

HONEYWELL UOP FCC CO-PROCESSING

FCC Co-Processing enables a path to lower-carbon fuel production with minimal operating changes and capital expenditures.

Global demand for sustainable fuels and petrochemicals is on the rise. FCC Co-Processing offers a quick and economical means to leverage existing assets and enable the energy transition.

A RENEWABLE SOLUTION FOR REFINERIES

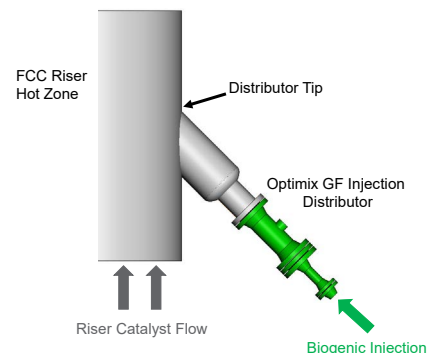
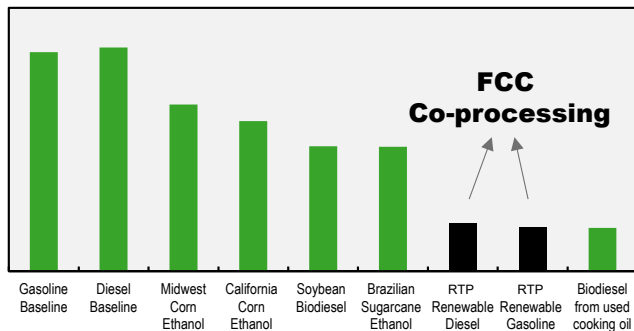
Honeywell UOP has extensive, unique experience in co-processing biogenic feedstocks. We are highly experienced in refining technologies, have successfully applied our expertise to the renewable space, and have specialized engineering and technical service capabilities. We are excited to apply this expertise by helping refiners plan and execute the changes needed to drive the energy transition through renewable fuels production.

With forethought and minor modifications, it is possible to co-process high biogenic feed rates in an FCC. Though in the absence of proper preparation, some material characteristics of biogenic feeds that can cause operational issues in both the FCC and immediately downstream, Honeywell UOP can help to identify the likely issues for a given co-processing case and can supply made-to-purpose solutions to mitigate problems before they arise.

FEATURES & BENEFITS

- Lower the carbon intensity of fuels and olefins while maintaining similar quality and yield
- Leverage existing refinery assets
- Substitute fossil derived feed with a variety of renewable carbon sources
- Minimize investment while maximizing renewable carbon credits
- Employ commercially proven design with low operational risk

Select LCFS Pathway Carbon Intensities*
(gCO₂e/MJ)

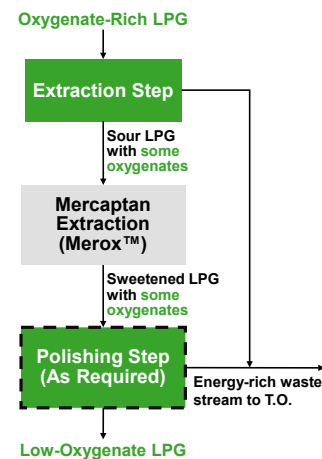


FCC CO-PROCESSING SOLUTIONS

The OPTIMIX™ GF Feed Distributor is an innovative solution developed by Honeywell UOP for co-processing design in that it enables dedicated injection through specialized nozzles at different elevations, preventing polymerization, coking, and ensuring optimal feed distribution. This technology enhances co-processing efficiency and reactor performance while maintaining temperature control, resulting in reliable and efficient operations.

The Oxygenate Removal Unit (ORU) is a key component in FCC co-processing systems, designed to mitigate downstream impact from the high levels of oxygenates that biogenic feedstocks often contain. The ORU helps to eliminate emulsions, fouling, and unwanted oxygenates immediately before the sulfur treating system. This system enhances downstream processing efficiency while capturing energy through thermal oxidation, making it a cost-effective and essential solution for coprocessing.

* Source: Low Carbon Fuel Standard (LCFS) Readopted Regulation, Pathway Application



For more information

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