



TECHNOLOGY DESCRIPTION

Skytree's direct air capture (DAC) technology removes CO₂ directly from ambient air using proprietary sorbent materials and an energy-efficient desorption process. The high-purity CO₂ collected can be used on-site for various industrial applications, including: controlled environment agriculture (enhancing plant growth in greenhouses); water treatment (adjusting pH levels for efficient water purification); sustainable building materials; food and beverage (carbonation of drinks and packaging processes); and eFuels (producing synthetic fuels for sustainable transportation). The modular and scalable design ensures adaptability across diverse industrial sectors and varying CO₂ demands.



INNOVATIVE ASPECTS

- On-site production: Reduces dependency on transported CO₂, minimising logistics costs and carbon emissions
- High purity: Consistently delivers high purity gaseous CO₂ suitable for many applications
- Energy-efficient design: Optimised for minimal energy usage in capturing and processing CO₂
- Scalable deployment: Modular design allows customisation to meet specific industrial needs
- Liquefaction add-on: to deliver food grade CO₂ for the food and beverage market



TECHNOLOGY READINESS

TRL 9 (2025)

COUNTRY OF ORIGIN

Netherlands

LATEST UPDATE

03/2025

TAGS

#DirectAirCapture

#CarbonDioxide
Utilisation

#Sustainable
CarbonDioxide
Supply

#CarbonRecycling

#Industrial
Applications

#Circular
CarbonDioxide

APPLICATION AREAS

Agriculture

Energy

Food &
Beverages

Chemical Engineering
& Biotechnology

Life
Support

Robotics &
Automation

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