Public Perceptions of Carbon Dioxide Removal in Wyoming, Texas, Louisiana, and Colorado

By Grace Adcox and Catherine Fraser

Introduction

The world witnessed the hottest year on record in at least 150 years in 2023. Scientists globally agree that carbon dioxide removal (CDR) technologies are necessary to address global warming and limit its destabilizing environmental and societal impacts. With the passage of the 2021 Infrastructure Investment and Jobs Act (IIJA) and the 2022 Inflation Reduction Act (IRA), Congress made an unprecedented investment in a suite of CDR technologies, including $3.5 billion to create four direct air capture (DAC) hubs across the country. The Department of Energy (DOE) awarded its initial funding announcements for its DAC hubs in August 2023, setting the stage for historic investment and scale-up of DAC in the U.S. Although the IIJA and IRA made record investments in CDR, experts still say we’re behind on developing these technologies and practices.

CDR is a strategy by which carbon dioxide (CO2) is removed directly from the air using nature-based solutions, technological strategies, or a combination of the two. Technological examples of CDR can take many forms — including DAC, biomass carbon removal and storage, ocean alkalinity enhancement, and more. DAC uses a system of filters to draw down CO2 emissions from the ambient air and is especially useful in sectors where point-source capture is not possible — like agriculture or transportation. The deployment of CDR is intended to remove past emissions of carbon dioxide from the atmosphere, as well as to address the emissions associated with industries that are difficult to decarbonize, ultimately seeking to achieve net negative emissions of carbon dioxide.

Despite being often conflated, this suite of technologies does not include similarly named carbon capture, utilization, and storage (CCUS) technologies. CCUS technologies aim to capture carbon dioxide emissions at a point source, like a smokestack, rather than seeking to address past emissions.

Importantly, CDR and DAC technologies are no substitute for ambitious measures to cut emissions and phase out fossil fuels. Successful DAC development and deployment must
consider the diverse contexts, needs, and opportunities for DAC across localities. Given legacies of discriminatory siting practices, disinvestment in communities of color, and environmental injustice, along with the imperative to center equity in the buildout of DAC, the National Wildlife Federation and Data for Progress surveyed likely voters in four states — Wyoming, Texas, Louisiana, and Colorado — being considered for CDR deployment to understand voter attitudes toward CDR and DAC.¹

From 2022 to 2023, Data for Progress and the National Wildlife Federation conducted surveys of likely voters in each state, weighting the surveys to be representative of likely voters by age, gender, education, race, geography, and voting history. For more detailed information, see the Methodology section within the Appendix of this report.

¹ To mitigate respondent fatigue and minimize attrition due to length, these surveys focused on CDR and related technologies, and did not also address attitudes toward CCUS.
# Table of Contents

- Key findings ......................................................................................................................... 4
- Wyoming ............................................................................................................................. 5
- Texas .................................................................................................................................. 9
- Louisiana ............................................................................................................................. 18
- Colorado ............................................................................................................................. 28
- Synthesis Across States ....................................................................................................... 39
- Appendix ............................................................................................................................. 40
- Acknowledgements ............................................................................................................ 42
Key Findings

- **Across Wyoming, Texas, Louisiana, and Colorado, clean energy technologies are popular.** Majorities of Wyomingites, Texans, Lousianans, and Coloradans have a favorable view of solar and wind energy, though margins of favorability are lower in Wyoming compared to these other states.

- **CDR technologies have strong support across all four states, though most voters are largely unfamiliar with CDR.** Strong majorities of Wyoming (68%), Texas (78%), Louisiana (75%), and Colorado (78%) voters support building CDR sites in their respective states.

- **Voters support turning captured carbon dioxide into long-lived materials and are more skeptical of permanent underground CO2 storage.** A plurality of Louisiana voters (48%) and a majority of Colorado voters (56%) support turning captured carbon dioxide into long-lived materials, whereas only 9% of Louisianans and 6% of Coloradans support storing carbon dioxide underground.

- **Voters are split over whether the federal government or states should have primacy over underground carbon storage.** In Louisiana, a plurality (46%) of voters would like to see Class VI permitting authority moved to the state level, though a majority of Democrats (65%), Black voters (62%), and voters under 45 (51%) prefer federal oversight. In Colorado, just over half (51%) of voters prefer state oversight, with the exception of a majority of Democrats (54%) and Latino voters (51%) who prefer federal oversight.

- **Voters are most concerned about the cost associated with developing CDR projects and most hopeful that CDR would offer potential air quality and public health benefits.** Even after voters are informed that CDR technologies will not come with local pollution reduction benefits, support for CDR remains high, signaling that the potential climate benefits for key constituencies outweigh DAC’s inability to directly address other air pollutants.

- **Voters favor projects that meaningfully engage communities.** In Colorado and Louisiana, voters support strong community engagement practices, including community consultation when siting projects, robust benefits like local jobs or pollution reduction, community engagement workshops, and more.

- **Texas voters find arguments centered on energy security and jobs to be the most persuasive messages for supporting CDR.** In a MaxDiff exercise ranking the persuasiveness of messages on CDR, messaging on holding pollutive industries accountable ranks least persuasive among statements tested.
Wyoming

Summary

Though Wyoming’s economy has long relied on fossil fuel energy sources such as oil, gas, and coal, the state is also becoming a case study in America’s transition away from fossil fuels. Not only is Wyoming becoming a dominant wind energy producer, it is also the future site of the landmark Project Bison DAC facility, one component of the proposed Wyoming Regional DAC Hub helmed by startup CarbonCapture Inc.

Even as clean energy technologies expand in the state, we find that Wyoming voters widely believe that the oil and gas industry will continue to drive the state’s economy. That said, Wyoming voters are supportive of carbon dioxide removal (CDR) sites in the state, especially if these projects create good-paying jobs.

Key Takeaways

- **Wyoming voters view fossil fuel energy sources, like natural gas, oil, and coal, favorably.** Ninety-one percent of Wyomingites have a favorable view of natural gas, with 84% favorably viewing oil and 78% coal. Though majorities of Wyomingites view clean energy technologies, like solar (69%) and wind (52%) energy, favorably, over three-quarters (76%) say that the clean energy transition is a long way off.

- **Lower energy pricing is the benefit that Wyoming voters (41%) would most like to see from increased alternative energy production.** The creation of new, good-paying jobs in alternative energy follows as the next highest preference (23%).

- **Voters report being most concerned about how a clean energy transition may negatively impact fossil fuel communities.** A plurality of Wyoming voters (40%) cite potential job losses and business closures in communities traditionally supported by fossil fuel industries as their top concern.

- **A strong majority (68%) of Wyoming voters support building CDR sites in the state.** Despite entrenched skepticism about alternative energy industries, Wyoming voters are open-minded about carbon removal. Wyomingites support building CDR sites in the state by a +50-point margin, including majorities of Democrats (84%), Independents (69%), and Republicans (65%).
Attitudes Surrounding Energy and Carbon Dioxide Removal in Wyoming

Wyoming voters express the most favorable views toward traditional fossil energy sources like natural gas (+83-point margin), oil (+69-point margin), and coal (+58-point margin), compared with alternative energy sources. Nuclear energy (+50-point margin) enjoys slightly greater favorability than solar energy (+40-point margin), while wind energy lags behind (+6-point margin). Notably, several respondents express very strong negative sentiments toward wind turbines — including their appearance — in an open-ended prompt soliciting any additional views toward alternative energy sources. Meanwhile, a majority of Wyoming voters (+41-point margin) have a favorable view of CDR technologies, though over a quarter (27%) haven’t heard enough to form an opinion.

Though Wyoming voters acknowledge that alternative energy sources like wind energy are increasing their footprint in the state, over three-quarters (76%) say that Wyoming will continue producing oil, gas, and coal for decades to come. This belief is held strongly by Republicans (90%) and Independents (65%), while Democrats are more skeptical, with 75% agreeing that Wyoming should increase alternative energy production now as the transition away from fossil fuels unfolds.

