The DAC Dispatch



Welcome to The DAC Dispatch, the monthly newsletter from the DAC Coalition, keeping you up-to-date with the evolution of all things DAC

FEBRUARY 2025

In a month dominated by headlines of reshuffling in the U.S. Department of Energy, the European scientific community came to a consensus on the needs and requirements for scaling up CDR across the continent with the publication of a new European Scientific Advisory Board on Climate Change report.

Globally, Kenya's burgeoning DAC industry received a resounding boost with the arrival of Sirona Technologies' Project Jacaranda, the country's second facility, colocated at the site of Cella's mineralization well. In the same month, Octavia Carbon secured a multi-year agreement with Swiss giant, SIX.

The DACCS average weighted price dropped by 54% compared to last year (according to CDR.fyi). Breakthroughs in innovation and rapid deployment remain the key drivers of this cost reduction. Additionally, large off-take agreements—such as the one between United Airlines Ventures and Heirloom—highlight growing sector-specific interest in DAC.

Finally, we are less than three weeks away from the 2nd <u>Global Direct Air Capture</u> <u>Conference</u>. Don't miss out on this year's marquee event for our sector!

We look forward to welcoming you all to New York next month.



UNDER THREE WEEKS TO GO!





New Partner Announcement

Welcoming the **Center for Climate** and **Energy Solutions (C2ES)** as the latest conference partner.

A world-leading environmental nonprofit for over 25 years, <u>C2ES</u> forges practical and innovative solutions to address climate change and engages with leading businesses to accelerate progress.

Secure your spot today and get a chance to be one of 10 registrants to win Leybold's custom DACVAC Lego Kit!!



Registration



MARKET UPDATES

Phlair (previously Carbon Atlantis) <u>secured a \$30.7m offtake</u> from **Frontier buyers**, removing a total of 47,000 tonnes between 2027-2030

<u>Project Jacaranda</u>, a joint facility between **Sirona Technologies** and **Cella**, started operations in Naivasha, Kenya, with an initial target capacity of 300 tpa.

The Sustainable Flight Fund, an initiative of United Airlines Ventures focusing on aviation decarbonization, has <u>announced an equity investment</u> into **Heirloom** in addition to securing the right to buy 500,000 tonnes to support both SAF production and permanent carbon removal.

Climeworks and **TikTok** agreed to remove 5,100 tonnes through Climeworks' Portfolio Solutions. Climeworks also <u>signed an agreement</u> with British rum producer, **Two Drifters**, to remove 1,067 tonnes.

44.01 raised an <u>additional \$5m</u> top-up bringing the total for their Series A to \$42m to pursue carbon mineralization in Oman.

Carbonfuture and **SIX**, a Swiss financial services conglomerate, <u>announced a multi-year purchase agreement</u> from **Octavia Carbon**.

Clean Air Task Force has created <u>a new tool</u> for analyzing DAC life cycle analysis (DAC-LAT) allowing companies to understand the carbon intensity of

their operations using a variety of inputs including heat/electricity source, geographical energy price, and DAC sorbent/solvent.

Frontier Climate opened up their 5th round of CDR pre-purchases. With regards to DAC there is specific interest in companies who use "energy efficiently and flexibly to minimize grid emissions or are paired with mineralization approaches to hedge against near-term geologic storage constraints". Apply here.

The Government of Canada released its draft protocol for DACCS.

CarbonGap launched the <u>Policy Tracker 2.0</u> which includes the first centralized database of available European public funds available to CDR.

Altitude, a company working on the scaling-up CDR has <u>launched</u> **Ascent 1**, a CDR procurement vehicle with a commitment to purchasing 50,000 tonnes of high quality durable CDR.

CDR.fyi published its annual <u>Year in Review</u> complete with trends on but not limited to growth, investment, deliveries, purchases, and new entrants complemented by over 40 infographics.

The National Wildlife Foundation and Institute of Responsible Carbon Removal are now accepting applications for their 2025 Carbon Removal Justice Fellows Program.

The **UN Environmental Program's Finance Initiative** has invited asset managers to share information on their investment vehicles for carbon dioxide removal as part of the **Net-Zero Asset Owner Alliance** (a consortium of 88 institutional investors committed to transitioning their portfolio towards Net-Zero)

Science-based Target Initiative (SBTI) launched a <u>Call for Experts</u> in five working group areas including carbon removals, to redefine the Corporate Net-Zero Standard with the setting of interim CDR targets a key focus area.

