

Topsoe, Sasol to Power Canadian SAF Venture with Integrated Gas-to-Liquids Technology

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Technology alliance aims to de-risk commercial-scale sustainable aviation fuel production as Canada accelerates its low-carbon aviation ambitions



Topsoe and Sasol have been selected as the technology partners for a commercial sustainable aviation fuel (SAF) project in Canada, signing a single-point licensing agreement with SUSTAERO to deploy an integrated gas-to-liquids (G2L) technology platform for the company's flagship production facility.

The agreement brings together Topsoe's hydrogen production, gas reforming and hydroprocessing technologies with Sasol's globally established Fischer-Tropsch synthesis and product upgrading capabilities, creating a fully integrated technology package designed to enhance project efficiency, reduce execution risks and improve commercial viability.

Once fully commissioned, the facility is expected to produce approximately 3,200 barrels per day (BPD) of sustainable aviation fuel, with engineering provisions allowing production capacity to expand to nearly three times its initial output as market demand grows.

The collaboration underscores increasing industry preference for commercially validated technology platforms capable of accelerating the scale-up of SAF manufacturing while strengthening long-term energy security through diversified, low-carbon fuel supply chains.

Yassir Ghiyati, Chief Commercial Officer at Topsoe, said the partnership reflects the industry's growing focus on deploying proven technologies that can accelerate commercialization of renewable aviation fuels.

"We are proud to partner with SUSTAERO on this important project and to provide the technologies needed to help bring it to life. Sustainable aviation fuel will play a critical role in supporting aviation's transition to lower-emission fuels, and projects like this demonstrate how proven technologies and strong collaboration can accelerate the commercialization of renewable fuels at scale," he said.

Sarushen Pillay, Executive Vice President – Business Building, Strategy and Technology at Sasol, said the company's integrated Fischer-Tropsch technology platform would enhance project bankability while maximizing operational performance and product yields.

"SUSTAERO's decision reinforces the commercial strength of Sasol's Fischer-Tropsch technology, which has established itself as one of the world's most reliable and scalable gas-to-liquids platforms. Combined with Topsoe's process technologies, our long-standing collaboration delivers an integrated licensing model that significantly de-risks complex energy transition projects," he said.

Keith Gillard, Chief Executive Officer of SUSTAERO, said integrating the partners' technologies into the company's proprietary Syngas Optimization for Aviation Renewables (SOAR) architecture would strengthen both technical performance and investment confidence.

"This partnership positions SUSTAERO at the forefront of aviation's transition towards secure, sustainable and low-carbon fuels while leveraging the expertise of two globally recognized pioneers in gas-to-liquids technology," Gillard said.

The agreement comes amid rapidly expanding global demand for sustainable aviation fuel as governments, airlines and fuel producers intensify efforts to decarbonise one of the world's most emissions-intensive transport sectors. According to the International Air Transport Association (IATA), global SAF production is projected to reach 1.9 million tonnes in 2025, almost doubling from 1 million tonnes produced in 2024, highlighting the urgent need for commercial-scale production capacity supported by proven technology and long-term investment.