



# Update on DAC projects and market developments

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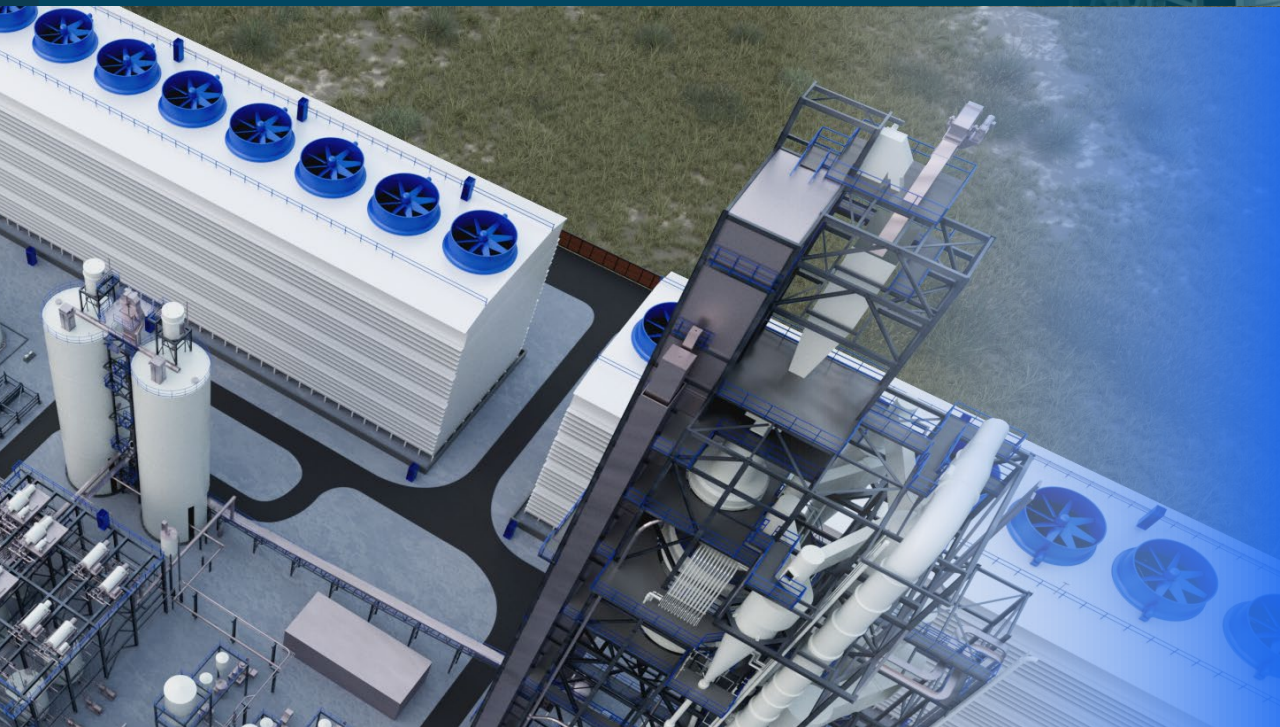
