

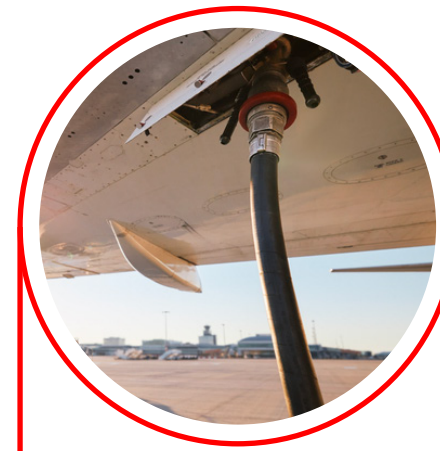
2007 – Commercialization

First commercial license of Honeywell UOP Ecofining™, a technology suite that produces a “drop-in” hydrocarbon biofuel from waste fat, oils, and greases that meets ASTM D975 standards for renewable diesel.



2013 – Production Begins

The first Honeywell UOP Ecofining™ licensed plant comes online. Diamond Green Diesel Ecofining™ Unit at Norco, Louisiana.



2016 – Sustainable Aviation Fuel

World Energy becomes the first producer of sustainable aviation fuel in the US. World Energy’s Paramount site has been in operation since 2016 with Honeywell UOP Ecofining™ technology and produces SAF with 82% lower CO₂ than conventional, fossil fuel-based jet fuel.¹



2022 – A New Feedstock

Honeywell UOP launches ethanol to jet, which can reduce greenhouse gas (GHG) emissions by 80 percent on a total life cycle basis, compared to petroleum-based jet fuel.³



2024

Honeywell UOP celebrates its 50th renewable fuels license.

2009 – The First Flight

Continental Airlines became the first U.S. commercial carrier to conduct a demonstration flight powered in part by Honeywell UOP Ecofining™, though large-scale use of such fuel was forecast to be several years away.



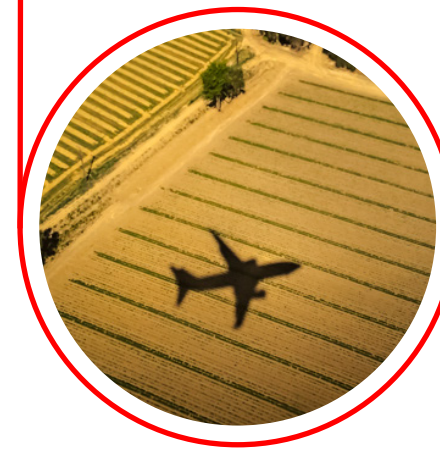
2014 – Collaboration for Success

Italy’s largest integrated energy company ENI S.p.A. begins producing renewable diesel using the Honeywell UOP Ecofining™ process at its facility in Venice.



2016 – Flying Commercial

United Airlines becomes the first commercial airline to use renewable jet fuel on regular scheduled flights. The renewable fuel is produced based with Honeywell UOP Ecofining™ technology.



2023 – Continuous Innovation

Honeywell UOP Launches UOP eFinishing™, a methanol to jet technology that can reduce greenhouse gas emissions by 88%, compared to conventional jet fuel.²



¹ Based on World Energy Production Data.
² Reduced GHG emissions is based on UOP carbon intensity analysis, derived from a 3rd-party study of methanol production from green hydrogen and CO₂ captured from biomass processing, in comparison to fossil fuels.
³ Based on the EPA’s summary LCA of GHG emissions for sugarcane. Production quantities based on UOP production data.

The Honeywell UOP portfolio takes a broad range of feedstocks to make SAF, including:



Fats

+



Oils

+



Greases

+



Methanol

+



Ethanol

Honeywell UOP Ecofining™

Honeywell UOP eFinishing™

Honeywell Ethanol to Jet