

Pavilion Energy and Mitsui O.S.K. Lines Name Newbuild LNG Bunker Vessel: Brassavola

When launched into operation in 1Q 2023, Brassavola will be Singapore's largest LNG bunker vessel

Brassavola is set to lead the change towards cleaner and more environmentallyfriendly fuels in Singapore

Singapore, 4 October 2022 – Pavilion Energy and Mitsui O.S.K Lines (MOL) held a ship naming ceremony today at Sembcorp Marine's flagship Tuas Boulevard Yard. The Singapore-flagged vessel was named Brassavola, after a species of orchid (orchids being the national flower of Singapore) by our Lady Sponsor¹ Mrs. Pamela Heng, spouse of Pavilion Energy's Group Chief Executive Officer (CEO), Mr. Alan Heng.

Brassavola sets many firsts! Measuring 116.5m in length and 22.0m in width with a capacity of 12,000m³, it is Singapore's largest vessel of its kind to be built locally. The ship is also the first newbuild LNG Bunker Vessel for Pavilion Energy and Sembcorp Marine's first LNG bunker vessel construction project. When launched into operation, it will be the largest LNG bunker vessel in service in the Port of Singapore.

The vessel features two GTT Mark III Flex membrane tanks, known for its superior characteristics including lower internal pressure, temperature and boil-off rate; which translates into greater tank durability, safer fuel transfer operations and reduced cargo loss through evaporation. The twin membrane tanks also weigh less and occupy less ship space, allowing the vessel to carry more cargo and consume less fuel during transportation. For cleaner propulsion, the bunker vessel will have dual-fuel engines running on LNG or marine diesel oil.

The vessel is scheduled to be operational in the first quarter of 2023. Brassavola's size and length specification enhances operational flexibility and maneuverability. Leveraging state-of-the-art technology, which include superior loading and bunkering rate up of up to 2,000m³ per hour, mass flow metering and online Gas Chromatograph systems, the vessel offers customers higher operational efficiency and faster bunkering turnover.

At the same time, its on-board reliquefaction technology allows for more efficient boiloff gas management which helps cut wastage and reduce carbon emissions.

Brassavola is owned by Indah Singa Maritime Pte. Ltd. which is a wholly-owned subsidiary of MOL and will be chartered by Pavilion LNG Bunker I Pte. Ltd., a wholly-

¹ A ship sponsor has traditionally been a female patron who is invited to christen the ship, and presumably to bestow protection and luck over the vessel and all those that sail aboard. The alternate term commonly used in place of "sponsor" is "godmother".



owned subsidiary of Pavilion Energy. Brassavola will be employed by Pavilion Energy to supply LNG bunker in the Port of Singapore. Under a long-term agreement with Pavilion Energy, TotalEnergies Marine Fuels will also be employing Brassavola to supply LNG bunker to its customers. TotalEnergies Marine Fuels is TotalEnergies' dedicated business unit in charge of its worldwide bunkering activities. Pavilion Energy and TotalEnergies Marine Fuels are among three licensed suppliers of LNG bunker fuels in the Port of Singapore.

Captain M Segar, Assistant Chief Executive (Operations) of the Maritime and Port Authority of Singapore, was present to grace the naming ceremony. He said, "We look forward to having Brassavola join our bunkering fleet, as the Port of Singapore continues to build up our capability as a LNG bunkering hub to help the maritime industry in its decarbonisation journey."

Mr. Kenta Matsuzaka, Senior Managing Executive Officer of MOL said, "I would like to express my sincere gratitude to all the people involved in this project. Brassavola is the very first LNG Bunkering Vessel constructed in Singapore. It is our great honor to take part in the transition from traditional heavy fuel oil by providing the capacity for vessels to use LNG as fuel, which immediately contributes to the reduction of GHG emission."

Mr. Alan Heng, Group CEO of Pavilion Energy said, "The naming of the Brassavola marks a joyous milestone in our quest for cleaner and more responsible marine bunkering solutions in the Port of Singapore and beyond. The Brassavola will play a pivotal role in Singapore's decarbonisation of its maritime industry and provide greater flexibility, efficiency and transparency to our customers. As the homegrown global energy merchant, we will advance with Singapore to achieve the International Maritime Organization's 2030 target to lower carbon emissions and build a cleaner future for generations to come."

Ms. Louise Tricoire, Vice President of TotalEnergies Marine Fuels said, "We are delighted to witness this momentous milestone together with our partners today, and to move another step closer to commencing our LNG bunkering services in Singapore, the world-leading bunker hub and a frontrunner in green shipping. The Brassavola exemplifies TotalEnergies' resolution to support our shipping customers' decarbonisation ambition and to contribute to the country's long-term strategies to build a sustainable Maritime Singapore. We eagerly await her imminent operational deployment and to offer our expanded supply network of this cleaner marine fuel, to LNG-powered vessels that call at Singapore, Rotterdam and Marseille."

