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Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050

But just 31% want to phase out use of fossil fuels completely

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How we did this

Pew Research Center conducted this study to understand how Americans view climate and energy issues. For this analysis, we surveyed 10,237 U.S. adults from Jan. 24 to 30, 2022.

Everyone who took part in the survey is a member of the Center's American Trends Panel (ATP), an online survey panel that is recruited through national, random sampling of residential addresses. This way, nearly all U.S. adults have a chance of selection. The survey is weighted to be representative of the U.S. adult population by gender, race, ethnicity, partisan affiliation, education and other categories. Read more about the [ATP's methodology](#).

Here are the [questions used for this report](#), along with responses, and [its methodology](#).

Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050

But just 31% want to phase out use of fossil fuels completely

Amid growing global energy demand and [rising carbon dioxide emissions](#), majorities of Americans say the United States should prioritize the development of renewable energy sources, such as wind and solar, and take steps toward the country becoming carbon neutral by the year 2050.

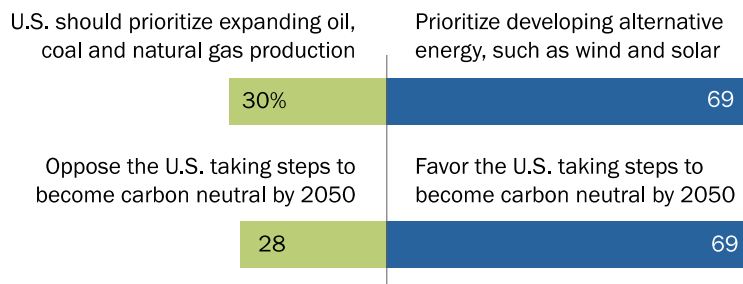
Still, Americans stop short of backing a complete break with fossil fuels and many foresee unexpected problems in a major transition to renewable energy. Economic concerns are also front of mind for many when asked to think about what a transition away from fossil fuels could mean for their own lives.

The new Pew Research Center survey of 10,237 U.S. adults conducted from Jan. 24 to 30, 2022, finds that 69% of U.S. adults prioritize developing alternative energy sources, such as wind and solar, over expanding the production of oil, coal and natural gas. The same share (69%) favors the U.S. taking steps to become carbon neutral by 2050, a key component of President Joe Biden's [climate and energy policy agenda](#).

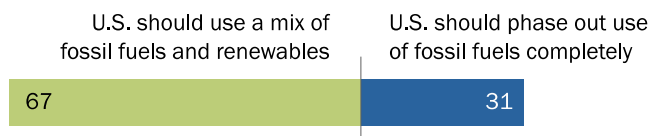
A relatively small share of Americans (31%) believe the U.S. should phase out the use of oil, coal and natural gas completely; far more (67%) say the country should use a mix of fossil fuel and renewable energy sources. Officials are considering ways to remove carbon emissions from the atmosphere through tree plantings as well as [carbon capture and storage techniques](#).

Majorities prioritize alternative energy development and back U.S. taking steps to become carbon neutral

% of U.S. adults who say ...



But two-thirds want U.S. to keep a mix of fossil fuel and renewable energy sources



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

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The survey was conducted prior to escalating tensions and Russia's invasion of Ukraine that have driven increased [uncertainty](#) in global energy markets.

Partisan affiliation remains the dominant divide in views of climate and energy issues, with Republicans and Democrats staking out competing visions for the country's energy future.

On balance, Republicans and Republican-leaning independents give greater priority to expanding the production of oil, coal and natural gas than to developing alternative energy sources, and they overwhelmingly believe that fossil fuels should remain a part of the energy picture in the U.S.

Among Democrats and Democratic leaners, very large majorities support prioritizing the development of alternative energy sources and favor the U.S. taking steps to become carbon neutral by 2050.

