent years, ammonia has emerged as one of a number of promising carbon-free fuels due to its high energy density and its ability to be liquefied at ambient temperatures. While ammonia has a significant potential as a marine fuel, it also presents safety challenges as it is highly toxic to human and aquatic life and it is therefore imperative to address the permissible limits to human exposure in ensuring the safety of onboard personnel.

In light of this and with the aim of guiding the industry in its development of early projects using ammonia as fuel, IACS has developed a Unified Requirement (URH1) covering the release of ammonia from the onboard systems for bunkering, storing, preparing and using ammonia as fuel.

IACS URH1 aligns with the recommendations from the US National Institute for Occupational Safety and Health and establishes that an ammonia concentration of 300ppm or more is immediately dangerous, and a concentration of

25ppm or more is dangerous if the exposure is longer than eight hours. Additionally, it requires the system dealing with ammonia to be designed so as to prevent a direct release of ammonia to the atmosphere during normal operations and also, when possible, during any reasonably foreseeable abnormal scenario.

In other work relating to the use of ammonia as a fuel, IACS is also working on requirements for ammonia treatment systems (equipment intended to reduce the concentration and/or quantity of released ammonia), and Requirements for Gas dispersion analysis.

Other safe decarbonisation-related work underway in IACS includes developing requirements for the selection and testing of materials and equipment, including portable tanks, for the use of hydrogen as fuel, and requirements on electrical energy storage systems, including a Type Approval standard for Lithium-based batteries.

Commenting on the publication of URH1, IACS Secretary General Robert Ashdown says: "URH1 on the control of ammonia releases on ammonia fuelled vessels is a first, but significant step in providing industry with enhanced levels of assurance for this new fuel type and will be supplemented with further complementary guidance in due course. This work, together with the other work-streams underway within our Safe Decarbonisation Panel, demonstrates IACS' strong commitment to ensuring that safety remains at the forefront of the maritime industry's efforts to meet its decarbonisation targets."

## WEST P&I INTRODUCES PIRACY PROTECTION

**West P&I Club has launched West Piracy Protection to help owners manage the evolving threat of piracy in high-risk waters.**

The new product provides cover for vessels entering a War and Piracy 'breach' area, such as the Gulf of Aden or the Gulf of Guinea, where there is a heightened risk of vessels being seized.

This innovative offering is tailored to provide insurance protection for piracy events where the traditional War policy coverage does not respond adequately to indemnify clients for the typical seizure situations that can take place in these geographic areas. This includes incidents when ships are sometimes held for just a few hours at a time.

Indemnities are provided for ransoms, including loss of transit of a ransom, and the costs of response consultants and legal experts, including reputational risk expenses. Expert support is provided for employees directly impacted by the seizure. Additional coverage is available for Loss of Hire related to a seizure, and for a maximum period of 14 days after release of the vessel.

This product has been developed in partnership with the Hamilton Global Specialty (Hamilton) underwriting platform written by Syndicate 4000 at Lloyd's. Embedded emergency expertise is provided by Crisis24, one of the industry's largest exclusively retained crisis response teams, and global law firm HFW.

Shipowners and operators can purchase West Piracy Protection as an extension to the West War policy, or as a product on a standalone basis. It is also available to non-West clients.

West Piracy Protection joins other specialist products offered by West, including West Hull (H&M) and West War, both launched by West in 2023. West also provides other diversified products, delivered with expert partners such as Nordic Marine Insurance, Qwest and Astaara, ensuring Club Members are fully supported at every stage of their voyage



## IMPORT CONTROLS UPGRADE

The European Union's Import Control System 2 (ICS2) is set for its third release on 3 June this year.

This will bring significant changes geared towards improving efficiency, optimising risk management and bolstering the protection of EU citizens and the market, the TT Club says in a [new opinion piece](#).

## ALLIANCE BOOSTS LNG SUPPLY

Galveston LNG Bunker Port (GLBP), a joint-venture between Seapath Group, one of the maritime subsidiaries of the Libra Group, and Pilot LNG, a Houston-based clean energy solutions company, has joined SEA-LNG – further enhancing the industry coalition's liquefied natural gas (LNG) supply infrastructure expertise and global reach, while giving GLBP access to the latest LNG pathway research and networking opportunities.