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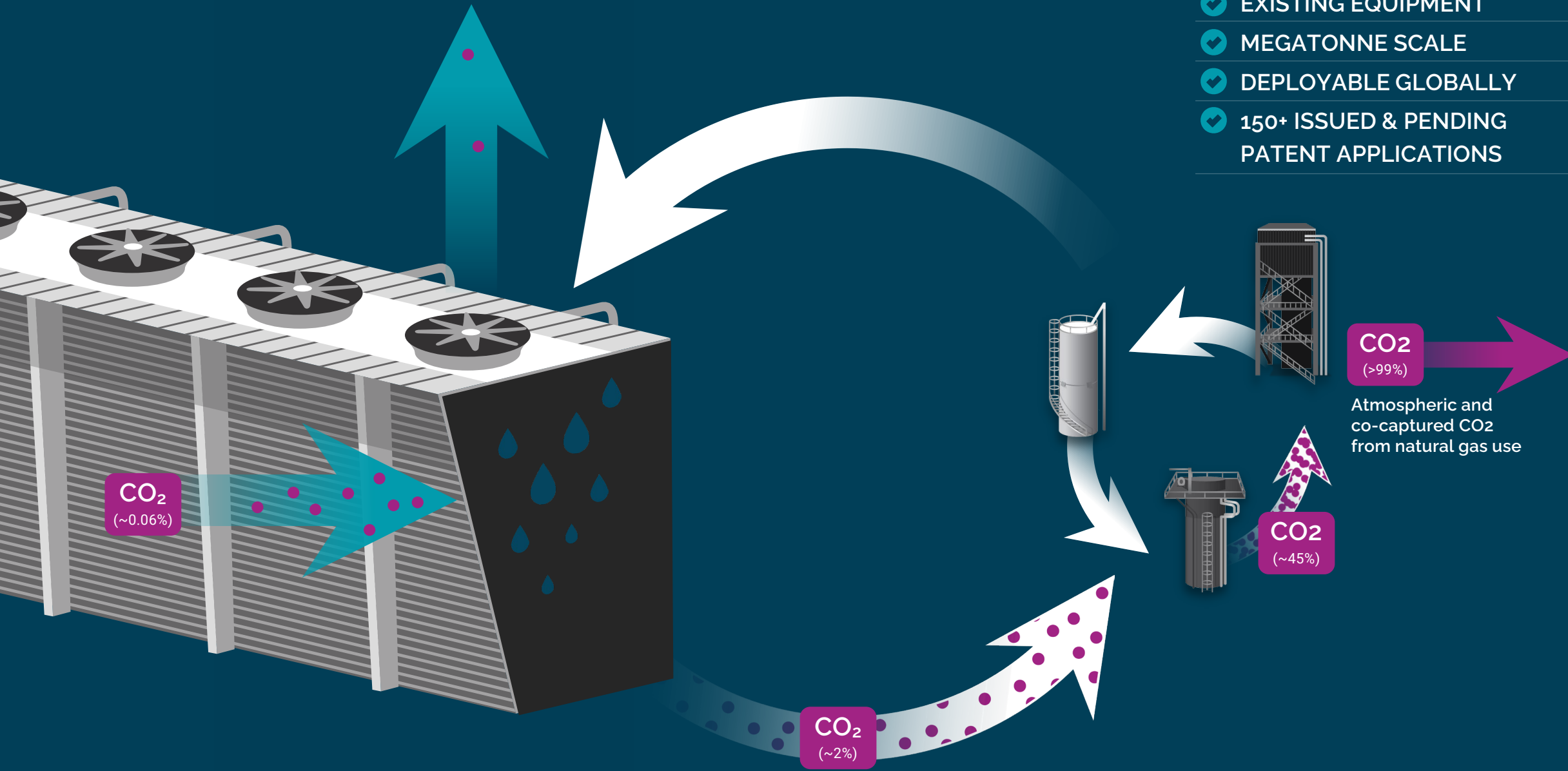
**Developing large-scale Direct  
Air Capture technology since  
2009.**