Wyoming Voters Believe the Clean Energy Transition Is Still a Long Way Off

When thinking about energy production in Wyoming, which of the following statements comes closer to your view, even if neither is exactly right:

<table>
<thead>
<tr>
<th>Statement</th>
<th>All likely voters</th>
<th>Partisanship</th>
</tr>
</thead>
<tbody>
<tr>
<td>The transition away from oil, natural gas, and coal is happening now. Wyoming needs to increase alternative energy production so we can be a leader in this new energy economy.</td>
<td>21%</td>
<td>Democrat 75% Independent/Third party 33% Republican 90%</td>
</tr>
<tr>
<td>While we may be producing more energy from alternative sources like wind energy, Wyoming will still be producing oil, gas and coal for decades to come.</td>
<td>76%</td>
<td>Don't know</td>
</tr>
</tbody>
</table>

July 25–26, 2022 survey of 975 Wyoming likely voters
As the state produces more energy from alternative sources, a plurality of Wyoming voters (40%) report being most concerned about a “trickle-down effect” of job loss and harm to local businesses in places that are supported by the fossil fuel industry. Their second biggest concern (18%) is that oil, gas, and coal workers will not find the same quality of jobs in alternative energy industries, followed closely by concern that the transition would drive higher energy prices (17%). Notably, lower energy prices are the biggest benefit that Wyoming voters would like to see from increased alternative energy production, while the top concerns center on job losses and the local economic impact, reflecting that Wyoming voters strongly associate energy production with impacts on economic conditions.

**Wyoming Voters Are Most Concerned About the Local Economies That Depend on the Fossil Fuel Industry**

As Wyoming continues to increase the production of alternative energy sources, which of the following outcomes are you most concerned about:

<table>
<thead>
<tr>
<th>Concern</th>
<th>Concerned Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A trickle-down effect where less coal and natural gas production means communities will lose jobs and small businesses will close</td>
<td>40%</td>
</tr>
<tr>
<td>Workers in the coal and natural gas industries being unable to find new, good-paying jobs</td>
<td>18%</td>
</tr>
<tr>
<td>Higher energy prices</td>
<td>17%</td>
</tr>
<tr>
<td>A loss of tax revenues that fund community services such as public schools</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
<tr>
<td>Don't know</td>
<td>5%</td>
</tr>
</tbody>
</table>

July 25–26, 2022 survey of 975 Wyoming likely voters

Despite entrenched skepticism about alternative energy industries, Wyoming voters are open-minded about carbon removal. After reading a brief description, Wyoming voters support building CDR sites in the state by a +50-point margin. There is broad support across party lines from majorities of Democrats (84%), Independents (69%), and Republicans (65%) for the practice.
Wyoming Voters Support Building Carbon Dioxide Removal Projects in the State

Carbon dioxide is a pollutant that contributes to climate change and is created during oil, gas, and coal production.

New technologies and practices are able to capture and store or completely remove carbon dioxide emissions from the atmosphere.

Would you support or oppose Wyoming allowing these carbon dioxide removal sites to be built in the state?

<table>
<thead>
<tr>
<th>Strongly support</th>
<th>Somewhat support</th>
<th>Don't know</th>
<th>Somewhat oppose</th>
<th>Strongly oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>Oppose</td>
<td>Net</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All likely voters</td>
<td>35%</td>
<td>33%</td>
<td>14%</td>
<td>8%</td>
</tr>
<tr>
<td>Partisanship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat</td>
<td>55%</td>
<td>29%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>33%</td>
<td>36%</td>
<td>14%</td>
<td>7%</td>
</tr>
<tr>
<td>Republican</td>
<td>32%</td>
<td>33%</td>
<td>16%</td>
<td>9%</td>
</tr>
</tbody>
</table>

July 25–26, 2022 survey of 975 Wyoming likely voters

Conclusion

Though Wyoming voters believe that the oil, gas, and coal industries will continue to dominate the state’s energy outlook for the immediate future, there is also a clear need for more good-paying jobs in the state. New energy industries establishing a foothold in the state should be mindful that Wyoming voters believe job quality and the economic well-being of communities supported by the energy industry — whether fossil or clean — are paramount. Finally, though relatively unknown compared with long-established energy sources, carbon removal technologies are appealing to Wyoming voters.
Texas

Summary

Historically a center for oil, gas, and fossil fuel extraction and production, Texas is diversifying as renewable energy developers take advantage of the state’s potential for wind and solar. Today, Texas leads the nation in wind energy and is second only to California in solar energy production. The proliferation of policies aiming to deregulate and privatize Texas’ energy grid — called ERCOT — has created unstable conditions, resulting in rolling and prolonged blackouts when Texas’ grid is strained by climate change-induced weather extremes, like heat waves and winter storms. Texans are bearing the brunt of the grid’s instability, facing unpredictable power outages and higher electric bills.

As carbon dioxide removal (CDR) projects come to Texas, including Occidental Petroleum’s recently awarded South Texas DAC Hub, we find that Texans broadly favor investment in CDR and are particularly supportive of projects that deliver tangible benefits to communities, like local jobs or pollution reduction. We also find that when discussing CDR, Texas voters find messaging on energy security and jobs to be the most persuasive argument for supporting carbon removal technologies.

Key Takeaways

- **Grid reliability is a top concern for Texans**, with a bipartisan majority (75%) reporting that they are at least “somewhat” concerned. Many Texans are directly feeling the impact of an unreliable grid, with only 26% reporting they had not experienced an unexpected power shut-off and 51% reporting they had experienced higher utility bills in the past year. Texas voters want utility companies to prioritize reliability and lowering prices for consumers.

- **Texans view renewable energy more favorably or just as favorably as natural gas and other fossil fuels.** Eighty-one percent of Texans have a favorable view of solar energy, 75% of natural gas, and 74% of wind energy. A slim majority of Texans (52%), including 72% of Democrats and 56% of Independents, want to prioritize investing in new clean energy technologies over increasing existing oil and gas production.

- Though 52% of Texans report having heard “nothing at all” about CDR, a bipartisan majority (78%) of Texans support building CDR projects once they
learn more about the practice. Nearly half of Texans (48%) believe that, when developing CDR projects, project developers should guarantee localized community benefits, like local jobs, and 43% support developers consulting communities when siting a project.

- In a MaxDiff exercise ranking the persuasiveness of messages on CDR, Texas voters find messaging on energy security and jobs to be the most persuasive, while messaging on holding pollutive industries accountable ranks least persuasive among statements tested.

Attitudes Surrounding Energy and Grid Reliability in Texas

Texas utility companies are viewed favorably, although between half and two-thirds of Texans have not heard enough to say whether they view each listed utility provider favorably. ERCOT is viewed unfavorably by a -9-point margin — lower than any other institution tested — while the Texas Railroad Commission has the highest net favorability (+34-point margin) and name recognition (only 33% have not heard enough to say) of institutions tested.

Turning to forms of energy, we find that solar (+68-point margin), wind (+58-point margin), and natural gas (+58-point margin) are the most favorable energy types for Texas voters. However, in a split-sample test that randomized whether respondents saw “natural gas” or “methane gas,” the net margin of favorability for methane gas is dramatically lower, at a +6-point margin of favorability, down from a +58-point margin (although name recognition for the term “methane gas” is lower), suggesting this is a helpful term for messaging against liquified natural gas (LNG). Carbon dioxide removal (CDR) technologies enjoy a +40-point margin of favorability, with one-third of respondents saying they have not heard enough to form a view.

Texas voters are deeply concerned about the reliability of the state’s power grid after experiencing widespread power outages across the past several years from hurricanes, ice storms, heat waves, and other climate change-induced extremes. More than one-third of voters (35%) say they are “very concerned,” with an additional 40% saying they are “somewhat concerned” about the state power grid’s reliability. Concerns are high across all demographics tested, with 85% of Democratic voters, 70% of Independent voters, and 68% of Republican voters either very concerned or somewhat concerned about grid reliability.
Power shut-offs for reasons beyond late payment or non-payment of utility bills are common across the state. Only 26% of Texans say they have not experienced a power shut-off for reasons unrelated to their payment record in the last year. In that same span, 51% of Texas voters also say they have experienced unexpected spikes in the cost of their energy, while 35% have not.

When asked about top priorities that utility companies should address, Texas voters strongly agree that ensuring reliable service (41%) and lowering prices for customers (37%) are the most important. Energy reliability is a higher priority for women (43%, compared with 36% who choose lowering costs) and Texans over the age of 45 (48%), compared with 37% who choose lowering costs). These two issues far outpace all other priorities tested.