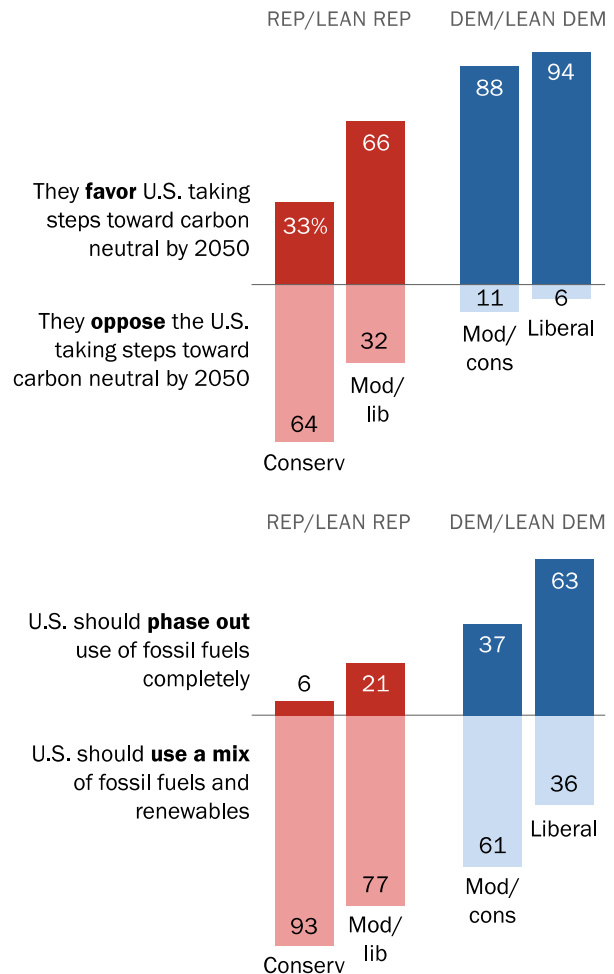
Still, energy issues surface fault lines within both partisan coalitions.

Within the GOP:

- There is internal disagreement around the goal of the U.S. becoming carbon neutral: **66% of self-described moderate and liberal Republicans favor taking steps toward this, while 64% of conservative Republicans oppose this.**
- There is a similar divide by political ideology over the country's more important energy priority: **64% of moderate and liberal Republicans say it should be developing alternative**

Both party coalitions have internal differences over energy policy

% U.S. adults who say ...



Note: Respondents who did not give an answer are not shown.
Source: Survey conducted Jan. 24-30, 2022.
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sources such as wind and solar, whereas 67% of conservative Republicans say it should be expanding production of oil, coal and natural gas.

Among Democrats and independents who lean toward the Democratic Party:

- There is a split over whether the U.S. should phase out the use of oil, coal and natural gas completely (49% of Democrats say this) or use a mix of energy sources, including fossil fuels along with renewable sources (50%).
- This overall divide reflects competing views within the Democratic Party: 63% of liberal Democrats say the U.S. should phase out the use of fossil fuels completely, while a majority of moderate and conservative Democrats (61%) say it should use a mix of energy sources.

The new Center survey comes on the heels of U.S. participation in the United Nations Climate Change Conference (COP26) held in Glasgow last November. The survey finds broad support for the U.S. participating in international efforts to help reduce the effects of climate change; 75% favor and only 24% oppose this.

In thinking about the U.S. role in addressing global climate change, 54% of Americans say the U.S. should do about as

much as other countries with large economies. About three-in-ten (31%) say it should be doing more than other large economies to help reduce climate change impacts, and 14% think the U.S. should do less than other countries with large economies.

There is little consensus over how much the U.S. is currently doing to address climate change: 36% say the U.S. is doing less than other countries with large economies to reduce the effects of climate change, while 32% say it is doing more and 31% say it is doing as much as others with large economies.

Three-quarters of Americans support a U.S. role in global efforts to address climate change

% of U.S. adults who say ...

Support U.S. participation in international efforts to reduce effects of climate change

75

When it comes to efforts to reduce the effects of global climate change, compared with other countries with large economies ...

■ Less than others ■ About as much ■ More than others

U.S. is doing __

36

31

32

U.S. should be doing __

14

54

31

Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

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Partisans generally agree that the U.S. should do at least as much as other countries with large economies in this area. But about half of Republicans (51%) think the U.S. is currently doing *more* than others, while about half of Democrats (49%) think the U.S. is currently doing *less* than other countries.

