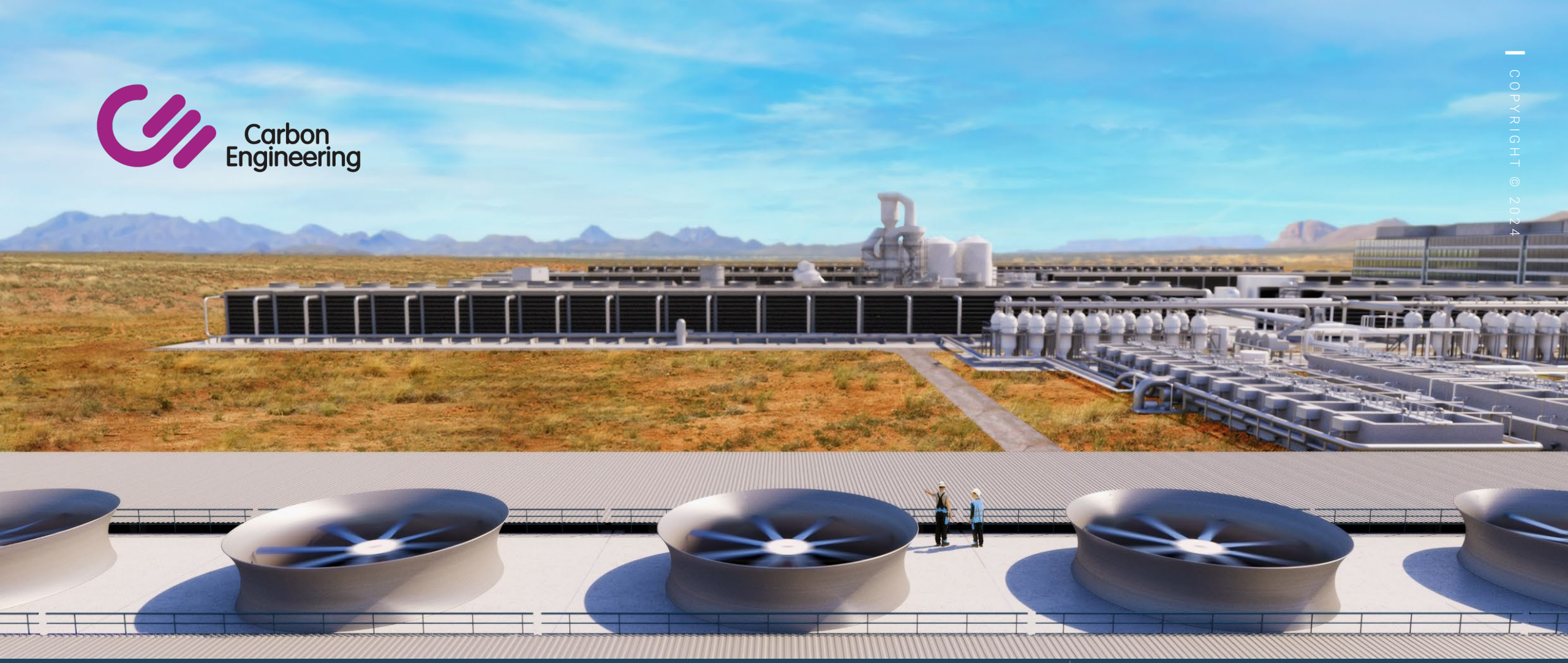


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Commercial-scale Direct Air Capture

Technology, projects and policy to support cost-effective net zero

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DATE
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Why are we here? The need for true net zero.

What is net zero?

NET ZERO EMISSIONS –

"Net zero emissions are achieved when anthropogenic emissions of GHG to the atmosphere are balanced by anthropogenic removals over a specific period."

