



## REGIONAL CARBON CAPTURE DEPLOYMENT INITIATIVE

# UPDATE

May 27, 2022

## PHMSA Announces New Safety Measures for Carbon Dioxide Pipelines; DOE and Carbon Capture Coalition Release Accompanying Statements

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) announced [new carbon dioxide \(CO<sub>2</sub>\) pipeline safety measures](#) on May 26, 2022. These measures will strengthen the department's safety oversight of carbon dioxide (CO<sub>2</sub>) pipelines around the country and protect communities from dangerous pipeline failures.

To strengthen CO<sub>2</sub> pipeline safety, PHMSA is undertaking the following:

- initiating a new rulemaking to update standards for CO<sub>2</sub> pipelines, including requirements related to emergency preparedness, and response;
- issuing a [Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order](#) (NOPV) to Denbury Gulf Coast Pipeline, LLC for multiple probable violations of Federal pipeline safety regulations (PSRs). The proposed civil penalties amount to \$3,866,734.
- completing a [failure investigation report](#) for the 2020 pipeline failure in Satartia, Mississippi;
- issuing an updated nationwide [advisory bulletin](#) to all pipeline operators underscoring the need to plan for and mitigate risks related to land-movements and geohazards that pose risks to pipeline integrity like the 2020 incident in Satartia, Mississippi; and
- [conducting research solicitations](#) to strengthen pipeline safety of CO<sub>2</sub> pipelines.

The U.S. Department of Energy released an accompanying statement, saying that the department will incorporate PHMSA's guidance into its research, development, demonstration, and deployment portfolio as they work to ensure the continued safe operations of commercial CO<sub>2</sub> pipelines in the United States.

The Carbon Capture Coalition (CCC) also [released a statement](#) on the safety measures, emphasizing the "common-sense steps" PHMSA released to build on comprehensive existing CO<sub>2</sub> pipeline regulations. To scale up the CO<sub>2</sub> infrastructure essential to meeting midcentury climate targets, there must be full public and policymaker confidence in CO<sub>2</sub> pipeline safety. The CCC supported pipeline safety in their April [comments](#) to the White House's Council on Environmental Quality regarding their interim CCUS guidance and welcomes PHMSA's future safety measure implementation.

The CCC has long-supported rigorous safety design, inspection and maintenance protocols associated with CO<sub>2</sub> capture, transport, and storage infrastructure and recognizes the excellent historical safety record of such infrastructure. Safety data from PHMSA shows that CO<sub>2</sub> pipelines have been and can be operated at the highest level of safety by best-practice industry operators.

## Sempra to Develop Louisiana Carbon Capture Project with Total, Mitsui, and Mitsubishi

U.S. energy company Sempra Energy said on Monday its liquefied natural gas (LNG) unit had signed a deal with France's TotalEnergies SE as well as Japan's Mitsui & Co Ltd and Mitsubishi Corp to develop a proposed carbon capture project in Louisiana.

- [Sempra to develop carbon capture project with Total, Mitsui, Mitsubishi | Reuters](#)
- [Sempra to develop carbon capture project with Total, Mitsui, Mitsubishi - CNA \(channelnewsasia.com\)](#)

## Congress Must Pass Pending Carbon Management Tax Policies to Achieve Net-Zero by Midcentury

The Carbon Capture Coalition recently released a [blog](#), emphasizing the necessity of including carbon management provisions in pending legislation. The recently passed bipartisan infrastructure law is only one part of ensuring that carbon management can deliver at climate scale. Key complementary tax measures considered as part of the original Build Back Better reconciliation package remain on the table for future negotiations:

- **Direct Pay:** Carbon capture project developers could receive 45Q funds as a fully refundable direct payment that will provide the full value of the credit directly to projects, ensuring the efficient use of taxpayer dollars;
- **Multiyear Extension of the Commence Construction Window:** The commence construction deadline for carbon capture, direct air capture or carbon utilization projects would extend six years to December 31, 2031;
- **Increased Credit Values for Industry and Power Projects:** The value of 45Q would increase to \$85/ton for storage in saline geologic formations from industrial and power generation carbon capture;
- **Increased Credit Values for Direct Air Capture Projects:** The credit value would increase to \$180/ton for storage in saline geologic formations from direct air capture;
- **Dramatically Reduced Annual Capture Thresholds:** The carbon threshold for credit-eligible carbon capture facilities would decrease dramatically, leading to a significant increase in 45Q-eligible projects.

