

September 23, 2022

DOE Announces Nearly \$5 Billion in Funding to Deploy Carbon Management Infrastructure

Today, the Department of Energy (DOE) announced nearly \$5 billion in carbon management funding opportunities from investments made by the historic Bipartisan Infrastructure Law. The funding will support the implementation of three essential programs to build-out necessary carbon transport and storage infrastructure and drive the demonstration and widescale deployment of carbon management projects in key sectors, including heavy industry, power, and direct air capture.

These announcements include up to \$2.25 billion to support the development of new and expanded large-scale, commercial carbon storage projects under the CarbonSAFE Initiative; up to \$2.54 billion to develop six carbon management demonstration projects through the Carbon Capture Demonstration Projects Program; and \$100 million for the design of regional CO2 transport networks.

Read more here.

DOE Releases Hydrogen Hubs Funding Opportunity Announcement

The Department of Energy (DOE) released the much anticipated Funding Opportunity Announcement (FOA) for Hydrogen Hubs this week. For this initial FOA launch, DOE envisions selecting six (6) to ten (10) H2Hubs for a combined total of up to \$6-7 billion in federal funding. DOE may issue a second launch of this FOA to solicit additional H2Hubs beyond those selected in the initial launch.

Timeline:

- Concept Paper Submission Deadline: 11/7/2022 5:00 PM ET
- Full Application Submission Deadline: 4/7/2023 5:00 PM ET

See the full application on the OCED energy exchange, here. Additionally, DOE released a *draft* **National Clean Hydrogen Strategy Roadmap**, here. The Roadmap will be finalized in the next few months and revised every three years.

Midwest States Sign MOU to Create Midwest Hydrogen Coalition

Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio and Wisconsin signed a memorandum of understanding this week creating the Midwestern Hydrogen Coalition with a stated goal of accelerating the development of clean hydrogen from production and supply chain to distribution in agriculture, manufacturing, transportation, and other industries.

Read more here.

DOE Invests Funding to Improve Hydrogen Turbines and Reduce Hydrogen Costs

The U.S. Department of Energy's (DOE) Office of Fossil Energy and Carbon Management (FECM) announced almost \$4.7 million in funding for six projects to advance the development of ceramic-based materials to improve the efficiency of hydrogen-fueled turbines that may one day be used in clean power plants. Electricity made from clean hydrogen—whether produced from renewable resources or from fossil fuels or carbon-based waste resources, coupled with pre-combustion carbon capture and storage—will help in achieving the Biden-Harris Administration's goal of a zero-carbon U.S. power sector by 2035.

Read more here.

View the selected projects here.

Railroad Commission of Texas Seeks Class VI Primacy

The Railroad Commission of Texas ("RRC" or "Commission") recently took a critical first step in the process of applying for permitting and enforcement authority, known as "primacy," over the Safe Drinking Water Act's Class VI Underground Injection Control Well ("Class VI") program. Obtaining primacy would make the Commission the primary authority for anthropological carbon sequestration wells in Texas. The Class VI program is currently administered by the U.S. Environmental Protection Agency ("EPA") in every state except North Dakota and Wyoming, which have successfully applied for and obtained primacy.

Read more here.

Advancing CO2 Transport Infrastructure through DOE's CIFIA Program: A Q&A with Matt Kittell

Robust carbon dioxide (CO_2) transport infrastructure is critical to achieving midcentury climate goals. An established CO_2 transport infrastructure can help lower the financial risk of capture and storage projects and expand the number of opportunities for carbon management.

The Carbon Dioxide Transportation Infrastructure Finance and Innovation (CIFIA) Program was established in the Bipartisan Infrastructure Law and expanded in the recent Inflation Reduction Act. Administered by the US Department of Energy (DOE) Loan Programs Office (LPO), CIFIA is a financing mechanism (a main component of the bipartisan SCALE Act) that will provide

flexible, low-interest grants and loans to cover a portion of the cost of common carrier CO₂ transport infrastructure development, lowering the risk of private sector investment.

CIFIA has a total of \$2.1 billion available for CO₂ transport infrastructure financing in the form of loans or grants. LPO estimates that the funding available through the CIFIA Program could support up to \$40 billion in CO₂ transport infrastructure investments across the country. GPI's Bridget Callaghan and Ryan Kammer had a conversation with Matt Kittell, a senior investment officer with LPO's carbon management team, who conducts due diligence and underwriting on loans for LPO and is overseeing the rollout of CIFIA.