Mr. Wong Weng Sun, President & CEO of Sembcorp Marine said, "Sembcorp Marine is delighted to be able to collaborate with MOL and Pavilion Energy to play a part in contributing to Singapore's strategy on climate change and decarbonisation, and the International Maritime Organization's strategy to halve greenhouse gas emissions by 2050. The fulfilment of this project dovetails with Sembcorp Marine's sustainability ethos, as well as the Group's diversification into the renewable and clean energy industries."





Brassavola will be Singapore's largest LNG bunker vessel (Photo: MOL, Pavilion Energy, Sembcorp Marine, all rights reserved)



Christening of Brassavola by Lady Sponsor Mrs Pamela Heng joined by (fr left) Mr Wong Weng Sun (Sembcorp Marine, President & CEO), Mr Kenta Matsuzaka (Mitsui O.S.K. Lines, Senior Managing Executive Officer), Mr Alan Heng (Pavilion Energy, Group CEO), and Captain M Segar (Maritime & Port Authority of Singapore, Assistant Chief Executive (Operations)) (Photo: MOL, Pavilion Energy, Sembcorp Marine, all rights reserved)





The naming ceremony for Brassavola (Photo: MOL, Pavilion Energy, Sembcorp Marine, all rights reserved)

Notes to Editors

For the high-resolution version of the above images, please click here.

Please find attached a Fact Sheet of the vessel Brassavola.

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About Mitsui O.S.K. Lines, Ltd.

Mitsui O.S.K. Lines is a global leading shipping company operating over 800 ships across the world, headquartered in Japan. MOL develops various social infrastructure businesses centering on ocean shipping, technologies and services to meet ever-changing social needs including environmental protection. MOL fleet includes dry cargo ships, liquefied natural gas carriers, Ro-Ro Car Carrier ships, oil tankers, etc. In addition to the traditional shipping businesses, MOL offers social infrastructure businesses such as real estate, terminal and logistics, offshore wind power, and associated businesses. With one of the largest merchant fleet, 130-plus years of history, experience, and technology, MOL group aims to be a strong and resilient corporate group that provides new value to all stakeholders.

For more information about Mitsui O.S.K. Lines, Ltd., please visit <u>https://www.mol.co.jp/en/index.html</u>

About Pavilion Energy Pte Ltd

Pavilion Energy is a wholly-owned subsidiary of Temasek. Headquartered in Singapore, its global energy business encompasses natural gas supply and marketing activities in South-East Asia and Europe; and global LNG trading, shipping and optimisation; as well as energy hedging and financial solutions. Pavilion Energy has also been a pioneer by developing LNG bunkering for the maritime industry and by promoting greenhouse gas emissions reduction and carbon offsets in the LNG value chain. As an advocate for LNG and natural gas as fuels of choice, Pavilion Energy is driving energy transition efforts towards a more sustainable future for generations to come.

For more information about Pavilion Energy, please visit <u>www.pavilionenergy.com.</u>

About TotalEnergies Marine Fuels

With over three decades of market experience, TotalEnergies Marine Fuels is TotalEnergies' dedicated business unit in charge of worldwide bunkering activities. A long-term partner to the global shipping industry, TotalEnergies Marine Fuels serves more than 200 shipping customers across over 130 ports in Europe, Asia Pacific and Africa. Its headquarters is located in Singapore, with two satellite offices in Paris and Geneva. In order to help its shipping customers adopt the cleanest available marine fuels today, TotalEnergies Marine Fuels has made key investments to supply marine LNG, bioLNG and biofuels at strategic bunker hubs. As part of its ongoing work in various maritime coalitions and cross-industry R&D initiatives, TotalEnergies Marine Fuels is also helping to shape the production of decarbonized future fuels for shipping.

About Sembcorp Marine

(Company Registration Number: 196300098Z)

Sembcorp Marine provides innovative engineering solutions to the global offshore, marine and energy industries. Headquartered in Singapore, we have close to 60 years of track record in the design and construction of rigs, floaters, offshore platforms and specialised vessels, as well as in the repair, upgrading and conversion of different ship types. Our solutions focus on the following areas: Gas Value Chain; Renewable Energy; Process; Advanced Drilling Rigs; Ocean Living; and Maritime Security. Our customers include major energy companies, owners of floating production units, shipping companies and cruise and ferry operators. They are supported by four commercial units: Rigs & Floaters; Repairs & Upgrades; Offshore Platforms; and Specialised Shipbuilding. Sembcorp Marine operates shipyards and other facilities strategically located in Singapore, Indonesia, the United Kingdom, Norway and Brazil.

Discover more at https://www.sembmarine.com/