

By utilizing low value, excess fuel gas, you can reduce your consumption of costly traditional hydrogen plant feedstocks, such as natural gas, LPG, butane or naphtha. Upgrading fuel gas produced onsite is a proven way to significantly cut the cost of your hydrogen production.

Refinery fuel gases are an attractive feedstock option. However, impure RFG feeds can cause problems in the feedstock purification section. With Haldor Topsoe's fuel gas hydrotreating (FGH) technology, it is now commercially viable to upgrade your low value, RFG into high-value feeds, clean enough for a hydrogen plant.

## First commercially proven polishing of tough fuel gas

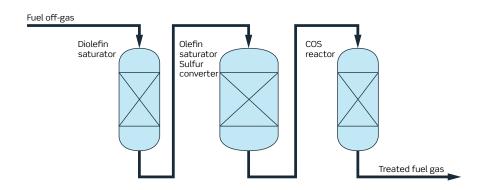
If you're paying too much for your feedstock gas or feel insecure about its supply, there's now a reliable, economical alternative with costcutting FGH technology. Making a confident choice is simple: Topsoe leads the industry with the only commercial operating unit of this kind, which efficiently removes diolefins, olefins, oxygen and organic sulfur compounds.

## Difficult feedstocks? No problem

No matter what your feedstock, Topsoe's technology can handle it. Applicable to all refinery fuel and off gases - especially from thermal units including coker, FCC and visbreaker - the process even works for feed gases such as LPG, shale oil or NGLs.

## Engineered for optimal performance

The process is designed to be fully integrated, with the possibility to minimize both capital costs and operating costs. Topsoe's expertise combines carefully engineered process technology with selectivity of specially tailored catalysts for maximum efficiency.



The fuel gas is cleaned via 3 catalytic steps before being routed to your amine wash unit: (1) Di-olefin saturation, (2) Sulfur conversion and olefin saturation, and (3) COS hydrolysis.

## **Advantages**

- Commercially proven technology
- Produces a valuable feed gas for a hydrogen plant
- Decreases net SOx emissions
- Handles various difficult refinery fuel gases
- Robust to feed fluctuations
- Long catalyst lifetimes
- Once-through process layout
- No precious metals