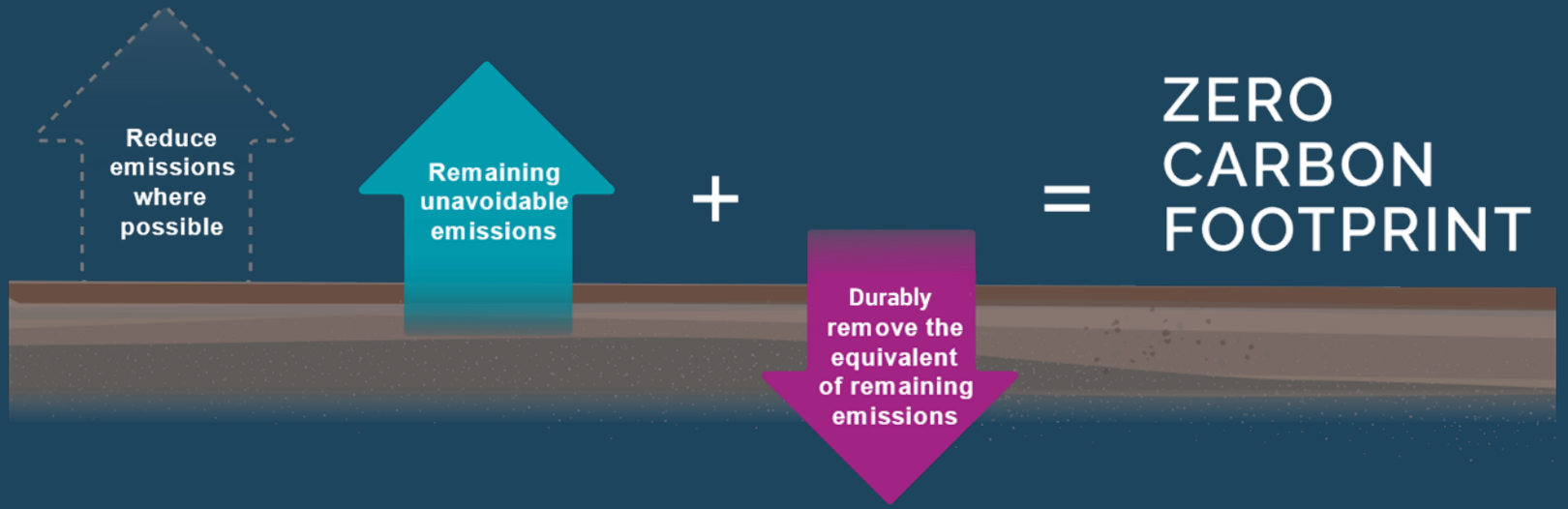
Intergovernmental Panel on Climate Change (IPCC), SR15 Global Warming of 1.5˚C

What is carbon dioxide removal?

CARBON DIOXIDE REMOVAL (CDR) –

"Anthropogenic activities removing CO_2 from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products. It includes existing and potential anthropogenic enhancement of biological or geochemical sinks and direct air capture and storage but excludes natural CO_2 uptake not directly caused by human activities."

