

May 17, 2022

State of Pennsylvania to Prioritize Hydrogen Hubs

Pennsylvania Governor Tom Wolf announced this week that the state is working to apply for federal funding to establish a regional clean hydrogen hub. The bipartisan infrastructure law allocates \$8 billion for four hydrogen hubs and requires that at least two be in regions with substantial natural gas resources. Pennsylvania is the second-largest producer of natural gas in the US and has geology that may be suitable for carbon dioxide storage, making the state a prime candidate for the hub.

The governor alongside 24 industry, labor, and non-profit stakeholders, including the Great Plains Institute, signed **Charting Pennsylvania's Path for Industrial Sector Decarbonization: Deploying Carbon**, a declaration that signals their commitment to supporting Pennsylvania in developing clean energy pathways and achieving decarbonization. These pathways include transitioning to clean hydrogen and carbon management while ensuring the state remains competitive in attracting investment and creating jobs in all parts of its economy.

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Over the next several months, the administration and public and private sector partners will continue to work collaboratively to identify the resources required to ensure Pennsylvania will be competitive when seeking federal funding, and to address any barriers that could hinder the state's ability to pursue a hydrogen hub.

Associated News Coverage:

- POLITICO Pro | Article | Pennsylvania announces plans for 'clean hydrogen hub'
- Pennsylvania Gov. Tom Wolf vows aggressive push to establish a hydrogen and carbon storage hub in the region | Pittsburgh Post-Gazette
- Pennsylvania working on decarbonization, clean hydrogen Pennsylvania Business Report (pennbizreport.com)
- Why Pennsylvania is throwing its weight to a hydrogen hub Pittsburgh Business Times (bizjournals.com)

- Pennsylvania eyes a hydrogen hub and the billions of federal cash that come with it |
 Pennsylvania | thecentersquare.com
- Wolf vows aggressive push to establish hydrogen and carbon storage hub | News | bradfordera.com
- Gov. Wolf Highlights Legacy of Support for Manufacturing, Declares Pennsylvania Well-Positioned to be Leader in National Clean Energy Transition (pa.gov)
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BP and Linde Announce Texas Carbon Capture and Storage Project

On Tuesday, BP and Linde announced their partnership to develop a project that will capture and store carbon in Texas. Linde will capture and store carbon dioxide from its hydrogen production facilities in the greater Houston area and BP will develop and permit geologic storage sites for the captured carbon. The project will potentially store carbon from Linde's other Texas industrial facilities, could store as much as 15 million tons of carbon dioxide per year, and will produce low carbon hydrogen.

The project is anticipated to be operational as early as 2026.

Associated News Coverage:

- BP, Linde Plan Project to Capture & Store 15 Million Tons of Carbon on Texas Gulf Coast - ESG Today
- Bp, Linde Announce Plans To Advance Carbon Capture And Storage Project In Texas |
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- BP, Linde plan carbon capture project near Houston | Reuters
- BP targets Houston for major carbon capture project (houstonchronicle.com)

DOE-FECM releases Notices of Intent (NOI) to Offer 3.5 Billion in Funding for Regional DAC Hubs

The U.S. Department of Energy (DOE) yesterday released a Notice of Intent (NOI) to fund the Bipartisan Infrastructure Law's \$3.5 billion program to capture and store carbon dioxide (CO2) pollution directly from the air.

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The Regional Direct Air Capture Hubs program will support four large-scale, regional direct air capture hubs from single or multiple connected units to remove atmospheric carbon dioxide.

In the development and deployment of the four regional direct air capture hubs, DOE will also emphasize environmental justice, community engagement, consent-based siting, equity and workforce development, and domestic supply chains and manufacturing.

Read the NOI here.

