

GTL FPSO – An Alternative Solution to Offshore Stranded Gas

김현진, 문동주^{1,*}
대우조선해양(주); ¹KIST
(djmoon@kist.re.kr*)

The sustained increasing energy demands have been driven to very high prices of oil. In parallel with the situation, there has been a significant increase in the level of interest in economic and environmentally sensitive solutions for monetization of remote stranded gas offshore. Current global natural gas reserves total approximately 6,100 trillion cubic feet (tcf). Roughly half of these are considered to be stranded gas that is uneconomic to deliver to market due to remote location from markets, lack of economic transportation and infrastructure, or lack of conversion technology. An alternative approach is to convert the natural gas into premium grade liquid products through Gas-To-Liquids (GTL) technologies for ease of transport using existing infrastructures. GTL technologies have not been installed in offshore locations before, however, utilizing GTL facilities offshore that is both capable of being safely and economic installed on a floating substructure has long been developed by several players. The paper will address the specific challenges of the marine aspects of offshore GTL facilities and will provide with the conceptual scheme of GTL FPSO.