Read more about the conversation and the importance of CIFIA here.

New Speakers Confirmed for GPI's Upcoming Carbon Action Alliance Launch

We're excited to announce the first round of confirmed speakers for the upcoming Carbon Action Alliance Launch on October 26 in New Orleans, Louisiana. During the event, a tremendous group of speakers will explore ways that labor, advocacy, and state governments can work together to address challenges surrounding carbon management, support project deployment, and benefit communities. Our newly confirmed speakers are below, with more to be announced in the coming weeks:

- Tracy Evans, Chief Executive Officer, CapturePoint LLC
- Anna Fendley, Director of Regulatory & State Policy, United Steelworkers (USW)
- Patricia Loria, Vice President, Business Development, Carbon Capture, Inc.
- Kevin Pranis, Marketing Manager, Laborers' International Union of North America (LIUNA), Minnesota and North Dakota
- **Dr. Simone H. Stewart**, Industrial Policy Specialist, Climate & Energy Policy, National Wildlife Federation
- Lori Weigel, Principal, New Bridge Strategy

Learn more about the event and register here.

Have You Been Nominated to Serve on CEQ's CCUS Task Forces? – Carbon Capture Coalition Survey

The Council on Environmental Quality's (CEQ) first task force is centered around CCUS permitting and development issues both on Federal Lands and in the Outer Continental Shelf, while the second task force will focus on the same issues on non-Federal lands. Once formed, these task forces, mandated by the Carbon Capture Coalition-endorsed Utilizing Significant Emissions with Innovative Technologies (USE IT) Act which was signed into law in 2020, will be critical to help ensure the regulatory framework enables efficient, orderly, and responsible deployment of carbon management projects and related infrastructure.

The Coalition's Governance Board has decided to nominate the following candidates, who represent a diverse array of interests within the Coalition's membership

- Keith Tracy, Chief Commercial Officer, Elysian
- Jeremy Moddrell, Special Representative, United Association of Journeyman and Apprentices of the Pumbing & Pipe Fitting Industry of U.S. and Canada (UA), Pipeline & Gas Distribution Department
- Dr. Rudra V. Kapila, Senior Policy Advisor for Carbon Management, Third Way

The Coalition is keeping track of who in our network has been nominated to these task forces, to inform our advocacy on implementation. *If you have been nominated or someone has been nominated at your organization to serve on either of these task forces, please fill out this form <u>no later than 12 ET on September 26</u>, so we can support your nomination in the Coalition's cover letter.*

ICYMI: IEA Releases Reports on Carbon Capture and Hydrogen

The International Energy Agency (IEA) has released three reports related to carbon capture and hydrogen in September.

Read the reports below:

- Global Hydrogen Review 2022 Analysis IEA
- Direct Air Capture Analysis IEA
- Bioenergy with Carbon Capture and Storage Analysis IEA

News Roundup

- POLITICO Pro | Article | 'Collaboration gap' imperils net-zero goals, report warns
- John Podesta to Oversee \$370 Billion in U.S. Climate Spending The New York Times (nytimes.com)
- Drax : World's biggest carbon removals deal announced at New York Climate Week | MarketScreener
- CCUS explained and why researchers say it could reduce CO2 emissions (turnto23.com)
- Lawmakers want to change permitting bill. Will they succeed? E&E News (eenews.net)
- 3 big direct carbon capture deals to know | Greenbiz
- DOE opens \$7B hydrogen hub funding opportunity, issues draft production standard | Utility Dive
- United States Gets Serious About Producing Hydrogen at Scale Publications | Morgan Lewis
- US DOE opens applications for \$7bn hydrogen hub funding programme and unveils draft hydrogen strategy (h2-view.com)
- A new carbon capture startup targets \$5M for initial funding (axios.com)
- What Is the Status of Hydrogen & Carbon Capture Initiatives? EIN Presswire (einnews.com)
- CP Daily: Tuesday September 20, 2022 « Carbon Pulse (carbon-pulse.com)