For the bipartisan infrastructure law's investment to meet its full emissions reduction potential, it is imperative that Congress pass these complementary, comprehensive enhancements to the 45Q program swiftly.

## Air Liquide opens Nevada Liquid Hydrogen Facility

On Thursday May 24, Air Liquide [officially opened](#) its largest liquid hydrogen production facility in Las Vegas Nevada. The facility will be entirely powered by renewable electricity and produce 30 tonnes of liquid hydrogen per day, helping to supply growing demand for hydrogen mobility and provide hydrogen to various of industries. The facility created jobs for 700 contractors and 25 full-time jobs with the plant at full capacity and will help position Nevada as a leader in hydrogen energy production.

## California to Create a Renewable Hydrogen Hub

California Governor Gavin Newsom [announced](#) the state's intentions to secure funding from the bipartisan infrastructure law to create a regional hydrogen hub on May 18.

California will compete with other states for funding from the bipartisan infrastructure law, which allocates \$8 billion towards four regional hydrogen hubs. Administration officials, led by the Governor's Office of Business and Economic Development (GO-Biz), will continue working with public and private stakeholders, including California's legislature and leading municipalities such as Los Angeles, to submit one state co-funded application.

*"A federally co-funded hydrogen hub in California would accelerate our collective transition to a carbon-neutral economy, creating the scale needed to drive down cost for businesses and consumers alike, all while creating high paying jobs. Near term hub activities will center on deep investments in electrifying port operations, goods movement, transportation, and energy system resilience."*

Parties interested in submitting project ideas for consideration can share their information in this [form](#).

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## News Roundup

- [U.S. Department of Energy Set to Announce a Funding Opportunity to Deploy Energy Infrastructure on Tribal Lands | Department of Energy](#)
  - [POLITICO Pro | Article | Granholm unveils net-zero project at 4 DOE labs](#)
  - [Patience wears thin for Joe Manchin to strike bipartisan deal on energy, climate - Washington Times](#)
  - [Alphabet, Microsoft, and Salesforce launch \\$500m First Movers carbon capture group - DCD \(datacenterdynamics.com\)](#)
  - [Clock ticking as bipartisan energy gang huddles again - E&E News \(eenews.net\)](#)
  - [Clean energy faces its latest test: Rising interest rates - E&E News \(eenews.net\)](#)
  - [Federal agencies can use social cost of carbon — for now - E&E News \(eenews.net\)](#)
  - [Indiana, Ohio and Kentucky vie for blue hydrogen hub federal funding - H2 News \(hydrogenfuelnews.com\)](#)
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## Global News

- [World Economic Forum working with EPRI to reduce carbon emissions in industrial areas - Daily Energy Insider](#)
  - [BP Brings Global Support to Its Teesside Low-Carbon Projects | Nasdaq](#)
  - [Air Products, OQ and ACWA Power Sign Joint Development Agreement Toward World-Scale Green Hydrogen-Based Ammonia Production Facility in Oman \(prnewswire.com\)](#)
  - [Hyundai Steel to cooperate with KIER to achieve carbon neutrality - The Korea Times](#)
  - [TotalEnergies signs up to carbon capture project at Cameron LNG \(energyvoice.com\)](#)
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## New Podcasts, Reports, Statements & Blogs

