

November 4, 2022

Coalition Announces Formation of Southeast Hydrogen Hub

As the deadline to submit concept papers to the Department of Energy's Regional Clean Hydrogen Hubs funding opportunity announcement (FOA) approaches (November 7), states, businesses, nonprofits, and others have increasingly announced collaborative hub partnerships to secure part of this funding.

Among the latest hub announcements is the Southeast Hydrogen Hub, formed from a coalition of major utilities and other regional organizations. Current prominent partners in this effort include Dominion Energy, Duke Energy, Louisville Gas & Electric Company and Kentucky Utilities Company, Southern Company, and the Tennessee Valley Authority (TVA), Battelle and hydrogen users from industries in Alabama, Georgia, Kentucky, North Carolina, South Carolina, and Tennessee. Other organizations are expected to join the hub in the following months.

The Southeast Hydrogen Hub would be funded through the Department of Energy funding opportunity announcement (FOA) mentioned above, which contains up to \$8 billion for 6 to 10 hydrogen hubs. The FOA requires project concept papers to be submitted by November 7, 2022, and full applications to be submitted by April 7, 2023, with funding to be awarded in the fall of 2023.

Related News

- Georgia Power joins effort to establish six-state Southeast Hydrogen Hub (prnewswire.com)
- Major Southeast utilities establish hydrogen hub coalition (southerncompany.com)
- TVA, Other Utilities Launch Southeast Hydrogen Hub Effort | American Public Power Association
- American Southeast utility majors form hydrogen hub coalition Offshore Energy (offshore-energy.biz)

IRS Releases Request for Comment on 45Q tax Credit

IRS released three additional requests for information yesterday, related to implementing tax credit enhancements and extensions contained in the Inflation Reduction Act of 2022. One request is specific to the Section 45Q Tax Credit. Comments on these three notices are **due**

December 3, though the IRS will consider comments after that date so long as they do not delay the issuance of guidance.

- Notice 2022-56 requests comments related to the qualified commercial clean vehicles provisions and the alternative fuel vehicle refueling property.
- Notice 2022-57 requests comments related to the credit for carbon capture.
- Notice 2022-58 requests comments related to the credit for the production of clean hydrogen and the clean fuel production credit

Specific to Notice 2022-57 (45Q Tax Credit) a few sample topics include:

- Clarifications needed for key terms and requirements and definition of qualified facility
- Existing and emerging technologies that potentially meet the definition of a DAC facility
- Factors the Treasury Department and the IRS consider in determining how a taxpayer can demonstrate that it satisfies the original planning and design requirement
- Demonstrate how carbon capture equipment can meets the 75 percent baseline carbon oxide requirement

Read more about enhancements to the 45Q Tax credit in the Carbon Capture Coalition's Inflation Reduction Act factsheet.

Bipartisan SECURE Act Introduced, Would Increase Class VI Funding

US Representatives Dave Joyce (R-OH) and Troy Carter (D-LA) introduced the State Efforts to Create Underground Regulatory Efficiency (SECURE) Act, H.R. 9230 on Oct. 25. The SECURE Act would increase the U.S. Environmental Protection Agency's authorized grant funding from \$50 million to \$100 million to help states pay for expenses related to establishing and operating underground injection control programs for the wells they use to sequester carbon dioxide.

EPA can grant primary enforcement authority—referred to as primacy—to individual states, territories, or tribes, which delegates authority to administer certain well classes in the UIC program in accordance with federal standards. Importantly, states, territories, or tribes can be approved for this delegation of primacy only when their regulations <u>meet or exceed</u> the federal UIC requirements.

There are a few states that have acted on Class VI Primacy. North Dakota and Wyoming have received primacy, Louisiana's primacy application is processing, Arizona, West Virginia and Texas are in pre-application, and Mississippi and Utah are both directed by statute to pursue primacy.

Read more about why the EPA's Class VI Well Program Key to Deploying CO2 Geologic Storage in the Great Plains Institute's blog (linked above).

Related News

- Joyce, Carter Introduce Bipartisan Bill to Mitigate CO2 Emissions Dave Joyce (house.gov)
- Joyce sponsors bipartisan bill to increase state grants related to carbon capture and storage Ripon Advance

Pennsylvania Passes Hydrogen Tax Credit

This week Pennsylvania Governor Tom Wolf signed House Bill 1059, which amends the Tax Reform Code of 1971 and provides tax credits for those looking to be involved with a Pennsylvania Clean Hydrogen Hub and for using natural gas to make petrochemicals or fertilizer, among other opportunities.

