

### Modeling and Simulation of LNG Liquefaction Process

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The natural gas liquefaction process of C3/MR was modeled using commercial process simulator. The whole steady-state process model covers acid gas removal unit, dehydration unit, fractionation unit, MR(mixed refrigerant) & C3 compression unit as well as MCHE(main cryogenic heat exchanger) unit. The total required energy and production ratio of LNG and other heavy hydrocarbons were calculated from the model. The current st-st model will be used as the basis on dynamic model for a future study.

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