The nationally representative survey of 10,237 U.S. adults conducted from Jan. 24 to 30, 2022, explores Americans' views on the interrelated issues of energy and climate policy. Other key findings include:

A 72% majority says the federal government should encourage the production of wind and solar power. About half (51%) say it should encourage the use of electric vehicles, while about a third say it should encourage the production of nuclear power (35%) and oil and gas drilling (33%). Fewer (20%) say the federal government should encourage coal mining, with the remainder saying that the government should either discourage coal mining or do neither of these.

Many Americans anticipate new problems for the country if it were to greatly reduce fossil fuel energy production while increasing renewable energy production. Seven-in-ten say it's very or somewhat likely a major shift to renewable sources would lead to unexpected problems for the country. Americans are divided over whether a major shift from fossil fuel to renewable energy sources over the next 30 years would make the prices they pay to heat and cool their homes better (39%) or worse (39%). Another 20% say this would have no effect on these prices. Still, there's optimism over how a possible energy transition would impact other aspects of life: 63% think it would make their local air and water quality better and 56% think it would have a positive impact on local job opportunities in the energy sector.

Even as Americans express concerns about a major shift away from fossil fuels, 72% say it's likely a transition would not happen fast enough to prevent severe problems from climate change. Overall, 85% of Democrats and Democratic leaners as well as 58% of Republicans and Republican leaners say it is at least somewhat likely that a major energy transition would not happen fast enough to prevent severe problems from climate change.

Partisan gaps widen over the environmental and economic effects of policies aimed at reducing the effects of climate change. Democrats have become increasingly convinced that climate policies do more good than harm for the environment and help the U.S. economy. By contrast, Republicans take a mixed view of the environmental impact of policies aimed at reducing the effects of global climate change, and 62% now say they generally hurt the U.S. economy – up from 52% who said this in 2019.

72% of Americans believe the federal government should encourage wind and solar power production

Americans' views on the federal government's role in energy activities reflect the greater priority they give to developing renewable over fossil fuel energy sources.

A majority of Americans (72%) think the federal government should encourage the production of wind and solar power; just 5% say the federal government should discourage this and 22% say the government should neither encourage nor discourage production of wind and solar power.

On balance, more say the federal government should encourage than discourage the use of electric vehicles (51% vs. 10%); 39% say the federal government should neither encourage nor discourage this.

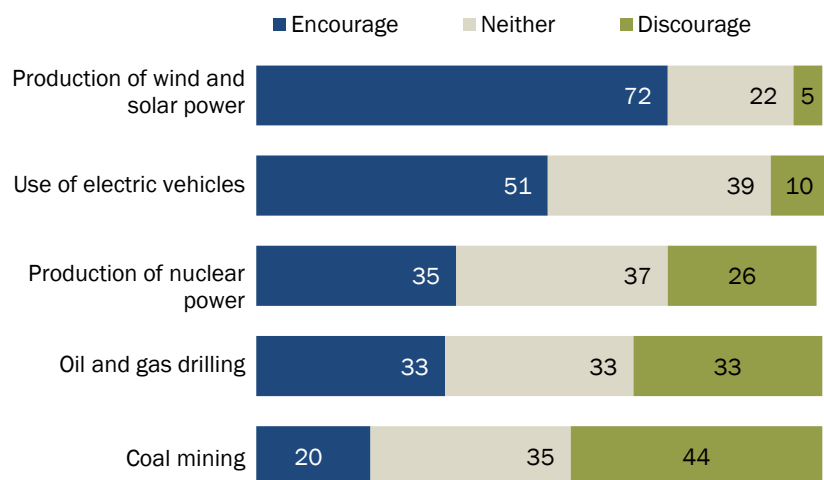
Americans express more mixed views on how the federal

government should engage with nuclear power production and oil and gas drilling. More say the federal government should encourage (35%) than discourage (26%) the production of nuclear power, while 37% say the government should do neither. Views about oil and gas drilling are evenly divided: Equal shares say the federal government should encourage, discourage and neither encourage nor discourage this (33% each).

Opinion is more negative toward a government role in coal mining. More say the federal government should discourage than encourage this activity (44% vs. 20%); 35% say it should do neither.