HB 1059 would grant \$50 million annually for a federally designated regional clean hydrogen hub. To receive funding, The DOE must select the developer, and the developer must invest at least \$500 million in the project while creating a minimum of 1,200 permanent jobs with priority given to local hires.

Read more about Pennsylvania's potential for a clean hydrogen hub in GPI's Atlas of Carbon and Hydrogen Hubs and the associated Pennsylvania-specific fact sheet. For more insight on what Pennsylvania can do to become a leader in carbon management and hydrogen, read GPI's resources on A Road Map for Deploying Carbon Management and Hydrogen in Pennsylvania.

Related News

- Pennsylvania Lawmakers Add \$30M in Tax Incentives for Natural Gas Use, Offer Carrot for Hydrogen Hub Natural Gas Intelligence
- Wolf signs \$2 billion tax credit package that boosts natural gas industry City & State Pennsylvania (cityandstatepa.com)
- Pa. Senate panel approves hydrogen, natural gas tax credit bill | Pittsburgh Post-Gazette
- Pa. Lawmakers OK Raising Threshold For Estimated Payments Law360
- PA General Assembly Passes Flawed Tax Credit Bill | NRDC

News Roundup

- CCM | The Inflation Reduction Act: A Historic Win for Carbon Management | CarbonCaptureMagazine.com
- FACT SHEET: U.S.-UAE Partnership to Accelerate Transition to Clean Energy (PACE) | The White House
- Linde and SLB Collaborate on Carbon Capture and Sequestration (bignewsnetwork.com)
- WILLARD: Carbon Capture And Storage Brings Great Potential To Louisiana (thehayride.com)
- E&E News | Article | CO2 pipeline developers, foes clash over landowner lists (politicopro.com)
- E&E News | Article | 840 CCS projects may be needed by 2030. Is that possible? (politicopro.com)
- Landfill operators take a closer look at carbon sequestration projects in wake of Inflation Reduction Act | Waste Dive

- Opinion: As America grapples with the climate crisis, 9 experts weigh in with solutions | CNN
- Congress wagered on 'low-carbon' concrete. Will it pay off? E&E News (eenews.net)
- Carbon removal nonprofit Terraset launches in net zero race Protocol
- Carbon Capture in the Steel Industry: ArcelorMittal, Mitsubishi Heavy Industries Engineering, BHP and Mitsubishi Development Sign Collaboration Agreement - EIN Presswire (einnews.com)
- "Valuations are out of control": Chris Sacca shuns hydrogen (axios.com)
- Plan A Introduces New Tool That Addresses Scope 3 Emissions (carbonherald.com)
- Report Shows Massive CO2 Reduction In Cement And Concrete Production (carbonherald.com)
- Babcock & Wilcox to Study Application of SolveBrightTM CO2-Capture Technology for CONSOL Energy Decarbonization Project | Business | valdostadailytimes.com
- Fight against carbon capture pipeline unites communities in 5 states (dailykos.com)
- Opponents of U.S. carbon pipeline draw lessons from prior pipeline fights | Reuters
- With Fossil Fuel Companies Facing Pressure to Reduce Carbon Emissions, Private Equity Is Buying Up Their Aging Oil, Gas and Coal Assets Inside Climate News
- Investors Are Betting Big on Carbon Removal Technology. The Reality Is More Complicated. (yahoo.com)
- Woodside Kicks Up U.S. Carbon Capture Investments with LanzaTech Venture Natural Gas Intelligence
- CO2 pipeline developers, foes clash over landowner lists E&E News (eenews.net)
- Opinion | Carbon capture is already making a difference The Washington Post
- E&E News | Article | Group eyes educating public on CCS, carbon management (politicopro.com)

Global News

- Use it or lose it: Carbon capture developers urge UK to back projects or risk capital flight | Upstream Online
- 'Work to do': Northern Lights' boss on the growing potential of CCS in Europe | Upstream Online
- Indonesia's Pertamina starts first underground carbon injection tests | Reuters
- ExxonMobil joins decarbonisation cluster in southern England | Upstream Online
- New Carbon Capture System Strips Hydrogen out of LNG Before Combustion (maritimeexecutive.com)
- Ottawa, Alberta clash over who must pay to lift carbon capture credits | Toronto Sun
- ArcelorMittal to trial carbon capture technology at Belgium steel plant edie

