

April 7, 2023

Colorado Company Launches Direct Air Capture Technology

Colorado-based Global Thermostat showcased the success of its direct air capture demonstration plant this week at a launch event. The plant, which is fueled through grid electricity and heat from a natural gas boiler, has successfully captured carbon dioxide (CO_2) from the atmosphere since late 2022. Although Global Thermostat has highlighted the plant's potential, it is not currently storing or utilizing CO_2 . The plant has the potential to capture 1,000 tons of CO_2 per year, which is the threshold for the federal Section 45Q tax credit. Global Thermostat is now marketing the technology and is in the process of designing a plant with the capability to capture 100,000 tons of CO_2 per year.

Read the press release here

Anchor Project in West Virginia Hydrogen Hub Proposal Announced

Adams Fork Energy, LLC, CNX Resources Corp announced details of their clean ammonia production facility in West Virginia this week. The Adams Fork Energy facility is expected to be the largest clean ammonia plant in the United States and Natural gas company CNX will provide natural gas and carbon storage for the project, helping the facility to offset "more than 2.7 million metric tons per year of CO₂ equivalent" Construction is set to begin in 2024 on a reclaimed coal mining site and the facility has the potential to create 2000 jobs.

The facility will form the "anchor" of the Appalachian Regional Clean Hydrogen Hub (ARCH2), led by the Allegheny Science & Technology, Batelle, EQT Corporation, GTI Energy, and the State of West Virginia. The hub would be based in West Virginia and is expected to cooperate with partners in Kentucky, Ohio, and Pennsylvania.

If selected, the hub would be funded through the Department of Energy funding opportunity announcement (FOA), which contains up to \$7 billion for 6 to 10 hydrogen hubs. Read more and view the Appalachian Regional Clean Hydrogen Hub participants here.

IEA Releases CCUS Projects Explorer

The International Energy Agency released its "CCUS Projects Explorer" this month. The project is an interactive database that allows the user to sort by sector, region, country, status, and project type. The dataset includes operational projects as well as those that are under construction or planned as long as they have an established timeline and a potential to capture 100,000 metric tons per year. The tracker does not include utilization projects or enhanced oil recovery projects.

View the dataset here: CCUS Projects Explorer

GE Vernova and Svante Announce Agreement to Collaborate to Develop Power Sector Carbon Capture

In late March, GE Vernova and Svante announced an agreement to research and develop solid sorbent-based carbon capture technology for natural gas power applications. GE also announced that they have made an equity investment in Svante, as part of Svante's \$318 million Series E fundraising round.

Read GE Vernova's full press release on the announcement here.

News Roundup

- New IEA Report Shows 80% Increase In Carbon Storage Capacity (carbonherald.com)
- Exxon Excited About \$6 Trillion Decarbonization Business (carbonherald.com)
- DOE hydrogen hubs: 4 issues to watch E&E News (eenews.net)
- US DoE tests DAC technologies (pemedianetwork.com)
- Chevron Most Active While Exxon Eyes Carbon Storage in Gulf of Mexico Auction (gcaptain.com)
- Making the case for carbon capture and storage | Carbon capture and storage (CCS) |
 The Guardian

Global News

- CCUS ZEN unveils plans to boost CCUS in Europe Offshore Energy (offshore-energy.biz)
- First temporary CO2 storage tank placed for Northern Lights CCS project Offshore Energy (offshore-energy.biz)
- Jobs in green economy in hot demand as S'pore looks to become carbon services hub |
 The Straits Times
- Ottawa and Edmonton cement manufacturer sign preliminary deal on carbon capture -Alaska Highway News

New podcasts, Reports, Statements & Blogs

- Carbon-capture technology could benefit from quantum computing Physics World
- Welp, we gotta start pulling CO2 out of the air YouTube
- Simplifying Carbon Capture and Sequestration (azocleantech.com)
- IEA's new CCUS projects database: a tool for driving much needed progress Energy Post
- Mitsubishi Power and Warwick Carbon Solutions to Jointly Develop Advanced Decarbonization Projects for Power and Industrial Sectors | Business News | kentuckytoday.com
- 3 Questions: Leveraging carbon uptake to lower concrete's carbon footprint | MIT News |
 Massachusetts Institute of Technology

News in the States

California

- Hess donates \$50M for plant-based carbon capture R&D at Salk Institute (carbonherald.com)
- Could Carbon Removal Be California's Next Big Boom Industry? | KQED

Colorado

- Direct air capture demonstration plant opens in Colorado, lacks CO2 sequestration (power-eng.com)
- How Colorado plans to use carbon capture to slow global warming (coloradosun.com)
- Pelosi, Polis hail opening of major US carbon-capture plant outside Denver Denver Business Journal (bizjournals.com)
- Global Thermostat launches Colorado-based carbon-capture plant (denverpost.com)
- A buzzy new carbon removal plant is catching and... | Canary Media

Connecticut

UConn to Host Business 'Sustainability Summit' - UConn Today

Illinois

 Peoria leaders concerned over carbon dioxide pipeline proposal | CIProud.com (centralillinoisproud.com)

Indiana

Flurry of bills advance, several to governor's desk - Indiana Capital Chronicle

Iowa

- Efforts to change state rules for carbon pipelines fall short Agweek | #1 source for agriculture news, farming, markets
- Along the Route: A closer look at three liquid carbon-capture pipelines | KMEG (siouxlandnews.com)

- Opinion | CCS pipelines are necessary The Daily Iowan
- Page County board hears update on proposed carbon pipeline project | News | kmaland.com
- Supervisors hear inspection presentation | News | dyersvillecommercial.com
- Efforts to change state rules for carbon pipelines fall short InForum | Fargo, Moorhead and West Fargo news, weather and sports (wctrib.com)