Overall, most voters tend to think state investments in clean energy production would have a positive impact on Texas. Voters believe investing in clean energy would most positively impact the natural environment. However, most Texas voters also tend to think state investments in fossil fuel energy production would have a positive impact on the state. Voters believe investing in fossil fuel energy would most positively impact the number of energy jobs in Texas, closely followed by the state economy.

In a binary test assessing what kind of energy production voters believe Texas should invest in, a slim majority (52%) believe Texas should prioritize investing in clean energy and new technologies in the state to create jobs and strengthen the economy, while 42% believe Texas should prioritize increasing existing oil and gas production to ensure the grid runs reliably with a steady energy supply. Attitudes vary across partisanship, with Democrats (72%) and Independents (56%) more in favor of expanding clean energy production in Texas, whereas only 33% of Republicans prefer expanding investments in clean energy over fossil fuel energy. Among women (56%), clean energy is favored by a +18-point margin, compared to only a +1-point margin among men. Additionally, voters under the age of 45 (64%), Black (66%) voters, and Latino voters (57%) also prefer investing in clean energy over increasing oil and gas production.
A Majority of Voters Believe Texas Should Prioritize Investing in New Clean Energy Technologies

Which of these statements best describes your view, even if neither is exactly right?

We should prioritize investing in clean energy and new technologies right here in Texas, where we can create thousands of jobs and strengthen our economy.

Don’t know

We should prioritize increasing existing oil and gas production to ensure we can keep the Texas power grid running reliably with a steady supply of energy.

<table>
<thead>
<tr>
<th>All likely voters</th>
<th>Democrat</th>
<th>Independent / Third party</th>
<th>Republican</th>
</tr>
</thead>
<tbody>
<tr>
<td>52%</td>
<td>72%</td>
<td>56%</td>
<td>33%</td>
</tr>
</tbody>
</table>

0% 25% 50% 75% 100%

June 9–19, 2023 survey of 590 Texas likely voters

Perceptions of Carbon Dioxide Removal Among Texas Voters

On the topic of CDR technologies, a majority of Texas voters (52%) say they have heard “nothing at all” about CDR, followed by 39% who have heard only “a little,” and 10% who say they have heard “a lot.” After we assessed baseline awareness, respondents were presented with a short written description of CDR to introduce the concept.

After introducing CDR, we find that over three-quarters (78%) of Texas voters support allowing CDR projects to be built in the state, while 15% oppose it. Support intensity is about split, with 38% “strongly” supporting allowing CDR projects to be built and 40% “somewhat” supporting these developments.
A Large Majority of Texans Support Building Carbon Dioxide Removal Projects in the State

Carbon dioxide is a pollutant that contributes to climate change and is created during oil, gas, and coal production.

New technologies and practices are able to completely remove carbon dioxide emissions from the atmosphere.

Would you support or oppose Texas allowing these carbon dioxide removal projects to be built in the state?

<table>
<thead>
<tr>
<th></th>
<th>Strongly support</th>
<th>Somewhat support</th>
<th>Don’t know</th>
<th>Somewhat oppose</th>
<th>Strongly oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>All likely voters</td>
<td>38%</td>
<td>40%</td>
<td>7%</td>
<td>10%</td>
<td>63%</td>
</tr>
<tr>
<td>Partisanship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat</td>
<td>53%</td>
<td>30%</td>
<td>8%</td>
<td></td>
<td>71%</td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>36%</td>
<td>48%</td>
<td>8%</td>
<td>13%</td>
<td>56%</td>
</tr>
<tr>
<td>Republican</td>
<td>26%</td>
<td>48%</td>
<td>8%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

June 9–19, 2023 survey of 590 Texas likely voters

Texas voters broadly believe project developers should build relationships with and offer benefits to communities where they would like to site new CDR projects. Voters are most supportive of project developers guaranteeing benefits like local jobs or pollution reduction (48%) to communities that host CDR projects, but also widely support developers consulting with communities about project siting (43%), in addition to other protections.

Respondents were next asked to complete a MaxDiff assessment, a technique that produces an ordinally ranked series of statements about a given topic. After exposing respondents to a series of messages about CDR and asking them to select the most and least persuasive messages shown, we find messages about energy security and job creation are most persuasive. The most persuasive message centers on energy security: Carbon dioxide removal can help Texas cut carbon emissions while ensuring the state has reliable, affordable, and secure energy. Other highly net-persuasive messaging centers around CDR creating industries that offer new, good-paying domestic jobs, and creating jobs for fossil fuel workers transitioning out of that industry.
The least persuasive message centers on industry accountability: *Carbon dioxide removal can help hold pollutive industries accountable by requiring them to undo some of their past carbon dioxide pollution.* Other less persuasive messaging centers around CDR addressing harmful pollution from industries like cement production, and accelerating national climate action to make the country a leader in global climate policy.
Texas Voters Find Messaging That Highlights CDR’s Contribution to Emission Reductions and Energy Security to Be Most Persuasive

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere. Below are some statements from supporters of carbon dioxide removal technologies and practices.

For each set of statements you see, please indicate the statements you find most and least persuasive. You may see the same statement several times. Don’t worry about remembering how you responded earlier – just pick which statements you find the most and least persuasive when you see them.

<table>
<thead>
<tr>
<th>Least persuasive</th>
<th>Most persuasive</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide removal can help Texas cut carbon emissions while ensuring the state has reliable, affordable, and secure energy.</td>
<td>12.4</td>
<td>+5.9</td>
</tr>
<tr>
<td>Carbon dioxide removal can help boost the economy by creating new industries that offer new, good-paying domestic jobs.</td>
<td>10.6</td>
<td>+4.0</td>
</tr>
<tr>
<td>Carbon dioxide removal can support new, good-paying jobs that protect the environment for current workers in the fossil fuel industry.</td>
<td>11.2</td>
<td>+3.9</td>
</tr>
<tr>
<td>Carbon dioxide removal can help protect future generations by reducing the effects of rising temperatures and extreme weather.</td>
<td>10.9</td>
<td>+3.7</td>
</tr>
<tr>
<td>Carbon dioxide removal can help restore balance to Earth’s natural processes that keep carbon dioxide out of the atmosphere and keep our climate stable.</td>
<td>10.8</td>
<td>+3.5</td>
</tr>
<tr>
<td>Carbon dioxide removal can help slow and potentially reverse changes in extreme weather as well as climate change.</td>
<td>9.6</td>
<td>+1.6</td>
</tr>
<tr>
<td>Carbon dioxide removal can help Texas become a national leader focused on the most efficient, cost-effective methods to cut carbon emissions.</td>
<td>8.2</td>
<td>-2.3</td>
</tr>
<tr>
<td>Carbon dioxide removal can help Texas be at the forefront of scientific innovation by developing new industries and technologies.</td>
<td>7.9</td>
<td>-2.9</td>
</tr>
<tr>
<td>Carbon dioxide removal can help accelerate national climate action and make the country a leader in global climate policy by reducing carbon.</td>
<td>6.3</td>
<td>-4.7</td>
</tr>
<tr>
<td>Carbon dioxide removal can help address harmful pollution from industries like cement and steel production and air travel.</td>
<td>6.3</td>
<td>-5.7</td>
</tr>
<tr>
<td>Carbon dioxide removal can help hold polluting industries accountable by requiring them to undo some of their past carbon dioxide pollution.</td>
<td>5.8</td>
<td>-6.9</td>
</tr>
</tbody>
</table>

After completing the MaxDiff assessment, respondents were asked to share their beliefs about the top potential concerns and benefits of CDR. Texas voters are most worried that the technology would be costly to implement (30%), followed by concerns that it may take away jobs from oil and gas industry workers (13%) or that it will not be effective at
removing pollution (12%). These top concerns are consistent across major demographic groups.

**Texas Voters Report Being Concerned About the Cost of Carbon Dioxide Removal Projects**

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

Which of the following, if any, is the top concern you have about carbon dioxide removal?