ZERO IN™



**Deploying Direct Air Capture  
at a climate-relevant scale.**



- ✓ CLOSED-LOOP
- ✓ EXISTING EQUIPMENT
- ✓ MEGATONNE SCALE
- ✓ DEPLOYABLE GLOBALLY
- ✓ 150+ ISSUED & PENDING PATENT APPLICATIONS

Percentages represent CO2 weight concentration

# Carbon Engineering's DAC technology



## PROVEN EQUIPMENT & PROCESSES

- Economic advantage
- Supply chain strength
- Improved scalability



## GLOBAL DEPLOYMENT

- Location agnostic
- Decoupled from emitter
- Strategic locations



## CONTINUOUS OPERATION

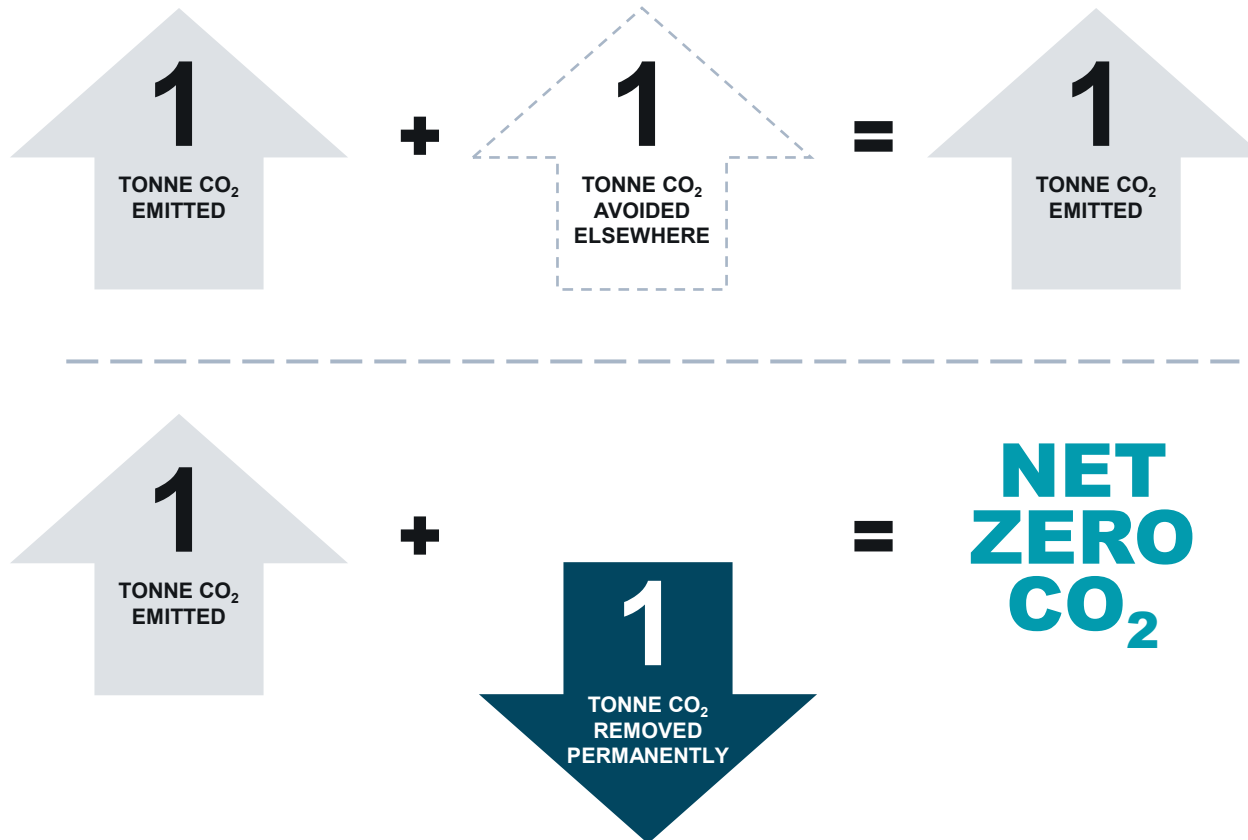
- Enables megaton scale



## CLOSED-LOOP

- Resource efficient
- Minimal waste



RESIDUAL CO<sub>2</sub>High-quality CO<sub>2</sub> removals to address residual emissions

CO<sub>2</sub> removal provides real climate benefit for a true net-zero compliant portfolio

# Why carbon removal from DAC?

## DURABLE

CO<sub>2</sub> captured from the air can be securely stored in the geosphere for 1000+ years, using proven technology we've mastered over decades of execution experience

## SCALABLE

DAC removals are more scalable than other engineered removals, and the technology can support large volumes of CO<sub>2</sub> removal from the atmosphere very quickly.



## MEASURABLE AND VERIFIABLE

DAC offers a unique ability to meter and monitor CO<sub>2</sub> to ensure every metric ton of CO<sub>2</sub> is accounted for and reported transparently.

