

April 29, 2022

Brad Crabtree <u>Confirmed</u> as Assistant Secretary of Fossil Energy and Carbon Management at the U.S. Department of Energy

Yesterday, U.S. Senate confirmed Brad Crabtree to serve as Assistant Secretary of Fossil Energy and Carbon Management at the U.S. Department of Energy. He will step down as director of the Carbon Capture Coalition and Vice President for Carbon Management at the Great Plains Institute (GPI), the convening organization of the Coalition, effective immediately.

Brad has spent nearly two decades at GPI, working to build a broad consensus around energy policies that meet our climate obligations and maintain a strong economy—and then see those policies enacted. He has played a critical role in making carbon capture, use, and storage a part of the nation's arsenal of emissions reductions strategies.

Patrice Lahlum will step into the role of Interim Vice President for Carbon Management at GPI. The Carbon Capture Coalition will now begin an immediate national search for an Executive Director.

- Carbon Capture Coalition Statement on the Confirmation of Brad Crabtree as Assistant Secretary of Fossil Energy and Carbon Management at the U.S. Department of Energy
- Statement by Secretary Granholm on U.S. Senate Confirmation of Brad Crabtree | Department of Energy
- CATF welcomes Brad Crabtree's confirmation to lead the Office of Fossil Energy and Carbon Management – Clean Air Task Force
- Carbon Capture Advocate Confirmed to DOE Fossil Energy Office
- POLITICO Pro | Article | Senate confirms DOE fossil energy nominee

DOE to Loan 500M to Clean Hydrogen Project in Utah

On Tuesday, The Department of Energy's (DOE) Loan Programs Office (LPO) announced \$504.4 million in debt financing for a green hydrogen project in Delta, Utah - its second award for a "clean hydrogen" project.

The Advanced Clean Energy Storage (ACES) project, led by developers Mitsubishi Power Americas Inc. and Magnum Development LLC is designed to convert renewable energy into

hydrogen and is expected to start operating in 2025. The hydrogen will be stored in underground salt caverns near the town of Delta, Utah, and be used to generate electricity for Utah and Los Angeles.

Associated News Coverage:

- Advanced Clean Energy Storage Project gets \$500 million conditional commitment (power-eng.com)
- Massive green hydrogen hub in Utah wins \$504M federal... | Canary Media
- U.S. commits \$504.4 million for world's largest hydrogen facility in Utah Institute for Energy Economics & Financial Analysis (ieefa.org)
- LPO loan commitments for Utah hydrogen storage project (axios.com)
- DOE unveils \$500M loan for massive 'clean hydrogen' project E&E News (eenews.net)

Carbon Capture Coalition Announces New Members

On April 21 the Carbon Capture Coalition, announced the addition of 20 new members since 2021, bringing the Coalition's total membership to over 100 members. These companies span the entire carbon management supply chain of carbon capture, removal, transport, utilization, and storage, as well as key labor and environmental stakeholders.

New members include companies focusing on direct air capture technologies such as AirCapture, Carbon Capture Inc., and Climeworks. Key companies in the industrial sector have also joined the Coalition including Holcim, the American Iron and Steel Institute, the U.S. association of steel producers, CF Industries, and United Airlines.

House Natural Resources Subcommittee on Energy and Mineral Resources held Hearing on Offshore Storage & the Gulf of Mexico

On Thursday, April 28, 2022, the Subcommittee on Energy and Mineral Resources hosted an oversight hearing, "The Opportunities and Risks of Offshore Carbon Storage in the Gulf of Mexico." The recently passed bipartisan Infrastructure Investment and Jobs Act instructs the Interior Department to develop a regulatory framework for offshore carbon sequestration on the outer continental shelf. Witnesses were generally supportive and mentioned the emissions reductions potential and economic benefits of employing the technology in the region. Witnesses also stressed that the regulatory framework surrounding carbon management technologies and offshore storage, specifically concerning long term liability will need to be carefully and rigorously implemented. Witness Mr. Carroll Muffett, who advocated against the technology, stressed the nation's history of environmental racism and environmental injustices. Statements from witness testimony are highlighted below.