- It will be costly to implement: 30%
- It will take away jobs from oil and gas industry workers: 13%
- It will not be effective at removing pollution: 12%
- It will disrupt the natural cycles of carbon on Earth: 8%
- It will make the Texas power grid less reliable: 8%
- It will create waste: 6%
- It will not allow for community input: 4%
- It will be unsightly or loud: 3%
- Other: 6%
- I do not have concerns about CDR: 9%
- Don’t know: 6%

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Texas voters believe that the greatest benefits of CDR technology include improving air quality and environmental health (29%), protecting the environment for future generations (18%), and lessening the effects of climate change (14%). Only 7% of respondents say they do not believe there are any potential benefits associated with CDR.
Texas Voters Believe the Top Benefit of Carbon Dioxide Removal Will Be Better Air Quality and Environmental Health

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

Which of the following, if any, is the top benefit you think carbon dioxide removal may have?

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It will improve air quality and environmental health</td>
<td>29%</td>
</tr>
<tr>
<td>It will protect the environment for future generations</td>
<td>18%</td>
</tr>
<tr>
<td>It will lessen the effects of climate change</td>
<td>14%</td>
</tr>
<tr>
<td>It will create good-paying jobs for local workers</td>
<td>11%</td>
</tr>
<tr>
<td>It will make Texas a national leader in a new technology market</td>
<td>8%</td>
</tr>
<tr>
<td>It will create economic benefits for communities where projects are built</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
<tr>
<td>I do not think there are benefits of CDR</td>
<td>7%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4%</td>
</tr>
</tbody>
</table>

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Conclusion

Though still largely unknown by Texans, CDR has strong potential for continued bipartisan support as voters learn more about it. As CDR companies look to build in Texas, voters regard including community benefits, like job guarantees, and instituting robust consultation practices as critical to garnering broad public support for CDR. Given Texans’ significant concerns about grid reliability, data suggests CDR companies also must consider their impact on the grid, especially if relying on the grid’s existing generation mix.
Texans are optimistic that CDR has potential to improve air quality and environmental health. Developers looking to deliver the climate, environmental, and health benefits that voters desire could consider powering CDR projects with renewable energy — energy sources widely popular among Texans. As CDR gains local recognition with the recent funding announcements for DAC hubs along the Gulf Coast, government, industry, and advocate stakeholders alike should engage in robust community consultation to ensure CDR delivers meaningful community benefits and maximizes climate, environmental, and human health impacts.
Louisiana

Summary

Louisiana, long dominant in oil, gas, and petrochemical production, is increasingly being targeted for the potential development of carbon dioxide removal (CDR) technologies. In October 2023, the DOE awarded funding to Project Cypress, a proposed DAC hub outside of Lake Charles in Calcasieu Parish spearheaded by Batelle, Heirloom, and Climeworks. Shortly thereafter, in late December 2023, the U.S. Environmental Protection Agency (EPA) announced Louisiana would join Wyoming and North Dakota in receiving primacy over Class VI wells, giving Louisiana primary regulatory authority over carbon dioxide wells, storage, and sequestration.

As carbon removal technologies take root in the state, we find that Louisiana voters broadly favor investment in such technologies. Louisiana voters are particularly supportive of projects that turn carbon dioxide into long-lived materials and deliver tangible benefits to communities, like local jobs or pollution reduction. However, on the issue of primacy, voters are split over whether the state or federal government should oversee carbon storage.

Key Takeaways

- **Louisiana voters view both clean and fossil fuel energy sources favorably.** Eighty percent of Louisianans have a favorable view of natural gas, 77% of solar, 72% of oil, and 67% of wind. Louisiana voters are split on whether the state should prioritize investment in clean energy or fossil fuel technologies, with half of voters in favor of the state prioritizing investment in clean energy and 45% wanting Louisiana to prioritize increasing existing production of oil and gas.

- **Three-quarters of Louisianans (75%) support building CDR sites in the state, though few are familiar with CDR technologies.** Only 9% of Louisiana voters say they have heard “a lot” about CDR technologies, whereas a plurality of Louisiana voters (46%) say they have heard only “a little” about CDR, followed by 45% who have heard “nothing at all.”

- **A plurality of Louisiana voters (48%) support turning captured carbon dioxide into long-lived materials,** whereas only 9% support storing carbon dioxide underground. Around 1 in 5 Louisiana voters (21%) reports being indifferent between these storage methods.
Louisiana voters are split over whether the federal government or the state should have primacy over carbon storage, with a plurality (46%) who would like to see this authority moved to the state level. Notably, majority support for the federal government continuing to oversee carbon storage exists among Democrats (65%), Black voters (62%), and voters under 45 (51%).

**Attitudes Surrounding Energy and Grid Reliability in Louisiana**

We find natural gas (+66-point margin), solar (+63-point margin), oil (+52-point margin), and wind (+47-point margin) are the most favorable energy types for Louisiana voters. As we found in Texas, in a split test that randomized whether respondents assessed “natural gas” or “methane gas,” the net margin of favorability for methane gas is dramatically lower (+9-point margin of favorability) compared with a +66-point margin for “natural gas” (although name recognition for the term “methane gas” is lower). Similar to Wyoming and Texas, carbon dioxide removal (CDR) technologies enjoy a +28-point margin of favorability from Louisiana voters, yet nearly one-third of respondents say they have not heard enough to form a view on CDR.

Energy access is a primary concern for Louisiana voters. More than one-quarter of voters (27%) say they are “very concerned” about the reliability of the state’s power grid, with an additional 40% saying they are at least “somewhat concerned.” Concerns are high across all demographics tested, but Black voters (33% “very concerned”) and Democratic voters (32% “very concerned”) have the highest intensity of concern about grid reliability. Power shut-offs for reasons beyond late payment or non-payment of utility bills are also common, as in Texas. Only 18% of Louisianans say they have not experienced a power shut-off for reasons unrelated to their payment record in the last year.

When asked about top priorities for Louisiana’s energy mix and grid reliability, half of Louisiana voters (50%) agree that that state should prioritize investing in clean energy, while 45% think that Louisiana should prioritize increasing existing production of oil and gas. As in Texas, attitudes vary across partisanship, with Democrats (66%) and Independents (62%) in support of expanding clean energy production in Louisiana, compared to only 31% of Republicans. Voters under the age of 45 (60%) and Black voters (68%) also prefer investing in clean energy over increasing oil and gas production.
Perceptions of Carbon Dioxide Removal Among Louisiana Voters

On the topic of CDR technologies, Louisiana voters indicate limited prior knowledge of the subject, with only 9% of voters saying they had heard “a lot” about CDR prior to taking this survey. After we assessed baseline awareness, respondents were presented with a short written description of CDR to introduce the concept.

After reading a description of CDR, three-quarters (75%) of Louisiana voters support allowing CDR projects to be built in the state, while 18% oppose it. Support intensity is about split, with 38% “strongly” supporting allowing CDR projects to be built and 37% “somewhat” supporting these developments. Compared to other states, we see similar levels of support for local deployment of carbon removal technologies.

A Strong Majority of Louisiana Voters Support Building Carbon Dioxide Removal Projects in the State

Carbon dioxide is a pollutant that contributes to climate change and is created during oil, gas, and coal production.

New technologies and practices are able to completely remove carbon dioxide emissions from the atmosphere.

Would you support or oppose Louisiana allowing these carbon dioxide removal projects to be built in the state?

<table>
<thead>
<tr>
<th></th>
<th>Strongly support</th>
<th>Somewhat support</th>
<th>Don’t know</th>
<th>Somewhat oppose</th>
<th>Strongly oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>All likely voters</td>
<td>38%</td>
<td>37%</td>
<td>8%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Partisanship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat</td>
<td>45%</td>
<td>32%</td>
<td>8%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>47%</td>
<td>36%</td>
<td>8%</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>Republican</td>
<td>29%</td>
<td>41%</td>
<td>8%</td>
<td>12%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Support  Oppose  Net
75      18      +57
77      14      +63
83      12      +71
70      22      +48

September 21–28, 2023 survey of 492 Louisiana likely voters
Louisiana voters broadly believe CDR project developers should build relationships with and offer benefits to communities where they would like to site new projects. Voters indicate the highest interest in the guarantee of benefits like local jobs or pollution reduction (44%) to communities that host CDR projects, followed by consulting with communities to determine where to place projects (39%), conducting community engagement workshops (39%), giving communities the final say over whether or not a project should move forward (34%), and guaranteeing community members the right to approve project decisions (32%).

Respondents were also asked what impact — either positive or negative — they thought investment in CDR would have on Louisiana, with a strong majority (74%) stating they think investment in CDR would have a positive impact on the state. In contrast, only 14% of Louisianans think such investment would have a negative impact.