Global News

- Chevron confirms Australia CCS acreage win News for the Energy Sector (energyvoice.com)
- Sea CCS: BASF and Samsung Heavy Industries to collaborate on green shipping technology | BusinessGreen News
- UK 'well-positioned' to become world-leader in carbon storage | News | gasworld
- Chevron Forming Carbon Capture Consortium In Singapore (carbonherald.com)
- PTTEP hands out FEED deal for its development project off Malaysia Offshore Energy (offshore-energy.biz)
- Carbon neutrality by 2050 is still achievable despite energy crisis, according to new UN report | Mirage News

New podcasts, reports, statements & blogs

- KBR and Giammarco-Vetrocoke Sign Master Services Agreement for Carbon Capture Technology || elpasoinc.com
- The U.S. Utilities Decarbonization Index Visual Capitalist
- The Inflation Reduction Act will accelerate clean hydrogen adoption Atlantic Council
- Americas-Clean-Energy-Transition-Requires-Permitting-Reform-Bledsoe-Sykes-21.9.22.pdf (progressivepolicy.org)
- Hydrogen Carbon Intensity Calculator (gti.energy)
- NREL and Cemvita Factory Team Up To Put Carbon Dioxide to Good Use | News | NREL
- GCCA: Cement and Concrete Industry Scales Up Carbon Capture, Utilisation and Storage (CCUS) Efforts to Accelerate Decarbonisation | Your Money | kulr8.com
- IRA-Driven Carbon Capture Needs Better Strategies (bloomberglaw.com)

News in the States

California

- Carbon Ridge secures funds for onboard carbon capture tech development Offshore Energy (offshore-energy.biz)
- CarbonCapture HQ Opens In Los Angeles dot.LA

Georgia

• Georgia doesn't want climate targets — but it does want green jobs – WABE

Illinois

- General Events: Listening Session: Carbon Capture, Use, and Storage (illinois.edu)
- Illinois grapples with implementing 100% clear power legislation E&E Information Illinois Daily Press
- New Method to Transform CO2 From Exhaust Into Ethylene (azocleantech.com)

Indiana

• HeidelbergCement plans Indiana carbon capture project (acs.org)

lowa

- Woodbury County Judge sets hearing on injunction request from Navigator Heartland Greenway CO2 pipeline company (siouxcityjournal.com)
- Iowans sound off on proposed carbon capture pipeline (wbrc.com)
- SUMMIT CARBON SOLUTIONS EXPANDS FINANCIAL ADVISORY ENGAGEMENTS (yahoo.com)
- Navigator CO2 pipeline faces skeptics | News | nwestiowa.com
- Summit Carbon Solutions Reaches Easement Milestone For CO2 Pipeline (carbonherald.com)
- Summit Carbon Solutions touts pipeline easement milestone in Iowa Agweek | #1 source for agriculture news, farming, markets
- Carbon Pipeline Surveyors Banned from Planned Construction Property by Landowners
 Mix 107.3 KIOW
- Manchester city council approves resolution opposing carbon capture pipeline (kcrg.com)

Kentucky

• Chart Industries and C.A.T. Group Sign Memorandum of Understanding for Bringing Full Carbon ... | Business News | kentuckytoday.com

Louisiana

- Shell representatives address carbon dioxide emissions and LSU partnership at campus event | News | Isureveille.com
- U.S. energy giant Sempra eyes 'blue' hydrogen exports to Japan Nikkei Asia
- Build Back Better Lives Again, Now With Green Hydrogen (cleantechnica.com)

Massachusetts

 Massachusetts Institute of Technology: Cracking the carbon removal challenge – India Education | Latest Education News | Global Educational News | Recent Educational News (indiaeducationdiary.in)

Minnesota

- Summit Carbon Solutions files for pipeline permit on part of Minnesota route Agweek | #1 source for agriculture news, farming, markets
- University of Minnesota Can Look to North Dakota For a Clean Energy Example The Minnesota Republic (mnrepublic.com)
- Summit Carbon Solutions files for pipeline permit in Otter Tail, Wilkin counties InForum | Fargo, Moorhead and West Fargo news, weather and sports
- Minnesota strengthens climate action plan | Energy News Network

Missouri

• US\$1.7m grant awarded for Missouri S&T CO2 capture project (cemnet.com)