The Carbon Capture Coalition and Clean Air Task Force released supportive documents

- Carbon Capture Coalition | Supportive Document
- Clean Air Task Force | Supportive Document

Witness List

Dr. Tip Meckel (testimony), the Senior Research Scientist Bureau of Economic Geology at The University of Texas at Austin testified "In conclusion, I believe the Gulf of Mexico represents the single best opportunity for developing a U.S. CCS industry that can effectively address national emission reduction strategies at the required scale. The opportunities are economically impactful, can significantly mitigate emissions for reaching our national targets, and the risks are manageable and monitoring is mature."

Nichole Saunders (testimony), the Director & Senior Attorney, Energy Transition for the Environmental Defense Fund testified "While carbon capture and geologic storage is a critically important building block in reducing emissions, it is not a silver-bullet climate solution. It is a complex, highly technical, costly, and challenging venture that if done correctly can help us address industrial emissions. But geologic carbon sequestration cannot be done successfully by just anyone or take place anywhere. The Gulf of Mexico does potentially offer a unique geologic opportunity and capacity to store large volumes of captured CO2. Whether it can be done successfully – in a way that respects coastal communities, protects marine resources, prevents leaks and releases, and earns public trust as a valid solution remains to be seen. Ensuring that the U.S. is committed to developing oversight programs that address the principles for secure storage included here would be a good start."

Mr. Carroll Muffett (testimony), the President and CEO of the Center for International Environmental Law (CIEL) testified that "Far from contributing to that critical goal, the proposed massive deployments of publicly subsidized CCUS projects threaten to delay urgently needed climate action, undermine emission reduction efforts, squander limited resources, lock-in fossil fuel infrastructure, and expose communities across the Gulf Coast and throughout the United States to new and potentially catastrophic health, safety, and environmental risks. In so doing CCUS threatens to compound the already heavy burdens the fossil economy has imposed for decades on people of color and low-income communities. CCUS is a false solution, a dangerous distraction, and a new but completely avoidable chapter in this country's long history of environmental injustice and systemic racism. The Congressional response to CCUS must reflect and respond to that reality."

Mr. Erik Milito (testimony, President of the National Ocean Industries Association testified that "We have an opportunity to set the stage for a 21st century in which carbon is responsibly captured and transported for long-term geologic storage or beneficial use. The offshore, and particularly the Gulf of Mexico, present one of the most advantageous opportunities in the United States and the world. The success of this nascent industry will be closely connected to the development and implementation of clear and predictable leasing, permitting, and regulations, along careful coordination among federal, state, and local authorities. NOIA and its members stand ready to work with policy makers to establish this important industry."

Related News Coverage:

- POLITICO Pro | Article | House lawmakers return to climate hearings, calls to action
- Long-term liability rules needed for scaling Gulf offshore carbon storage projects: experts | S&P Global Commodity Insights (spglobal.com)

New Speakers AND Moderators Confirmed for the Upcoming RDI Carbon Management Conference

We are pleased to announce newly confirmed speakers and moderators for Turning Federal Investment into Action: Scaling Carbon Management Technologies and Infrastructure, the RDI's in-person event on May 25 and 26 2022 at the historic Brown Hotel in downtown Louisville, Kentucky.

Jennifer Zygmunt, the Administrator of the Water Quality Division at Wyoming Department of Environmental Quality has joined our terrific lineup of speakers.

Matt Bright, Carbon Capture Policy Manager at the Clean Air Task Force, **Dr. Steven M Carpenter**, Managing Partner at Carpenter Global, LLC, and **Dr. Meron Tesfaye**, Senior Policy Analyst at the Bipartisan Policy Center will help moderate the event.

The tremendous group of speakers, with more to be announced soon, is listed below, and will address the benefits of carbon management, discuss ongoing projects and explore ways to support projects.