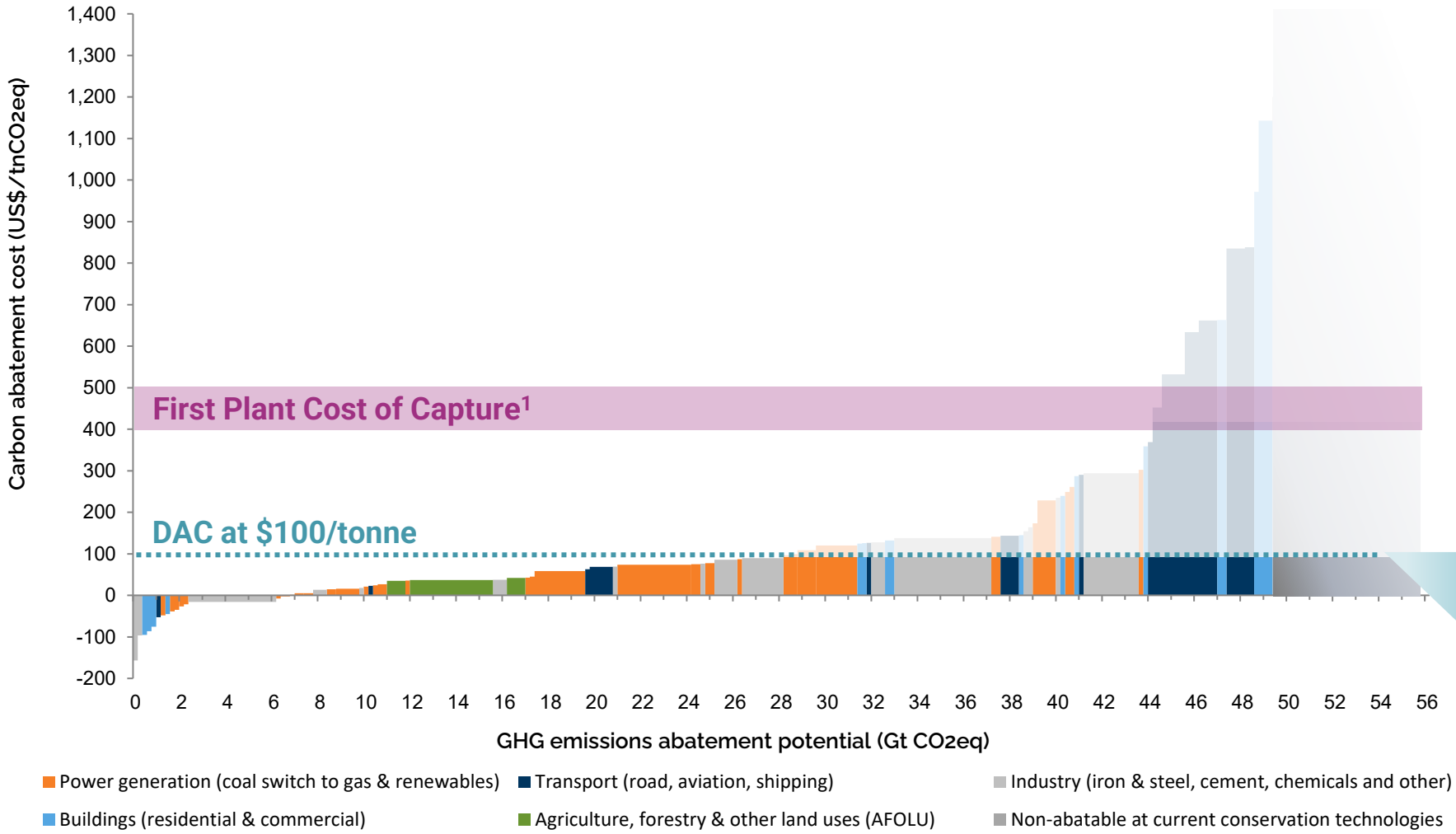
IPCC, SR15 Global Warming of 1.5˚C



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DAC can cap the cost of decarbonization

DAC provides an economic solution for distributed & hard to abate emissions



~10 Gt/yr

Emissions with abatement cost >$400/tonne

>20 Gt/yr

Emissions with abatement cost >$100/tonne

$Trillions/yr

Potential cost advantage over alternative solutions to achieve Net Zero

<$100/tonne

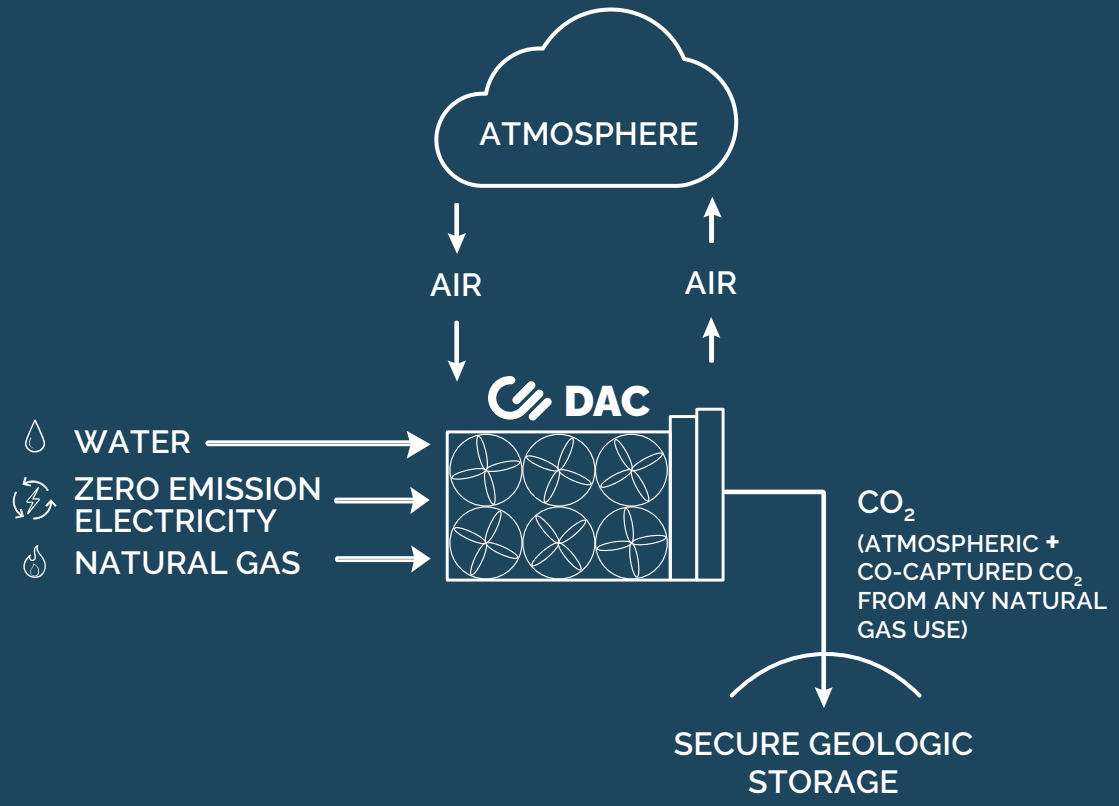
US DOE 'Carbon Negative Shot' stated long-term program goal

