New Commercial Carbon Capture and Mineralization Plant

Associated Press

Skyonic Corporation is hosting a groundbreaking event today at its Capitol SkyMine plant in San Antonio. Once fully operational in 2014, the plant, which is the first of its kind in the United States, is expected to capture 300,000 tons of CO2 annually through the direct capture of 75,000 tons and additional 225,000 tons that will be offset by the production of green products. The plant is expected to turn a profit within three years from the sale of the products including sodium bicarbonate, HCl, and bleach.

The commercial-scale plant will employ roughly 35 people and is expected to create more than 200 jobs through the plant's construction and on-going operations. "I applaud the Zachry Corporation and Skyonic for setting the standard with the first commercial carbon capture plant of its kind," Mayor Julian Castro said. "This project is another example of how San Antonio is becoming a leader in combining green technology and job creation."

Skyonic's electrolytic carbon capture technology, SkyMine@, will selectively capture CO2, acid gases and heavy metals from the flue gas of the Capitol Aggregates Cement Plant, where the plant will be retrofitted. The captured pollutants will be mineralized into products, including sodium bicarbonate, which are stored, transported and sold as safe, stable solids, eliminating many of the costs and concerns associated with other forms of carbon capture. The sodium bicarbonate, as well as the hydrochloric acid and bleach that is also produced, can be sold at a profit. By producing valuable products using low-cost chemical inputs and operating at energy-efficient conditions, CO2 can be captured at a low operating cost and industrial emitters can turn a profit from reduced emissions.

"Industrial manufacturing is a cornerstone of the global economy and we're doing our part to making the process more lucrative for industries and cleaner for the environment," said Joe Jones, founder and CEO of Skyonic. "Our partners and investors have played an important role in getting to this commercialization stage, and we're all looking forward to starting construction and making our first plant a stand-out success."

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