**A Majority of Voters Think That Investing in Carbon Removal Would Have a Positive Impact on Louisiana**

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

If Louisiana invested in carbon dioxide removal, do you think that would have a positive or negative impact on the state?

![Survey Results]

Respondents were also asked to share their top potential concerns and perceived benefits of CDR. Louisiana voters express the highest concern that the technology will be costly to implement (23%), followed by concerns that it may take away jobs from oil and gas industry workers (11%), or that it will not be effective at removing pollution (10%).
Notably, 16% of Louisiana voters say they “don’t know” what their top concern would be, which is also reflective of the low salience of CDR technology in the state. These top concerns are fairly consistent across most demographic groups tested, with a few key differences. Republicans are more concerned than other groups about potential job loss for oil and gas workers, while Democrats and voters under 45 express higher concerns about potential consequences for power grid reliability.

## Louisiana Voters Are Concerned About the Cost of Carbon Dioxide Removal Projects

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

Which of the following, if any, is the top concern you have about carbon dioxide removal?

<table>
<thead>
<tr>
<th>Concern</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It will be costly to implement</td>
<td>23%</td>
</tr>
<tr>
<td>It will take away jobs from oil and gas industry workers</td>
<td>11%</td>
</tr>
<tr>
<td>It will not be effective at removing pollution</td>
<td>10%</td>
</tr>
<tr>
<td>It will disrupt the natural cycles of carbon on Earth</td>
<td>7%</td>
</tr>
<tr>
<td>It will make the Louisiana power grid less reliable</td>
<td>7%</td>
</tr>
<tr>
<td>It will create waste</td>
<td>5%</td>
</tr>
<tr>
<td>It will not allow for community input</td>
<td>4%</td>
</tr>
<tr>
<td>It will be unsightly or loud</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
<tr>
<td>I do not have concerns about CDR</td>
<td>11%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>16%</td>
</tr>
</tbody>
</table>

September 21–28, 2023 survey of 492 Louisiana likely voters

Given a list of potential outcomes of CDR, a plurality of Louisiana voters believe that the greatest benefit of the technology is improving air quality and environmental health (35%). This belief exists despite the reality that CDR is unable to directly remove air pollutants beyond carbon dioxide, a persistent misconception which we discuss later in this section. Voters see the other top benefits of CDR as creating good-paying jobs for
local workers (12%), protecting the environment for future generations (10%), and lessening the effects of climate change (10%).

**Louisiana Voters Think the Top Benefit of Carbon Dioxide Removal Will Be Better Air Quality and Environmental Health**

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

Which of the following, if any, is the top benefit you think carbon dioxide removal may have?

- It will improve air quality and environmental health: 35%
- It will create good-paying jobs for local workers: 12%
- It will lessen the effects of climate change: 10%
- It will protect the environment for future generations: 10%
- It will make Louisiana a national leader in a new technology market: 8%
- It will create economic benefits for communities where projects are built: 5%
- Other: 5%
- I do not think there are benefits of CDR: 11%
- Don’t know: 9%

September 21–28, 2023 survey of 492 Louisiana likely voters

Recent federal efforts and investments to establish a domestic CDR industry may also shape how voters perceive carbon removal at the state level. When informed that DOE is distributing federal funds to support new CDR projects, and in particular DAC, a majority (56%) of Louisianans agree that Louisiana should seek out federal funds for DAC. In contrast, 32% agree with the perspective that Louisiana should wait for other states to test out CDR and DAC technologies before investing in such projects. Majority support
for Louisiana seeking out federal DAC funds holds across all demographic groups, including 51% of Republicans.

Respondents were next asked what should happen to carbon dioxide once it has been captured, after receiving information about two key types of carbon sequestration: underground storage and long-lived materials. A plurality of voters (48%) support turning CO2 into long-lived materials, like building materials, whereas only 9% support storing CO2 underground. About one-fifth (21%) of voters express no preference between either method, while a tenth of voters do not think carbon dioxide removal should take place at all.

### A Plurality of Louisiana Voters Support Turning Captured Carbon Dioxide Into Long-Lived Materials

Once carbon dioxide has been removed from the air, it needs to be stored or turned into long-lived materials. Carbon dioxide stored underground is pumped into saline aquifers or empty oil and gas reservoirs, which are then sealed and monitored, while carbon dioxide turned into long-lived materials can become products like cement and steel.

Which of these statements best describes your view, even if none are exactly right?

<table>
<thead>
<tr>
<th>Statement</th>
<th>All likely voters</th>
<th>Democrat</th>
<th>Independent/Third party</th>
<th>Republican</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide removed from the air should be stored underground</td>
<td>9%</td>
<td>13%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Carbon dioxide removed from the air should be turned into long-lived materials</td>
<td>48%</td>
<td>52%</td>
<td>48%</td>
<td>46%</td>
</tr>
<tr>
<td>I don’t have a preference between these methods</td>
<td>21%</td>
<td>21%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>I don’t think carbon dioxide should be removed from the air</td>
<td>10%</td>
<td>13%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>11%</td>
<td>9%</td>
<td>9%</td>
<td>12%</td>
</tr>
</tbody>
</table>

September 21–28, 2023 survey of 492 Louisiana likely voters

At the time the survey was fielded, the EPA was actively considering whether to grant Louisiana primacy — or regulatory authority — over Class VI wells and carbon storage more broadly. Because of this pending action, we also asked Louisianans whether they would prefer states or the federal government to oversee carbon storage. Forty-six percent of Louisianans agree with a statement arguing that states should be able to
develop their own rules to oversee carbon storage, while 43% agree that the federal government should continue to keep standardized rules for overseeing carbon storage across all states. Notably, majority support for the federal government continuing to oversee carbon storage exists among Democrats (65%), Black voters (62%), and voters under 45 (51%). Majority support for states overseeing carbon storage exists among Republicans (64%), white voters (54%), and voters over 45 (50%).

**Louisiana Voters Are Divided Over Whether the Federal Government or States Should Oversee Carbon Storage**

A specific kind of carbon dioxide removal technology known as direct air capture (DAC) is being considered for funding in Louisiana and several other states, like Texas.

Currently, the U.S. Environmental Protection Agency (EPA) has the authority to oversee the process of storing carbon once it has been removed from the air by DAC projects. However, Louisiana is one of several states seeking permission to move oversight authority over carbon storage to the state level.

Which of these statements best describes your view, even if neither is exactly right?

<table>
<thead>
<tr>
<th>The federal government should continue to keep standardized rules for overseeing carbon storage across all states</th>
<th>States should be able to develop their own rules to oversee carbon storage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All likely voters</strong></td>
<td></td>
</tr>
<tr>
<td>43%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Democrat</strong></td>
<td></td>
</tr>
<tr>
<td>65%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Independent / Third party</strong></td>
<td></td>
</tr>
<tr>
<td>48%</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Republican</strong></td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>11%</td>
</tr>
</tbody>
</table>

September 21–28, 2023 survey of 492 Louisiana likely voters

When asked which groups they would most trust to oversee carbon storage for DAC projects in Louisiana, 35% of voters prefer the Louisiana Department of Environmental Quality, followed by 29% who think oversight authority should remain with the EPA. Finally, 21% would prefer to see the Louisiana Department of Natural Resources oversee carbon storage. Notably, more than half (56%) of voters select a state agency as their preference for carbon storage oversight. Ultimately, the EPA granted the Department of Natural Resources’ Office of Conservation oversight authority in December 2023.
Support for the EPA continuing to oversee carbon storage for DAC in Louisiana is highest among Democrats (37%) and Independents (35%). Support for the Louisiana Department of Environmental Quality overseeing carbon storage for DAC in Louisiana is highest among male voters (42%) and Republicans (38%).

A Plurality of Voters Want the Louisiana Department of Environmental Quality to Oversee Carbon Storage

A specific kind of carbon dioxide removal technology known as direct air capture (DAC) is being considered for funding in Louisiana and several other states, like Texas.

Currently, the U.S. Environmental Protection Agency (EPA) has the authority to oversee the process of storing carbon once it has been removed from the air by DAC projects. However, Louisiana is one of several states seeking permission to move oversight authority over carbon storage to the state level.