## COMPLIANT

California's LCFS and legislation in Washington and British Columbia each explicitly recognize DAC credits as equivalent to reduced emissions fuels. No other CDR method has attained this level of policy acceptance.

# DAC development timeline

## PILOT PLANT

**BUILT 2015**

Piloted elements of CE's DAC technology.



## INNOVATION CENTRE

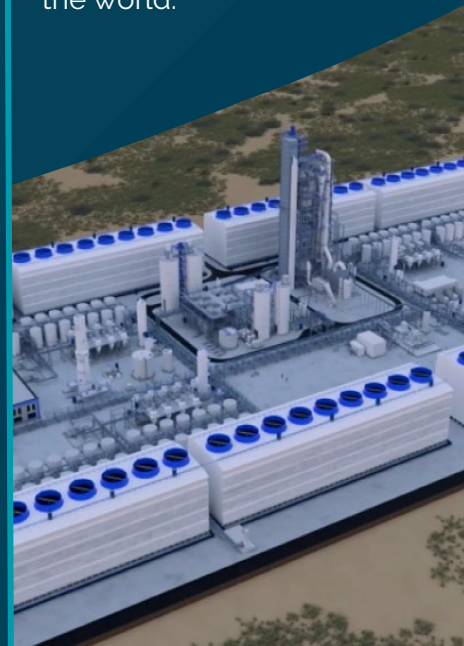
**BUILT 2021**

R&D platform for technological advancements to incorporate into commercial plants.



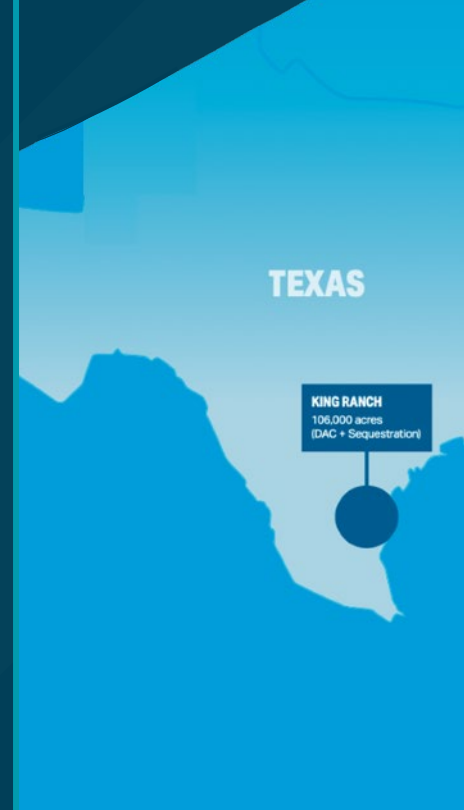
## STRATOS PERMIAN SITE CONSTRUCTION UNDERWAY

Expected to be largest in the world.



## SOUTH TEXAS DAC HUB ENGINEERING UNDERWAY

Site enables potential for 30 MTPA DAC



## GLOBAL DEPLOYMENT

Advancing feasibility studies and plant designs in other locations across the globe





# Commercial Projects

## STRATOS

- Nameplate Capacity – up to 500kt/year
- Operational Start – Targeting Mid-2025
- BlackRock investing \$550MM
- EPA released Class VI well draft permit released for review

