

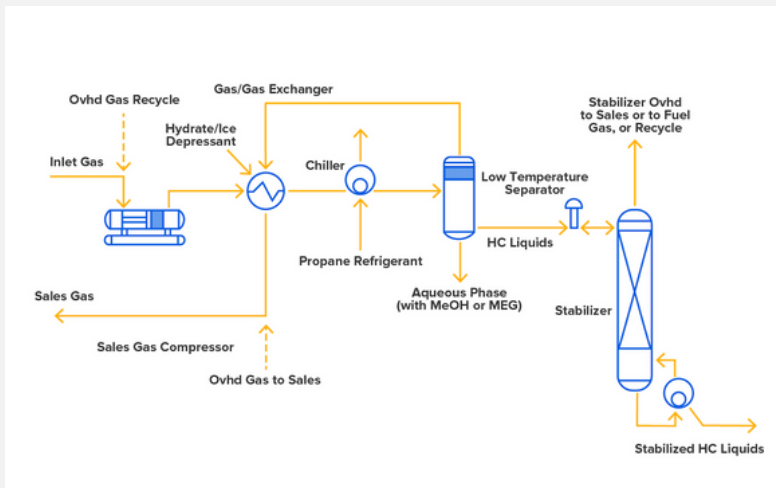
BEST PRACTICE SERIES

Efficiency optimization for gas plants

The study was carried out to optimize the gas plant scheme for gas/HC stabilization. The process analysis and optimization was based on inlet pressure reduction study and process impacts evaluation with a holistic system approach. The objective of the changes implemented is the optimization of the process resulting in energy, costs and emissions savings as well as production increase.

Gas plant process flow diagram (PFD)

Condensate stabilizer gas plant to obtain sales-grade gas and suitable HC liquids.



Project Highlights

- Improvement in the condensate stabilization process with a **reduction in heat demand** in the stabilization tower by 5%

Benefits

- 3% production increase.
- 6-8% **fuel gas consumption reduction**
- 5400 t CO₂/y reduction
- Compressors maintenance cost reduction

Key Learnings

- Thermodynamic response of the dew point control is enhanced
- Better general stability in the process
- HP Propane Compressor power demand reduction
- Power Generation demand reduction (1.8MW)
- Routine Flaring reduction

Implementation

- 2019 Test run and efficiency study
- 2020 Implementation