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Voters Support Investments in Carbon Removal Innovation

Danielle Deiseroth Senior Climate Data Analyst Morgan Sperry Polling Analyst, Data for Progress

July 2021

Key Findings

- ▶ Voters have heard a significant amount about solar, oil, wind, coal, and nuclear energy, though fewer voters are as familiar with emerging clean energy and carbon removal technologies.
- Voters have a more favorable view of wind and solar energy relative to other traditional energy sources, but nearly half do not know enough about carbon removal technologies to form an opinion.
- While most voters can correctly identify several major carbon removal practices and technologies, there is still a significant gap in knowledge.
- **A majority of voters (61 percent)** think the government should be doing more to reduce the amount of carbon dioxide in the atmosphere.
- Nearly two-thirds of voters (64 percent) support the federal government providing funding to jumpstart innovations that remove carbon dioxide from the atmosphere, and support increases when voters learn there is bipartisan support for these investments.
- After learning more, over half of voters (53 percent) have a favorable opinion of carbon removal practices and technologies

Introduction

In an effort to reach net-zero carbon emissions, lawmakers have increasingly been interested in carbon removal practices and technologies as part of a comprehensive federal approach for decarbonization. In a new report, *A Progressive Platform for Carbon Removal: Guiding Principles*, Data for Progress Fellow Celina Scott-Buechler provides a new guide outlining a progressive approach to carbon removal policymaking that centers job creation, environmental justice, and public ownership. As part of a May 2021 national survey, Data for Progress assessed the attitudes of likely voters towards carbon removal practices and technologies.

Voters Have Favorable Views of Renewables, but Are Unfamiliar With Carbon Removal Practices and Technologies

We first asked likely voters how much they have heard about a variety of energy sources and technologies. Given their prevalence, voters are most familiar with solar energy, oil, wind energy, coal, and nuclear energy, with majorities indicating they have heard "A lot" or "Some" about each. Seventynine percent of voters are familiar with solar energy, while 73 percent are familiar with oil, 74 percent are familiar with wind, 67 percent are familiar with coal, and 66 are familiar with nuclear energy. Voters are much less familiar with fracking, offshore wind, geothermal energy, and carbon removal technologies. Forty-four percent of voters indicated they have heard "Not much" or "Nothing at all" about fracking, while 54 percent indicated unfamiliarity with offshore wind and 57 percent indicated unfamiliarity with geothermal energy. Least familiar to voters are carbon removals and technologies, with 59 percent of voters indicating they have heard "Not much" or "Nothing at all" about them.

Voters Have Heard the Most About Prevalent Renewables and Fossil Fuels, but Little About Carbon Removal

A lot	Some			Not much N			Not	othing at all		
Solar energy	39%			40%				13%		
Oil	38%			35%				16%		11%
Wind energy	31%		43%				15%		12%	
Coal	31%	31%			36%			18%		14%
Nuclear energy	28%	28%			38%			20%		14%
Hydraulic fracturing ("fracking")	22%	3		5% 2		22%			22%	
Offshore wind	17%	2	9%	27%					27%	
Geothermal energy	13%	30%		30%					27%	
Carbon removal technologies	11%	30%		30%						29%
	0%	25%		50%				75%	100%	
May 26–28, 2021 survey of 1,2						DATA FOR PROGRESS				

How much have you heard about the following technologies and energy sources?

Next, we asked voters if they have a favorable or unfavorable view of the same set of energy sources and technologies. We find that a majority of voters hold favorable opinions on solar energy (78 percent favorable), wind energy (66 percent favorable), and oil (55 percent favorable). Notably, voters are less familiar with offshore wind, geothermal energy, and carbon removal technologies. Over a third of voters (36 percent) indicated they "Haven't heard enough to say" whether they view offshore wind favorably, while 43 percent and 44 percent of voters "Haven't heard enough" to form an opinion on geothermal energy and carbon removal technologies. Meanwhile, among well-known energy sources, voters hold significantly less favorable views of nuclear energy (49 percent favorable), coal (43 percent favorable), and fracking (36 percent favorable).