Speakers

- William Bates, Branch Chief, Prevention Branch, Environmental Protection Agency
- Cindy Crane, CEO, Enchant Energy
- **Linda Daugherty**, Deputy Associate Administrator for Field Operations, Pipeline and Hazardous Materials Safety Administration
- **Tom Dower**, Vice President Public Policy, LanzaTech
- Ryan Edwards, Senior Carbon Management Policy Advisor at Oxy Low Carbon Ventures
- Tracy Evans, CEO and Founder, CapturePoint
- Matt Fry, Senior Policy Manager, Great Plains Institute
- Jon Kehmeier, Vice President of Scientific and Technical Services, Steven W. Carothers & Associates
- Secretary Becky Keogh, Cabinet Secretary, Arkansas Department of Energy and Environment
- Kris Koski, Professional Land Management Director and Associate Lecturer, University
 of Wyoming School of Energy Resources
- Patrice Lahlum, Program Consultant, Great Plains Institute
- Jason Lanclos, Director, State Energy Office, Louisiana Department of Natural Resources
- **Karen Matusic**, Senior Director of External Affairs: Appalachia/Tri-state Region, Equinor
- **Glen Murrell**, Director, Wyoming Energy Authority
- Dr. Simone H. Stewart, Industrial Policy Specialist, National Wildlife Federation
- **Jennifer Zygmunt**, Administrator, Water Quality Division, Wyoming Department of Environmental Quality

Moderators

- Matt Bright, Carbon Capture Policy Manager, Clean Air Task Force
- Dr. Steven M Carpenter, Managing Partner, Carpenter Global, LLC
- **Dr. Meron Tesfaye**, Senior Policy Analyst, Bipartisan Policy Center

We invite you to register for *Turning Investment into Action: Scaling Carbon Management Technologies* here.

News Roundup

- 4 issues to watch as Dems eye reconciliation return E&E News (eenews.net)
- POLITICO Pro | Article | Scientists unveil 'artificial leaf' for cheaper CO2 capture
- Proponents Say Storing Captured Carbon Underground Is Safe, But States Are
 Transferring Long-Term Liability for Such Projects to the Public Inside Climate News
- Looking to start a hydrogen hub in your state? Here's what experts say it's going to take
 Utility Dive
- POLITICO Pro | Article | DOE scientist joins CO2 removal company
- Rystad Energy Carbon capture capacity poised to surge more than 10 times by 2030, but aggressive investment needed to meet mid-century targets
- Nutrien fertilizer plant to feature carbon capture and conversion tech | News | gasworld
- The growing chorus for carbon capture The Washington Post
- Manchin-Murkowski meeting could be the start of a bipartisan energy bargain | The Hill
- AirCapture, OCOchem and partners win \$2.93M DOE grant for direct air capture of CO2 and conversion to formic acid - Green Car Congress
- How CarbonBuilt's Low-Carbon Concrete Is Made CZI Blog (chanzuckerberg.com)
- U.S. natural gas producer BKV Corp explores potential IPO -sources | Reuters
- First Interstate Carbon Capture Pipelines Proposed in US | 2022-04-28 | Engineering News-Record (enr.com)
- POLITICO Pro | Article | Kerry says gas needs CCS within a decade
- Tech Giants Commit Nearly \$1 Billion Toward Carbon Capture (prnewswire.com)
- First Interstate Carbon Capture Pipelines Proposed in US | 2022-04-28 | Engineering News-Record (enr.com)

Global News

- Santos delays go-ahead for US\$2 billion Australian project | Upstream Online
- Huge carbon capture project launches planning consultation on 53km cluster pipeline to North Sea storage - Business Live (business-live.co.uk)
- Three players to pool resources for Thai carbon capture and storage project Offshore Energy (offshore-energy.biz)
- Japan plans to set legal framework for carbon storage | Reuters
- Indian Oil Corp eyes the carbon capture opportunity for clean hydrogen production |
 News | gasworld

