

**January 7, 2022** 

# **Overview of 2021 State Carbon Management Legislation**

Next week, GPI will begin tracking state carbon management legislation for the 2022 legislative session. In 2021, 14 states across all regions of the United States passed carbon management-related legislation. Both Democrat and Republican-controlled legislatures passed legislation on topics ranging from net-zero strategies, task forces, Class VI Primacy, renewable energy, tax incentives, and hydrogen. Below we've included an overview of the legislation passed in 2021 sessions.

Policy	Policy Description	Bill Number	State
Greenhouse gases: cement sector: net- zero emissions strategy	Requires the state to develop a comprehensive strategy to achieve net-zero emissions in cement production no later than 2045. The bill requires that interim targets be set and reviewed by the California Air Resources Board. The measure now goes to Governor Gavin Newsom for his consideration. The Governor has until October 10th to sign the bill into law.	SB596	California
Environmental Justice Disproportion ate Impacted Community	Relates to addressing environmental injustice in disproportionately impacted communities during the 2021 session. The measure defines impacted communities and directs the Air Quality Control Commission to conduct outreach and engagement in impacted communities. The new law also establishes an Environmental Justice Action Task Force in the Department of Public Health and Environment. The primary goal of the task force is to develop recommendations back to the legislature to address environmental justice. The task force will hold public meetings to gather input, develop recommendations and finalize a report back to the legislature by November 2022.	HB21-1266	Colorado

Clean Heat Bill	Requires gas utilities to file plans with the Public Utilities Commission on how they could utilize "clean heat" to reduce greenhouse gas emissions to meet Colorado's 2030 greenhouse gas reduction targets. The measure also requires the Colorado Oil and Gas Conservation Commission to study the "safe and effective regulation" of greenhouse gas sequestration and file a report to the legislature and governor by December 1, 2021.	SB21-264	Colorado
Georgia Carbon Sequestration Registry and Building Products	Relates to the Georgia Carbon Sequestration Registry. Measures provide for the inclusion of building products in construction on the registry; to provide for definitions; to allow participants in the registry to voluntarily report the utilization of carbon sequestration and embodied carbon results; to provide for an advisory committee; to provide for certified third-party organizations to measure the amount of carbon sequestered from building materials that sequester carbon dioxide; to require the State Forestry Commission to publish a list of certified organizations; to provide for related matters; to repeal conflicting laws, and for other purposes.	HB 355	Georgia
Climate and Equitable Jobs Act	Requires the state to have 50% of electric generation come from renewable energy by 2040. Additionally, the law requires the reduction of GHG emissions to zero or closure of all private coal-fired electric generating units by 2030. Municipally owned coal-fired electric generating plants must be carbon-free by December 31, 2045, with an interim reduction goal of 45% from existing emissions by no later than January 1, 2035.	SB 2408	Illinois
Carbon Sequestration Task Force	Establishes a state-level carbon sequestration task force to formulate policy recommendations ahead of lowa's 2022 legislative session.	Executive Order 9	lowa
Natural Gas Innovation Act	Establishes a new natural gas utility regulatory framework that includes utilities developing "innovative plans" and "innovative resources" to contribute to the state's renewable energy and greenhouse gas reduction goals. The definition of "innovative resources" includes carbon capture.	SF421	Minnesota
Class VI Primacy Provisions	The Mississippi State Oil and Gas Board, instead of the Mississippi Commission on Environmental Quality, has jurisdiction and authority to enforce the provisions of the Mississippi Geologic Sequestration of Carbon Dioxide Act. The measure also establishes that the board serves as the permitting agency for Class VI underground injection control wells and is authorized to make necessary rules and regulations to develop	SB 2648	Mississippi