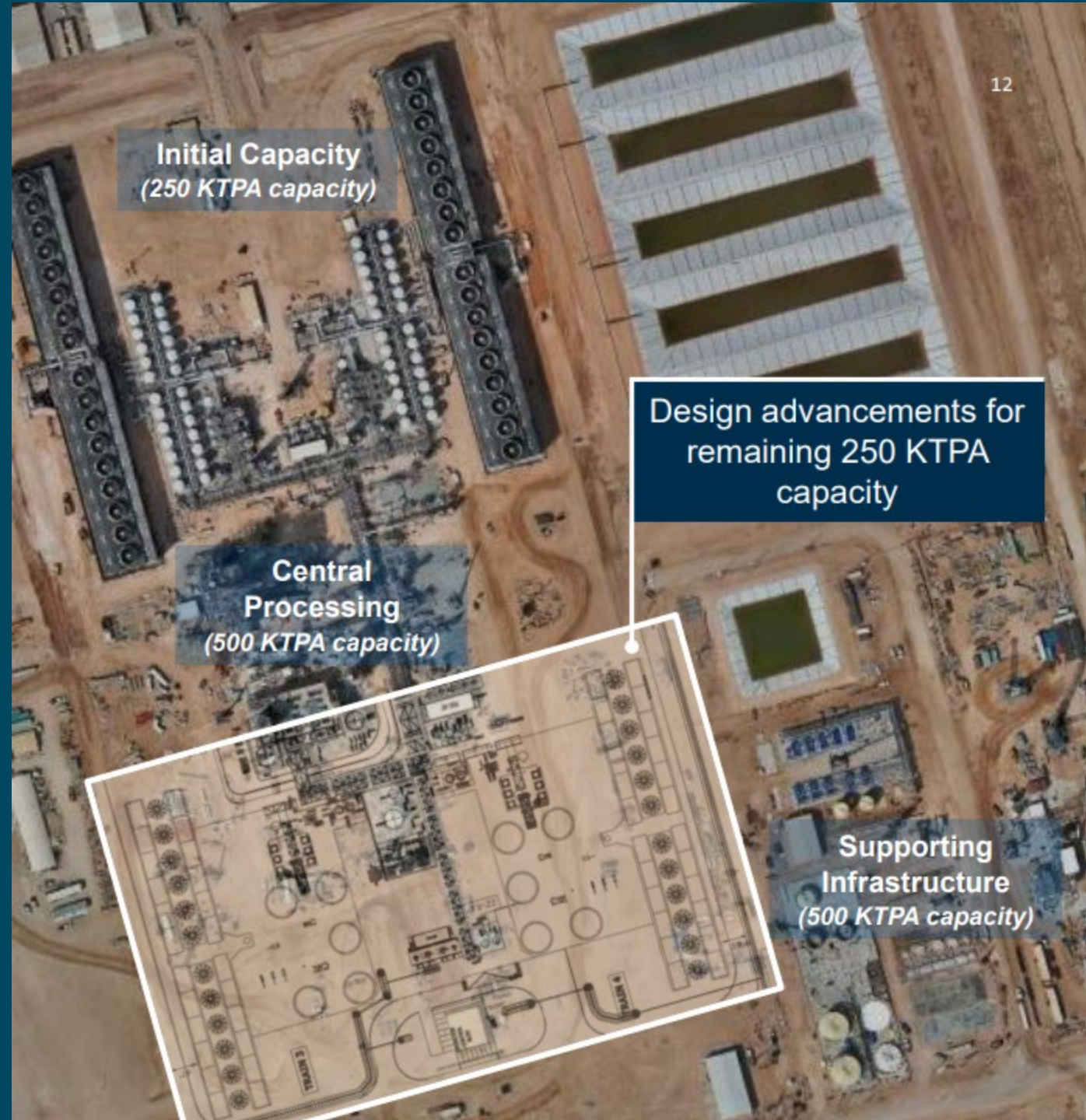
## SOUTH TEXAS DAC HUB

- Recipient of U.S. DOE DAC Hubs Program grant
  - Initial Award - \$50M | up to \$500M+ available
- FEED underway
- Stratigraphic well testing in progress
- 500kt train under development, plans for 1Mt+
- Land and sequestration potential for 30Mt/year



