LANZAJET MARKS MAJOR MILESTONE ON WORLD FIRST ETHANOL ALCOHOL-TO-JET SUSTAINABLE AVIATION FUEL PRODUCTION FACILITY

News / Manufacturer

LanzaJet, a leading sustainable fuels technology company and sustainable fuels producer, joined government officials, industry leaders, and investors to celebrate a major constructiond milestone at the LanzaJet Freedom Pines Fuels facility in Soperton, Georgia. LanzaJet Freedom Pines Fuels is the world's first ethanol-based alcohol-to-jet sustainable aviation fuel production plant. Construction will be completed in 2023 with commission and startup beginning next year. The plant will produce 10 million gallons of SAF and renewable diesel per year from ethanol, using a range of sustainable, low carbon intensity ethanol, including from waste-based feedstocks. LanzaJet Freedom Pines Fuels will approximately double the amount of current SAF production in the United States.

Jimmy Samartzis, LanzaJet CEO, commented: "Building a new industry and scaling new technology is exciting while at the same time challenging. We've enjoyed the privilege of

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partnering with incredible public and private sector leaders to support our work on this journey. Today, we celebrate the power of partnership to tackle climate change – the greatest challenge of our generation. Fabrication and construction of our novel process technology that converts ethanol into drop-in, replacement sustainable aviation fuel is completed, and installation has begun at site. This is a significant milestone on our journey and also for the development of the SAF industry."

LanzaJet was joined at the event by its shareholders International Airlines Group (IAG), LanzaTech, Mitsui & Co, Shell, and Suncor Energy, investors including Microsoft Climate Innovation Fund, Breakthrough Energy, and All Nippon Airways (ANA), and government representatives from the Federal Aviation Administration (FAA), the US Department of Energy (DOE), and the US Department of Agriculture (USDA) as well as representatives from the State of Georgia and local and county officials.

"I'm excited to see LanzaJet continue to soar ahead as they develop sustainable aviation fuel," said Senator Reverand Raphael Warnock. "I was proud that the Inflation Reduction Act, which is now law, enacted provisions from the AERO Act, a bill I introduced and championed to boost sustainable aviation fuel production and bring more clean energy jobs to Georgia. I've long believed our state has a bright future as we keep growing the green economy and I look forward to continuing my close partnership with LanzaJet."

As an industry, aviation contributes 2-3% of global greenhouse gas emissions from humans. SAF is the best near- mid- and long-term opportunity for the industry to decarbonize and achieve its net zero ambition by 2050. The SAF produced at LanzaJet Freedom Pines Fuels will help reduce aviation emissions tangibly and quickly, producing nine million gallons of SAF and one million gallons of diesel annually. LanzaJet is scaling this technology to much larger size capacity units including standard sizes that can be replicated and constructed quickly, as well as significantly larger capacities that can add significant production capacity globally.

"Together, we are showing the world that we can change how we procure, use, and dispose of carbon," said Jennifer Holmgren, CEO of LanzaTech and Chair of the LanzaJet Board. "We must be able to travel and see family and friends without compromising our values and our planet. We are showing the world that we can create domestic supplies of sustainable fuel, create secure supply chains, create new jobs, and support local industry. Freedom Pines Fuels highlights a way to harness local waste carbon and support a just energy transition for a better future for all. This facility is a foundation stone for a strong new SAF economy in the United States and the world."

The SAF produced at LanzaJet Freedom Pines Fuel will be compatible with existing aircraft currently in use around the world. Given the enormous cost and lengthy lifespan of commercial planes, a "drop-in" solution without aircraft or infrastructure changes makes it possible to transition

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away from current jet fuel more quickly and meet the United States Aviation Climate Action Plan's "SAF Grand Challenge" of 3 billion gallons of SAF by 2030 and sufficient SAF in 2050 to meet the industry's decarbonization goal of net zero emissions. LanzaJet has already made it an ambition to produce 1 billion gallons to support the US goal and is well on its way with projects throughout the US.

LanzaJet's alcohol-to-jet (ATJ), developed with the U.S Energy Department's Pacific Northwest National Laboratory (PNNL), technology is extremely versatile and capable of using low-carbon intensity, sustainable ethanol available in the market today from a variety of feedstocks such as agricultural waste, energy crops, and other plentiful sources. Additionally, LanzaJet Freedom Pines Fuels will spur further SAF innovation by establishing a new market for scalable ethanol from waste-based sources – as the facility is planning to fully transition to second-generation ethanol in the coming years as that production develops and supply chains mature.

LanzaJet Freedom Pines Fuels is expected to complete construction in 2023 and begin its commissioning and startup next year as well. Located in Treutlen County and less than 100 miles from Savannah, the Soperton plant will create 125 direct jobs over the construction phase of the process, and 31 direct and 25-50 indirect jobs during ongoing operations, and generate $5 million annually in estimated wages and benefits for the local economy.

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