Renewables Enjoy High Favorability, While Emerging Energy Technologies Have Low Recognition

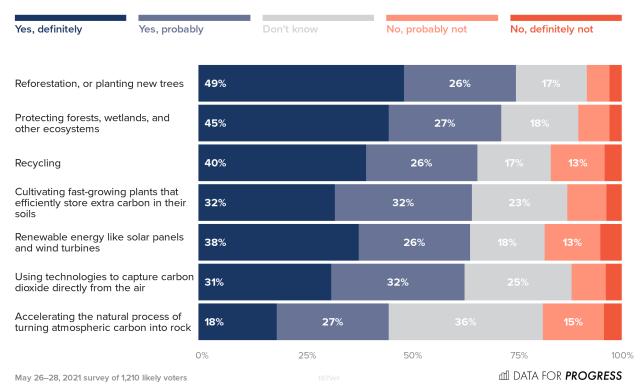
Very favorable	Somewhat favorable		Haven't heard enough to say		Somewhat unfavorable			Very unfavorable		
								Favorable Unfavorable		
Solar energy	48%	48%		8		30% 11%			78	11
Wind energy	38%			28%		16% 10			66	17
Oil	25%		30%	14	1%	20%		12 %	55	32
Offshore wind	26%		25%		36%				51	13
Nuclear energy	20%		29%	21%		16%		14%	49	30
Geothermal energy	22%		26%		43%				48	9
Carbon removal technologies	20%	24	24%						44	13
Coal	16%	27%	6	17%	21%			18%	43	39
Hydraulic fracturing ("fracking")	14%	22%				16%		19%	36	35
	0%	25%		50%	50%			100%		
May 26–28, 2021 survey of 1,210 likely voters								d data for progress		

Do you have a favorable or unfavorable opinion of the following energy sources and technologies?

To assess voters' knowledge of specific carbon removal technologies and practices, we provided voters with a list of different activities and asked whether they thought each one was a carbon removal practice or technology. Among the items presented, a majority of voters correctly identified reforestation, cultivating fast-growing plants that efficiently store carbon in their soils, and direct air capture as carbon removal practices and technologies. Additionally, a plurality of voters correctly guessed that enhanced weathering is a carbon removal practice, though over one third of voters (36 percent) indicated they were unsure. Meanwhile, a majority of voters incorrectly thought protecting biodiversity, recycling, and renewable energy are carbon removal practices and technologies. These results largely align with Morning Consult's <u>December 2020 survey</u> that found voters conflated widespread sustainability and clean energy practices with carbon removal practices.

Voters Have Some Knowledge About Carbon Removal Practices and Technologies

Carbon removal practices and technologies remove carbon dioxide, a greenhouse gas that contributes to climate change, from the atmosphere. For each of the following, please indicate whether you think it is a carbon removal practice or technology:



VOTERS SUPPORT INVESTMENTS IN CARBON REMOVAL INNOVATION

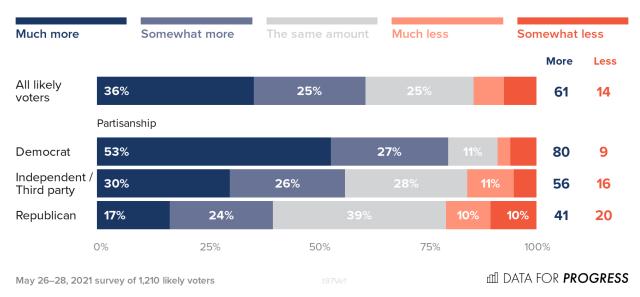
Voters Support Federal Carbon Removal Efforts

Next, we asked likely voters if they think the government should be doing more, less, or the same amount to reduce the amount of carbon dioxide in the atmosphere. We find that, by a 47-point margin, likely voters think the government should be doing more. Agreement is bipartisan: A majority of Democrats (80 percent) and Independents (56 percent), as well as a plurality of Republicans (41 percent), all agree the government should expand carbon removal efforts.

Voters Think the Government Should Devote More Resources to Carbon Removal

Carbon dioxide is a greenhouse gas that contributes to climate change and is emitted from burning fossil fuels like oil and gas.

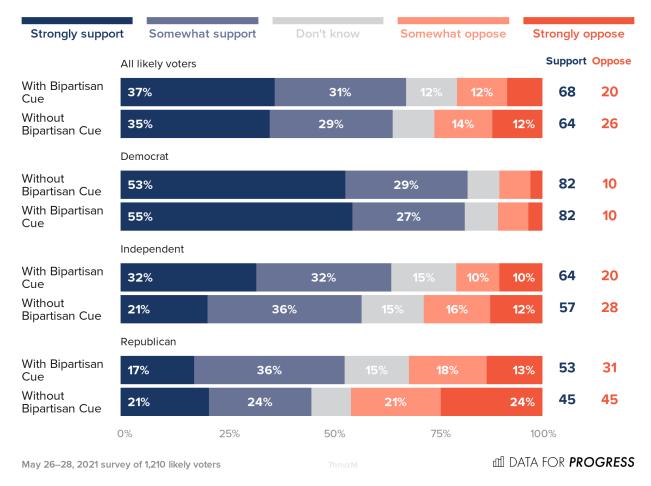
Do you think the government should be doing more, less, or the same amount to reduce the amount of carbon dioxide in the atmosphere?



