



REGIONAL CARBON CAPTURE DEPLOYMENT INITIATIVE

UPDATE

November 17, 2022

RDI Newsletter: Feedback Requested

We would appreciate your feedback on this newsletter's content in the following [survey](#). The survey should take no longer than 5 minutes and includes questions about the newsletter's length and content. Thank you in advance for your feedback.

Please fill out the survey [here](#)

California Scoping Plan for Carbon Neutrality Notes the Importance of Carbon Capture for Decarbonization

The California Air Resources Board released [California's 2022 Scoping Plan for Achieving Carbon Neutrality](#) this week. The plan outlines the roadmap for California to achieve carbon neutrality by 2045 by reducing anthropogenic emissions to 85 percent below 1990 levels, noting that carbon management technologies, such as carbon capture and storage, will be critical to reducing these emissions. According to the plan, carbon management technologies could capture and store 100 million metric tons by 2045.

CCS is needed to address emissions from hard-to-decarbonize sectors in California, including electricity generation, cement production facilities, and refineries. Specifically, the report highlights the difficulty of decarbonizing the cement sector, where combustion emissions account for at least 40 percent of cement plant total emissions. The California Air Resources Board has been directed to develop a comprehensive strategy for the state's cement sector to achieve net-zero emissions of GHGs associated with cement used within the state.

The recently passed SB 905 creates the Carbon Capture Removal, Utilization, and Storage Program, which will regulate carbon management projects in the state. Through this program the California Air Resources Board will develop a unified permit application and a centralized public database for project status, among other items. SB 905 will also result in the convening of a Carbon Capture and Sequestration Group to develop a process to engage with communities, tribes, and other stakeholders across the state to identify and answer questions related to carbon management in the state.

November 15 Marked One Year Anniversary of the Bipartisan Infrastructure Law's Passage

The Infrastructure Investment and Jobs Act, or Bipartisan Infrastructure Law (BIL) was signed into law by President Biden on November 15, 2021. It includes groundbreaking, widely supported, bipartisan provisions needed to commercialize carbon management, industrial decarbonization technologies and associated infrastructure at the scale required to meet midcentury climate goals, foster domestic energy and industrial production, and protect and create skilled jobs in local communities that consistently pay family-sustaining wages. The historic package contains \$12.1 billion in federal funding over five-years for commercial deployment, large-scale demonstrations, and activities to enable deployment of carbon capture, removal, transport, utilization, and storage technologies, as well as direct air capture and hydrogen hubs. While these are unparalleled increases to federal investments in carbon management technologies, these funding levels mark a course correction towards building an even more ambitious foundation of federal policy support for carbon management technologies similar to the historic support that has been provided to help de-risk and commercialize other zero- and low-emissions energy technologies over the last several decades. The increased investment and ambition provided by the BIL is essential to ensure that carbon management technologies fulfill their key role in reaching net-zero emissions economywide and midcentury climate goals. The administration has aggressively worked to stand up new offices and programs funded by BIL in 2022, with several funding opportunity announcements (FOAs) released in the fall of 2022, and initial deadlines at the end of the year.

- Read the Carbon Capture Coalition's [Roadmap](#) for more information on BIL provisions.
- Read the Carbon Capture Coalition's [statement](#) on one-year anniversary of Bipartisan Infrastructure Law and its historic carbon management provisions [Coalition Celebrates One-Year Anniversary of Bipartisan Infrastructure Law and its Historic Carbon Management Provisions](#)
- Read the Industrial Innovation Initiative's short [blog post](#) highlighting progress on the law's implementation.

Wyoming Polling Shows Support for Carbon Removal

The Data for Progress's recently-released Wyoming [polling](#) results on energy production show voter's positive attitudes toward carbon capture in the state. When asked if they had a favorable or unfavorable opinion on carbon dioxide removal technologies 57 percent of voters were favorable, 16 percent were unfavorable and 27 percent did not know. After being provided a brief explanation of carbon dioxide removal technologies, Voters were asked if they would support or oppose Wyoming building carbon dioxide removal sites.

- 68 percent of voters were supportive, 18 percent were opposed, and 14 percent did not know
- Voters generally supported carbon capture across party lines, including 84 percent of Democrats, 65 percent of Republican's, and 69 percent of Independents.

For more information on these polling results read the Data for Progress's [blog](#).

Wyoming School of Energy Resources Requests Input from Stakeholders on Direct Air Capture

The University of Wyoming School of Energy Resources (SER) and partners announced they are contemplating applying for funding through the Department of Energy's [Four Regional Clean Direct Air Capture Hubs program](#) and are seeking input from stakeholders in the state. The program has a total of \$3,500,000,000 available to fund four direct air capture hubs.

Interested stakeholders, including companies involved in direct air capture or carbon management project development or technology, environmental justice, policy and economic development groups, tribes, investors, and more in are encouraged to fill out a request for expression of interest form.

The [request](#) will close on Wednesday, Nov. 30.