New podcasts, reports, statements & blogs

- Instant Long Duration Energy Storage: Just Add Carbon Dioxide (cleantechnica.com)
- Getting to net zero: New policy insights on the role of carbon management strategies (edf.org)
- Understanding the Differences Between CARBON CAPTURE & CARBON DIOXIDE REMOVAL (edf.org)
- Energy Industry Turning to Carbon Management to Reach Net Zero, but Could Hit Environmental Hurdles Publications | Morgan Lewis
- CCUS: Where is carbon capture working? Energy Monitor
- Carbon capture, nuclear and hydrogen feature in most net-zero emissions plans and need greater investment: report - MarketWatch
- Calcite Carbon Removal Emerges From Stealth Mode As 8 Rivers' Latest Technology Wins The Carbon Removal XPrize (prnewswire.com)
- Q&A: Viable routes for CCS are developing | Argus Media
- Manchin-Murkowski meeting could be the start of a bipartisan energy bargain | The Hill (ampproject.org)
- Zero, then negative: Why getting to net-zero isn't enough | The Hill (ampproject.org)
- By the Numbers: Capturing Carbon is a Global Problem with US Solution | Hart Energy (ampproject.org)

News in the States

Alabama

- Fuel Cells Finally Find a Killer App: Carbon Capture IEEE Spectrum
- CarbonBuilt™ Partners with Blair Block for Commercial (globenewswire.com)

Alaska

Fort Nelson First Nation propose super green hydrogen plant - Alaska Highway News

Arkansas

 LSB Industries Announces Partnership to Capture and Sequester Over 450,000 MT of Carbon Annually | Business Wire

California

- California prepares controversial new climate strategy CalMatters
- California Resources Expands Environmental Goals San Fernando Valley Business Journal (sfvbj.com)
- Startup from Caltech Nabs XPRIZE Award | www.caltech.edu

Illinois

 Illinois Tech researchers awarded grant to scale up innovative carbon capture and conversion process at the source | OUR GREAT MINDS (theogm.com)

Iowa

U.S. Midwest carbon pipeline's backers have close ties to lowa government | Reuters

- Floyd County residents speak out about planned carbon capture pipeline | lowa | kimt.com
- Webster Co Supervisors speak up against eminent domain for carbon pipeline | who13.com
- Iowa pipeline builder Summit joins \$1 billion carbon storage project (desmoinesregister.com)
- Webster Co. supervisors to vote on pipeline letter | News, Sports, Jobs Messenger
 News
- Proposed carbon pipeline questioned by local residents, landowners | News | ottumwacourier.com
- Iowa official asks Summit Carbon Solutions for more information about possible pipeline leaks, dangers
- One of the companies that wants to build a carbon-capture pipeline in Iowa has close ties to the state's leaders | Iowa Public Radio

Kentucky

Nucor to trial carbon capture technology in Kentucky | News | gasworld

Louisiana

 Louisiana Ag Head Plugs Carbon Capture as Climate Change Fix | Louisiana News | US News

Maryland

 Maryland's climate action presents a path forward | READER COMMENTARY – Baltimore Sun

Minnesota

 Hennepin County, Minneapolis, Duluth selected for first-of-its-kind climate change grant -StarTribune.com

North Dakota

- Groups from North Dakota, Iowa to co-develop CO2 storage (beaumontenterprise.com)
- Summit Carbon Solutions inks deal for North Dakota storage; pipeline to run through Minnesota, South Dakota (wctrib.com)
- Port: Fractures in the North Dakota Republican Party loom over proposed carbon pipeline InForum | Fargo, Moorhead and West Fargo news, weather and sports
- N.D. power cooperative, lowa firm to pursue carbon capture venture in Upper Midwest Twin Cities
- Minnkota inks deal with Iowa company on carbon dioxide storage Grand Forks Herald |
 Grand Forks, East Grand Forks news, weather & sports (thedickinsonpress.com)

Ohio

- Study: Ohio has infrastructure, industries to develop hydrogen hub (cantonrep.com)
- Cleaner Future in Sight: Long Ridge Energy Terminal in Monroe County Begins Blending Hydrogen | News, Sports, Jobs The Intelligencer
- Hydrogen blend plant demo held in Hannibal | News, Sports, Jobs The Times Leader (timesleaderonline.com)

