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## **Lightering the Load (LNG)**

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### **Introduction**

There are a number of motivators driving LNG side-by-side as a cargo transfer option, not least the success of floating solutions in Oil and LPG production projects. The main problem faced is that present LNG ships are designed for conventional manifold loading only. This, coupled with the fact that suitable floating LNG hoses only being in the early stage of development, ensure that tandem loading is not an option at this time.

We also have the situation where it is increasingly difficult to build a shore terminal for receiving Bulk LNG. Ports big enough for the ships are increasingly congested and bulk LNG terminals have strict HSE requirements. The option of having Floating Storage and Regasification Units (FSRUs) situated offshore but near to the ports, offers a solution that is being explored by a number of importers. This again will require side-by-side for discharge, as the gas will increasingly come from the spot market on standard long-haul vessels.

With FPSO LNG projects now coming off the drawing boards and going into the yards, companies have to be certain of the capabilities of the Ship-to-Ship (STS) Industry. STS Service Providers need to use their experience to provide an operational envelope that makes the economics work.

Historically, Ship to Ship Transfers were generally considered something of a 'risky' operation, only carried out when absolutely necessary. There is now a growing confidence that the STS Industry today can deliver a high quality, repeatable operation and meet the high safety standards expected in the LNG Industry.



**Figure 1**  
**Almost alongside in a typical STS operation**