News Roundup

- [Carbon Capture Patent Filings Go Up By 60% In Five Years \(carbonherald.com\)](#)
 - [The big idea: stopping climate change isn't enough – we need to reverse it | Science and nature books | The Guardian](#)
 - [It's time to give carbon removal a chance | Climate Crisis | Al Jazeera](#)
 - ['Direct Air Capture Is Going To Be One Of The Pillars Of Decarbonization': Daniel Friedmann, Carbon Engineering CEO \(carbonherald.com\)](#)
 - [New Report Gives Answers On How To Scale Corporate Funds For Carbon Removal \(carbonherald.com\)](#)
 - [Cop 27: California, Massachusetts to push CO2 removal | Argus Media](#)
 - [E&E News | Article | Major carbon-removal bill unlikely to pass this year \(politicopro.com\)](#)
 - [How inflation act may help rescue greenhouse-gas goals of repealed Clean Power Plan – Harvard Gazette](#)
 - [Carbon Capture and Storage Market is Projected to Reach US\\$ 5.04 Billion in 2028 - EIN Presswire \(einnews.com\)](#)
 - [Remarks as Prepared for Delivery by Secretary Granholm Opening DOE's "U.S. Energy Earthshots: Decadal Goals to Power the Clean Energy Transition" COP27 Event | Department of Energy](#)
 - [Direct Air Carbon Capture Market Size, Share, Industry Analysis and Global Forecast to 2027 - EIN Presswire \(einnews.com\)](#)
 - [DOE Announces \\$1.5 Million to Train the Next-Generation Hydrogen Workforce | netl.doe.gov](#)
-

Global News

International Energy Agency(IEA) Greenhouse Gas R&D Program blogs on COP26:

- [GHGT-16 Panel Discussion 5C: CO2 impurities and implications for multiple source networks and hubs - BLOG \(ieaghg.org\)](#)

- GHGT-16: Commercialising CCUS in the Middle East: Gulf region and Egyptian hub study cases - BLOG (ieaghg.org)
- GHGT-16: Panel Discussion 8C: Repurposing existing infrastructure - BLOG (ieaghg.org)

Other global news:

- ExxonMobil and Pertamina advance offshore CCS hub in Indonesia | Upstream Online
 - New funding advances landmark hydrogen project in the Edmonton region | Mayerthorpe Freelancer
 - Green hydrogen could sustainably industrialise Africa, boost GDP in six key countries – new report (engineeringnews.co.za)
 - Cop 27: US launches nuclear H2 project with Ukraine | Argus Media
 - UK government announces ambition to invest up to £1 billion in carbon capture (circularonline.co.uk)
 - Air Canada Invests In Direct Air Carbon Capture Technology (simpleflying.com)
-

New podcasts, reports, statements & blogs

- Charting a Path to Just Direct Air Capture Hubs (dataforprogress.org)
 - The World Will Probably Warm Beyond the 1.5-Degree Celsius Limit. But Peak Warming Can Be Curbed. - CleanTechnica
 - How we can unlock tech to decarbonize our skies | Greenbiz
 - Coal - Fuels & Technologies - IEA
 - Industrial clusters can help the US reach net-zero targets | World Economic Forum (weforum.org)
 - World Bank Group Announces International Low-Carbon Hydrogen Partnership - Hydrogen Central (hydrogen-central.com)
 - A New Frontier in Class VI Carbon Storage Permitting on the Horizon | Brownstein Hyatt Farber Schreck - JDSupra
 - New Carbon Management Tool Launched by AiDash Unlocks Untapped Environmental Value of Corporate Land Holdings | Business | valdostadailytimes.com
 - Carbon Capture's Role in a Greenhouse Gas-Free Electricity Grid – Energy Institute Blog (wordpress.com)
 - NET Power Natural Gas Generating Plant Captures Its Own Emissions - CleanTechnica
-

News in the States

Arizona

- Regional Clean Hydrogen Hub Develops In The Desert Southwest - US - Hydrogen Central (hydrogen-central.com)

California

- New Legislation In California To Grow Carbon Removal Capacity (carbonherald.com)

Colorado

- [Colorado regulators vastly underestimate oil and gas emissions | Energy News Network](#)
- [California's revised climate strategy relies on carbon capture \(energynews.us\)](#)
- [Environmental Advocates Slam California Climate Plan For Reliance On Carbon Capture | Food & Water Watch \(foodandwaterwatch.org\)](#)
- [California unveils plan to reach carbon neutrality by 2045 \(yahoo.com\)](#)

Illinois

- [Illinois Tech joins regional hydrogen hub to | EurekAlert!](#)

Iowa

- [Protests Disrupt The National Carbon Capture Conference In Iowa \(carbonherald.com\)](#)
- [The property rights battle is well underway as carbon capture companies plan to criss-cross Iowa \(yahoo.com\)](#)
- [Experts' call to ramp up carbon capture garners protests in Des Moines \(desmoinesregister.com\)](#)
- [Carbon pipeline company sues Iowa county over local siting ordinance | Reuters](#)
- [Summit Carbon has paid out \\$200M to landowners anticipating pipeline approval | Successful Farming \(agriculture.com\)](#)
- [Coming up: Wolf to hold new meetings on carbon pipeline in December after some landowners didn't receive notice \(qctimes.com\)](#)
- [Rally aims to counter carbon industry | Oelwein Daily Register | communitynewspapergroup.com](#)
- [Would CO2 pipelines be 'life or death' for Iowa's ethanol industry? \(globegazette.com\)](#)
- [Pipeline safety measures draw lawsuit against Story, Shelby counties \(desmoinesregister.com\)](#)

