



LNG bunkering veteran raises boil-off gas risks

By Hwee Hwee Tan

Boil-off gas risk increases with the frequency of cargo transfers, which will ramp up as LNG gains traction as a marine fuel. It dents profit margins and can contribute to higher greenhouse emissions if there is no mechanism in place to recycle the escaped gas.

THE growing liquefied natural gas bunkering sector needs to address an issue that can compromise its profitability and emission profile, according to an industry veteran.

Boil-off gas is a major concern for ship-to-ship transfer and bunkering of the commodity, according to LNG Easy co-founder He Yi Yong.

This phenomenon is not new to LNG shipping. It happens when LNG, which stays as a liquid at minus 163 degrees celsius, vapourises and escapes as methane into the environment.

But boil-off gas can [increase with each ship-to-ship transfer](#) of an LNG cargo owing to the difference in operating pressures between the unloading and receiving vessels.

The bunkering industry historically thrives on frequency of cargo turns and will need to grapple with higher risk of boil-off-gas during each ship refueling operation.

LNG Easy is pursuing several bunkering developments in Asia using its proprietary MPF technology, which helps to tackle the risk.

These projects will see ship-to-ship transfers or bunkering operations take place alongside a floating jetty through which all excessive boil-off gas will be sent to the shore.

Investment in each project ranges from \$80m. The first contract for such project is expected to land before the end of this year.

Singapore-based Mr He viewed the LNG Easy bunkering concept as resolving what is a challenge holding back bunkering and break-bulk LNG projects.

Boil-of-gas sent to shore can either be supplied to other users or re-processed into LNG and in so doing, boosts accountability over the emission profile of cargoes supplied as marine fuel.

He acknowledged that this practice is not new — floating storage regasification units have already been sending boil-of-gas via pipelines to shore.

LNG Easy's bunkering solution is also based on a concept similar to that of the bunkering pontoon already in use along China's Yangtze and Pearl Rivers.