Of the following groups, which would you trust most to oversee carbon storage for DAC projects in Louisiana?

<table>
<thead>
<tr>
<th>The U.S. Environmental Protection Agency should continue to oversee carbon storage in Louisiana</th>
<th>The Louisiana Department of Natural Resources</th>
<th>The Louisiana Department of Environmental Quality</th>
<th>Some other group</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>29%</td>
<td>21%</td>
<td>35%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>All likely voters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partisanship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat</td>
<td>37%</td>
<td>15%</td>
<td>34%</td>
<td>14%</td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>35%</td>
<td>22%</td>
<td>31%</td>
<td>9%</td>
</tr>
<tr>
<td>Republican</td>
<td>20%</td>
<td>25%</td>
<td>38%</td>
<td>15%</td>
</tr>
</tbody>
</table>

September 21–28, 2023 survey of 492 Louisiana likely voters

Respondents were also asked about the potential environmental costs of carbon removal project development in the state’s coastal wetlands. When asked to select whether they would prefer to prioritize the conservation of wetlands or to build transportation routes for carbon dioxide, a strong majority of voters (72%) say Louisiana should preserve ecosystems like wetlands, even if that limits the amount of CDR that can take place in the state. Seventeen percent support Louisiana prioritizing the construction of carbon dioxide transport routes, even if that harms some ecosystems like wetlands.
Some localities in Louisiana have sought to prevent the proliferation of carbon management technologies, including the New Orleans City Council, which in 2022 passed a resolution banning the development of carbon capture and sequestration facilities and CO2 pipelines in the city. To understand attitudes toward such regulations, we had respondents read a short description of local laws limiting carbon dioxide transport and storage, along with supporting and opposing views of these types of laws. After reading this, a majority of respondents (59%) support their local government passing laws to limit or prevent carbon dioxide transport and storage infrastructure. Meanwhile, 30% of voters oppose such laws.

In discussions with stakeholders, including environmental justice groups and leaders as well as community members in areas impacted by environmental injustice, Data for Progress and NWF have heard misconceptions about the ability of DAC to deliver localized pollution reduction and health benefits. To assess the pervasiveness of this misconception, as well as how it impacts support for carbon removal investment, we informed voters of CDR’s projected potential long-term climate impacts and lack of short-term public health and toxic pollution reduction benefits for host communities. After learning this information, a majority of voters (56%) say that they are more likely to support DAC in Louisiana, in contrast to 34% of voters who say they are less likely to support it.

Despite the seemingly counterintuitive nature of this result, it aligns with past Data for Progress findings. Climate voters — who are often Democrats, younger voters, and voters of color — are so adamantly supportive of climate action that even exposure to negative messaging that details potential risks or shortcomings does not greatly diminish appetite for climate-responsive policies and technologies.

**Conclusion**

Though most Louisianans report knowing little — if anything at all — about carbon removal technologies, CDR enjoys strong support among Louisiana voters once they learn more about it. Louisiana voters favor developing CDR projects in the state, with a majority agreeing that such projects would have a positive impact on the state. As CDR projects are proposed in the state, projects that prioritize the utilization of stored CO2 in long-lived materials, strong community engagement practices, wetland conservation, and localized benefits appear to have a stronger appeal to voters.
Colorado

Summary

Reliant on coal and natural gas for nearly two-thirds of its energy mix, Colorado is increasingly looking to diversify its energy portfolio and economy to meet climate goals. In addition to expanding renewable energy production in the state, Colorado has signaled increased interest in carbon dioxide removal (CDR) technologies with the passage of the Carbon Management Act in 2023 and the proposed Colorado Regional DAC Hub.

We find that Colorado voters broadly favor investment in CDR technologies. Colorado voters are particularly supportive of projects that use clean energy and turn carbon dioxide into long-lived materials, while meaningfully engaging communities during project development and offering benefits like local jobs.

Key Takeaways

- **Colorado voters view both clean and fossil fuel energy sources favorably.** Eighty-seven percent of Coloradans have a favorable view of solar, 81% of wind, and 61% of geothermal. Seventy-four percent of Colorado voters have a favorable view of natural gas, though voters strongly agree that that state should prioritize investing in clean energy (65%), while only 32% think that Colorado should increase existing production of oil and gas.

- **Three-quarters of Coloradans (78%) support building CDR sites in the state, though few are familiar with CDR technologies.** Only 5% of Colorado voters say they have heard “a lot” about CDR technologies, whereas 46% say they have heard only “a little” about CDR. A plurality of Coloradans (49%) say they have heard “nothing at all.”

- **A majority of Colorado voters (56%) support turning captured carbon dioxide into long-lived materials,** whereas only 6% support storing CO2 underground.

- **Colorado voters are split over whether the federal government or the state should have primacy over carbon storage,** with a small majority (51%) who would like to see this authority moved to the state level. Notably, majority support for the federal government continuing to oversee carbon storage exists among Democrats (54%) and Latino voters (51%).
**Attitudes Surrounding Energy and Grid Reliability in Colorado**

We find solar (+77-point margin), wind (+66-point margin), natural gas (+53-point margin), and geothermal (+52-point margin) are the most favorable energy types for Colorado voters. As in Louisiana and Texas, the net margin of favorability for methane gas is dramatically lower, at a -7-point margin of favorability, compared to a +53-point margin for natural gas. CDR technologies enjoy a +36-point margin of favorability, with nearly one-third of respondents saying they have not heard enough to form a view on CDR. This response is likely driven by familiarity with terms like “carbon dioxide” and “removal” individually, which may sound intuitively favorable, while reported awareness of “carbon dioxide removal” technology asked in a later question on this survey is remarkably low.

Colorado voters are concerned about the reliability of the state’s power grid, though not as concerned as voters in Louisiana or Texas. Twelve percent of voters say they are “very concerned,” with an additional 34% saying they are “somewhat concerned” about the state power grid’s reliability. Power shut-offs for reasons beyond late payment or non-payment of utility bills are not as common in Colorado as they are along the Gulf Coast: 40% of Coloradans say they have not experienced a power shut-off for reasons unrelated to their payment record in the last year.

When asked about top priorities for Colorado’s energy mix and grid reliability, Colorado voters strongly agree that the state should prioritize investing in clean energy (65%), while only 32% think that Colorado should increase existing production of oil and gas. Democrats (85%) and Independents (68%) lean in favor of expanding clean energy production in Colorado, while only 37% of Republicans report this preference. Voters under the age of 45 (71%) and all other key demographic groups surveyed in Colorado also prefer investing in clean energy over increasing oil and gas production.

**Perceptions of Carbon Dioxide Removal Among Colorado Voters**

On the topic of CDR technologies, 95% of Colorado voters say they have heard either “a little” (46%) or “nothing at all” (49%) about CDR. After we assessed baseline awareness of CDR, respondents were presented with a short description of carbon removal to introduce the concept.

After reading a description of CDR, over three-quarters (78%) of Colorado voters support allowing CDR projects to be built in the state, while 16% oppose it. Support intensity is about split, with 38% “strongly” supporting allowing CDR projects to be built and 40%
“somewhat” supporting these developments. Support is also broadly bipartisan, with 66% of Republicans and 76% of Independents in favor.

A Large Majority of Coloradans Support Building Carbon Dioxide Removal Projects in Colorado

Carbon dioxide is a pollutant that contributes to climate change and is created during oil, gas, and coal production.

New technologies and practices are able to completely remove carbon dioxide emissions from the atmosphere.

Would you support or oppose Colorado allowing these carbon dioxide removal projects to be built in the state?