Open Funding Calls + Deadlines

7th March - Net-Zero Asset Owners Alliance RFI - UN Environmental Program (Finance Initiative)

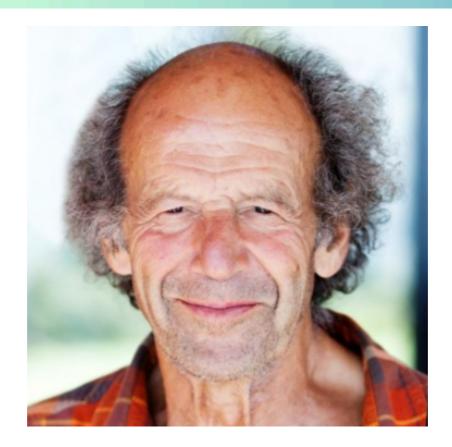
28th March - Public consultation of DACCS protocol - Government of Canada

4th April - Fellowship Application - National Wildlife Foundation and Institute of

25th April - Grant Application - Swiss Climate and Innovation Act (KIG)

31st May - RfP for CDR pilots in Kenya - Tencent CarbonX 2.0 Programme





The DAC Coalition team is sad to announce the recent passing of the pioneering DAC inventor and passionate advocate, Dr. Peter Eisenberger. Dr. Eisenberger co-founded one of the original DAC companies, Global Thermostat, way back in 2007 and developed and patented a number of key technological innovations in the field, drawing on his decades of experience exploring how materials and surfaces interact as a solid-state physicist. After Peter received his PhD in Physics from Harvard, he went on to direct significant basic and applied material science efforts at both Bell Labs and Exxon before entering academia. He taught at both Princeton and Columbia, where he was the founding Director of the Columbia Earth Institute. Peter was inspired in his work on DAC by, and actively sought to engage with, several other early pioneers and fellow travelers in our sector, including Dr. Klaus Lackner, Dr.

David Keith, Dr. Chris Jones, Drs. Christoph Gebald, and Jan Wurzbacher, among many others. He was also incredibly gratified to see so many new innovators and entrepreneurs enter the space with their own exciting ideas in recent years.

More than anything else, Peter Eisenberger was a tireless promoter of several core tenets: the belief that DAC could and should not only help save the planet, but make people's lives better too, by delivering economic benefits in an equitable way that advances human development; the idea that we must be willing to radically collaborate, in sometimes uncomfortable ways, across organizational, sectoral, and perspective boundaries (including political boundaries) in order to scale DAC; and the firm conviction that true mobilization of society's resources in support of DAC was both possible and necessary to address climate change in the limited time we have.

Not surprisingly, these are beliefs we share at the DAC Coalition, an organization dedicated to multi-stakeholder collaboration in support of DAC that he did so much to inspire, and that his son and long-time professional collaborator, Nicholas Eisenberger, co-founded and Chairs. We know that these are beliefs that so many of you share too, so we are relating the news about Dr. Eisenberger's passing in the hope that his journey helps fuel each of your and our community's ongoing journeys, especially in these rapidly evolving and sometimes challenging times. So let's continue to spread Peter's positive message and urgent call to action, so we can successfully scale DAC and heal the planet!



FEBRUARY'S MUST READ



Scaling up carbon dioxide removals

Recommendations for navigating opportunities and risks in the EU



Scaling up carbon dioxide removals – Recommendations for navigating opportunities and risks in the EU

European Scientific Advisory Board on Climate Change

A long-awaited 333 page report that provides a science-backed mandate for carbon removals in the European Union divided into three parts:

- Need, potential, opportunities and risks associated with carbon dioxide removals in the EU
- 2. Key functions of EU governance frameworks of carbon removals
- 3. Policy instruments: a dynamic approach to integrating removals into the EU's climate policy framework

Distilled and brief recommendations from the report include:

- Separate legal targets for emissions, temporary removals from land and permanent removal from novel methods
- Integrating permanent removals into the EU Emissions Trading System
- New pricing instruments to reward land managers for removing carbon and to price emissions in the land sector

DACC Reports Library



PICTURE THIS!

Pricing Change | 2023 - 2024

Weighted Average Price per Tonne

Method	2023	2024	Change ▼
Mineralization	\$370	\$827	123%
Biochar	\$140	\$165	18%
Enhanced Weathering	\$370	\$308	-17%
Other BiCRS	\$480	\$384	-20%
BECCS	\$300	\$227	-24%
DACCS	\$692	\$316	-54%
mCDR	\$1,510	\$457	-70%

Average Year-on-Year Price Change Across Different CDR Methods

CDR.fyi - 2024 Year in Review





Project Jacaranda Launch Event

Naivasha, Kenya

Aaron Benjamin, our EMEA Lead was in Kenya to witness the launch of Project Jacaranda, a pilot project between Sirona Technologies (DAC technology) and Cella (CO2 mineralization). When at full capacity Project Jacaranda will aim to capture 500tpa depending on initial mineralization results from Cella.

Check out the launch video here!









Invest in Carbon Removals

A new initiative spearheaded by **Negative Emissions Platform** aims to cultivate and mobilize the investment community around CDR with a series of online and in person events in major financial centers. The DAC Coalition is proud to be among the founding partners.



