- [The carbon dioxide removal movement is scaling rapidly. Philanthropy must steer it toward greater impact. - ClimateWorks Foundation](#)
  - [Carbon Solutions LLC](#)
  - [EnergySource Innovation Stream with Boston Metal: Decarbonizing the steel industry - YouTube](#)
  - [Carbon Removal | World Resources Institute \(wri.org\)](#)
  - [Direct Air Capture | Briefing | EESI](#)
  - [responsibly-scaling-direct-air-capture-2-pager.pdf \(wri.org\)](#)
  - [Recommendations for Implementing the Carbon Dioxide Transportation Infrastructure Finance and Innovation Program | CLEARPATH](#)
  - [Federal Register: Industrial Technology Innovation Advisory Committee](#)
  - [Hydrogen energy may be a climate change solution. How clean will it really be? : NPR](#)
  - [Is Carbon Management the Key to Reaching Net Zero? \(powermag.com\)](#)
  - [Hydrogen, Ammonia-Fired Gas Turbine Development Gets U.S. Government Fast-Track Boost \(powermag.com\)](#)
  - [Biden administration lays out plan for four carbon-capture facilities | Ars Technica](#)
  - [Direct air capture coalition launches \(axios.com\)](#)
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## News in the States

### Arizona

- [Flagstaff Seeks Carbon Capture Technology to Meet 2030 Climate Goals / Public News Service](#)

### California

- [POLITICO Pro | Article | Calif. Legislature advances raft of climate, energy bills](#)
- [Mote Enters Advanced Stage of Engineering Design for Southern California Carbon-Negative Hydrogen Facility | Business Wire](#)
- [Chevron \(CVX\) Initiates Carbon Capture Project in California | Nasdaq](#)

- [Chevron Looking to Crush Carbon Emissions in Central California Operations - Natural Gas Intelligence](#)

### **Colorado**

- [Colorado, European Union trade ideas on climate change, clean energy \(coloradosun.com\)](#)
- [Colorado gas pipeline operator strikes carbon sequestration deal with food giant ADM - Denver Business Journal \(bizjournals.com\)](#)

### **Illinois**

- [Fremont County board gets update on Summit carbon pipeline | News | kmland.com](#)

### **Iowa**

- [Lessons from Dakota Access Pipeline Shape Farmers' Battle Over Proposed Carbon Pipelines | Nebraska Public Media](#)
- [Supervisors consider letter opposing pipeline | Daily Gate City | mississippivalleypublishing.com](#)
- [Supervisors get update on Summit carbon pipeline | News, Sports, Jobs - Messenger News](#)
- [Farmers plead with board to stop carbon pipeline > PenCityCurrent.com](#)

### **Louisiana**

- [Louisiana Bucket Brigade push for renewable energy in SWLA \(theadvertiser.com\)](#)
- [LEDA CEO says she wants Lafayette to be Louisiana's 'energy hub' \(theadvertiser.com\)](#)
- [Companies behind Cameron LNG ink carbon capture deal for liquefied natural gas export terminal | Business | theadvocate.com](#)
- [TotalEnergies Signs Agreement With 3 Companies to Decarbonize Production at Cameron LNG | Pipeline Technology Journal \(pipeline-journal.net\)](#)
- [Nutrien wants to build world's largest clean ammonia production facility in Louisiana - Offshore Energy \(offshore-energy.biz\)](#)
- [Hackberry Carbon Sequestration project launched at Cameron LNG in Louisiana - Offshore Energy \(offshore-energy.biz\)](#)
- [Cameron LNG Partners to Develop US Carbon Sequestration Project \(maritime-executive.com\)](#)

### **Minnesota**

- [Minnesota PUC confirms authority to regulate CO2 pipelines | EthanolProducer.com](#)
- [Minnesota PUC Says It Can Write Rules For Carbon Capture Pipelines \(recentlyheard.com\)](#)

### **Nebraska**

- [Wyoming company to capture CO2 from Nebraska ADM plant | The Voice of LaSalle County since 1952! \(1430wcmy.com\)](#)

- [Tallgrass to capture and sequester CO2 emissions from ADM in Nebraska | News | agupdate.com](#)
- [Tallgrass announces CCS project at ADM facility in Nebraska | EthanolProducer.com](#)