<table>
<thead>
<tr>
<th>Strongly support</th>
<th>Somewhat support</th>
<th>Don’t know</th>
<th>Somewhat oppose</th>
<th>Strongly oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>38%</td>
<td>40%</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Partisanship**

<table>
<thead>
<tr>
<th>All likely voters</th>
<th>38%</th>
<th>40%</th>
<th>10%</th>
<th>16%</th>
<th>+62</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democrat</td>
<td>57%</td>
<td>33%</td>
<td>9%</td>
<td>6%</td>
<td>+84</td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>34%</td>
<td>42%</td>
<td>9%</td>
<td>8%</td>
<td>+59</td>
</tr>
<tr>
<td>Republican</td>
<td>21%</td>
<td>45%</td>
<td>21%</td>
<td>8%</td>
<td>+37</td>
</tr>
</tbody>
</table>

November 9–20, 2023 survey of 539 Colorado likely voters

Colorado voters broadly believe project developers should build relationships with and offer benefits to communities where they would like to site new CDR projects. In Colorado, we employed a different strategy to assess interest in various relationships between project developers and communities, compared with our approach in Louisiana. Specifically, we asked voters to indicate their level of support or opposition to a complete list of varying types of engagement. We find that voters express the highest level of support for project developers consulting with communities to determine where to place projects (86%), followed by guaranteeing benefits like local jobs or pollution reduction (84%) to communities that host CDR projects, guaranteeing community members the right to approve project decisions (82%), conducting community engagement workshops...
(82%), and giving communities the final say over whether or not a project should move forward (81%). We see that these community engagement policies have strong popular support among the Colorado electorate, with the exception of an option for developers to proceed with projects without offering community engagement or benefits (73% oppose).

**Voters Believe Local Communities Should Benefit From Carbon Removal Projects**

When thinking about how communities should be involved in the construction of new carbon dioxide removal projects, would you support or oppose project developers taking each of the following actions:

<table>
<thead>
<tr>
<th></th>
<th>Strongly support</th>
<th>Somewhat support</th>
<th>Don't know</th>
<th>Somewhat oppose</th>
<th>Strongly oppose</th>
<th>Support</th>
<th>Oppose</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consulting with communities to determine where to place projects</td>
<td>52%</td>
<td>34%</td>
<td></td>
<td></td>
<td></td>
<td>86</td>
<td>8</td>
<td>+78</td>
</tr>
<tr>
<td>Guaranteeing benefits, like local jobs or pollution reduction, to communities that host projects</td>
<td>43%</td>
<td>41%</td>
<td></td>
<td></td>
<td></td>
<td>84</td>
<td>10</td>
<td>+74</td>
</tr>
<tr>
<td>Guaranteeing community members the right to approve project decisions</td>
<td>40%</td>
<td>42%</td>
<td></td>
<td>7%</td>
<td>8%</td>
<td>82</td>
<td>11</td>
<td>+71</td>
</tr>
<tr>
<td>Conducting community engagement workshops</td>
<td>42%</td>
<td>40%</td>
<td></td>
<td>8%</td>
<td></td>
<td>82</td>
<td>9</td>
<td>+73</td>
</tr>
<tr>
<td>Giving communities final say over whether or not a project should move forward</td>
<td>42%</td>
<td>39%</td>
<td></td>
<td>10%</td>
<td></td>
<td>81</td>
<td>12</td>
<td>+69</td>
</tr>
<tr>
<td>Proceeding with developing carbon removal projects without any community engagement or community benefits</td>
<td>9%</td>
<td>11%</td>
<td>26%</td>
<td></td>
<td>47%</td>
<td>20</td>
<td>73</td>
<td>-53</td>
</tr>
</tbody>
</table>

Respondents were also asked what impact investment in CDR would have on Colorado. A strong majority of voters (78%) believe investment in CDR would have a positive impact on the state. In contrast, only 13% of Coloradans think such investment would have a negative impact.
A Strong Majority of Voters Think That Investing in Carbon Removal Would Have a Positive Impact on Colorado

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

If Colorado invested in carbon dioxide removal, do you think that would have a positive or negative impact on the state?

<table>
<thead>
<tr>
<th>Category</th>
<th>Very positive</th>
<th>Somewhat positive</th>
<th>Somewhat negative</th>
<th>Very negative</th>
<th>It would not have an effect</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>All likely voters</td>
<td>34%</td>
<td></td>
<td></td>
<td>44%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Partisanship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat</td>
<td>49%</td>
<td></td>
<td></td>
<td>43%</td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>28%</td>
<td></td>
<td></td>
<td>45%</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Republican</td>
<td>23%</td>
<td></td>
<td></td>
<td>43%</td>
<td>15%</td>
<td>10%</td>
</tr>
</tbody>
</table>

November 9–20, 2023 survey of 539 Colorado likely voters

Respondents were also asked to share their top potential concerns and perceived benefits of CDR. Colorado voters report being most worried that the technology will be costly to implement (30%), followed by concerns that it will not be effective at removing pollution (9%), or that it will disrupt the natural cycles of carbon on Earth (9%). In particular, Republicans are more concerned than other groups about potential job loss for oil and gas workers and disruption of the natural cycles of carbon on Earth.
Colorado Voters Are Concerned About the Cost of Carbon Dioxide Removal Projects

Carbon dioxide removal (CDR) refers to new technologies and practices that are able to remove existing carbon dioxide emissions from the atmosphere.

Which of the following, if any, is the top concern you have about carbon dioxide removal?

- It will be costly to implement: 30%
- It will not be effective at removing pollution: 9%
- It will disrupt the natural cycles of carbon on Earth: 9%
- It will take away jobs from oil and gas industry workers: 6%
- It will lengthen the life of the fossil fuel industry: 5%
- It will create waste: 5%
- It will make the Colorado power grid less reliable: 4%
- It will be unsightly or loud: 1%
- It will not allow for community input: 1%
- I do not have concerns about CDR: 11%
- Don’t know: 19%

November 9–20, 2023 survey of 539 Colorado likely voters

Colorado voters believe that the greatest benefits of CDR technology include improving air quality and environmental health (39%), lessening the effects of climate change (14%), protecting the environment for future generations (11%), and creating good-paying jobs for local workers (8%). Only 10% of respondents say they do not believe there are any potential benefits associated with CDR, similar to our findings in Louisiana and Texas.
CDR technologies, especially DAC, often require large sums of energy. Debates among environmental groups about the choice to potentially power CDR technologies with carbon-emitting fossil fuel energy sources sparked interest in assessing whether voters in Colorado perceive drawbacks from using pollutive energy sources for these high power demands. When asked what energy sources should be used to power CDR, Colorado voters overwhelmingly believe (72%) that CDR projects in the state should be powered using clean energy, like solar and wind, compared with 12% who think they should be powered by fossil fuel energy.

We also connected CDR with broader economic themes about domestic investment in a new industry, and asked voters whether the state should seek out DOE funds allocated to support new CDR projects, and in particular, DAC projects. We find that a majority (61%) of Coloradans agree that the state should seek out federal funds for DAC. In contrast, just
30% of voters agree with a statement claiming that Colorado should wait for other states to test out CDR and DAC technologies before investing in such projects.

Similarly, in another test comparing opportunities for state leadership and potential risks created by a nascent CDR industry, 57% of Colorado voters agree that Colorado should lead on carbon management with policies like the state’s recently passed Carbon Management Act. Thirty-five percent of Coloradans see such action on CDR as risky and prefer the state to be more cautious in directing state resources to carbon management.

Coloradans were next asked what should happen to carbon dioxide once it has been captured. A majority of voters (56%) support turning CO2 into long-lived materials, like building materials, whereas only 6% support storing CO2 underground. Roughly one-quarter of voters (23%) have no preference, while only 6% of voters do not think carbon removal should take place at all. Much as we learned from our Louisiana survey, as well as focus group conversations that Data for Progress conducted in the state, we continue to hear voters express interest in turning carbon dioxide into long-lived materials that can potentially offer economic and infrastructural benefits to CDR project host communities.
Most Colorado Voters Support Turning Captured Carbon Dioxide Into Long-Lived Materials

Once carbon dioxide has been removed from the air, it needs to be stored or turned into long-lived materials. Carbon dioxide stored underground is pumped into saline aquifers or empty oil and gas reservoirs, which are then sealed and monitored, while carbon dioxide turned into long-lived materials can become products like cement and steel.

Which of these statements best describes your view, even if none are exactly right?