Majority of U.S. adults say federal government should encourage production of wind and solar power

% of U.S. adults who say that the federal government should ___ each of the following activities



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

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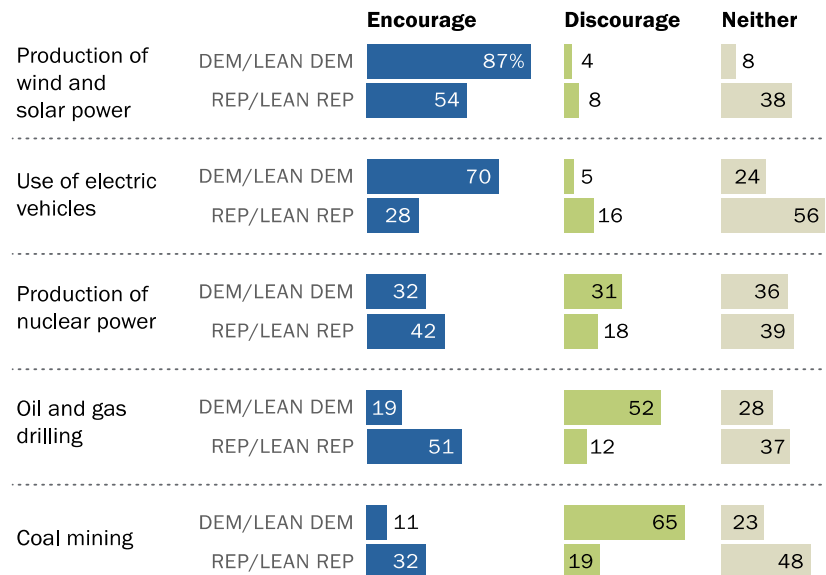
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Republicans and Democrats differ over the types of energy-related activities they think the federal government should encourage or discourage.

An overwhelming majority of Democrats and Democratic-leaning independents say the federal government should encourage the production of wind and solar power (87%). Seven-in-ten Democrats also say this about the use of electric vehicles. Democrats are about evenly divided over the role they think the federal government should play regarding nuclear power. Their views tilt negative when it comes to fossil fuels: 52% of Democrats say the federal government should discourage oil and gas drilling and 65% say it should discourage coal mining.

Partisans differ over whether the federal government should encourage the use of electric vehicles

% of U.S. adults who say the federal government should ___ each of the following activities



Note: Respondents who did not give an answer are not shown.

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Among Republicans and Republican leaners, views toward fossil fuel energy production are much less negative. Overall, 51% of Republicans say the federal government should encourage oil and gas drilling, while just 12% say they should discourage it (37% say it should do neither). And more Republicans say the federal government should encourage than discourage coal mining, albeit by a narrower margin (32% to 19%). At the same time, 54% of Republicans say the federal government should encourage wind and solar power. On the use of electric vehicles, 56% say the federal government should neither encourage nor discourage this.

Wide divides between Democrats and Republicans over U.S. taking steps to become carbon neutral; some differences within partisan coalitions

The Biden administration has announced policies aimed at dramatically reducing carbon dioxide emissions in the U.S. as part of a goal to be carbon neutral by 2050. Meeting this goal would require major changes to the U.S. energy sector, [according to experts](#).

The new survey finds 69% of Americans say the more important energy priority for the country should be developing renewable energy sources, such as wind and solar; fewer (30%) prioritize expanding the production of fossil fuels, such as oil, coal and natural gas. These figures are roughly the same as when last asked in April 2021. See [the Appendix](#) for more details.

Consistent with this view, 69% of Americans say they favor the U.S. taking steps to become carbon neutral by 2050 – that is, releasing no more carbon dioxide into the atmosphere than it removes; 28% of Americans say they oppose this.