Kentucky

- LG&E and KU partner with University of Kentucky on carbon capture research Daily Energy Insider
- States and companies compete for billions to make hydrogen | Business | somerset-kentucky.com
- FEED work starts on a carbon capture pilot at an NGCC (power-eng.com)

Louisiana

- Lake Charles group forms to dismantle eminent domain laws | New Orleans' Multicultural News Source | The Louisiana Weekly
- Allen Police Jury offers support for carbon dioxide sequestration site American Press |
 American Press
- Panelists: Louisiana in position to attract top-dollar energy investments (1012industryreport.com)
- The battle for Lake Maurepas (acs.org)

Montana

Support carbon capture and storage technology – Daily Montanan

North Carolina

• Other View: Carbon capture and storage | Other Views | rrdailyherald.com

North Dakota

- Efforts to change state rules for carbon pipelines fall short InForum | Fargo, Moorhead and West Fargo news, weather and sports (wctrib.com)
- Permit denial would threaten ND's biggest power plant with 3-year shutdown, officials said - InForum | Fargo, Moorhead and West Fargo news, weather and sports

Pennsylvania

• A Significant First Step For Pa. Carbon Capture Programs - Law360

Texas

- NET Power Turning CO2 Problem into Solution for Utility-Scale Natural Gas Plants -Natural Gas Intelligence
- EPA Should Speed Up Carbon Capture & Storage Processes so Texas Can Get to Work | texasinsider | texasinsider.org
- Enbridge's Blue Ammonia Project in South Texas May Partner with Yaro Natural Gas Intelligence
- Linde Signs Agreement With Exxon For CO2 Transport And Storage (carbonherald.com)
- Can We Store Greenhouse Gas Emissions Beneath the Seafloor? (azocleantech.com)

West Virginia

 Manchin Announces \$40 Million for Morgantown National Energy Technology Laboratory | U.S. Senator Joe Manchin of West Virginia (senate.gov)

Wyoming

 Burkhart: Hydrogen, carbon capture will help Wyoming stay a leader in energy | Guest Column | wyomingnews.com

Upcoming events

April 18

What's Next for CCUS? | Bipartisan Policy Center

The deployment of Carbon Capture, Utilization, and Storage (CCUS) is poised to significantly accelerate following recent policy support from the Bipartisan Infrastructure Law and the Inflation Reduction Act. These new programs have catalyzed a number of prominent commercial announcements for new projects across the United States. Despite this progress, uncertainties surrounding regulatory frameworks and business models remain a challenge for some CCUS applications. Featuring a keynote address by Rep. Garret Graves (R-LA) and fireside chat with ExxonMobil Low Carbon Solutions President Dan Ammann, join the Bipartisan Policy Center and CCUS industry thought leaders on April 18 for a conversation about where the industry is headed and what challenges remain to widespread deployment.

April 25 - 27

Carbon, Capture, Utilization, and Storage (CCUS) 2023

This in-person event will unite AAPG, SPE, and SEG and highlight current CCUS work and address related challenges, including: Subsurface Geologic Storage, CO₂ Enhanced Hydrocarbon Recovery, Reservoir Monitoring and Risk Assessment, Case Studies, Industry Applications, Economics, Incentives, and Policy Infrastructure, Non-technical considerations

May 9

2023 D.C. Forum on CCS - Global CCS Institute

The Global CCS Institute will hold its 11th Annual D.C. Forum on Carbon Capture and Storage in Washington D.C. and online. The D.C. Forum is an opportunity for policymakers, industry leaders, NGOs, journalists, and financial institutions, to gather and discuss the rise of CCS, as well as the urgency of increasing support for the enabling conditions needed to take it to scale.

June 6

Direct Air Capture Summit, hosted by Climeworks

Climeworks' Direct Air Capture Summit is a one-of-a-kind platform featuring business, technology, scientists, and policy experts. Key players collaborating and discussing high-quality carbon removal solutions help drive the scale-up the industry needs. The fourth edition will focus on advancing high-quality carbon removal solutions that are netnegative, additional, verifiable, and permanent.

June 12-14

• Carbon Capture & Storage Summit - 2023 Fuel Ethanol Workshop and Expo

Capturing and storing carbon dioxide in underground wells has the potential to become the most consequential technological deployment in the history of the broader biofuels industry. Deploying effective carbon capture and storage at biofuels plants will cement ethanol and biodiesel as the lowest carbon liquid fuels commercially available in the marketplace. The Carbon Capture & Storage Summit will offer attendees a comprehensive look at the economics of carbon capture and storage, the infrastructure required to make it possible and the financial and marketplace impacts to participating producers.

June 19 - 21

• Industrial Decarbonization: Manufacturing a Green Future (techconnectworld.com)

Topics and application areas include Low GHG feedstocks and chemical processes, Hydrogen production processes, Low GHG heat and electricity sources, Electrical energy storage and application to industrial processes, Carbon capture and storage from industrial point sources, including bioenergy with CCS (BECCS), Case studies: Iron and steel, Chemicals & plastics, Cement, Aluminum, and Refining.

About the Regional Carbon Capture Deployment Initiative: The Regional Carbon Capture Deployment Initiative brings together state officials with diverse industry, NGO, labor, and other stakeholders to promote broad scale deployment of infrastructure for carbon management. The Initiative is staffed by the Great Plains Institute (GPI), a nonpartisan nonprofit working to transform the energy system to benefit the economy and environment.

Subscribe or request to add an event, news story, report, blog, or job posting to the update by reaching out to Emma Thomley. Looking for more carbon management updates, studies, and fact sheets? Visit us at Carbon Capture Ready and read previous newsletters in our Action Alliance's newsletter archive.