### **North Dakota**

- [North Dakota to loan \\$115M to carbon capture ventures, including Project Tundra - InForum | Fargo, Moorhead and West Fargo news, weather and sports \(grandforksherald.com\)](#)
- [North Dakota to loan \\$115M to carbon capture ventures, including Project Tundra – Daily Market News](#)
- [Carbon capture projects awarded loans in 2nd clean energy funding round | State & Regional | bismarcktribune.com](#)
- [North Dakota Approves Loan for Minnkota Power Cooperative's Project Tundra - Lexology](#)
- [Carbon capture projects awarded loans in 2nd clean energy funding round | State & Regional | bismarcktribune.com](#)

### **Ohio**

- [Map tools help Ohio chart environmental justice | Energy News Network](#)

### **Oklahoma**

- [LSB Industries Launches Green Ammonia Project | Business Wire](#)
- [Oklahoma Legislature Creates Legal Infrastructure for Hydrogen Energy | Transport Topics \(ttnews.com\)](#)
- [LSB Industries selects Bloom Energy to build 10-MW solid-oxide electrolyzer for large-scale green hydrogen production in Oklahoma - Chemical Engineering | Page 1 \(chemengonline.com\)](#)

### **Pennsylvania**

- [Monolith Materials and KeyState Made Important Announcements at Appalachian Hydrogen & Carbon Capture Conference - EIN Presswire \(einnews.com\)](#)
- [Pennsylvania moving ahead to secure regional hydrogen hub | Kiowa County Press - Eads, Colorado, Newspaper](#)

### **South Dakota**

- [Brookings Register | CO2 pipelines could affect the land, lives and livelihoods of S.D. property owners](#)

### **Texas**

- [Texas Approved Facilitating Deployment of Carbon Capture \(natlawreview.com\)](#)
- [Chevron officially joins Talos, Carbonvert for Bayou Bend carbon capture project - Houston Business Journal \(bizjournals.com\)](#)

- [Chevron pays \\$50 million to join JV for CCS hub in Texas - Offshore Energy \(offshore-energy.biz\)](#)
- [Chevron closes financials on carbon capture project | Upstream Online](#)
- [Two companies eye Gulf Coast carbon-capture project | FleetOwner](#)
- [EnLink Midstream Agrees to Acquire North Texas Gathering and Processing System \(prnewswire.com\)](#)

### Virginia

- [Is hydrogen overhyped? A Virginia advocate doesn't think so | Energy News Network](#)

### Wyoming

- [State leaders discuss implementation of infrastructure funds – Wyoming Livestock Roundup \(wylr.net\)](#)
  - [Wyoming, Department of Energy find ways to work together | Energy Journal | trib.com](#)
  - [Rocky Mountain Power getting government OKs for \\$2.2B transmission project | News | wyomingnews.com](#)
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## Upcoming Events

### June 1-2

- [2022 CUSP Annual Meeting | The Carbon Utilization and Storage Partnership](#)  
The Carbon Utilization and Storage Partnership (CUSP) is one of four Department of Energy-funded Regional Initiative established to accelerate onshore CCUS technology deployment in the United States. The CUSP project is a research consortium of all or parts of 13 states, consisting of organizations throughout the western United States including academia, government agencies, national laboratories, and industry.

### June 6

- [Louisiana Department of Natural Resources/ Fireside Chat on Class 6 Wells](#)

### June 7

- [Summit Ag/ Fireside Chat on Summit Carbon Solutions CCS System](#)

### June 8

- [Wolf Carbon Solutions/Fireside Chat on NAM CCS](#)

### June 8

- [Hubs on the Horizon | Industrial Innovation Initiative](#)  
*Hubs on the Horizon*, hosted by the [Industrial Innovation Initiative \(i3\)](#) and co-sponsored by [ITIF's Center for Clean Energy Innovation](#), [Clean Air Task Force](#), and [Bipartisan Policy Center](#), will convene stakeholders from around the country to discuss the latest developments and announcements from the U.S. Department of Energy regarding clean hydrogen and carbon capture hubs funding and programs. The event will showcase and socialize efforts across the U.S. to establish hydrogen and carbon management hubs

and serve as an opportunity to gain insights from key industrial, labor, and environmental perspectives

