

February 25, 2022

Colorado, New Mexico, Utah, and Wyoming Coordinate to Develop Regional Hydrogen Hub

The states of Colorado, New Mexico, Utah, and Wyoming signed a Memorandum of Understanding (MOU) yesterday to coordinate and develop a Western Inter-State Hydrogen Hub (WISHH). The Infrastructure Investment and Jobs Act allocates \$8 billion towards four regional hydrogen hubs and the Signatory States will work together to develop supporting facilities in each state. Governors' statements highlighted how a regional clean hydrogen hub will support their state's climate goals and provide energy, jobs, and economic growth to their state.

The U.S. Department of Energy (DOE) is expected to open applications in May 2022.

Additional News coverage

- Colorado will join New Mexico, Utah, and Wyoming to create a hydrogen hub in the Rocky Mountain region (denverpost.com)
- Mountain west states sign MOU to develop a regional clean hydrogen hub County 10[™]
- Wyoming Joins Western States in Development of Hydrogen Hub (kgab.com)

DOE Releases Request for Information (RFI) on Clean Hydrogen

The US Department of Energy (DOE) released a request for information (RFI) on clean hydrogen manufacturing, recycling, and electrolysis technology research, development, and demonstration (RD&D) on February 16. The RFI will collect stakeholder feedback regarding RD&D for three hydrogen initiatives included in the Infrastructure Investment and Jobs Act:

- Clean Hydrogen Manufacturing Initiative
- Clean Hydrogen Electrolysis Program and;
- Clean Hydrogen Technology Recycling Research, Development, and Demonstration Program

The (RFI) number is DE-FOA-0002698 and the complete RFI document is located at https://eere-exchange.energy.gov/. Comments can be submitted electronically to

H2RFI@ee.doe.gov by March 29, 2022, by 5:00 p.m. ET. For further information contact H2RFI@ee.doe.gov or Karen Dandridge at (202) 586-7768.

Additional News Coverage:

- US DOE announces RFIs for clean hydrogen initiatives Nuclear Engineering International (neimagazine.com)
- DOE Moving Forward to Implement Significant Hydrogen Programs: Seeks Public Input | Vinson & Elkins LLP - JDSupra

West Virginia Establishes Hydrogen Hub Working Group

West Virginia Senators and Representatives announced the creation of the West Virginia Hydrogen Hub Working Group, which will help the state support a candidate to be selected by the Department of Energy (DOE) to develop one of the four hydrogen hubs funded through the bipartisan Infrastructure Investment and Jobs Act. The Act allocates \$8 billion to develop the hubs and requires one in Appalachia.

The working group will add additional partners and host an initial meeting in the next few months.

Additional News Coverage:

• West Virginia Hydrogen Hub Working Group launched | State Journal News | wvnews.com

EPA's Class VI Well Program Key to Deploying CO2 Geologic Storage

Great Plains Institute released a blog last week overviewing the current needs for carbon management projects including expanded permitting capacity by federal and state authorities through EPA's Class VI program. Commercial interest in carbon management technologies and projects in the US is growing rapidly, with nearly 90 publicly announced projects. More than 70 percent of the announced projects intend to store captured carbon dioxide (CO₂) deep underground safely and permanently in saline geologic formations.

Injecting captured CO₂ into saline geologic formations is an essential strategy to meet US and global climate goals and Federal and state authorities ensure safe and permanent geologic storage in saline formations through the US Environmental Protection Agency's Underground Injection Control Program for Class VI injection wells. The program rules address the permanent storage of CO2 and ensure that wells are appropriately sited, constructed, tested, monitored, funded, and closed once injection activities are completed.

EPA can also grant primary to individual states, territories, or tribes, if their regulations **meet or exceed** the federal UIC requirements. Primacy delegates authority to administer certain well classes in the UIC program in accordance with federal standards.

Federal and state efforts underway can provide key support for project deployment, including to expand the capacity of federal and state authorities to permit geologic storage in saline

formations. GPI surveyed states about the UIC Class VI program last year to better understand challenges with the primacy application process and gather foundational information about carbon capture projects at the state level. This memo detailed the survey results and was provided to EPA UIC program officials to help inform a Class VI Report for Congress.