New Mexico

- E&E News | Article | N.M. city sues to keep large coal plant open for future CCS (politicopro.com)
- New Mexico city sues for control of retiring coal plant | Energy News Network
- Farmington Files Suit for Power Plant Ownership KSJE 90.9 FM
- City of Farmington seeks judicial relief in SJGS takeover fight (daily-times.com)

North Dakota

- North Dakota Industrial Commission approves \$15M for energy projects (bismarcktribune.com)
- Sen. Cramer Participates in Fireside Chat with Bank of America CEO Brian Moynihan (senate.gov)

Pennsylvania

- Pennsylvania Climate Plan Faces Uncertain Future after Election | Bloomberg Government (bgov.com)
- Changes needed to make a Pennsylvania hydrogen hub work | Pennsylvania | thecentersquare.com

South Dakota

- Brian Bengs criticizes use of eminent domain for carbon dioxide pipeline in South Dakota (dakotanewsnow.com)
- Ethanol industry seeks carbon capture solution | TheFencePost.com

Texas

- NRG sells stake in Petra Nova carbon capture project to Japanese company for \$3.6 million (houstonchronicle.com)
- New carbon capture and storage project launches in Texas BIC Magazine
- Caddo Sustainable Timberlands, LP Announces First Carbon Capture and Storage Transaction, Targeting Permanent Sequestration of More Than 9M Tons of CO2 Annually | Regional | chronicle-tribune.com

West Virginia

- Manchin permitting-reform bill allows DOE to designate 'national interest' transmission projects | Utility Dive
- Manchin Releases Comprehensive Permitting Reform Text To Be Included In Continui... (senate.gov)
- Capito Leads Colleagues in Introducing Comprehensive Regulatory and Permitting Reform Legislation (senate.gov)
- Competitive Power Ventures set to build \$3B, 1.8 GW natural gas plant with carbon capture in West Virginia | Utility Dive
- Maryland-based energy company plans to invest \$3 billion in West Virginia | WCHS (wchstv.com)
- Natural gas-fired power, carbon capture plant coming to W.Va. | News, Sports, Jobs News and Sentinel
- Competitive Power Ventures set to build \$3B, 1.8 GW natural gas plant with carbon capture in West Virginia | Utility Dive

Wisconsin

• Wisconsin, other states form coalition to explore opportunities for clean hydrogen energy (channel3000.com)

Wyoming

- Large scale carbon capture hits the ground in Wyoming | Environment Analyst Global (environment-analyst.com)
- World's Largest CO2 Capture Facility In The US? (nationworldnews.com)

Upcoming events

September 20

• Center for Hydrogen Safety Americas Conference

This conference will bring together representatives from industry, government, and academia to highlight the safe use of hydrogen in commercial and industrial applications.

September 21 - 23

• Global Clean Energy Forum (gceaf.org)

Directly following the UN General Assembly, the Global Energy Forum will convene governments representing most of the world's GHG emissions and 90% of public investment in clean energy, international organizations, clean energy financiers, industry leaders, unions, non-governmental organizations, young professionals and tech innovators. The purpose of this is to spur concrete action to implement clean energy deployment commitments that build on historic advancements in innovative technologies.

September 27

 Eastern & Mid-Atlantic Regional Carbon Conversion/Utilization Procurement Grant Workshop | USEA | United States Energy Association

The Carbon Conversion/Utilization Program, with the assistance of the United States Energy Association (USEA), will conduct a series of workshops (both virtual and inperson) with relevant stakeholders, e.g., product manufacturers, eligible entities, or their representative national organizations (e.g., United States Conference of Mayors, etc.) to solicit input and ideas on challenges and opportunities for a potential grant program.

September 27 – 29

• Register for the Policy Makers Symposium Here

National Clean Energy Week brings together business leaders, advocates, policymakers, and trade associations from all perspectives who are dedicated to advancing clean energy. NCEW encompasses broad and diverse energy sources, including solar, wind, hydropower, geothermal, nuclear, natural gas, biomass, carbon capture, and waste-to-energy

October 4 - 5

• American Carbon Capture Utilization and Storage Forum (uscarboncaptureforum.com)

The forum will gather all relevant stakeholders from energy companies, government and research sectors as well as solution providers where experts will have an opportunity to present their perspective, share latest findings and raise important questions.

October 18

Midwest Regional Carbon Conversion/Utilization Procurement Grant Workshop | USEA |
United States Energy Association

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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.

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