[1] First Plant Cost of Capture as reported on November 8, 2023 – Oxy Third Quarter Earnings Call. Cost of Capture includes capital, operating expenses, transports and storage costs and excludes cost of financing.

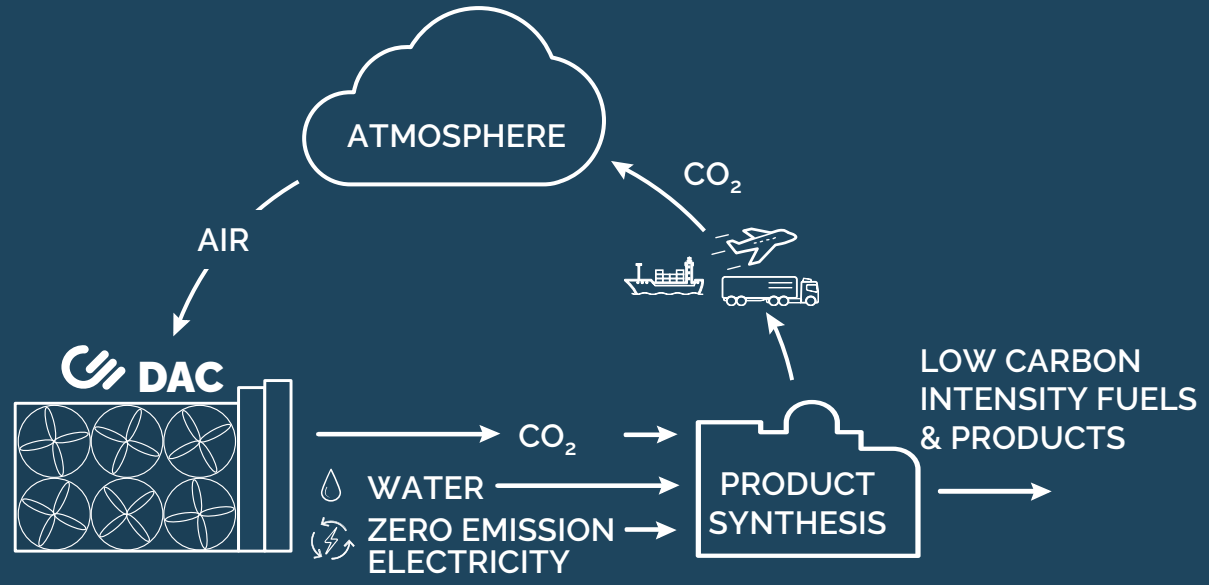
Carbon abatement costs based on currently available solutions; data from Goldman Sachs, Carbonomics, November 2023