Read more: here

News Roundup

- CEQ Issues Interim CCUS Guidance | Lewis Roca JDSupra
- Carbon-negative platform turns waste gases into valuable chemicals (newswise.com)
- https://www.blackenterprise.com/department-of-energy-announces-it-will-provide-2-2-to-support-hbcus-for-environmental-remediation/
- Feds Roll Out \$12.1B In Infra Funding for Carbon Capture Tech, Pipelines | 2022-02-20 | Engineering News-Record (enr.com)
- Feds predict NEPA delays after court nixes climate metric E&E News (eenews.net)
- CCS Systems for Rio Grande LNG Terminal | Gas Compression Magazine
- US DOE announces RFIs for clean hydrogen initiatives Nuclear Engineering International (neimagazine.com)
- The Biden-Harris Plan to Revitalize American Manufacturing and Secure Critical Supply Chains in 2022 | The White House
- Fact Sheet: Biden-Harris Administration Delivering Results 100 Days into Infrastructure Implementation | The White House
- Carbon Capture Needed for 'Last-mile Decarbonization' | RTO Insider
- 'Carbon capture' efforts show big growth | The Journal Record
- DOE Announces \$150 Million to Reduce Climate Impacts of Energy Technologies and Manufacturing | Department of Energy

Global News

- Carbon capture agreement to advance CCUS in Australia | News | gasworld
- 'Germany's first major hydrogen hub' | Uniper to supply Salzgitter steel plant with green H2 | Recharge (rechargenews.com)Veterans Delta CleanTech on carbon capture: 'Utilization is the key' - constructconnect.com
- Aker Solutions and Dril-Quip join hands for carbon capture and storage Offshore Energy (offshore-energy.biz)
- New project is looking at carbon capture to make the cement industry climate-neutral: Biofuels Digest
- Rosneft plans to build three carbon capture storages hubs by 2030 | Reuters
- BG Freight Line to Install Carbon Capture Systems on Two Boxships Ship & Bunker (shipandbunker.com)
- Airbus starts testing hydrogen plane propulsion for low-carbon aviation | E&T Magazine (theiet.org)

- Solvang achieves 60% carbon capture in ethylene carrier engine tests | TradeWinds (tradewindsnews.com)
- Carbon Capture Utilization and Storage: Administration Action (and Inaction) | Troutman Pepper JDSupra

New podcasts, reports, statements & blogs

- Applying The Midstream Model to Carbon Capture Projects Energy and Natural Resources United States (mondaq.com)
- Which states will win out on \$9.5B in federal clean... | Canary Media
- Sempra joins Carbon Neutral Coalition for CCUS policies development Offshore Energy (offshore-energy.biz)
- Denbury Provides CCUS Update, Including 2022 Goals and Multiple New Agreements (yahoo.com)
- Blue-Green debate intensifies as race kicks off for US hydrogen hubs Rethink (rethinkresearch.biz)
- CEQ's new guidance makes the correct connections between climate change, community concerns, and carbon capture Clean Air Task Force (catf.us)
- US industrial sources of CO2 remain untapped: analysis | IHS Markit
- Chevron Announces Investment in Carbon Clean CO2 Capture Technology Business |
 Business Wire

News in the States

Alabama

- Baldwin County site targeted for significant carbon capture project Lagniappe Mobile
- U.S. Department of Energy Awards \$5.7 Million for GE-Led Carbon Capture Technology Integration... BusinessGhana

California

- A startup wants to make lab-grown steak out of captured carbon emissions | Boing Boing
- THE ECONEWS REPORT: Is California's Carbon Credit System a Failure? | Lost Coast Outpost | Humboldt County News

Colorado

• Colorado will join New Mexico, Utah, and Wyoming to create a hydrogen hub in the Rocky Mountain region (denverpost.com)

Illinois

• Storing carbon in Illinois' underground rock | Farm and Field | whig.com

• University of Illinois Urbana Champaign Ranks Number 25 Nationally on EPA's List of On-Site Green Power Users - EIN Presswire (einnews.com)

Indiana

- Vigo energy project hits setbacks in Legislature | News | tribstar.com
- Indiana Farm Bureau Working to Protect Landowners' Subsurface Property Rights | Hoosier Ag Today

lowa

- GOP kills eminent domain bill for pipelines | News | nwestiowa.com
- Des Moines Register
- CO2 Pipelines Could Save Iowa's Corn Industry | Time
- Opposition to carbon pipeline triggers flood of comments Business Record
- Eminent domain bill dies in Senate committee | Iowa News | oskaloosa.com
- Landowner Rights at Center of IAs Carbon Pipeline Debate / Public News Service
- Landowners form group to fight pipeline eminent domain | News | ottumwacourier.com
- Carbon pipelines, corporate farming bring out protesters at Iowa capitol Agweek | #1 source for agriculture news, farming, markets
- An Effort to Make the American Corn Industry Climate-Friendly Has Turned into a Political Melee in the Midwest Mass News
- Early comments Iowa's carbon pipeline surpass Dakota Access numbers

Kansas

• PureField expands wheat facility | Pet Food Processing

Louisiana

- Energy, pipeline companies offer 500 million tons of carbon capture capacity to Louisiana industry (1012industryreport.com)
- Biden administration halts lease decisions after carbon-cost ruling | Energy News
 Network
- Feds Tell Judge: Revoke Your GHG Emissions Cost Metric Ban | 2022-02-22 | Engineering News-Record (enr.com)
- N. America's old pipelines seek new life moving carbon in climate push | The Mighty 790 KFGO | KFGO