New podcasts, reports, statements & blogs

• A buyer's guide to high-accountability MRV | by Carbon180 | Nov, 2022 | Medium

- Svante Celebrates 15 Years Pioneering Carbon Capture & Removal Solutions | Business & Finance | tullahomanews.com
- There's about to be a big boom in carbon capture projects The Verge
- Why Arabian Gulf exporters are well-positioned to lead on carbon-negative oil (thenationalnews.com)
- Talos Announces Successful Completion of Consent Solicitation (yahoo.com)
- IRA-Driven Carbon Capture Needs Strategic Approach Environmental and Energy Brief (sidley.com)
- Chart Industries and CarbonCure Technologies Announce Agreement for Carbon Dioxide Storage and ... | Nation/World | bdtonline.com
- Back to Basics: Carbon Capture, Storage, and Repurposing EHS Daily Advisor (blr.com)

News in the States

California

• Consortium looks to apply for \$800M in federal support for carbon management | News | bakersfield.com

Colorado

- States are vying for money to start 'hydrogen hubs.' What are they? Colorado Newsline
- Occidental And Western Midstream Set To Work On Carbon Capture In Delaware And Colorado (carbonherald.com)

Illinois

- Meeting tonight in Jacksonville looks at carbon dioxide pipeline risks | Journal-Courier (myjournalcourier.com)
- It Might Be Time To Consider County Zoning | The Journal-News

lowa

- Iowa's CO2 pipeline fight, one year in | News | nwestiowa.com
- Second company files for Iowa carbon capture pipeline permit, seeks eminent domain
- McDonough County Board approves pipeline moratorium (tspr.org)
- Navigator carbon capture pipeline project, which includes POET ethanol plants, files for permit in Iowa Agweek | #1 source for agriculture news, farming, markets
- Shelby County establishes setbacks for carbon capture pipelines | Iowa Public Radio
- Shelby County passes ordinance designed to rebuff CO2 pipeline plans (nonpareilonline.com)
- Q&A with Iowa Fourth Congressional District Democratic nominee Ryan Melton (siouxcityjournal.com) (carbon capture comment at 11:50)
- Iowa Farmers Demand Safety Reports for Carbon Pipelines The New American

Louisiana

- Amid carbon capture headwinds, BRAC announces 'carbon reduction' alliance | Business | theadvocate.com
- SADOW: Fed Carbon Capture Welfare Cash No Balm For LA's Economic Woes (thehayride.com)

- Louisiana project highlights unknowns of carbon capture (energynews.us)
- Hydrogen maker sues La. parish for blocking carbon capture | Energy News Network
- How a history of environmental disasters drives Livingston's fear of carbon capture | Environment | theadvocate.com
- Guest column: In defense of carbon capture | Opinions and Editorials | nola.com
- WILLARD: Carbon Capture And Storage Brings Great Potential To Louisiana (thehayride.com)
- ExxonMobil, CF Industries and EnLink Partner in 'Unprecedented' Effort to Cut Louisiana Carbon Natural Gas Intelligence
- Gulf Coast Sequestration to locate first hub of its kind in SW La. for storing carbon dioxide emissions American Press | American Press
- Approval sought for giant CCS hub at Lake Charles, Louisiana (gasworld.com)
- Legal or not, moratoriums could have 'chilling effect' on carbon capture (businessreport.com)
- More than 200 residents pack meeting about Lake Maurepas Carbon Capture Project -L'Observateur | L'Observateur (lobservateur.com)
- Southeastern announces independent monitor for Lake Maurepas carbon capture project | Environment | theadvocate.com
- State: Proposed 'Blue Ammonia' Plant Could Mean 350 New Jobs (usnews.com)
- New emissions-reduction project in Louisiana | World Pipelines
- Denbury Signs Definitive Agreement With Lake Charles Methanol For Carbon Transportation and Storage (carbonherald.com)
- Clean Hydrogen Works unveils \$7.5 billion Louisiana hydrogen-ammonia project (kallanish.com)
- Litigation over Injection Wells Threatens to Stall Carbon Sequestration Project in Louisiana | BakerHostetler JDSupra
- Denbury Surpasses CO2 Deal Target with Massive Louisiana Project (yahoo.com)
- LMOGA president: Oil industry must get greener to remain vital (businessreport.com)

Maryland

 Baltimore-based Constellation Energy pursues 'hydrogen economy' to meet global climate goals – Baltimore Sun

Minnesota

• In support of Summit Carbon | Opinion | fergusfallsjournal.com

Missouri

- LafargeHolcim US reveals more detail on carbon capture study at Ste. Genevieve cement plant Cement industry news from Global Cement
- The Digest's 2022 Multi-Slide Guide to Industrial Carbon Capture from a Cement Facility Using the Cryocap FG Process (biofuelsdigest.com)
- Carbon Capture Developer Calls Inflation Reduction Act 'Game Changer' for Nebraska Project - Natural Gas Intelligence

New Mexico

 Enchant Energy's San Juan project at center of debate around new carbon dioxide rules | The NM Political Report