The new joint venture will develop, construct and operate the US Gulf Coast's first dedicated facility supporting the fuelling of LNG-powered vessels, expected to be operational in 2026.

The shore-based LNG liquefaction facility will be located on Shoal Point in Texas City, part of the greater Houston-Galveston port complex. This is a strategic location for cruise ship LNG bunkering in US waters, as well as for international ship-to-ship bunkering and cool-down services. GLBP will offer cost-effective turn-key LNG supply solutions to meet growing demand for the cleaner fuel in the USA and Gulf of Mexico.

Commenting on joining SEA-LNG and on the GLBP project, Jonathan Cook, Pilot CEO says: "With an initial investment of approximately \$180m, our LNG

bunkering facility will supply a vital global and US trade corridor with cleaner marine fuel. We recognise that SEA-LNG is a leading partner and a key piece of the LNG bunkering sector and will give us access to insights and invaluable expertise across the entire LNG supply chain."



Jonathan Cook

Chairman of SEA-LNG Peter Keller says: "All alternative fuels exist on a pathway from grey, fossil-based fuels to green, bio or renewable fuels. Green fuels represent a scarce resource and many have scalability issues, so we must start our net-zero journey today with grey fuels. LNG is the only grey fuel that reduces greenhouse gas emissions, well-to-wake, so you need less green fuel than alternatives to improve emissions performance."



Galveston LNG Bunker Port facility render

## REPORT HIGHLIGHTS SEAFARERS' CHALLENGES

Issues such as illegal recruitment fees are having a negative impact on the lives and wellbeing of seafarers and jeopardising the profession's future, according to the latest annual progress report on seafarers' rights.

The **Delivering on Seafarers' Rights Annual Progress Report**, published by the Institute for Human Rights and Business (IHRB) and the Sustainable Shipping Initiative (SSI), is a comprehensive review of the challenges facing seafarers, the shipping industry's efforts to address challenges and recommendations for 2024.

The report covers topics including attracting people to a seafaring career, illegal recruitment fees, corporate action on improving seafarer welfare, as well as an update on data from the RightShip Crew Welfare Self-Assessment Tool.

These issues have a significant impact on the lives and wellbeing of seafarers worldwide, making it even harder to attract the talent the industry needs to pursue careers at sea. The impact of welfare on recruitment and retention is a huge concern for shipping's wider viability and sustainability. The prevalence of illegal recruitment fees poses a severe threat, exploiting seafarers and their families and communities, and undermining their rights.

The report shares insights from various organisations and stakeholder groups on the issues facing seafarers, as outlined in the **Delivering on Seafarers' Rights Code of Conduct**, and brings together contributions from the International Seafarers Welfare and Assistance Network (ISWAN), Nautilus International, Oldendorff Carriers, Rio Tinto, RightShip, and Turtle.

For all the negatives, there has been progress, the report says. Leading shipping companies and charterers are work-

ing on a range of initiatives to enhance seafarer welfare, to improve standards and diversity on their ships and within their supply chains. Such efforts play a pivotal role in fostering a supportive and conducive environment for those working at sea, acknowledging their fundamental rights and basic needs.

Furthermore, a recorded increase in companies using the RightShip Crew Welfare Self-Assessment Tool signals a commitment to monitoring and improving industry standards, emphasising the importance of continuously evaluating and advancing the conditions and treatment of seafarers aboard vessels.

Steven Jones, CEO of the Sustainable Shipping Initiative, says: "This second Delivering on Seafarers' Rights Annual Progress Report is vital reading for all in the industry. There is progress we can learn from, such as the ideas, innovation, and energy of companies who are investing and making sure their people and social needs are to the fore. However, it is clear that there is so much more to be done. We need to take these lessons and ensure they are not simply the domain of the good companies – we need to make sure there is no place for the bad to operate."

Frances House, special advisor at IHRB, says: "We know the Maritime Labour Convention isn't enough to prevent seafarers' rights being undermined. Charterers and container cargo owners should encourage their shipping suppliers to comply with the Seafarers' Rights Code of Conduct and use the self-assessment tool to improve their performance. This report is a positive sign that uptake of the Code of Conduct is increasing, but verification and transparency around compliance are the critical goals now."

