

Analysis of techno-economic of a novel NGL recovery process for FLNG applications

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The depletion of oil makes natural gas become a major alternative fossil fuel. This work presents a novel process for NGL recovery for FLNG applications and its techno-economic comparison with another eight processes; i.e. gas sub-cooled (GSP), cold residue gas-recycle (CRR), recycle split-vapor (RSV), IPSI -1, flashed vapor reflux (FVR), liquid subcooling process (LSP), split flow reflux (SFR), and vapor enrichment process (VEP). To make a fair comparison, all process was optimized with the product specification as the constraint. The result show that the CRR process gives the highest capital cost and the FVR process gives the lowest capital cost. Meanwhile for the operating cost, the highest is CRR and the lowest is the proposed process.

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