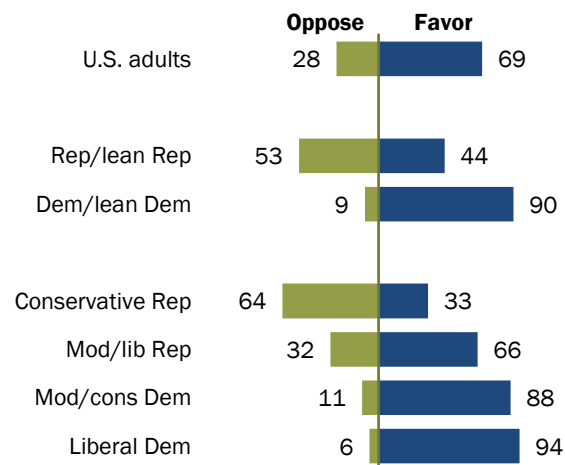
Still, at present, the public generally opposes breaking with fossil fuels entirely. Two-thirds (67%) say the U.S. should use a mix of energy sources including oil, coal and natural gas along with renewable energy sources. A smaller share (31%) says the U.S. should phase out fossil fuels completely and only rely on renewable sources such as wind and solar power.

Nearly all Democrats and independents who lean to the Democratic Party (90%) favor the U.S. taking steps to become carbon neutral by 2050, a key component of Biden’s environmental policy goals.

In contrast, slightly more than half (53%) of Republicans and GOP leaners oppose this goal, while 44% favor it.

Majority favors the U.S. taking steps to become carbon neutral by 2050

% of U.S. adults who say they ___ the U.S. taking steps to become carbon neutral by 2050



Note: Respondents who did not give an answer are not shown. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

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There are notable differences of opinion among Republicans by political ideology as well as age.

Conservative Republicans oppose the U.S. taking steps to become carbon neutral by about a two-to-one margin (64% to 33%). By contrast, 66% of moderate and liberal Republicans favor this goal.

The youngest Republicans, ages 18 to 29, largely support the U.S. taking steps to become carbon neutral by 2050 (67% favor). Support is lower among older Republicans, with majorities of those 50 and older opposing this goal. [See Appendix](#) for more details.

Among Democrats, large majorities across age and political ideology say they favor the U.S. taking steps to become carbon neutral by 2050.

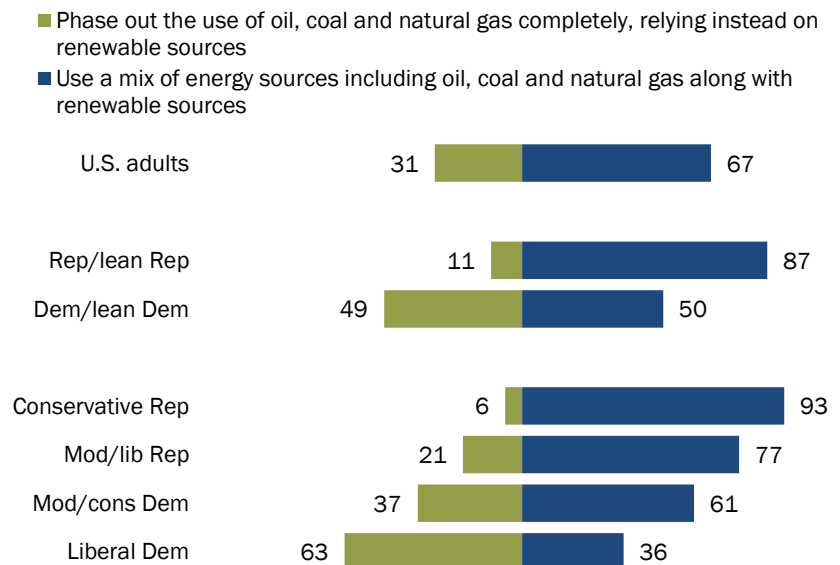
Differences between Republicans and Democrats are similarly large when it comes to the question of whether the U.S. should use a mix of renewable and fossil fuel energy sources or should phase out the use of oil, coal and natural gas completely.

An overwhelming majority of Republicans (87%) think the U.S. should use a mix of energy sources including oil, coal and natural gas along with renewable sources.

By contrast, Democrats are roughly divided in their views: Half say the U.S. should use a mix of energy sources, while about the same share (49%) thinks the U.S. should phase out the use of fossil fuels completely and rely instead on sources such as wind and solar.

