RINA & IMarEST Technical Presentation

Towards Zero Carbon Shipping

RINA NSW SECTION

IMarEST ACT & NSW BRANCH

This presentation will start with an introduction to the Maersk McKinney Møller Center for Zero Carbon Shipping, providing a brief overview of its mission, organisational setup and activities. The following topics will be discussed in more detail from a technical and regulatory perspective: GHG emissions from shipping and latest IMO strategy, ship energy efficiency, and alternative fuels. Energy efficiency topics will touch on technical and operational measures such as minimising propulsion power and fuel consumption across the operational profile, reduction of onboard power demand, and onboard carbon capture. As of 2023, ships over 5000 GT must monitor and report their carbon-intensity indicator (CII); compliance presents some challenges for certain ships and trades, which will be discussed.

Reaching (close to) zero GHG emissions for shipping will not be possible without the wide production and uptake of 'green' fuels, i.e. fuels with a zero or close-to-zero carbon intensity from a lifecycle (well to wake) perspective. Recent newbuilding orders already show a relatively large number of ships being ordered which are capable of running on LNG/methane or methanol. The green marine fuel contenders are bio- (or e-) methane, e-methanol, e-ammonia, and biofuel. Each fuel option has its pros and cons.

Green hydrogen forms the basis for many of these fuels, but by itself may not be suitable as a fuel for deep-sea shipping. Methane slip is an issue of concern for LNG as a fuel, and this applies also to the greener methane options; abatement technologies will be highlighted. For ammonia, a key issue is safety in view of its high toxicity; examples will be provided of recent HAZID studies outlining hazards and risk mitigation measures related to its onboard use.

Details:
Date: Wednesday, 17 April 2024
Time: 18:30 AEDT
Format: Online by Webinar

Please register your attendance by clicking here.