Oklahoma

 LSB Industries Announces Partnership to Capture and Sequester Over 450,000 MT of Carbon Annually (yahoo.com)

Oregon

OSU to lead project on carbon dioxide capture (newsregister.com)

Pennsylvania

- Cap and trade gets a big win in Pennsylvania. Will it last? NewsBreak
- Pa. DEP: Shell, Archaea Energy take early steps toward underground carbon storage | Pittsburgh Post-Gazette
- Gov. Wolf's climate rule set to take effect Saturday | Pittsburgh Post-Gazette
- Allegheny Conference report charts 'middle path' for Western Pennsylvania's energy future (nextpittsburgh.com)
- Hydrogen 'a versatile fuel' that boosts the environment | Business | observerreporter.com
- Southwestern Pennsylvania industry leaders call for a less aggressive energy transition strategy | 90.5 WESA

South Dakota

 Hundreds of South Dakota residents concerned about proposed carbon pipeline | South Dakota | thecentersquare.com

Texas

- Texas hydrogen 'proto-hub' leads the US in technical potential for DOE-funded regional hubs: GTI | Utility Dive
- Democrats support for Gulf carbon storage, despite criticism (houstonchronicle.com)
- Enterprise, Oxy plan CO2 project along Texas Gulf Coast (houstonchronicle.com)
- Mew Investment Aimed at Carbon Reduction Headed to Texas Texas Border Business
- Rep. Cuellar Announces New Investments Headed to Texas Aimed at Carbon Reduction | Rep. Henry Cuellar (house.gov)
- Houston-based HIF Global selected Bay City site for its first \$6B e-fuels plant (houstonchronicle.com)
- Enterprise and Oxy Low Carbon Ventures Sign Letter of Intent for Gulf Coast CO2 Transportation and Sequestration Project | Business Wire

Utah

(See above story: DOE to Loan 500M to Clean Hydrogen Project)

Virginia

• Don Beyer's first primary challenger asks him to 'pass the torch' - The Washington Post

West Virginia

- POLITICO Pro | Article | 'Last chance': Greens push climate compromise with Manchin
- Manchin Explores Possibility of Energy, Climate Package With GOP Bloomberg
- Enterprise, Oxy plan CO2 project along Texas Gulf Coast (houstonchronicle.com)
- Public Energy Authority considers value of extending life of coal-fired plants and creating new life for energy storage | Energy and Environment | wvgazettemail.com
- Focus Forward: West Virginia's New Narrative comes to Morgantown WV MetroNews

Wisconsin

Milwaukee's Advanced Ionics nets \$4.2m for industrial green hydrogen (axios.com)

Wyoming

- Wyo officials think customers should pay \$1B to 'save' coal WyoFile
- Wyoming coal plants illustrate cost challenges for power generation CCS in US. | IHS Markit

Upcoming events

May 3

Active Carbon Management: Critical Tools in the Climate Toolbox | ITIF

May 10

• Hydrogen Hubs: Decarbonizing Industry, Transport and Power Generation

May 11 - 12

Next Frontier Energy Summit – Wyoming Energy Authority (wyoenergy.org)

May 16

 Charting an Energy Transition Path Towards Economic Growth: ACCD and Team PA Event

May 17 - 18

Register for the 2022 Western Prosperity Roundtable Forum | WGA (westgov.org)

May 19 - 20

• CCU TEA and LCA Guidance – A Harmonized Approach

May 25 - 26

 Turning Federal Investment into Action: Scaling Carbon Management Technologies and Infrastructure

June 7

 WEBINAR - High integrity isolation solutions for CO2 and hydrogen pipelines | World Pipelines

June 14-16

 Registration North America 2022 - Carbon Capture Technology Conference & Expo North America 2022 (ccus-expo.com)

June 26 - 30

19th Annual International Conference on Carbon Dioxide Utilization

June 30

• Direct Air Capture Summit, hosted by Climeworks

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.

About this email: You are receiving this message as part of newsletter subscription to the RDI Update. If you no longer wish to receive the weekly newsletter, please email ethomley@gpisd.net to be removed from the list.