

Tzrik CO2

The goal is to capture CO2 from the atmosphere or from flue gas, and convert it into profitable products.

The technology can be implemented as a modular CCUS or a decentralized DAC, and this is performed by a machine that contains easily replaceable cartridges filled with a sodium-based solid material, which absorbs carbon dioxide from the air or flue gas, being moved by electric fan, and converted into carbonated material.

This special material inside the cartridge has a very large surface area, because of its porous nature, and is much safer to handle in comparison to common solutions which is liquid and corrosive due to the high alkalinity value.

The condition of the material is monitored by ESP32 microcontroller connected to sensors to get continuous reading of temperature, humidity and CO2 concentration, and sent to a database server stored in the cloud.

These readings will determine the appropriate time to replace the used cartridges for new cartridges with fresh material.

The carbonated material from the used cartridge is collected and combined during manufacturing of building products to lower their carbon footprint and to create profitable products such as boards, blocks or other building material that will be sold.