<table>
<thead>
<tr>
<th>Carbon dioxide removed from the air should be stored underground</th>
<th>Carbon dioxide removed from the air should be turned into long-lived materials</th>
<th>I don’t have a preference between these methods</th>
<th>I don’t think carbon dioxide should be removed from the air</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>56%</td>
<td>23%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

November 9–20, 2023 survey of 539 Colorado likely voters

As the EPA evaluates whether or not to grant states primacy over Class VI wells, Colorado is among the next tranche of states considering requesting this authority. Coloradans were accordingly asked whether they would prefer state or federal oversight over carbon storage. Fifty-one percent of Coloradans agree with a statement arguing that states should be able to develop their own rules to oversee carbon storage, while 41% agree with a position arguing that the federal government should continue to keep standardized rules for overseeing carbon storage across all states. Notably, majority support for the federal government continuing to oversee carbon storage exists among Democrats (54%) and Latino voters (51%).
A Majority of Colorado Voters Support States Overseeing Carbon Storage

Currently, the U.S. Environmental Protection Agency (EPA) has the authority to oversee the process of storing carbon once it has been removed from the air by carbon dioxide removal (CDR). However, Colorado is one of several states considering asking to move oversight authority over carbon storage to the state level.

Which of these statements best describes your view, even if neither is exactly right?

<table>
<thead>
<tr>
<th>Option</th>
<th>All likely voters</th>
<th>Partisanship</th>
<th>Democrat</th>
<th>Independent / Third party</th>
<th>Republican</th>
</tr>
</thead>
<tbody>
<tr>
<td>The federal government should continue to keep standardized rules for overseeing carbon storage across all states</td>
<td>41%</td>
<td>8%</td>
<td>54%</td>
<td>39%</td>
<td>30%</td>
</tr>
<tr>
<td>Don’t know</td>
<td></td>
<td></td>
<td>9%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>States should be able to develop their own rules to oversee carbon storage</td>
<td>51%</td>
<td></td>
<td>37%</td>
<td>54%</td>
<td>64%</td>
</tr>
</tbody>
</table>

November 9–20, 2023 survey of 539 Colorado likely voters

When asked which groups they would most trust to oversee carbon storage for DAC projects in Colorado, 25% of Colorado voters prefer the EPA, followed by 19% who think oversight authority should be overseen by the Colorado Department of Natural Resources. Support for the EPA continuing to oversee carbon storage for DAC in Colorado is highest among Democrats (28%), female voters (28%), voters 45+ (28%), and white voters (28%). Fifteen percent of Colorado voters are unsure which group they most trust.
Colorado Voters Narrowly Prefer That the Environmental Protection Agency Maintain Primacy Over Carbon Storage

Currently, the U.S. Environmental Protection Agency (EPA) has the authority to oversee the process of storing carbon once it has been removed from the air by carbon dioxide removal (CDR). However, Colorado is one of several states considering asking to move oversight authority over carbon storage to the state level.

Of the following groups, which would you trust most to oversee carbon storage for CDR projects in Colorado?

<table>
<thead>
<tr>
<th>The U.S. Environmental Protection Agency should continue to oversee carbon storage in Colorado</th>
<th>The Colorado Department of Natural Resources (DNR)</th>
<th>The Colorado Department of Public Health and Environment (CDPHE)</th>
<th>The Colorado Air Quality Control Commission</th>
<th>The Colorado Energy Office</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>All likely voters</td>
<td>25%</td>
<td>19%</td>
<td>17%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Democrat</td>
<td>28%</td>
<td>18%</td>
<td>19%</td>
<td>19%</td>
<td>9%</td>
</tr>
<tr>
<td>Independent / Third party</td>
<td>26%</td>
<td>20%</td>
<td>12%</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>Republican</td>
<td>21%</td>
<td>20%</td>
<td>20%</td>
<td>11%</td>
<td>10%</td>
</tr>
</tbody>
</table>

November 9–20, 2023 survey of 539 Colorado likely voters

In the DOE’s announcement of funding for DAC hubs this past fall, Colorado’s proposed Regional DAC Hub was awarded $3 million to conduct a study on the feasibility of such a hub. To understand attitudes toward the proposed DAC hub, we asked voters whether or not they support the project after they read details about its proposed operation and carbon storage methods. A majority of voters (57%) say they support the project, while 33% oppose it.

Much like Louisiana, Colorado is a state prized for its natural landscape and outdoor recreation activities, so we sought to assess attitudes regarding carbon removal in the context of its potential environmental costs. When asked to select between prioritizing preserving the natural environment or building infrastructure for CDR, a strong majority of Colorado voters (69%) say Colorado should preserve the natural environment, even if that limits the amount of CDR that can take place in the state. Twenty-two percent
support Colorado prioritizing the construction of carbon dioxide transport routes, even if that harms some of the natural environment.

Finally, voters were informed of CDR’s projected potential long-term climate impacts and lack of short-term public health and toxic pollution reduction benefits for host communities. After learning this information, a majority of Colorado voters (55%) say that they are more likely to support CDR in Colorado, in contrast to 31% of voters who say they are less likely to support it. Once again, this result reaffirms findings in Louisiana about the sharp demand for climate action among key constituencies in the electorate, including Democrats, younger voters, and voters of color.

**Conclusion**

Despite Colorado’s historical production of coal and natural gas, voters overwhelmingly want the state to prioritize investment in clean energy. While still largely unknown to Coloradans, carbon removal technologies enjoy strong support among voters. Colorado voters are in favor of developing CDR projects in the state, particularly projects powered by clean energy. Voter preferences for strong community engagement practices and localized benefits suggest CDR projects with these features would have greater appeal in the state.
Synthesis Across States

Across all four states surveyed, patterns in voter attitudes toward energy and CDR emerge. Clean energy technologies — particularly solar — are very popular, with the exception of Wyoming (where wind has a narrowly favorable view). In Wyoming, Texas, and Louisiana, voters have more favorable attitudes toward fossil fuel energy technologies than in Colorado, likely reflecting the enduring legacy of the fossil fuel industry in those major fossil fuel-producing states.

In Texas and Louisiana, concerns about grid reliability are particularly pronounced, though concerns about the grid also exist in Colorado. As a result, proponents of CDR, including DAC and other climate infrastructure reliant on large sums of energy, should consider how such technologies would impact the grid. Coloradans want to see the state invest in expanding clean energy over fossil fuels, whereas Texans and Louisianans are more divided on what energy technologies the state should prioritize. Wyomingites, though cognizant that clean energy technologies are expanding in the state, are skeptical that any energy transition will come in the near term and require immediate investment in renewables.

Despite differences in views toward clean and fossil fuel energy sources, voters across all four states hold favorable views of CDR technologies, with voters in Texas, Colorado, and Louisiana believing that such technologies would have a positive impact on their respective states. In Louisiana and Colorado, voters prefer turning captured carbon dioxide into long-lived materials over storing it underground and want to prioritize the preservation of ecosystems over the development of CDR infrastructure. Voters in these states were divided on the issue of primacy and who should oversee carbon storage.

Voters across Texas, Louisiana, and Colorado share the same views about the top potential costs and benefits of CDR. Voters are most concerned about the cost of implementing CDR technologies and most optimistic about potential air quality and environmental health benefits. Support for CDR remains robust even after respondents learn that CDR technologies only capture carbon dioxide, rather than offering additional local pollution reduction benefits. Moreover, voters in Texas, Louisiana, and Colorado express a desire for developers in this rapidly growing industry to engage with communities prior to breaking ground on projects to ensure communities meaningfully benefit from and have input into projects.
Appendix

Methodology

Wyoming Methodology
From July 25 to 26, 2022, Data for Progress and the National Wildlife Federation conducted a survey of 975 likely voters in Wyoming using SMS and web panel respondents. The sample was weighted to be representative of likely voters by age, gender, education, race, geography, and voting history. The survey was conducted in English. The margin of error is ±3 percentage points.

Texas Methodology
From June 9 to 19, 2023, Data for Progress and the National Wildlife Federation conducted a survey of 590 likely voters in Texas using web panel respondents. The sample was weighted to be representative of likely voters by age, gender, education, race, geography, and voting history. The survey was conducted in English. The margin of error is ±4 percentage points.

Louisiana Methodology
From September 21 to 28, 2023, Data for Progress and the National Wildlife Federation conducted a survey of 492 likely voters in Louisiana using web panel respondents. The sample was weighted to be representative of likely voters by age, gender, education, race, geography, and voting history. The survey was conducted in English. The margin of error is ±4 percentage points.

Colorado Methodology
From November 9 to 20, 2023, Data for Progress and the National Wildlife Federation conducted a survey of 539 likely voters in Colorado using web panel respondents. The sample was weighted to be representative of likely voters by age, gender, education, race, geography, and voting history. The survey was conducted in English. The margin of error is ±4 percentage points.

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