	and administrate the Class VI underground injection control well program.		
Carbon Capture and Pollution Control Equipment Tax Exemptions	Exempts certain air and water pollution control and carbon capture equipment from property tax	HB 394	Montana
Green Hydrogen Incentives	Provides tax incentives and a new tax classification for green hydrogen, The measure exempts green hydrogen from the major facility siting act and revises the state energy policy to include green hydrogen	HB 170	Montana
Carbon Capture Funding Resolution	Asks Congress to appropriate funding for carbon capture under the Energy Act of 2020.	SJR 10	Montana
Nebraska Geologic Storage of CO2 Act	Establishes a state-level regulatory framework for geologic storage of carbon dioxide. The measure requires that well permits for geologic storage must be obtained from both the Underground Injection Control program authority and the Nebraska Oil & Gas Conservation Commission.	LB 650	Nebraska
State procurement contracts involving the use of low embodied carbon concrete	Paves the way for the New York Office of General Services to establish guidelines for the procurement of low-carbon concrete for public building projects. The agency will work with a group of stakeholders to develop a set of standards for procurement, including the price of materials and climate performance.	S542A	New York
Support for Next Generation Carbon-based Energy and Energy Affordability Support	Requests that the federal government increase support for research, development, and deployment for carbon-based energy generation. It also asks the federal government to not enact regulations that hinder North Dakota's reliable and affordable electric power.	HCR 3025	North Dakota

Grid Reliability and CCUS Policy	Establishes that it is North Dakota's state policy to support carbon capture use and storage as an alternative to preserve dispatchable thermal electric generation and its benefits	SCR 4012	North Dakota
Sales and use tax exemption for carbon dioxide	Provides for a state-level sales and use tax exemption for geologic storage of carbon dioxide and SB 2206 calls for utilities to be able to recover costs associated with carbon capture.	SB 2152	North Dakota
Clean Sustainable Energy Fund	Establishes a new \$25 million Clean Sustainable Energy Fund, along with a 16-member Clean Sustainable Energy Authority which will serve in an advisory capacity to the state's Industrial Commission, to oversee grants and loans from the Fund.	HB 1452	North Dakota
Renewable Hydrogen Production and Use Study	Directs Oregon's State Department of Energy to conduct a study of the benefits of, and barriers to, renewable hydrogen production and use and report the results to interim committees of the legislative assembly related to revenue no later than September 15, 2022.	SB 333	Oregon
Renewable Natural Gas Report	Directs the Oklahoma Corporation Commission to create a report and recommendations about the availability and appropriateness of natural gas utilities to procure, transport, and deliver renewable natural gas to consumers no later than December 1, 2021. The bill's definition of renewable gas includes biogas-derived methane gas, hydrogen gas, or carbon oxide from renewable sources, or methane gas derived from any combination of hydrogen gas or carbon oxide from renewable sources.	HB 1815	Oklahoma
Carbon Residuals Usage Investigation	Requires the House Committee on Natural and Environmental Resources to investigate the status of the Regulation Standards for the Beneficial Use of Carbon Combustion Residues that the Department of Natural and Environmental Resources of Puerto Rico must update per the amendments introduced by prior law.	HR 15	Puerto Rico
Onshore and Offshore Carbon Capture Jurisdiction	Transfers jurisdiction for all EPA UIC injection well classes (including Class VI) to the Texas Railroad Commission. Previously, the jurisdiction over well classes had been split between the Texas Railroad Commission and the Texas Council on Environmental Quality. Texas plans to seek primacy for Class VI wells, potentially submitting an official application to EPA yet this year.	HB 1284	Texas

Notice Requirements for Carbon- Emitting Power Plants	Requires owners of large carbon-emitting power plants to provide notice to relevant localities and state agencies about the decision to close the plant within 30 days of the decision. The bill requires localities and planning district commissions to conduct public hearings regarding the closure within six months of notice.	HB 1834 SB 1247	Virginia
Virginia Carbon Sequestration Task Force	Convenes a task force for the purpose of studying carbon sequestration in Virginia and submit a report of its findings before the first day of the 2022 Session of the General Assembly.	SB 1374	Virginia

# Wyoming CarbonSAFE Project Drills Second Test Well

The Wyoming CarbonSAFE project is in its third phase: site characterization and CO<sub>2</sub> capture assessment. Project researchers began drilling their second test well on Dec 23, 2021 to help gather the information needed to create Wyoming's second storage site. Ultimately, the well will help Wyoming progress on its carbon emissions reductions goals and support the state's growing carbon capture, use, and storage industry. Collaborators on the project include the University of Wyoming School of Energy Resources (SER) and Basin Electric Power Cooperative.