Two-thirds say U.S. should use a mix of fossil fuels and renewable energy sources

% of U.S. adults who say that the U.S. should ...



Note: Respondents who did not give an answer are not shown. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

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There are wide differences of opinion on this question among Democrats by ideology. A majority of moderate and conservative Democrats (61%) think the U.S. should use a mix of both fossil fuel and renewable energy sources going forward. A majority of liberal Democrats (63%) take the opposite view and say the U.S. should phase out the use of oil, coal and natural gas completely and rely instead on renewable sources.

Younger adults, ages 18 to 29, are about as likely to say the U.S. should phase out fossil fuels completely (48%) as to say it should use a mix of energy sources (50%). In contrast, roughly two-thirds or more of older adults in every other age group say the U.S. should use a mix of fossil fuels and renewable energy sources rather than phase out fossil fuels completely. Age differences in views are seen within both the Republican and Democratic parties. [See Appendix](#) for more details.

What would a transition to renewable energy mean for Americans?

When asked to think about how a possible shift from fossil fuels to renewable energy sources would impact their own local area, a majority of the public anticipates benefits for air and water quality as well as energy sector jobs in their local area. Yet sizable shares also anticipate higher costs for consumer goods and heating and cooling their homes.

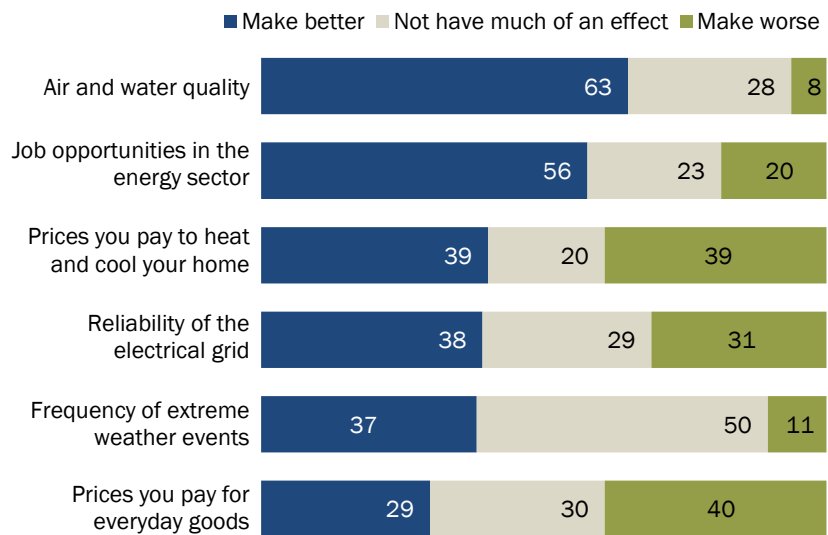
Asked to think about the next 30 years, 63% of U.S. adults think air and water quality in their local area would get better if the U.S. greatly reduced energy production from fossil fuel sources such as oil, coal and natural gas while greatly increasing production from renewable sources such as wind and solar. About three-in-ten (28%) say such a transition would not have much of an effect on local air and water quality, while just 8% say it would make it worse.

On balance, more Americans think a possible transition to renewable energy production would make energy job opportunities in their local area better than worse (56% vs. 20%); 23% do not think it would have much of an effect.

Public expectations are less positive when it comes to prices. As many expect that a major shift from fossil fuel to renewable energy sources over the next 30 years would make the prices they pay to heat and cool their home better (39%) as worse (39%). And expectations tilt negative when it comes to prices for consumer goods: 40% think a major shift to renewable energy production would make these prices worse, while 29% think it would make them better.

Majority expects air and water quality would improve if there's a major shift to renewable energy in the U.S.

If the U.S. greatly reduces energy production from fossil fuel sources and increases energy production from renewable sources, % of U.S. adults who say it would ___ each of the following in their local area



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

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A slightly larger share of U.S. adults say transitioning from fossil fuel to renewable sources would have a positive rather than negative effect on the reliability of the electrical grid (38% vs. 31%). About three-in-ten think an energy transition would not have much of an effect on the reliability of the electrical grid.