### GUIDE WARNS ON WORKING AT HEIGHT

**Falling from height is a leading cause of workplace fatalities and injuries. International freight transport and cargo handling insurance specialist TT Club is warning of this danger in the transport, port and logistics industries – environments in which, unfortunately, elevated working locations are often unavoidable.**

Continuing with its series of TT Briefs aimed at simplifying complex risk issues by providing easily digestible information and guidance, TT has published its latest Brief, *Understand and mitigate the risks of working at height*. In such working environments that are common throughout the supply chain, prioritising safety is of the utmost importance to prevent accidents and injuries. In this Brief, TT looks at the steps that should be taken to reduce risks, ensure the safety of the workforce when working at height, avoid exposure to injury claims and safety prosecutions, and reputational damage.

TT's managing director, loss prevention Mike Yarwood says: "Globally, there is no consistent regulation that outlines at which height a worker is considered to be at risk of serious injury should they fall. Therefore, simply complying with regulated safety provisions may not be enough to protect a workforce from potentially fatal accidents. Our advice therefore is a considered guideline on the minimum measures that employers, be they warehouse, port or terminal operators, road hauliers or other carriers, should put in place."

Recognising the range of operational conditions across the transport and logistics industry, the advice raises a number of points to consider relating to infrastructure design and improved working practices.

Safe stowage of cargo at various points in the supply chain is also discussed, as is the use of technology such as drones to carry out inspections or stocktaking, and deployment of fall prevention platforms. Not least, training programmes and the encouragement of a strong safety culture should be in place throughout any operation.



## ADVANCED SHIP LOADING SYSTEM FOR ANGLO AMERICAN

The mining group Anglo American relies on a ship loading system from FAM, member of BEUMER Group, for the sustainable and efficient loading of mined copper ore from the Peruvian plant Quellaveco. Thanks to the system's special construction, no material can enter the environment.

The surging demand for lithium-ion batteries in the electro-mobility sector is increasing the need for copper. One of the world's largest and best-known deposits with estimated reserves of 1.1 billion metric tons of copper ore is the Quellaveco mine located near the port city of Ilo, Peru, and operated by Anglo American, one of the world's largest mining companies.

### Ready for the increasing demand for copper

The plant is expected to mine 1.1 million metric tons of copper annually. To ship this enormous amount of raw material to the target countries, Anglo American searched for a suitable partner to supply the ship loading system at the new port terminal. Choosing FAM, now part of BEUMER Group since 2022, signifies a strategic partnership with a global supplier for innovative bulk materials handling, processing, and conveying solutions, renowned for comprehensive customer support and a robust portfolio.

### Dust-free to the destination

The Quellaveco open pit mine harnesses advanced automation technology to ensure worker safety and minimize dust pollution. Copper ore is efficiently transported via a belt conveyor to a truck loading station, where automated

systems, including gates and dust extraction mechanisms, ensure a clean, seamless transfer. After loading, the hermetically sealed trucks pass through a sensor-activated tire wash, ensuring no trace of dust leaves the facility.

Advanced systems designed to capture airborne particles during ore receipt, storage, and shipment act as powerful air purifiers, maintaining environmental integrity. Real-time data monitoring via sensors provides information for the operations center, enabling the plant to be controlled automatically.

### From the mainland on to the ship

Upon arrival at the port, the ore is securely stored in a warehouse before a sophisticated conveyor system transports it to the new ship loader. This loader has a swiveling superstructure and a telescopic tube designed for efficient, emission-free loading, capable of reaching every corner of a ship's cargo hold and handling around 1,320 t/h.

FAM expertly commissioned this advanced system by the end of 2022, overseeing the installation of mechanical components and managing the electrical and control engineering, project planning, production, and transportation. Their expertise in providing a high-capacity, dust-free ship loading system underscores the synergy between Anglo American's mining excellence and FAM's technological prowess, setting a new standard in sustainable mining practices.

For more information, visit:

<https://www.beumergroup.com/pd/port-technology/ship-loader/>



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