## **News Roundup**

- DOE unveils \$1B loan for hydrogen plant. But is it 'clean'? E&E News (eenews.net)
- Courts may overhaul energy law in 2022. Here's how E&E News (eenews.net)
- Price hike marks new era for Calif. cap and trade E&E News (eenews.net)
- E&E News | Article | Senate Dems beef up clean energy reconciliation tax plan (politicopro.com)
- Can a plan to 'bury' CO2 underground really work? (yahoo.com)
- Hydrogen tax credit hangs in balance as Dems aim to revive Build Back Better | S&P Global Market Intelligence (spglobal.com)
- Corporations, politicians and new tax incentives support carbon mitigation investments | TheHill
- Green/blue hydrogen projects require strong 'business case facilitators' to reach financial close, says analyst | Recharge (rechargenews.com)
- The Top Five Products Made from Recycled Carbon (triplepundit.com)
- BBB's Fate Still Undecided, but Time is Now for Interested Parties to Contact Their Representatives to Secure Enhanced Carbon Capture Credit Values | Faegre Drinker Biddle & Reath LLP - JDSupra
- Ethanol industry poised to play major role in net-zero emissions AgriNews (agrinews-pubs.com)

- Biden's Infrastructure Law: Energy & Sustainability Implications | Mintz Energy & Sustainability Viewpoints - JDSupra
- BBB's Fate Still Undecided, but Time is Now for Interested Parties to Contact Their Representatives to Secure Enhanced Carbon Capture Credit Values | Faegre Drinker Biddle & Reath LLP - JDSupra
- Clean Tech Startup Mote Unveils Plans for \$100M Carbon Capture Plant | Los Angeles Business Journal (labusinessjournal.com)

## **Global News**

- University of Oxford: Safer carbon capture and storage India Education | Latest Education News | Global Educational News | Recent Educational News (indiaeducationdiary.in)
- Neptune Developing New Digital Twins | Rigzone
- A new hub for CCS: the UK's abandoned oil wells (offshore-technology.com)
- New inquiry into hydrogen and carbon capture launched in Scotland Energy Live News
- SK Innovation declares carbon neutrality as key goal for 2022 Korea Times
- Carbon capture and hydrogen production in Scotland to be focus of Westminster inquiry
   | The Scotsman

## New podcasts, reports, statements & blogs

- U of A study finds the circulation of captured carbon dioxide could be used to produce geothermal energy The Gateway (thegatewayonline.ca)
- Screening for Geologic Sequestration of CO2: A Comparison Between SCO2TPRO and the FE/NETL CO2 Saline Storage Cost Model ScienceDirect
- Johnson Matthey launches HyCOgen; converting CO2 and green hydrogen into sustainable aviation fuel - Green Car Congress
- Seismic testing underway for carbon dioxide sequestration project Basin Electric Power Cooperative
- Carbon capture essential to net-zero ambitions (energyvoice.com)
- NASEO\_Hydrogen\_Decarbonization\_FINAL.pdf
- Making Useful Products From Carbon Dioxide Emissions | Technology Networks
- How Oil & Gas Companies Can Profitably Create Carbon-Negative Energy | OilPrice.com
- Unlocking a New Wave of Carbon Capture and Storage Projects ClearPath

## **News in the States**

California

Price hike marks new era for Calif. cap and trade - E&E News (eenews.net)
Scrivner appointed chairman of Kern County Board of Supervisors | News | ridgecrestca.com

#### Colorado

Carbon capture startup plans major growth in this Denver suburb - Denver Business Journal (bizjournals.com)

#### Illinois

Illinois could host proposed pipeline to offset biorefinery carbon emissions | State | farmweeknow.com

How will a coal-fired plant cut emissions? U of I has a plan | Belleville News-Democrat (bnd.com)

Navigator CO2 Ventures announced plans for a proposed pipeline (cantondailyledger.com) Upcoming meetings about liquid carbon dioxide pipeline | Tri States Public Radio (tspr.org)

#### Iowa

Carbon Pipeline Plan Spurs Organized Opposition from Tribes / Public News Service Proposed carbon capture pipeline concerns southeast Iowa landowners | KTVO County learns about proposal for carbon dioxide pipeline | News | norfolkdailynews.com Letter: Project will boost ethanol industry | Opinion | nwestiowa.com

Heartland Greenway project would capture and store carbon from ethanol and fertilizer plants | The Voice of LaSalle County since 1952! (1430wcmy.com)

Three Public Informational Meetings Rescheduled for Proposed Navigator Pipeline - EIN Presswire (einnews.com)