Massachusetts

• Norsk Hydro takes stake in U.S. carbon capture firm Verdox | Reuters

Michigan

• U-M TCAUP Receives Catalyst Grant | Global CO2 Initiative

Minnesota

• Bill Introductions - Minnesota House of Representatives (state.mn.us)

 DOE Backs Rio Tinto Led Team to Explore Carbon Storage at Tamarack | E & MJ (emj.com)

Missouri

• 'Carbon capture' efforts show big growth | The Journal Record

New Mexico

- Legislative session sees few wins for environment, energy bills | The NM Political Report
- New Mexico fails to pass clean hydrogen bill | Argus Media
- Environmental policies mostly fail at New Mexico Legislature (currentargus.com)
- What passed, what failed in the 2022 legislative session | Legislature | New Mexico Legislative Session | santafenewmexican.com
- Hydrogen hub can make NM energy leader Albuquerque Journal (abqjournal.com)
- San Juan Generating Station requests extension to keep burning coal The Journal (the-journal.com)

North Dakota

- Massive power demand looms as industrial projects eye western North Dakota, report says | State & Regional | bismarcktribune.com
- First CO2 Pipeline application filed with PUC as landowners ask about safety, eminent domain of a for-profit company (dakotanewsnow.com)

Oklahoma

- H2Oklahoma: Interview with Secretary Ken Wagner Reflections on Water Podcast | Troutman Pepper - JDSupra
- Chesapeake Utilities Corporation Completes Testing of Hydrogen Blending in Continued Move Toward Lower Carbon Energy Sources | MarketScreener

Pennsylvania

- Can Carbon Capture Fit into Pennsylvania's Climate Solutions? | Across Pennsylvania, PA Patch
- Expert sees Pittsburgh region's huge advantage in hydrogen, carbon capture Pittsburgh Business Times (bizjournals.com)

South Carolina

- ICYMI: Secretary Granholm Traveled to South Carolina to Highlight Efforts to Strengthen University Pipeline to Clean Energy Jobs | Department of Energy
- How infrastructure bill will help GSP keep growing, innovating (greenvilleonline.com)

South Dakota

- County temporarily bans new pipelines in response to carbon-capture proposal | SDPB
- Meetings on South Dakota stretch of carbon pipeline set for March Agweek | #1 source for agriculture news, farming, markets
- Counties could regulate CO2 pipelines | KELOLAND.com

Tennessee

• LanzaTech, Northwestern and ORNL researchers develop tech producing chemicals from carbon emissions: Biofuels Digest

Texas

- Apex Clean Energy, Ares Management, EPIC Midstream, and Port of Corpus Christi Authority Sign Memorandum of Understanding for Gigawatt-Scale Green Fuels Hub on Texas Gulf Coast | Business Wire
- Climate change means Texas needs more energy, not restrictions (dallasnews.com)
- Infinium[™] Enters into Strategic Alliance with Denbury for Ultra-Low Carbon Fuels Projects in Texas, Continuing Development Momentum (prnewswire.com)

West Virginia

- Senate and House bills set the stage for carbon sequestration program in West Virginia (yahoo.com)
- Chairman sees 'all of the above' energy approach, advisory role for newly rebooted Public Energy Authority | Energy and Environment | wvgazettemail.com
- West Virginia Hydrogen Hub Working Group launched | State Journal News | wvnews.com

Wisconsin

• UW team develops carbon capture tech, competes in XPRIZE contest – CALS News (wisc.edu)

Wyoming

- Governor Gordon Brokers Deal to Keep Jim Bridger Power Plant Open (wyomingnewsnow.tv)
- Wyo., EPA edge toward power plant deal E&E News (eenews.net)
- Wyoming Joins Western States in Development of Hydrogen Hub (kgab.com)

Upcoming events

March 1 IEAGHG/IETS Workshop: CCUS Technologies in Industrial Systems

March 1 - 3 Technology, Infrastructure, and Policy for Carbon Utilization Registration, Tue, Mar 1, 2022, at 1:00 PM | NASEM

March 3 MULTILATERAL DEVELOPMENT BANKS AS DRIVERS FOR CCUS, Webinar | CEM CCUS initiative

March 4

IEAGHG Webinar: Criteria for Depleted Reservoirs to be Developed for CO2 Storage

March 17 NAE GRP Colloquium Opportunities and Challenges Carbon Capture Utilization and Sequestration | National Academies

March 28 Carbon, Capture, Utilization, and Storage (CCUS) Conference | Houston (aapg.org)

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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