JOINT MEDIA RELEASE

ROTTERDAM, 28 November 2024 | For Immediate Release

Rotterdam-Singapore Green and Digital Shipping Corridor conducts end-to-end sustainability certification pilot for liquefied bio-methane bunkering

The Rotterdam-Singapore Green and Digital Shipping Corridor (GDSC) partners have conducted a successful pilot for the bunkering of mass-balanced liquefied bio-methane (LBM) at the Port of Rotterdam (PoR) on 19 October 2024. A total of 100 tonnes of mass-balanced LBM was supplied by Shell to CMA CGM's liquefied natural gas-powered containership *CMA CGM TIVOLI*.

2. Produced from waste-based feedstock[1], the LBM used in this pilot provides a lower-emission alternative to conventional marine fuels. This initiative, led by the bio-methane working group, supports the GDSC's broader commitment to advancing the adoption of near-zero emission fuels along one of the world's busiest shipping trade routes.

3. The bio-methane working group, led by SEA-LNG, is one of the working groups established to encourage the uptake of zero- and near-zero emission fuels. Other working groups are also exploring pathways for alternative fuels such as methanol, ammonia and hydrogen.

4. As part of the pilot, Shell issued a Proof of Sustainability certificate verifying that the LBM fuel supplied complies with regulations by the European Union. The certificate will undergo auditing by third-parties accredited by International Sustainability and Carbon Certification-European Union (ISCC-EU)[2].

5. The pilot applied the mass balance methodology[3] to track the movement of the LBM through the supply chain and ensure compliance with ISCC-EU certification standards, Renewable Energy Directive II, and FuelEU Maritime regulations. This end-to-end certification and tracking supports the development of methodologies which will need to be consistent with the accounting framework adopted by countries under the United Nations Framework Convention on Climate Change. This test will also provide CMA CGM with the opportunity to ensure that mass-balanced LBM is properly recognised by the authorities in relation to the EU Emissions Trading System (ETS)

---

[1] The feedstock used for the LBM bunkered is classified under Annex IXa of the Renewable Energy Directive II.

[2] The International Sustainability and Carbon Certification (ISCC) is a certification system that ensures compliance with international sustainability standards for all sustainable feedstock, such as the production of bio-methane. ISCC-EU specifically applies to the raw materials and fuels stated in the European Union's Renewable Energy Directive.

[3] The mass balance methodology is a type of chain of custody approach that allows stakeholders to trace the sustainability of materials moving along the value chain through a "paper trail". In the context of the pilot, mass balancing involves the blending of sustainability certified bio-methane with non-sustainability certified conventional LNG across transport, storage and distribution infrastructure within the EU grid.

regulation. A similar LBM bunkering pilot with full sustainability certification is planned at the Port of Singapore.

6. Established in August 2022 by PoR and the Maritime and Port Authority of Singapore (MPA), the Rotterdam-Singapore GDSC aims to accelerate maritime decarbonisation and digitalisation and foster collaboration among global ports and stakeholders. To-date, the GDSC initiative has brought together 28 global value-chain partners across shipping lines, fuel suppliers, port authorities and operator, industry coalitions, banks, leading institutes of higher learning and knowledge partners.

7. For further information and updates on the Rotterdam-Singapore Green and Digital Shipping Corridor, please contact Mandy Ros, Spokesperson Port of Rotterdam at mj.ros@portofrotterdam.com, or Jotham Teo, MPA Corporate Communications at media_enquiries@mpa.gov.sg.

<End>

About the Maritime and Port Authority of Singapore (MPA)

MPA was established on 2 February 1996 with the mission to develop Singapore as a premier global hub port and international maritime centre, and to advance and safeguard Singapore's strategic maritime interests. MPA is the driving force behind Singapore's port and maritime development, taking on the roles of port authority, maritime and port regulator and planner, international maritime centre champion, national maritime representative and a champion of digitalisation and decarbonisation efforts at regional and international fora such as at the International Maritime Organization. MPA partners industry, research community and other agencies to enhance safety, security and environmental protection in our waters, facilitate maritime and port operations and growth, expand the cluster of maritime ancillary services, and develops maritime digitalisation and decarbonisation policies and plans, R&D and manpower development. MPA is responsible for the overall development and growth of the maritime domain and Port of Singapore. In 2023, Singapore's annual vessel arrival tonnage crossed 3 billion Gross Tonnage and remains the world's busiest transshipment hub, with a total container throughput of 39.0 million 20-foot equivalent units (TEUs).

For more information, please visit www.mpa.gov.sg/

About the Port of Rotterdam Authority

The port of Rotterdam is a cornerstone of the Dutch and European transport and economic systems. In addition to the significant economic and social value the port holds in the Rotterdam-Rijnmond region, it also benefits the logistics sector and businesses that import and export in the rest of the Netherlands and Europe through employment, added value, revenue and business locations.

The Port of Rotterdam Authority's core tasks are the sustainable development, management and operation of the port and maintaining the smooth and safe handling of shipping. The aim of the Port of Rotterdam Authority is to strengthen the port's position as a logistics hub and future-proof industrial complex. In doing so, it's not size, but rather quality that takes precedence. The Port of Rotterdam Authority takes responsibility for the impact of the activities in the port on the climate and immediate surroundings. The health and safety of current and future generations are an integral consideration in our decision-making, including in our cooperations with businesses.

Facts and figures from the Port of Rotterdam Authority and the port of Rotterdam: Port of Rotterdam Authority: approximately 1,300 employees, revenue approximately €842 million and gross investments €295 million. Port area: 12,500 ha of port area (land and water, of which over 6,000 ha is industrial sites). Length of the port area: over 40 km. Cargo throughput: approximately 439 million tonnes of freight a year. Shipping: approximately 28,000 seagoing vessels and 90,000 inland vessels annually. Employment: approximately 193,000 jobs (directly and indirectly Rotterdam-Rijnmond). Added value: €30.6 billion, 3.2% of the Dutch gross domestic product (GDP). The port of Rotterdam generates over 500,000 jobs and provides an added value of over €60 billion for the Netherlands.

For more information, please visit https://www.portofrotterdam.com/

Annex
Refer to the link for more information on liquefied bio-methane: https://sea-lng.org/2024/06/sea-lng-coalition-liquified-biomethane-fact-vs-fiction/.