*Clima Now











1. ACADEMIC PAPER: <u>Carbon removal efficiency and energy requirement of engineered carbon removal technologies</u>

(Sanchez et al 2025, RSC Sustainability)

2. ARTICLE: Article 6 and its potential role in scaling carbon dioxide removal

(Wil Burns, Illuminem)

3. ARTICLE: Why The Government Of Canada's New Direct Air Capture Protocol Is A Climate Game-Changer

(Phil de Luna, Forbes)

4. ARTICLE: Catalytic carbon removal purchasing: Milkywire's strategy

(Robert Hoglund, Milkywire)







Third Derivate's First Gigaton Captured Cohort 23-2:

Congratulations to DACC members **Airhive**, **Capture6**, **Cella**, **EDAC Labs**, **and Repair** on graduating from the 18month accelerator.

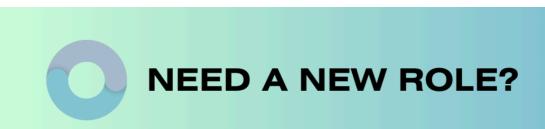
Climeworks announced a partnership with materials giant Avantium R&D Solutions, who will provide the DAC company with adsorption testing units to increase the effectiveness of new sorbent testing.

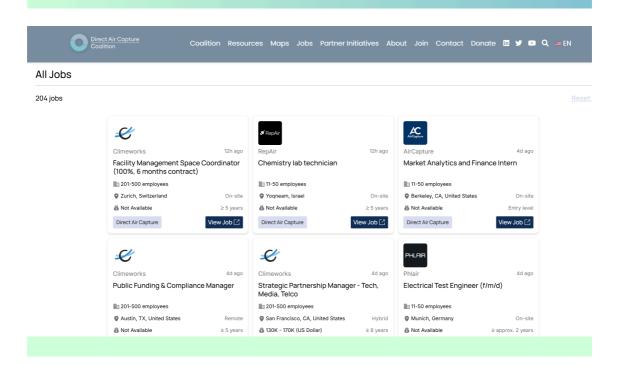


carbonCure and MIT's Masic Lab entered into a research partnership to explore and test carbon mineralization in concrete.



Congratulations to **NeoCarbon** alongside partners, **Carbonaide** <u>successfully mineralized</u> its first batch of CO2 in concrete. NeoCarbon states that 140 kg of CO2 is needed for the production of each m³ of concrete.





More than 200 DAC jobs are available through our new platform, which consolidates all active vacancies from our members. Use filters to search by **Technology Vertical, Remote Options, Seniority, Contract Type,** and **Company Size**.

Check out some of the latest jobs posted:

- 1. <u>Director of Project Management</u> (Capture6, Hybrid, California)
- 2. <u>Technical Manager- Enterprise Solutions NA</u> (**Skytree**, Hybrid, Canada)
- 3. Mechanical Engineer (Yama, Paris, France)
- 4. <u>Strategic Partnerships Manager Finance and Professional</u>
 <u>Services</u> (Climeworks, New York)

DAC Jobs Board



EVENTS

2024-25 Community DAC Workshop Series

Advancing Direct Air Capture (DAC) for Community Benefit and Climate Action



Georgia Tech's DAC Workshop Series

Online and In-person

- Regulating Carbon Dioxide Removal: Governance Structures& Implications for Local Communities - Thursday, March 13, 8:30 AM - 1:00 PM EST (inperson/hybrid)
- Carbon Dioxide (CO2) Underground Storage: Technology, Uncertainties & Risks - Tuesday, April 1, 2:00 - 4:30 PM EST (virtual)
- 3. Community Collaboration & Governance: Challenges & Opportunities with DAC & Other Large Clean Energy Infrastructure Projects Monday, April 21, 2:00 4:30 PM EST (virtual)
- Reflect Together & Crowdsource Key Takeaways Thursday, May 22, 1:00 3:00
 PM EST (virtual)

Registration, here.





Direct Air Capture: Climate Solution or Climate Distraction

March 20th San Francisco, California

This panel discussion will explore the feasibility of DAC scale-up with particular attention to:

- Technical Hurdles: Energy use, engineering challenges and limitations
- Economic Feasibility: The costeffectiveness of technology for carbon removal or use
- Policy and Industry
 Collaboration: The role of government and business in scaling DAC

Invest in Carbon Removals Online Roadshow

March 13th and March 27th
Online

A set of online webinars targeted at the world of CDR financing, Invest in Carbon Removal is a new initiative supported by CDR's leading ecosystem builders.

The agenda will cover:

- Next-generation carbon removal
- Policy & market intelligence including exclusive insights into policy, regulatory, market prospects crucial for investors.

Speakers include: Adrian Coreless (Carbon Capture), Gregory Maidment (DeepSky) and Matt Eggers (Prelude Ventures)

Registration, here.

3. First-mover investor insights alongside portfolio strategies, risk mitigation, and opportunities for growth.

Exclusive investor networking events in London, Frankfurt, Zurich, Paris, and beyond will follow.

Registration, here.

Support the DAC Coalition









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