Kentucky

- [NETL Point Source Carbon Capture Team Gleans Insights from Kentucky Project Sites | netl.doe.gov](#)

Louisiana

- [Crabbers pull traps from Lake Maurepas ahead of carbon capture project: 'I'm holding out' | Environment | nola.com](#)
- [La. legal showdown may preview national battle over hydrogen - E&E News \(eenews.net\)](#)
- [Expanded 45Q Credit Provides New Incentives for Louisiana Natural Gas Pipelines \(factset.com\)](#)
- [Louisiana fisherfolk fear Air Products' Lake Maurepas carbon capture scheme | Facing South](#)

Massachusetts

- [Massachusetts Utilities Hope Hydrogen and Biomethane Can Keep the State Cooking, and Heating, With Gas - Inside Climate News](#)

Minnesota

- [Summit Carbon Solutions files response to Minnesota pipeline questions - Agweek | #1 source for agriculture news, farming, markets](#)

North Dakota

- [Permitting a coal-fired 4-MMt/yr CCS project in North Dakota, USA by Wesley Peck, Kevin Connors, Shannon Mikula :: SSRN](#)

Ohio

- [Toledo-area consortium likes chances of becoming 'hydrogen hub' | The Blade \(toledoblade.com\)](#)

Pennsylvania

- [Pennsylvania Will Invest \\$6M In New Carbon Capture Research Facility \(carbonherald.com\)](#)
- [Wolf Administration Discusses Carbon Capture Efforts, Announces \\$6 Million Investment in New Carbon Capture Research Facility \(pa.gov\)](#)
- [Pa. core samples to get new, \\$6M home | State | indianagazette.com](#)

Texas

- [Oil giant Occidental wants to remake itself as a climate tech leader in Texas - The Verge](#)
- [Oxy's Carbon Capture Projects Giddy Up with King Ranch in South Texas - Natural Gas Intelligence](#)
- [Houston organization leads collaboration to advance Gulf Coast clean hydrogen projects - InnovationMap](#)
- [Industry starts to look at Austin for next legislative session \(mrt.com\)](#)

Utah

- [Utah lawmakers wary of plans to shift from coal to hydrogen power \(sltrib.com\)](#)

Wyoming

- [Wyoming Voters Support Carbon Removal Sites By A 50-Point Margin \(carbonherald.com\)](#)

Upcoming events

November 22

- [Panel Discussion: CDR similarities and differences across Earth systems](#)

November 30

- [Gasification Technology Status and Pathways for Net-Zero Carbon Economy Workshop \(Department of Energy\)](#)

The workshop will assess the state of gasification technologies currently used or being developed for biomass and solid wastes, in addition to helping BETO, FECM, and NETL address barriers in gasification technology through federally funded research and development. Flexible feedstock gasification technologies using biomass combined with carbon capture allow for achievement of net-zero carbon or even net-negative carbon energy systems, helping to enable the widely decarbonized economy of the future.

December 1

- [FECM Save the date Carbon Management Day Webinar 12 PM ET](#)

During the webinar, FECM will discuss updates on key initiatives, take a closer look into FECM-funded carbon management projects, and inform stakeholders on how to get involved. Agenda, presenters, and registration date will be shared at a later date.

December 6-7

- [North American Hydrogen Demand & Infrastructure Development Congress](#)

Live in Houston and online, will discuss important energy industry topics such as decarbonization, hydrogen leakage detection/prevention green hydrogen and cost reduction strategies. North American Hydrogen Markets & Demand Growth 2022 addresses business and technology issues from the perspectives of commercial viability, return on investment, and risk. And, most significantly, the conversation covers potential industrial end users using both green and blue hydrogen.

December 8

- [Urbana Campus Research Calendar \(OVCRI\): Carbon Capture and Storage \(CCS\) in a Climate Mitigation Portfolio \(illinois.edu\)](#)

This presentation focuses on the role for carbon capture and storage (CCS) in a portfolio of mitigation options as a basis for strategies to advance the CCS option. Using examples from different projects that employ the MIT Economic Projection and Policy Analysis (EPPA) model, we will examine different long-term scenarios to explore the importance of factors influencing advanced technology deployment, including CCS on power generation, cement, iron and steel in different parts of the world. Pathways for decarbonization of global and regional economies will be assessed.

December 22

- [CDR Academy: Technological Solutions](#)

To subscribe or request to add an event, news story, report, blog, or job posting to the update please reach out to Emma Thomley at ETHomley@gpisd.net Want to read more carbon management updates, studies, and fact sheets? Visit us at [Carbon Capture Ready](#).