We then split respondents into two groups. After stating that scientists have determined carbon dioxide is a greenhouse gas that contributes to climate change, we asked the first group of respondents if they would support or oppose federal investments to spur carbon removal innovation, while we asked the second group the same question but with an additional statement that a bipartisan group of senators support this initiative. Though a majority of voters support federal investments in carbon removal research and development with both framings, the margin of support is 10-points higher with the bipartisan framing (48-point margin) versus the non-bipartisan framing (38-point margin). While an overwhelming majority of Democrats support this investment regardless of whether they know there is bipartisan consensus, support notably increases among Independents and Republicans when they learn there is bipartisan support for investments in carbon removal innovation. Among Independents, support increases 7-points when voters are told there is bipartisan support for the investments, while support increases 8-points among Republicans.

Support for Carbon Removal Legislation Increases When Voters Learn it is Bipartisan

We provided voters with a statement saying that scientists have determined carbon dioxide contributes to climate change but there is a lack of funding for carbon removal practices and technologies. Half of the respondents were shown no additional information, while the other half of voters were informed that a bipartisan group of senators support increasing funding for carbon removal research and development.



After Learning More, Voters Have a More Favorable Opinion of Carbon Removal Practices and Technologies

Finally, we again asked voters if they have a favorable or unfavorable opinion of carbon removal practices and technologies. While initially 44 percent of voters had a favorable opinion, 13 percent had an unfavorable opinion, and 44 percent had not heard enough to form an opinion, at the end of the survey, 53 percent had a favorable opinion, 17 percent had an unfavorable opinion, and 30 percent still had not heard enough to say. Favorability increased most significantly among Democrats, jumping 15-points. Among Independents, favorability remained relatively the same, though unfavorability increased by 6-points. Lastly, the 7-point increase in favorability among Republicans was matched by an 8-point increase in unfavorability.

After More Information, Voters View Carbon Removal Technologies More Favorably

Very favorable Somewhat favorable Somewhat Very unfavorable unfavorable **Favorable Unfavorable** All likely voters Final Ask 20% 33% 53 17 44 Initial Ask 20% 24% 13 Democrat 65 9 Final Ask 31% 34% Initial Ask 26% 24% 50 7 Independent 47 18 Final Ask 39% 15% 45 12 Initial Ask 30% Republican 27 42 Final Ask 15% 27% 17% 10% 35 19 16% 19% 10% Initial Ask 0% 25% 50% 75% 100% **DATA FOR PROGRESS** May 26-28, 2021 survey of 1,210 likely voters

Do you have a favorable opinion of carbon removal technologies?

Conclusion

Despite unfamiliarity with carbon removal technologies and practices, likely voters are supportive of expanding federal investments in carbon removal innovation. Progressive carbon removal advocates evidently need to make the distinction that renewables, protecting biodiversity, and recycling do not qualify as carbon removal practices and technologies, though it is encouraging that voters do correctly identify reforestation, biological carbon sequestration, and enhanced weatherization as carbon removal practices. Despite a relative lack of information compared to other prevalent energy sources, voters across party lines still agree that the government should be doing more to remove carbon from the atmosphere and widely support federal investments in carbon removal research and development.

Progressive carbon removal advocates can capitalize on high levels of support for federal investments in carbon removal innovation, especially by emphasizing the fact that senators across party lines back federal investments in carbon removal. Given that voters are relatively uninformed about carbon removal and that more information about carbon dioxide's impact on the climate increases voters' favorability of carbon removal technologies, progressive carbon removal advocates have a significant opportunity to steer the public narrative about carbon removal. While carbon removal is only one piece of the decarbonization puzzle, progressive carbon removal advocates can capitalize on this unique opportunity to help shape the terms of the debate as Congress considers more investments in carbon removal innovation.

SURVEY METHODOLOGY

From May 26 to 28, 2021, Data for Progress conducted a survey of 1,210 likely voters nationally using web panel respondents. The sample was weighted to be representative of likely voters by age, gender, education, race, and voting history. The survey was conducted in English. The margin of error is ±3 percentage points.