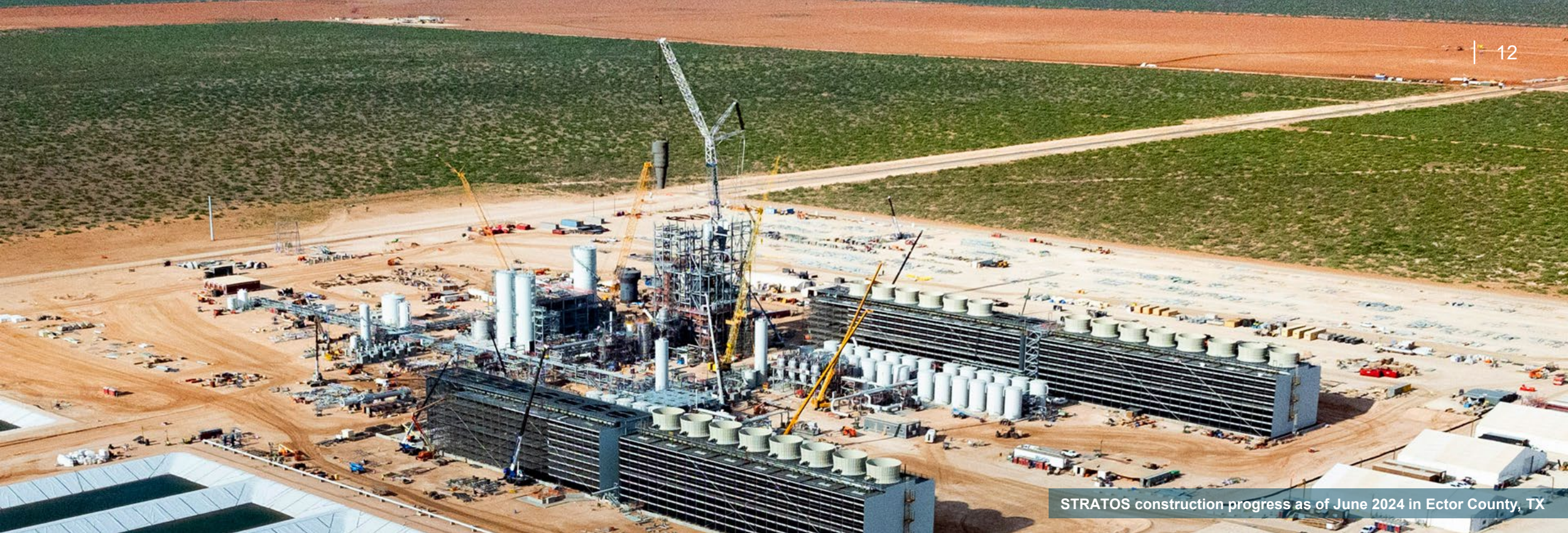
# STRATOS

- Commercial operations targeting mid-2025
- Construction underway to complete central processing and supporting infrastructure for full 500 KTPA ahead of commissioning
- Phased build-out to leverage key technology advancements, including optimized designs enabling:
  - ◆ ~30% reduction of air contactors
  - ◆ 5 large pellet reactors per train vs. 26 small
- Remaining 250 KTPA capacity expected operational mid-2026
- BlackRock investing \$550M through managed fund
- Class VI well permit draft issued by EPA for public comment (comment period now closed)



# STRATOS





STRATOS construction progress as of June 2024 in Ector County, TX

# LEADERS TAKING ACTION



Over the last 24 months critical partners have joined 1PointFive to accelerate DAC

1

**March 2022**

400,000 tonnes of CDR (Carbon Dioxide Removal)

**AIRBUS**

2

**July 2022**

Airbus announced a CDR collaboration with seven other airlines (and airline groups)

**AIRFRANCE**

virgin atlantic

**easyJet**

**LATAM**

**IAG** INTERNATIONAL AIRLINES GROUP

3

**November 2022**

Carbon Engineering announced significant R&D investments by Airbus and Air Canada

**AIRBUS**

 **AIR CANADA**

4

**August 2023**

First airline to directly purchase CDR

**ANA**

5

**Autumn 2023**

Amazon agreed to purchase 250,000 tonnes CDR

easyJet, Air Canada, and Lufthansa announced purchase of 1PointFive CDRs via Airbus