#### June 8

- [Is CCUS the Best Solution to Decarbonize the Steel and Cement Industries? | Experts by IHS Markit](#)

In this webinar from our Clean Energy Technology team, our CCUS experts will discuss in detail: The role and potential of CCUS technology to reduce emissions and the sectors currently looking into the technology, the key role CCUS could play to decarbonize hard to abate sectors with a focus on steel and cement: an overview of costs and emission reduction potential, and the major opportunities and long-term challenges for this technology in these sectors.

#### June 9

- [Carbon Solutions LLC/Fireside Chat on CCS Tech](#)

#### June 13

- [Navigator CO<sub>2</sub> Ventures/Fireside Chat on Heartland Greenway CCS System](#)

#### June 14

- [Carbon Conversion/Utilization Procurement Grant Workshop - Construction Materials | USEA](#)

To assist the Carbon Conversion/Utilization program, the USEA cordially is hosting a virtual workshop on durable materials derived from carbon oxides

#### June 7

- [WEBINAR - High integrity isolation solutions for CO<sub>2</sub> and hydrogen pipelines | World Pipelines](#)

STATS Group will present a case study focusing on the world's first, leak-tight double block and bleed isolation of a high-pressure CO<sub>2</sub> pipeline system in New Mexico, US, and how the many challenges faced with isolating liquid CO<sub>2</sub> were overcome

#### June 14 - 16

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

The will bring together more than 100 international speakers and over 400 delegates to debate and discuss the latest technologies and solutions, strategies, innovations, current and future regulations, by-products and strategies for captured CO<sub>2</sub> and the latest and next-generation techniques and models to help foster a truly sustainable, cost-effective and resource-efficient CCUS sector

#### June 16

- **10<sup>th</sup> Annual D.C. Forum on Carbon Capture and Storage**

The [Global Carbon Capture and Storage Institute](#) is hosting a full day gathering (in person and virtual) on June 16<sup>th</sup> which will explore CCS topics such as the role of finance, the importance of environmental justice, recent U.S. policy developments, and the latest on global carbon markets. We believe that having a diversity of perspectives is a necessary ingredient for an enriching conversation, so we are intentionally inviting speakers and attendees from a wide variety of backgrounds including industry leaders, policymakers, environmental justice advocates, journalists, NGOs, and financial institutions



- **In Person Registration:** <https://www.eventbrite.com/e/320773150127>
- **Virtual Registration:** <https://www.eventbrite.com/e/327341305657>

#### June 21

- [Carbon Conversion/Utilization Procurement Grant Workshop - Fuels, Chemicals & Bioproducts.](#)  
The theme of the USEA's second virtual workshop will be on fuels, chemicals, and bioproducts

#### June 26 - 30

- [19th Annual International Conference on Carbon Dioxide Utilization | Princeton University](#)  
Chemists, engineers, and environmental policy planners will come together and discuss the latest developments in the field of CO2 capture and utilization

#### June 27 - 29

- [2022 Technical Group Mid-Year Meeting | CSLForum](#)  
The workshop exploring the various CDR technologies available to abate elevated atmospheric CO2 levels

#### June 30

- [Direct Air Capture Summit, hosted by Climeworks](#)  
Climeworks' Direct Air Capture Summit is a one-of-a-kind platform featuring business, technology, and policy experts. Key players collaborating and discussing high-quality carbon removal solutions help drive the scale-up the industry needs. The third edition of the summit will highlight the roles that the public and private sectors play in driving climate solutions and meeting global net-zero goals

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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](mailto:ETHomley@gpisd.net) Want to read more carbon management updates, studies, and fact sheets? Visit us at [Carbon Capture Ready](#).*

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