

## HYDROGEN AND HYDROCARBON RECOVERY FROM VARIOUS REFINERY STREAMS

### Solution based on integrated membrane technology

Separation of valuable compounds from various process streams:

- RFG – Refinery Fuel gas
- ROG – Refinery Off gas
- Purge gas
- Vents

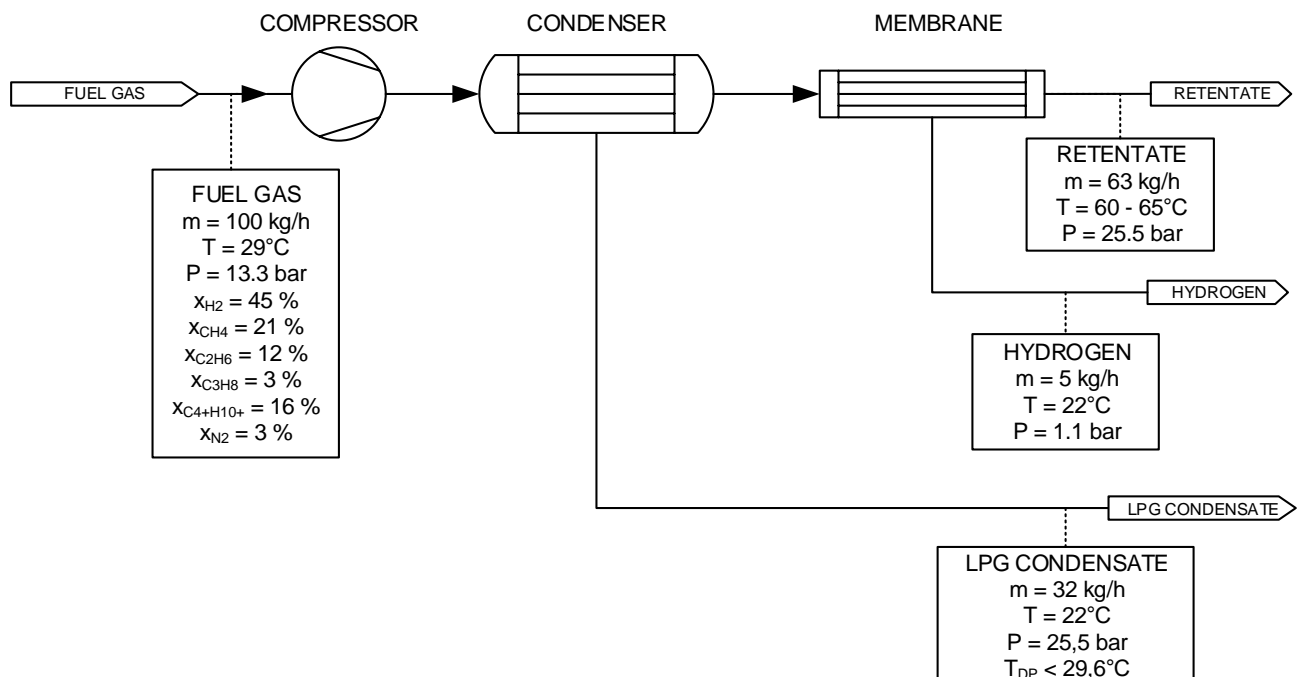
Membrane technology allows to separate:

- Hydrogen
- LPG (Propane, butane)
- Pentane and higher hydrocarbons
- To adjust the ratio of CO/H<sub>2</sub> in syngas

Advantages of the process based on membrane separation:

- Economical process
- Hydrogen recovery higher than 75 % (adjustable)
- Hydrogen purity higher than 97 % (adjustable)
- Robust and reliable operation

### Illustrative example



## **MemBrain offers**

- Feasibility study for identification of the most effective recovery system
- Comparison of membrane performance from different manufacturers
- Evaluation of the membrane performance at lab scale with both model and real gas mixture
- Construction of the pilot units for on-site tests and performance, stability and reliability evaluation
- Concept design and basic design of the industrial membrane unit based on field trials
- Technology delivery