Navigator C02 Ventures — 2nd of 2 proposed carbon capture pipelines — to hold Story, Boone meetings (yahoo.com)

Navigator pipeline gets pushback from farmers at Story County forum (amestrib.com)

Farmers resist pipeline land takeover | News | nwestiowa.com

lowans can attend meetings for proposed carbon capture pipeline (kcci.com)

Companies plan carbon capture pipelines in Iowa, including Siouxland (ktiv.com)

#### Louisiana

Climate task force members say draft plan won't meet Gov. Edwards 'net zero' goal (businessreport.com)

#### Minnesota

Minn. OKs sale of power line tied to largest N.D. coal plant - E&E News (eenews.net)
Minnesota regulators approve Coal Creek power line permit transfer | State & Regional |
bismarcktribune.com

It's now official: Coal Creek's sale to Rainbow Energy clears Minnesota hurdle | KX NEWS (kxnet.com)

#### Nebraska

\$4.5 billion carbon pipeline project coming to Hall County | Grand Island Local News | theindependent.com

Q&A about the proposed CO2 pipeline | News | norfolkdailynews.com

World's largest carbon capture pipeline proposed to link Nebraska ethanol plants | KHGI

#### **New Mexico**

Proposed hydrogen hub generates controversy | Local News | santafenewmexican.com

#### **New York**

New York Governor Signs Low-Embodied-Carbon Concrete Bill | 2022-01-04 | Engineering News-Record (enr.com)

#### **North Dakota**

Carbon capture dominates North Dakota energy developments in 2021 | State & Regional | bismarcktribune.com

Preliminary planning | News | fergusfallsjournal.com

Could the waste from North Dakota's oil industry help to power electric cars? | The Dickinson Press

Seismic testing underway for carbon dioxide sequestration project - Basin Electric Power Cooperative

Burgum: Sale of Coal Creek to Rainbow Energy clears final regulatory hurdle with transmission line transfer | North Dakota Office of the Governor (nd.gov)

### Oregon

OSU research finds way to scrub carbon dioxide from factory emissions, make useful products | Oregon State University

Novel Compound Harvests CO2 to Make Useful Products (azocleantech.com)

#### Texas

Talos Energy President & Ceo Timothy S. Duncan To Participate In A Fireside Chat With Leo Mariani, Equity Research Analyst For Keybanc Capital Markets Inc. (yahoo.com) Honeywell Works With The University Of Texas On Carbon Capture Tech - Smart Energy Decisions

Honeywell licenses carbon-capture tech from UT Austin (acs.org)

The Lone Star State May Host The World's Next Big Hydrogen Hub (yahoo.com)

Clean Tech Startup Mote Unveils Plans for \$100M Carbon Capture Plant | Los Angeles Business Journal (labusinessjournal.com)

HIF Global SpA considers \$4B renewable fuels plant on Texas Gulf Coast - Houston Business Journal (bizjournals.com)

Texas, U.S., may become the location of the world's next large hydrogen center - MINNEWS NextDecade Now Targeting Rio Grande LNG FID Later This Year - Natural Gas Intelligence This Gas-Burning Power Plant Near Galveston Bay Could Change the Future of Clean Energy – Texas Monthly

#### Virginia

Michael Karmis column: The importance of carbon management in energy policy | Columnists | richmond.com

Karmis: The importance of carbon management in energy policy | Columnists | roanoke.com

#### Wyoming

Wyoming CarbonSAFE Project Team Drills Second Exploratory Well at Dry Fork Station | News | University of Wyoming (uwyo.edu)

## **Upcoming events**

## January 10

Zero-Emission Fleet Vehicles that Work Like Gas & Diesel - Drive Clean Colorado

### **January 14 – 16**

2022 Global Energy Forum | Atlantic Council Carbon Capture Storage and Utilization Webinar | ESA Space Solutions

### January 18

The Road to CCS Project Permitting – Operators' Experiences with Risk Management During the Permitting Process Webinar | IEAGHG

### January 20

18th Annual State of the Energy Industry Forum | USEA | United States Energy Association

### January 28 - 29

International Conference on Carbon Capture Technologies and Pollution Management ICCCTPM in Dubai, United Arab Emirates | World Academy of Science, Engineering and Technology

## February 8 - 11

Energy Policy Outlook Conference 2022 | NASEO

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