



PRESS RELEASE

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From test tube to barrel - Lufthansa invests in first industrially produced carbon-neutral, electricity-based kerosene made in Germany

- **Lufthansa Group is partner and pilot customer of the world's first production plant for power-to-liquid aviation fuels in Emsland, Germany**
- **Annual purchase of at least 25,000 litres agreed for at least five years**
- **Logistics companies Lufthansa Cargo and Kuehne+Nagel are among the first customers**
- **Power-to-liquid is considered as key technology for CO₂-neutral flying**

The world's first industrial plant that produces CO₂-neutral electricity-based kerosene was officially opened today in Werlte/Emsland. It is operated by the climate protection organization atmosfair and produces synthetic fuel for aircraft from water, CO₂ and renewable electricity (power-to-liquid = PtL). The Lufthansa Group is a partner in the pioneering project and is one of the first customers to purchase this sustainable, electricity-based kerosene. In this way, the company is making an important contribution to establishing PtL production in Germany and promoting the market development of the first available CO₂-neutral synthetic kerosene.

Until now, the airlines of the Lufthansa Group have used sustainable aviation fuels of biogenic origin. This is kerosene produced from agricultural waste or used cooking oils. This is because PtL fuels have not yet been produced industrially but are only available in laboratory quantities.

Christina Foerster, Member of the Executive Board Deutsche Lufthansa AG: "Lufthansa's airlines have been focusing on the research and use of sustainable aviation fuels (SAF) for many years. We are currently the largest customer in Europe. Synthetic fuels from renewable energies are the kerosene of the future. They enable CO₂-neutral aviation. With its partnership with atmosfair, the Lufthansa Group takes the lead again and provides a boost to the production of PtL."

The Lufthansa Group will purchase at least 25,000 litres of PtL fuel annually over the next five years and make it available to customers. To use the first quantities, Kuehne+Nagel and Lufthansa Cargo have agreed on an exclusive partnership. The logistics service providers have committed themselves to the joint purchase of the fuel from Werlte.

"We clearly see the key to a sustainable reduction of our emissions in flight operations in the research and use of synthetic, sustainable aviation fuels. The fact that we are now pioneering power-to-liquid technology together with Kuehne+Nagel makes us particularly proud and shows once again that we are actively tackling our climate protection challenges," said Dorothea von Boxberg, CEO of Lufthansa Cargo AG.

Yngve Ruud, Member of the Management Board of Kuehne+Nagel, responsible for Air Logistics, commented: "Already now, Kuehne+Nagel customers can avoid carbon emissions of their shipments globally with our bio SAF solutions and I am delighted to see that time has come for synthetic SAF as the long-term solution for aviation. By securing the first power-to-liquid fuel production together with Lufthansa Cargo, we are sending a strong message of commitment and collaboration, inviting our industry colleagues and customers to join us in creating the low-carbon economy of the future already today."

CO₂-neutral fuels or Sustainable Aviation Fuels (SAF) are an essential pillar on the way to CO₂-neutral flying. These fuels can be produced in various ways. In the case of synthetic kerosene, also known as e-kerosene or e-fuel, the synthetic crude oil that is processed into kerosene is produced from regeneratively generated electricity, water and CO₂. These electricity-based fuels are currently still in the development stage towards industrial production, but in the long term they offer a decisive alternative to conventional kerosene or biogenic SAF, as they are theoretically to be produced without availability limits.

Until now, Lufthansa has used biogenic SAF. By purchasing these fuels on the Lufthansa compensation platform Compensaid, travelers already have the opportunity to offset the CO₂ emissions of their air travel and fly CO₂-neutral. The airlines of the Lufthansa Group have integrated Compensaid directly into the booking process. Frequent flyers can also find this option in the Miles & More app. Lufthansa Cargo offers its customers individual solutions with single CO₂-neutral cargo flights with SAF.

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