- New Mexico limits power plant carbon emissions | Energy News Network
- Clean Energy Tax Break Draws Scrutiny of Natural Gas Plan in New Mexico The New York Times (nytimes.com)
- New Mexico regulatory rule puts limits on San Juan CO2 emissions | IEEFA
- Tucson Electric, PNM seek FERC's OK to end their San Juan plant ownership pact ahead of decommissioning | Utility Dive

North Dakota

- Port: Yes, carbon capture really is progress (inforum.com)
- For North Dakotans wanting to be on the record about Summit Carbon pipeline, prepare to attend a hearing Agweek | #1 source for agriculture news, farming, markets
- Carbon capture and storage: From dream to reality UND Today

Pennsylvania

- Nikola Trucks Will Use Hydrogen from KeyState's PA NatGas Project | Marcellus Drilling News
- Nikola and KeyState Natural Gas Synthesis team up to develop Pennsylvania hydrogen value chain (h2-view.com)
- Appalachia as Hydrogen Superpower EIN Presswire (einnews.com)

South Dakota

- Native Americans, white farmers join forces to oppose Summit carbon capture pipeline (nbcnews.com)
- Navigator could begin pipeline route surveys on South Dakota private land (farmforum.net)
- Lawsuits claim Brown Co. moratorium, Edmunds Co. fees violate law (aberdeennews.com)
- Property owners ask Brown County Commission to stand ground in lawsuit (aberdeennews.com)

Texas

- Offshore carbon capture study in Texas is 'a potential game-changer for the planet' Enbridge Inc.
- Jonathan Grammer to Speak on Carbon Capture to Texas Land and Mineral Owners | National News | recorderonline.com
- Oxy continues aggressive carbon capture plans with King Ranch lease (houstonchronicle.com)
- Carbon capture attracts strong investments amid concerns over water, energy costs |
 Texas Standard
- Texas dominates direct air capture with Canadian tech Resources & Agriculture | Business in Vancouver (biv.com)
- King Ranch will be the site of the largest carbon capture project yet The Verge
- Construction of the world's largest carbon removal plant begins in the Permian Basin (mrt.com)
- Hydrogen projects are picking up steam in Houston as climate bill spurs renewables (houstonchronicle.com)

- Direct Air Capture could address energy industry carbon emissions in Houston constructconnect.com
- Dallas' EnLink Midstream sees more carbon capture deals in its future (dallasnews.com)
- Oxy Low Carbon Ventures Expands CO2 Sequestration Hubs (carbonherald.com)

Vermont

• Lukas Kopacki: Vermont could be a leader in a carbon-capture system - VTDigger

West Virginia

• NETL Director to Kick Off WV Governor's Energy Summit | netl.doe.gov

Wyoming

- Wyoming Integrated Test Center joins international carbon capture network (trib.com)
- Carbon capture work recognized | News | wyomingnews.com
- Lawmakers vote down 'industrial power zones' draft bill | Wyoming Public Media
- Fluor selected for Wyoming's Project Bison carbon-capture facility Chemical Engineering (chemengonline.com)
- Where's The Promised Support For Wyoming's Coal Workers? | Cowboy State Daily
- Wyoming coal could benefit from Texas permitting carbon capture expansion | Wyoming Public Media
- PacifiCorp says carbon capture technology would come at high cost to customers, but others disagree | Wyoming Public Media

Upcoming events

November 15

Columbia | SIPA Center on Global Energy Policy | An Equitable Energy Transition and Considerations for Planning

The Center on Global Energy Policy will host Dr. Destenie Nock, Visiting Faculty member at CGEP and Assistant Professor of Engineering and Public Policy and Assistant Professor of Civil and Environmental Engineering at Carnegie Mellon University, for a fireside chat focused on themes related to energy poverty and sustainability including methods to leverage data to reach an equitable and just energy future. In her research and her startup company Peoples Energy Analytics, Dr. Nock has pioneered energy poverty and sustainability metrics in the electricity system.

November 17

• [Webinar] Carbon Capture Gets a Long Runway for Development - November 17th, 12:30 pm - 1:00 pm ET | McDermott Will & Emery - JDSupra

A panel of CCUS industry operators, investors and advisors will dive into the current CCUS market, with a discussion that includes the following: 1) Potential benefits for CCUS under the IRA and how they might play out in future CCUS development projects. 2) The state of the CCUS market prior to the passage of the IRA and how things have progressed since. 3) The role of financing in CCUS projects and how CCUS financing may change going forward after the IRA. 4) What the future of a more developed CCUS

industry in the United States would look like and what needs to happen in order to get there.

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 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.

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.