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Associated news coverage:

- Biden Administration Launches \$3.5 Billion Program To Capture Carbon Pollution From The Air | Department of Energy
- POLITICO Pro | Article | DOE launches \$3.5B program for CO2 removal
- POLITICO Pro | Article | DOE launches \$3.5B program for CO2 removal
- DOE announces carbon capture funding to kickstart climate industry CNNPolitics

State Carbon Management Legislative Highlights

Enacted this session:

- Alabama: SB 36, Oil and Gas Board, underground gas storage facilities, regulation, gas further defined to include abandonment of underground storage facilities, performance bonds, fees by board, Secs. 9-17-150, 9-17-151 am'd.,
- **Arizona:** SB 1396, Hydrogen study committee,
- Indiana: HB 1209, Carbon sequestration projects,
- Mississippi: HB 1218, Carbon dioxide geologic sequestration; revise laws regarding,
- Nebraska: LB 1099, Create the Nebraska Hydrogen Hub Industry Work Group,
- Ohio: HB 175, Deregulate certain ephemeral water features (this bill includes class VI injection well process recommendations)
- **South Dakota:** HB 1120, Include carbon dioxide and carbon dioxide capture companies in certain provisions regarding pipeline taxation,
- **Utah:** HB 244, Geological Carbon Sequestration Amendments,
- West Virginia: HB 4491, To establish requirements for carbon dioxide sequestration,
- Wyoming: SF 47, Carbon storage and sequestration-liability.

Read RDI's weekly legislative update to see all tracked bills related to carbon management.

Local Infrastructure Hub Program Launched

The Local Infrastructure Hub is a national program working to ensure that cities and towns across the US can access federal infrastructure funding. The program brings together leading policy and innovation experts to provide information, resources, and technical assistance to help cities and towns of all sizes and from all regions

Associated News Coverage

- Local Infrastructure Hub to Aid Small City Governments Bloomberg
- Local Infrastructure Hub | Bloomberg Cities (jhu.edu)

News Roundup

- Why Boulder and Flagstaff are pooling resources to buy carbon removal | Grist
- Colorado, Arizona local governments partner on carbon removal technology | The Hill
- Climate Strategies: Is Carbon Capture and Storage Finally Getting Serious? Bloomberg
- DOE Announces \$53 Million for Small Businesses Pursuing Clean Energy and Climate Solutions | Department of Energy
- Local Infrastructure Hub to Aid Small City Governments Bloomberg
- Local Infrastructure Hub | Bloomberg Cities (jhu.edu)
- CSRWire Enbridge and Humble Midstream to Develop Low-carbon Hydrogen and Ammonia Production and Export Facilities at Enbridge Ingleside Energy Center

Global News

- Alberta leverages global partnership to support advances in CCUS technologies -Canadian Biomass Magazine
- UK-based Waste Management Firm to Store CO2 Under (oedigital.com)
- Alberta seeks carbon capture and storage projects to claim funding constructconnect.com
- Britain awards Equinor, BP carbon storage licences in Southern North Sea | Reuters
- Oil and gas majors look to carbon capture to diversify revenue streams after committing to 2050 net zero emission target, says GlobalData | Hellenic Shipping News Worldwide
- Chevron, Pertamina Partner On Lower Carbon Opportunities | Rigzone
- Japan's first carbon capture and storage facility to be live by 2030 (inhabitat.com)
- Australia could take CCS stage by storm | Upstream Online

New podcasts, reports, statements & blogs

- Embracing the Potential of Carbon Capture and Utilization as an Essential Strategy for Decarbonizing the Power Sector: Biofuels Digest
- Hydrogen, meet salt cavern Catalyst with Shayle Kann | Podcast on Spotify
- Study Details Increasing Investment In Direct Air Carbon Capture Solutions Grit Daily News
- Both True: Is Hydrogen's Promise Threatened? | Adamantine Energy (energythinks.com)
- Voters Want State and Federal Lawmakers to Lead on Carbon Dioxide Removal (dataforprogress.org)
- Meet the startup shrinking industrial carbon capture | Greenbiz

- Embracing the Potential of Carbon Capture and Utilization as an Essential Strategy for Decarbonizing the Power Sector: Biofuels Digest
- Can carbon capture startup Carbon Clean deliver on its cost claims? | TechCrunch
- USA: Could CCUS play into new emission rules for gas-fired plants? ICSC (sustainable-carbon.org)
- Using Bacteria to Accelerate CO2 Capture in Oceans (lbl.gov)

News in the States

Alabama

 National Carbon Capture Center in Alabama supports successful commercialization of CarbonBuilt low-carbon concrete technology | Alabama Politics (spotonalabama.com)

