

## LNG IS THE MOST “FUTURE-PROOF” MARINE FUEL, SAYS REPORT

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Liquefied Natural Gas (LNG) is the most mature, scalable, and commercially viable alternative fuel currently available for the maritime industry, according to a new report released by SEA\LNG.

A comparative study called ‘Comparison of Alternative Marine Fuels’, conducted by alternative fuel company DNV GL, analysed the commercial and operational viability of six alternative marine fuels namely hydrogen, ammonia, methanol, LPG, hydrotreated vegetable oil (HVO), biofuel and full battery-electric systems and evaluated how well they performed compared to LNG and heavy fuel oil against a set of 11 factors.

The parameters used to compare the alternative options included energy density in each tonne of fuel, technical maturity and proven operational performance in terms of safety and reliability, local emissions which impact human health, greenhouse gas (GHG) emissions with global warming impact, current and predicted cost of fuel, associated capital cost of engines and fuel storage onboard, availability in terms of geographic bunkering and global production capacity, flammability, toxicity and status of associated handling safety regulations.

The findings showed that while there are a variety of lower or zero carbon alternative fuels that could help to meet the goals of the International Maritime Organisation’s (IMO) 2030 and 2050 GHG reduction targets, many of these alternatives – such as hydrogen and ammonia – require significant development to meet the industry’s needs.

Apart from challenges such as lack of regulatory framework, production capability, and bunkering infrastructure for widespread adoption, other fuel options also demand massive investment in supply chains and bunkering infrastructure.

With, the industry under pressure to take steps to reduce sulphur emissions to comply with IMO’s 2020 sulphur regulations, LNG – which has been widely used for more than 50 years for power and heat generation – is according to the study authors the only alternative fuel that is compliant with the current and future emissions regulations and requires lower capex compared to others.

According to the report, the LNG engine technology is “commercially viable – as proven by a growing order book across most vessel types, readily available – with rapidly expanding supply of LNG globally, scalable [and] future-proof. LNG addresses the air quality issues that directly affect human health,” the report said.

Chairman of SEA\LNG, Peter Keller, said in a statement: “Modern ships have a life expectancy of around a quarter of a century. Investors need to know how the capital expenditures for

installed engines and their operational costs, including choice of fuel, will be impacted by current and future environmental legislation.

“The study provides further backing for our belief that, in order to achieve GHG reductions and improve air quality now, ship owners and managers need to act decisively and invest in LNG capable vessels. Doing so will improve the long-term sustainability for the shipping industry, while safeguarding a competitive advantage for the ship owners and operators who facilitate global trade,” Keller said.

According to the president of DNV GL, Torsten Schramm, the growing pressure to adhere to IMO’s regulations will mean that “alternative fuels and propulsion technologies [will] be on the radar of every shipowner, especially those in the market for a newbuilding in the near future.” Schramm added: “What is already clear, however, is that LNG can play a valuable and positive role in improving the maritime industry’s emissions to air as we head toward 2030 and on to 2050.”

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