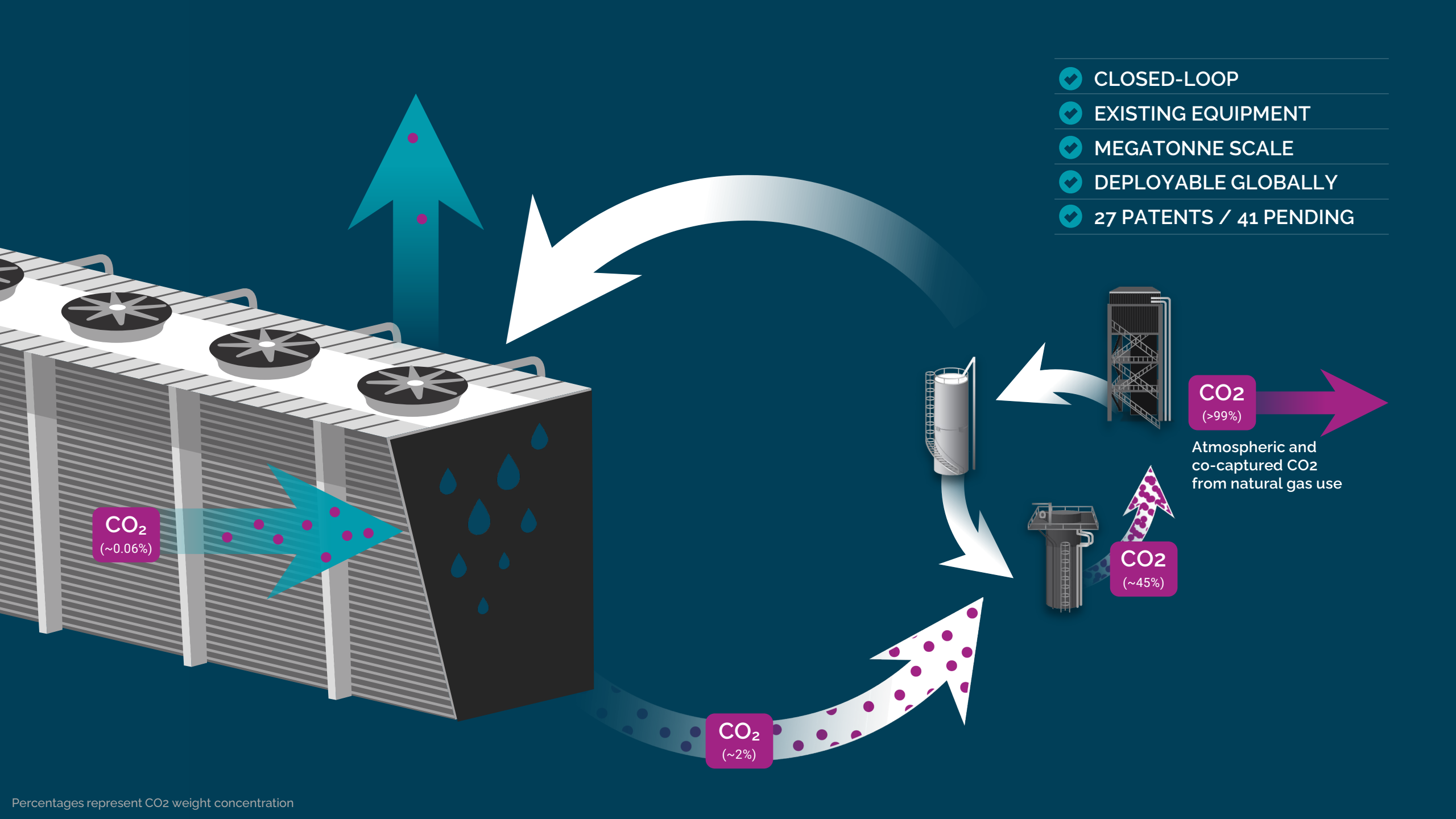
CE DAC enables complementary solutions for reduction and removal

CARBON DIOXIDE REMOVAL



LOW CARBON INTENSITY FUELS & PRODUCTS





Percentages represent CO_2 weight concentration

Why carbon removal from DAC?

DURABLE

CO_2 captured from the air is securely stored in the geosphere for **1000+ years,** using **proven technology** we've mastered over decades of execution experience



MEASURABLE AND VERIFIABLE

CO_2 removal via DAC can be measured, monitored and verified for transparent accounting

SCALABLE

DAC removals are **more scalable** and **more affordable** than SAF and other removals, given there are virtually **no feedstock constraints**

COMPLIANT

Working with ICAO and Voluntary Carbon Registries to ensure 1PF CDRs will be Eligible Emissions Units (EEUs) under CORSIA

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Large scale deployment underway

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



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Carbon Engineering's Innovation Centre

- A **dedicated DAC R&D facility** enabling **rapid iteration**, continued optimization and innovation for insertion into commercial facilities worldwide
- Built in 2021, the CEIC is currently supporting design and engineering for commercial facilities that utilize CE's technology
- Run-replace-run operating mode