**amazon**

**easyJet**

 **AIR CANADA**

 **Lufthansa**

6

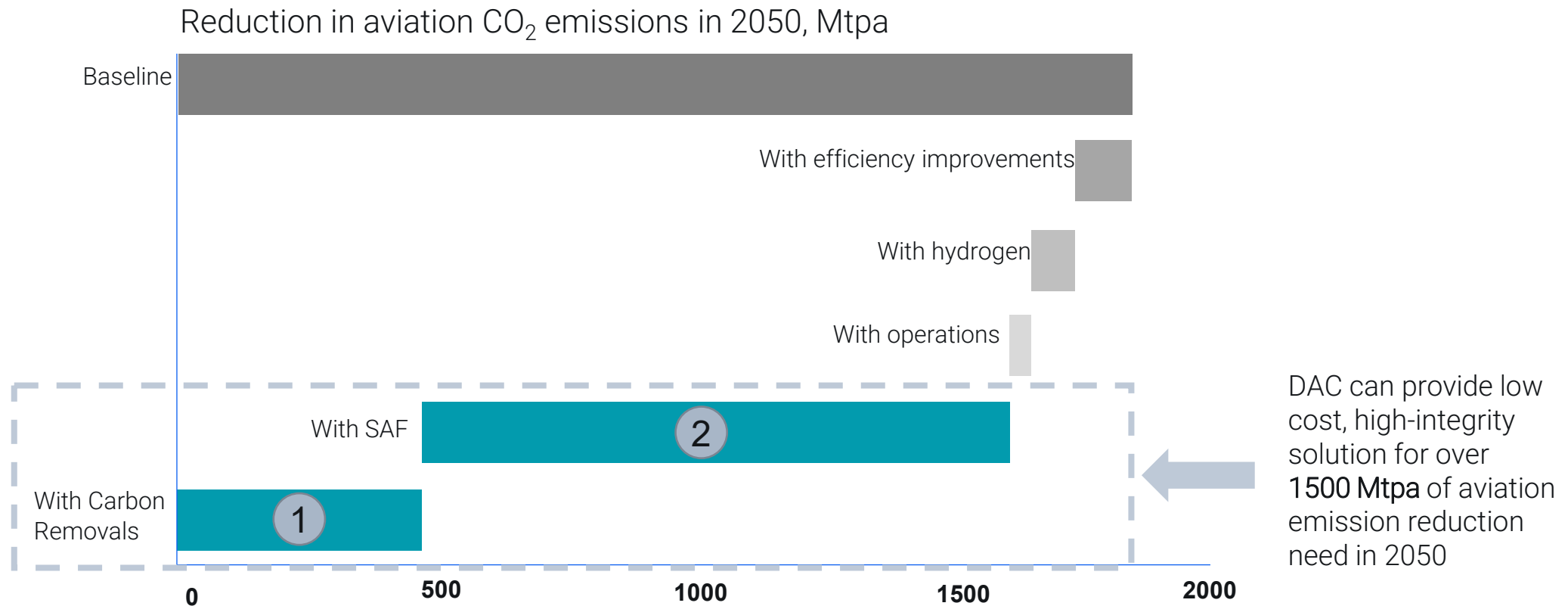
**July 2024**

Microsoft agreed to purchase 500,000 tonnes CDR – the largest DAC CDR purchase to-date

 **Microsoft**

# DAC + S in aviation:

- 1 Removes residual emissions
- 2 Provides lower cost solution to augment SAF



# Policy is fundamental to achieve climate relevant CDR volumes

## **Supportive policies for DAC/CDR are needed to:**

- Scale durable CDR markets to the estimated needs by mid-century
- Value the measurable, immediate, and long duration carbon removal that DAC provides
- Create climate investment and viable long-term markets
- Create jobs and transition opportunities

## **Examples include policies for:**

- Market creation (e.g. direct procurement; low carbon fuel standards; CORSIA)
- Project development support (e.g. output-based subsidies; tax credits; project-based support)
- Market facilitation (e.g. CO<sub>2</sub> storage protocols; capacity objectives, market linkage)

**Jurisdictions with supportive policy environments are catalyzing project investment**





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