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.

September 2023

Those of you that read the Dispatch regularly know that each month we highlight the historic nature of DAC announcements, and once again we are excited to say September has been a month that will go down in the DAC history books.

Amazon and Microsoft signalled their commitment to direct air capture with two large purchases from CarbonCapture and Heirloom, respectively. New York Climate Week proved once again to be an essential date for your climate calendars with the oversubscribed Puro. Earth CDR Summit, Climeworks announcing their intentions for Kenya, and Open Air Collective concluding the final of the inaugural Carbon Removal Challenge. The inaugural Africa Climate Summit affirmed the role Africa can play in building a significant carbon removal industry and we secured an exciting roster of speakers for our inaugural Global Direct Air Capture Conference October 16-17.



Conference Updates

2023 Global Direct Air Capture Conference

October 16-17 Columbia University

New Speakers Announced



Dr. Klaus Lackner Professor & Founding Director, Center for Negative Carbon



Dr. Jane Flegal Market Development & Policy Lead, Stripe Climate & Frontier



Doreen Harris
President & CEO,



Dr. Holly Jean Buck Assistant Professor, University at Buffalo



Andrew Kamau Managing Director Energy Opportunity



Dr. Jennifer Wilcox
Principal Deputy Assistant Secretary,
Department of Energy, Office of Fossil
Energy & Carbon Management



Brian DiMarino Managing Director and Head of Operational Sustainability JPMorgan Chase



Dr. Edda Aradóttir CEO & Carbon Disposer Carbfix & Reykjavik



Julie Gosalvez

CMO

Climowarks



Cody Evans Director, Catalyst Team Breakthrough Energy



Dr. Chris Bataille Adjunct Research Fellow Center for Global Energy Policy



Shashank Samalo CEO Heirloom





CARBONTECH
DEVELOPMENT
INITIATIVE



Register Now



Coalition Updates

ADAC Companies

Jeevan Climate Solutions
Carbon Atlantis
LowCarbon
Holocene Climate

Ecosystem Companies

<u>Deep Sky</u> <u>Leybold</u>

2
Stakeholder Partners

Carbontech Development Initiative
University of Illinois Sustainable
Technology Center (ISTC)



Market Updates

- A <u>Memorandum of Understanding</u> has been signed by **Climeworks** and Kenyan project developers **Great Carbon Valley** to explore deploying large-scale direct air capture in Kenya by 2028.
- London-based electrochemical DAC company Mission Zero Technologies (MZT) partner with Canadian project developers Deep Sky to license and deploy MZTs first-of-a-kind 250t/yr unit with plans to scale capacity to 0.5-1Mt/yr.
- US Senator Brian Schatz (D-HI) and Rep. Paul Tonko (D-NY) have introduced the Carbon Dioxide Removal Research and Development Act of

- <u>2023</u> into the House of Representatives. The bill provisions \$12Bn for carbon removal R&D as well as \$2 billion program for carbon removal demonstration projects.
- **HSBC** bank earmarks <u>\$1 billion in a new fund</u> that focuses on early-stage climate tech including carbon removal.
- Frontier, now on the 3rd purchase cycle, announced their <u>Fall 2023</u> recipients and allocated \$3m out of the \$10m in pre-purchase agreements to DAC start-ups namely: **Airhive, Spiritus, Holocene, EDAC Labs, and Carbon Atlantis.**
- New BCG report estimates that carbon removal market could reach \$135Bn by 2040 should demand reach between 200-870Mt/yr.
- The role of businesses in advancing the responsible deployment of carbon removal has been widely discussed this month with Carbon Business Council & BMW Foundation Herbert Quandt releasing a report on Accelerating the Carbon Removal Market Through Responsible Corporate Leadership and the World Business Council for Sustainable Development also publishing their thoughts on Removing carbon responsibly: A guide for business on carbon removal adoption
- \$ Amazon entered into direct air capture with a commitment to <u>purchase 250,000 tonnes</u> over a 10-year period from 1PointFive's Stratos Plant. The tech giant also announced an investment into CarbonCapture Inc cut using their \$2Bn Climate Pledge Fund.
- **Microsoft** again demonstrated their commitment to the technology with a <u>purchase of 315,000</u> tonnes spread across 10-years with **Heirloom**.
- Columbia University's **Carbontech Development Initiative (CDI)** opened its <u>5th round of solicitations</u> for its research and commercialization grants in Carbon Capture Technology, Carbon-to-BuildingMaterials, Carbon-to-Chemicals/Fuels/Materials. The <u>Activate Fellowship</u> is open to a new round of applicants as is the <u>Carbon13 accelerator</u>.
- The gener8tor Direct Air Capture (DAC) Accelerator launched with the promise of \$100k of investment in five innovative startups per cohort carbon dioxide removal (CDR) systems. Clean Air Task Force will act as an advisor to the programme.
- Table 1 DAC Coalition partners CDI, Activate, and Carbon 2 Value Initiative, all

were among the 13 semifinalists selected by the U.S Department of Energy for <u>DAC Energy Program for Innovation Clusters (EPIC) Prize</u>.

- Climeworks and Carbfix announced a partnership with Puro.Earth to certify their DAC+S methodology under Puro's Geological Sequestration Standard.
- Institute for Carbon Removal Law and Policy have developed a tracker to follow corporate carbon removal action and commitments.
- The Direct Air Capture Coalition is an Official Nominator for <u>The 2024</u> <u>Earthshot Prize</u>, application are now open and can be submitted to the prize via the Coalition.