Carbon Engineering

STRATOS

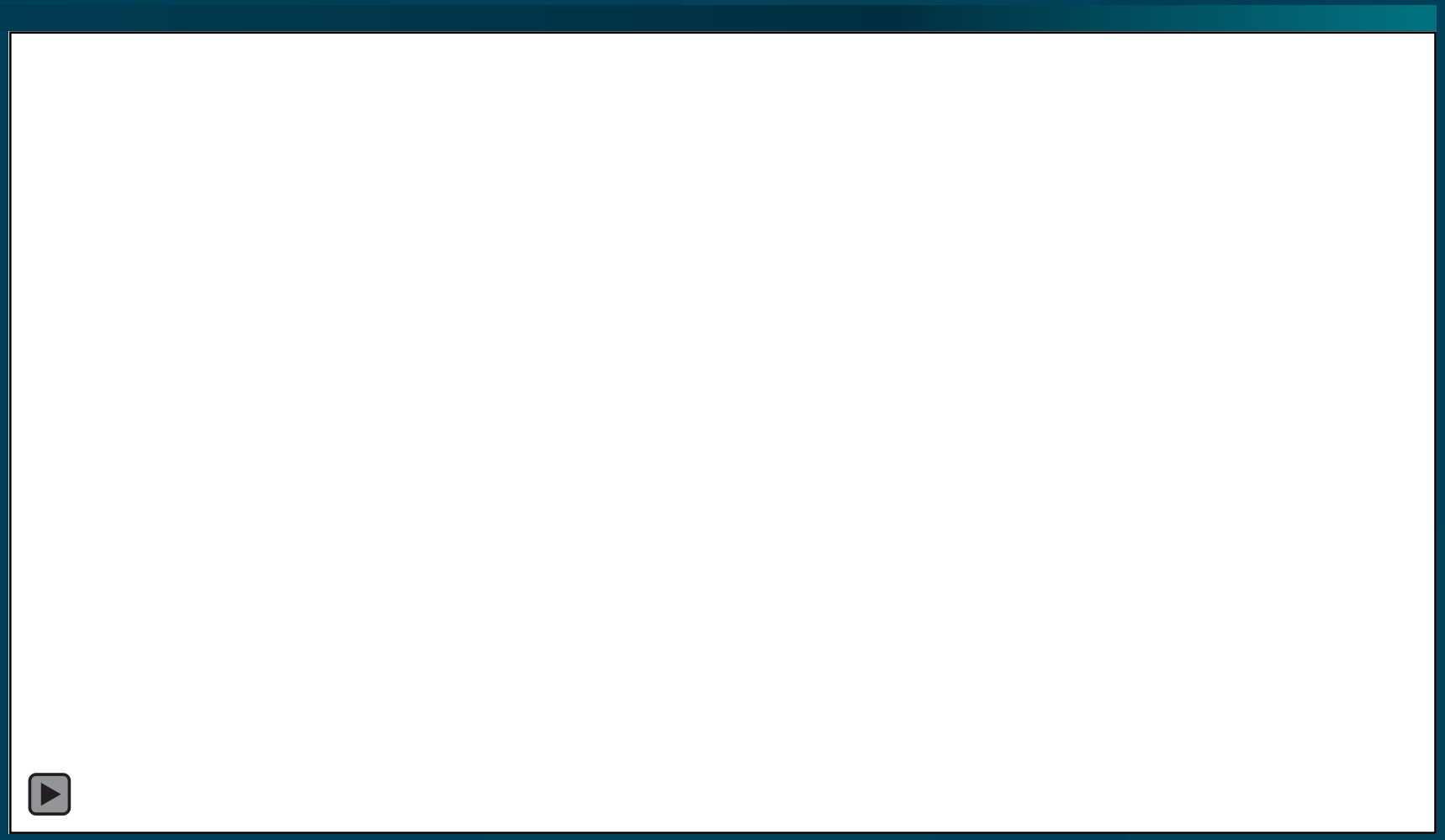
- Permian Basin, Texas, US
- Expected to capture **500kt/year** when fully operational
- Site prep and early construction started Q3 2022
- Commercial operations targeting mid-2025



STRATOS, THE FIRST COMMERCIAL SCALE PLANT TO USE CE DAC, IS UNDER CONSTRUCTION BY 1POINTFIVE

1PointFive is building the world's largest DAC facility

Designed to capture up to 500,000 tonnes of CO_2 annually once fully operational



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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:

- Market creation policies (e.g. low carbon fuel standards; direct procurement; CORSIA)
- Financial support policies (e.g. output-based subsidies; tax credits; project-based support)
- Market facilitation policies (e.g. CO_2 storage protocols; capacity objectives, market linkage)

Jurisdictions with supportive policy environments are catalyzing project investment

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THANK YOU

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