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Technip Energies and LanzaTech to Collaborate on Breakthrough CO₂-to-Ethylene Technology

News

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Technip Energies and LanzaTech Global, Inc. signed a Joint Collaboration Agreement to create a new pathway to sustainable ethylene utilizing their combined technologies. Together LanzaTech's carbon capture and utilization technology with Technip Energies' Hummingbird® technology transform waste carbon into ethylene, the most common building block in petrochemicals.

Ethylene is a building block for thousands of chemicals and materials, including plastics, detergents, and coatings that keep hospitals sterile, people safe, and food fresh. Its traditional production process is also one of the largest sources of carbon dioxide emissions in the chemical industry and remains one of its most challenging processes to decarbonize. This new joint process uses carbon emissions as the starting point rather than virgin fossil carbon. First, up to 95% of the CO₂ in the flue gas is captured from the furnaces of an ethylene cracker and mixed with hydrogen. Next LanzaTech's biorecycling technology transforms the captured waste carbon into ethanol. Finally, Technip Energies' Hummingbird® technology dehydrates the ethanol to ethylene.

Technip Energies and LanzaTech have collaborated on other sustainable solutions since 2020, including a partnership with Borealis and On, the Swiss running shoe company, to make EVA foam for the sole of running shoes. Technip Energies also partners with LanzaJet, an independent company formed and spun off by LanzaTech, which includes the Hummingbird® technology in the LanzaJet™ Alcohol-to-Jet process which makes sustainable aviation fuel from ethanol.

Arnaud Pieton, CEO of Technip Energies, stated: *“We are very pleased to work with LanzaTech on another sustainable solution, this time to decarbonize ethylene. This breakthrough technology will not only capture carbon but will use it to make a valuable end product.”*

Dr. Jennifer Holmgren, CEO of LanzaTech, said: *“By combining and integrating our process with that of Technip Energies, we have the potential to retrofit onto ethylene crackers around the world, supporting decarbonization of a sector that has limited choices today. The sustainable production of one of the most used commodity chemicals will have an impact on the lives of billions of people daily. Through partnerships such as this one with Technip*



Energies, we are creating meaningful pathways to break free from virgin fossil inputs for the things we use in our daily lives.”

About Technip Energies

Technip Energies is a leading Engineering & Technology company for the energy transition, with leadership positions in Liquefied Natural Gas (LNG), hydrogen and ethylene as well as growing market positions in blue and green hydrogen, sustainable chemistry and CO₂ management. The company benefits from its robust project delivery model supported by extensive technology, products and services offering.

Operating in 35 countries, our 15,000 people are fully committed to bringing our client’s innovative projects to life, breaking boundaries to accelerate the energy transition for a better tomorrow.

Technip Energies is listed on Euronext Paris with American depositary receipts (“ADRs”). For further information:

www.technipenergies.com.

About LanzaTech

Headquartered in Skokie, IL, LanzaTech Global, Inc. (Nasdaq: LNZA) captures waste carbon and transforms it into materials such as sustainable fuels, fabrics, packaging, and other products. Using a variety of waste feedstocks, LanzaTech’s technology platform highlights a future where consumers are not dependent on virgin fossil feedstocks for everything in their daily lives. LanzaTech’s goal is to challenge and change the way the world uses carbon, enabling a new circular carbon economy where carbon is reused rather than wasted, skies and oceans are kept clean, and pollution becomes a thing of the past. For more



LanzaTech visit www.lanzatech.com.

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