Climeworks featured in BBC StoryWorks



What We're Reading

 Notable challenges in governance of tech-based CDR across three different geographies- <u>International Governance of Technological Carbon</u> <u>Removal: Surfacing Questions, Exploring Solutions</u> (Katie Lebling, Clea Schumer and Danielle Riedl, WRI)

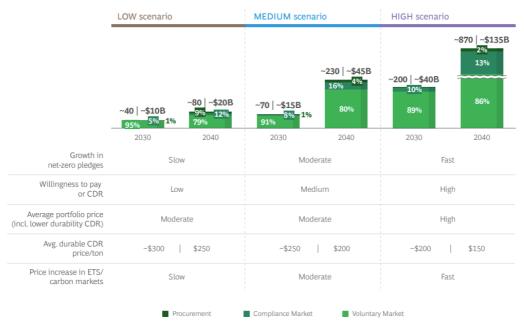
- 2. Priority setting and DAC categorization for a new research and deployment agenda A roadmap for achieving scalable, safe, and low-cost direct air carbon capture and storage (RMI and Herriot-Watt)
- 3. Analyzing the trade-offs of different approaches to DAC and whether there is a winning way Will One Winner Take It All In Direct Air Capture?

 (Poppy Russell, Counteract)
- 4. Analyzing the ripples caused by carbon removal's first big acquisition and what it means for DAC's projections Occidental's Big Buy May Change Course of \$150 Billion Market (Julia Attwood, BloombergNEF)



Picture This!

Figure 3 - 2030-2040 durable CDR demand (Mt CO₂) and market size (\$B) across scenarios



Source: BCG analysis, June 2023.

Source: <u>The Time for Carbon Removal has Come</u> (BCG, 2023)

The market of CDR could reach up to \$135Bn by 2040 should demand reach 870Mtpa and prices fall between \$200-150



The Time for Carbon Removal Has Come

The Time for Carbon Removal has Come

Boston Consulting Group

A landmark reports complete with market-size predictions and associated dependencies, market enablers, demand outlook, and the contributions of different industries to CDR demand.

DACC Reports Library



Member Spotlight



Purchase Cycle #3

Congratulations to DAC Coalition members





HOLOCENE







Congratulations to Airhive, Spiritus, Holocene and EDAC Labs who were selected by Frontier as part of their 3rd purchase cycle signing pre-purchase agreements each company at a value of \$500k each.



Irish DAC company successfully demonstrated their prototype machine capable of removing 1.2t/yr laying the ground for their 400t pilot due to come online in mid 2024.



In Hamburg, German DAC company Blancair also successful demonstrated their 15t/yr prototype scheduled for commission at Pontifical Catholic University of Rio Grande do Sul (PUCRS) in December 2023.



Carbon Reform co-CEO, Jo Norris, wrote an oped on Indoor Air Quality: The Hidden Climate Culprit for the MCJ Newsletter.



Congratulations to San Francisco-based Spiritus completed an \$11m Series A round led by renowned venture fund, Kholsa Ventures.

DEED SKY

Canada's new large-scale project development company, Deep Sky, <u>announced their new CEO</u> as Darren Steel. Previously, Steel served as Managing Partner and Global Head of Ventures at one of Canada's largest pension providers.



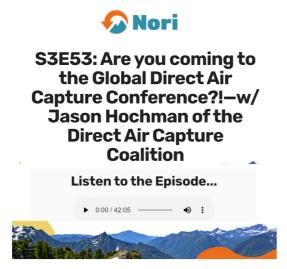
Africa Climate Summit 2023

Nairobi, Kenya

(top) A field visit to Octavia Carbon's manufacturing site gave us an opportunity to see how the 34-strong team was progressing in their builds.

(bottom right) The DAC Coalition was fortunate to play a key role in Africa Climate Summit helping to organise the 'durable removals' pillar which included a panel of "How to Build a World Class Durable Removals Ecosystem in Africa" in which Co-founder, Jason Hochman, was a panelist.

(bottom left) Alongside Great Carbon Valley and Africa Climate Ventures, The DAC Coalition hosted a Carbon Removal Community Reception for the folk on the ground in Nairobi.



Our Co-founder and Senior Director,
Jason Hochman, was invited onto
Nori's Reversing Climate Change
Podcast to discuss the conference
and its potential impact for the
sector, Kenya's potential and the role
of oil and gas.

Check out the episode here



Airminers Event Series: <u>DAC Hubs</u> 101

Featuring Jason Hochman (DAC Coalition), Courtni Holness, (Carbon180), Vikrum Aiyer (Heirloom) expertedly moderated by Justine Davids (Carbon Direct).





Events





RepAir DAC and Climate Tech Field Visit

18th October, Northern Israel

To mark the launch of their first DAC system, RepAir are organizing a field trip in Northern Israel where you'll have the opportunity to engage with experts, witness groundbreaking startups and technologies, and gain valuable insights into the future of climate tech in Israel.

Third Annual Conference on Carbon

Dioxide Removal Law & Policy: Carbon

Removal Deployment

9th November (Hybrid)

The theme for this year's conference is
"From Proposals to Projects: The
Emerging Carbon Removal Landscape
in the US." The theme reflects the
evolution of the CDR sector in the past
few years from the largely notional, to a
potentially very major player in helping
the global community to confront
climate change



Need a New Role?

Looking to move your career into Direct Air Capture? Check out these positions and more on the DACC Jobs Board!

- <u>Strategic Associate Direct Air Capture</u> (**Fervo Energy**, Remote)
- <u>Development Associate or Manager (Capture6, Remote)</u>
- Executive Assistant to CEO (Deep Sky, Remote)
- Community Lead Louisiana (Heirloom, Louisiana, US)

<u>Electrical, Controls, & Automation Engineer</u> (Clairity Technologies, CA, US)

All vacancies are made available on the DAC Coalition Jobs Board (powered by Climatebase)

DACC Jobs Board

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