

## HIF Global initiates engineering for U.S. Sustainable Aviation Fuel facility, selects Johnson Matthey & Honeywell technologies

10 May 2023

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- HIF intends to produce ~11,000 barrels per day of eSAF by 2030, decarbonizing ~12 billion air passenger miles per year in its second U.S. facility

HIF Global, the world's leading eFuels company, today announced agreements with Johnson Matthey and Honeywell to conduct preliminary engineering for HIF's first Sustainable Aviation Fuel (SAF) facility in the United States. The facility would produce approximately 11,000 barrels per day of eSAF, decarbonizing over 12 billion air passenger miles per year.<sup>1</sup>

eSAF is sustainable aviation fuel made by combining recycled carbon dioxide (CO<sub>2</sub>) with hydrogen produced using renewable electricity. eSAF can be dropped-in to existing jet engines without any modifications required.

Meg Gentle, Executive Director of HIF Global, said, "eFuels are a replacement for fossil fuels and are a necessary solution for decarbonizing global transportation. At HIF Global, we have already demonstrated the capability to produce eMethanol for marine transport and eGasoline for road transport with the 2022 start-up of the HIF Haru Oni Demonstration Facility in southern Patagonia, Chile, where the wind is blowing all the time. Together with Johnson Matthey and Honeywell, we intend to deliver an eFuel solution for airplanes before 2030."

Renato Pereira, CEO of HIF USA, added, "Air travel is the most challenging sector of the global transportation infrastructure to decarbonize, with limited low carbon alternatives to serve growing demand for jet fuel. The simplicity of eFuels is that they are produced from air and water for use in existing engines. eSAF produced using Honeywell's technology can reduce CO<sub>2</sub> emissions compared to conventional jet fuel by 88%.<sup>2</sup> When blended with conventional jet fuel, eSAF can be dropped-in immediately to existing jet engines with no modifications required."

Johnson Matthey's technology will use renewable (green) hydrogen and recycled CO<sub>2</sub> to produce eMethanol which can be used in the shipping and chemical industries or upgraded into other eFuels including eSAF. Johnson Matthey's technology is producing eMethanol today at the HIF Haru Oni Demonstration Plant in Chile.

Alberto Giovanzana, Chief Commercial Officer of Catalyst Technologies at Johnson Matthey, said: "We are very excited to be collaborating again with HIF, offering JM's CO<sub>2</sub>-to-methanol technology in this leading eFuels project. JM's sustained innovation on methanol process and catalyst technology is allowing us to move at scale and pace in one of the routes to eSAF that enables the transition to net zero."

The Honeywell UOP eFinishing™ technology converts eMethanol into eSAF by utilizing Honeywell's commercially proven methanol to olefins and oligomerization process.

"As the leader in renewable fuel technology, Honeywell is well aware that creating technologies that can use additional feedstocks is vital to long-term decarbonization of the aviation sector," said Lucian Boldea, president and CEO of Honeywell Performance Materials and Technologies. "The ability to partner with an industry leader like HIF Global to use readily abundant CO<sub>2</sub> to produce eSAF is a transformational opportunity for this market."

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1 Air passenger miles based on a Boeing 777-300ER airplane with all seats occupied, flying routes of 3,000 miles.

2 Reduced GHG emissions is based on UOP carbon intensity analysis, derived from a 3rd-party study of methanol production from green hydrogen and CO<sub>2</sub> captured from biomass processing, in comparison to fossil fuels.

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### **About Johnson Matthey**

Johnson Matthey is a global leader in sustainable technologies, catalysing the net zero transition. With over 200 years of sustained commitment to innovation and technological breakthroughs, we improve the performance, function and safety of our customers' products. Our science has a global impact in areas such as low emission transport, energy, chemical processing and making the most efficient use of the planet's natural resources. Today, about 13,000 Johnson Matthey professionals collaborate with our network of customers and partners to make a real difference to the world around us. For more information visit [www.matthey.com](http://www.matthey.com)

### **About HIF Global**

HIF Global is the world's leading eFuels company, developing projects to convert hydrogen using low cost renewable power into carbon neutral liquid eFuels that can be transported and utilized in existing infrastructure. The name HIF represents the mission of the company: to provide Highly Innovative Fuels to make decarbonization of the planet possible. HIF Chile, HIF USA, HIF Asia Pacific, and HIF EMEA are wholly owned subsidiaries of HIF Global. HIF Global started producing the first liters of synthetic Fuels from the Haru Oni Demonstration Facility in Magallanes, Chile in December 2022 and intends to begin construction of the commercial scale HIF Matagorda eFuels Facility in Texas in 2024. HIF Global's first Australian development, in Tasmania, was announced in July 2022. For more information, visit [www.hifglobal.com](http://www.hifglobal.com).

### **About Honeywell**

Honeywell delivers industry-specific solutions that include aerospace products and services; control technologies for buildings and industry; and performance materials globally. Our technologies help aircraft, buildings, manufacturing plants, supply chains, and workers become more connected to make our world smarter, safer, and more sustainable. For more news and information on Honeywell, visit <https://www.honeywell.com/us/en/news>

### **For further information**

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