Arizona

- Arizona utilities, universities to pursue clean hydrogen hub (power-eng.com)
- Coalition of Arizona energy providers, state universities to pursue solutions for carbonneutral economy - Daily Energy Insider

California

- California Air Resources Board Releases Draft Scoping Plan Update | Latham & Watkins LLP - JDSupra
- Chevron plans carbon capture project in California's San Joaquin Valley (NYSE:CVX) | Seeking Alpha
- Chevron, Schlumberger withdraw request for California carbon-capture permit | Reuters
- Chevron Launches Carbon Capture and Storage Project In San Joaquin Valley Chevron.com

Colorado

- Why Boulder and Flagstaff are pooling resources to buy carbon removal | Grist
- Carbon America to Construct, Own and Operate the First Two Commercial Carbon Capture and Sequestration Projects in Colorado | OUR GREAT MINDS (theogm.com)

lowa

- Proposed pipeline will bring Iowa C02 to Decatur, eventually | Local | herald-review.com
- Potential CO2 pipeline inspector presents to Story County supervisors (amestrib.com)
- Iowa Utilities Board Sets October Hearing Date for MidAmerican Energy's Wind PRIME Project - EIN Presswire (einnews.com)

Louisiana

 Denbury and Nutrien Announce Agreement for Transportation and Storage of CO2 to be Captured from Nutrien's Planned Clean Ammonia Project in Geismar, Louisiana | Business Wire

- Nutrien Announces Intention to Build World's Largest Clean Ammonia Production Facility | Nation/World | bdtonline.com
- For the sixth time in five months, another Louisiana LNG company has announced a long-term deal | Business | theadvocate.com

Minnesota

- Minnesota state utility panel says CO2 pipelines should be regulated StarTribune.com
- Minnesota moves to regulate carbon dioxide pipelines | MPR News
- MN utility commission: CO2 pipelines should be regulated | Politics | midfloridanewspapers.com
- Minnesota Moves to Write Carbon Capture Pipeline Regulations (1) (bloomberglaw.com)

Nebraska

- Tallgrass to Capture and Sequester CO2 Emissions From ADM Corn Processing Complex in Nebraska | Business Wire
- Tallgrass Energy, ADM plan CO2 transport and sequestration deal | Reuters

North Carolina

 Duke Energy's Carolinas carbon plan includes up to 5.9GW energy storage (energystorage.news)

North Dakota

 Project Tundra, Blue Flint carbon capture get early funding endorsement | State & Regional | bismarcktribune.com

Ohio

• Hydrogen power facility planned for site of former Piketon plant (dispatch.com)

Pennsylvania

- In Pennsylvania's Primary Election, Little Enthusiasm for the Northeast's Regional Greenhouse Gas Initiative - Inside Climate News
- Prioritizing environmental justice while capturing carbon from the air | Penn Today (upenn.edu)
- See news on Pennsylvania's hydrogen hub announcement above

South Dakota

- Landowner attorney tells South Dakota that Summit's pipeline application should be thrown out - Agweek | #1 source for agriculture news, farming, markets
- Carbon capture pipelines could affect land, lives of South Dakotans (argusleader.com)
- South Dakota CO2 pipeline projects cost, viability guestioned (argusleader.com)

Texas

• Matterhorn Express Pipeline Reaches Final Investment Decision | Business Wire

See news on BP and Linde's carbon capture and storage project above

Utah

 This tiny Utah town could be the West's green hydrogen hub - Los Angeles Times (latimes.com)

Wyoming

- Natural gas pipeline to be converted to transport carbon dioxide to Wyoming CCS hub | Upstream Online
- Legacy Wyoming industries eye emerging energy tech | Energy Journal | trib.com
- Tallgrass Energy, ADM plan CO2 transport and sequestration deal | Reuters
- Novel energy technologies at center of 'all-of-the-above' Wyoming energy strategy | Regional News | kpvi.com

Upcoming events

May 23

• Bipartisan Infrastructure Law: 180 Day Progress Update Webinar | DOE FECM

May 25 - 26

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

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
- Hubs on the Horizon | Industrial Innovation Initiative

June 9

Carbon Solutions LLC/Fireside Chat on CCS Tech

June 13

Navigator CO₂ Ventures/Fireside Chat on Heartland Greenway CCS System

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.

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