More say a renewable energy transition would make the frequency of extreme weather events better than worse in the U.S. (37% vs. 11%), though 50% say they don't think it would have much of an effect.

Democrats and Democratic leaners are much more optimistic than Republicans and Republican leaners about the possible impacts of a major transition from fossil fuel to renewable sources for energy production.

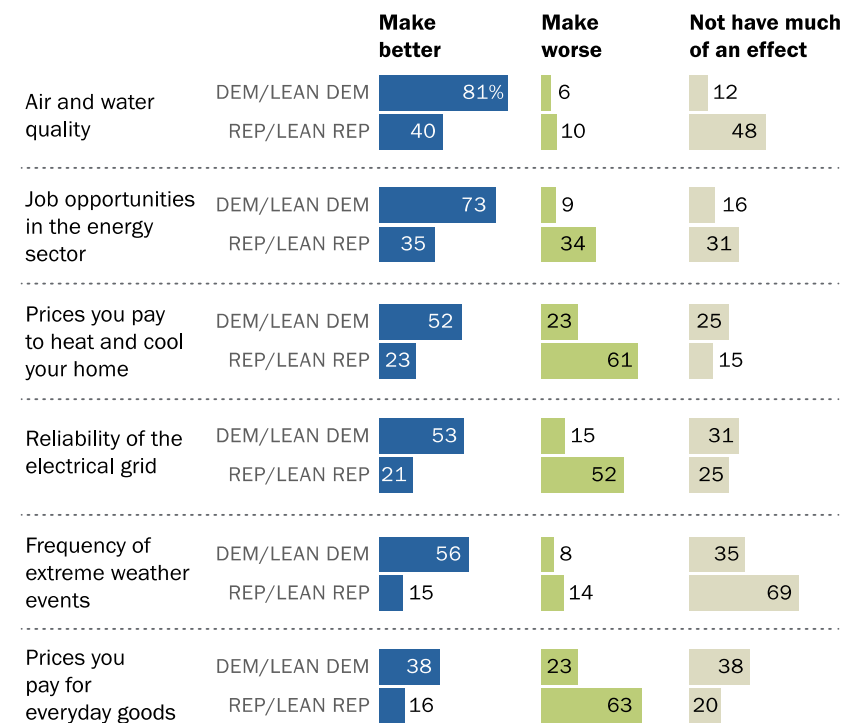
Much larger shares of Democrats than Republicans say reducing energy production from fossil fuels and increasing from renewable sources would make air and water quality (81% vs. 40%) and job opportunities in the energy sector (73% vs. 35%) better. Democrats are also far more likely than Republicans to say an energy transition would have a positive effect on the frequency of extreme weather (56% vs. 15%).

Conversely, Republicans are far more likely than

Democrats to foresee greater pressure on prices if the country greatly shifts toward renewable energy sources over the next 30 years. A majority of Republicans (61%) say this potential energy

Democrats expect positive impacts from a possible transition to much more renewable energy in U.S.

If the U.S. greatly reduces energy production from fossil fuel sources and increases energy production from renewable sources, % of U.S. adults who say it would ___ each of the following in their local area



Note: Respondents who did not give an answer are not shown.

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transition would make home energy prices worse, compared with just 23% of Democrats. There's a similar gap in the shares of Republicans and Democrats who say a transition from fossil fuel to renewable energy sources would make the prices paid for everyday goods worse (63% vs. 23%).

When it comes to the reliability of the electrical grid, about half of Republicans (52%) think a transition from fossil fuels to renewables would make it worse; a similar share of Democrats (53%) think it would make it better.

Americans see unexpected problems – as well as climate risks from not moving fast enough – in a possible transition to increased production of renewable energy

Asked about the implications of a transition from fossil fuel to renewable sources in a more general way, 72% of Americans think it's very or somewhat likely that this shift would not occur fast enough to prevent severe problems from climate change. A similar share (70%) thinks such a transition would be at least somewhat likely to cause unexpected problems for the country.

A large share of Republicans see a potential shift in energy sources as very (50%) or somewhat (31%) likely to be accompanied by unexpected problems. Six-in-ten Democrats also think unexpected problems are likely (though just 14% view this as very likely).

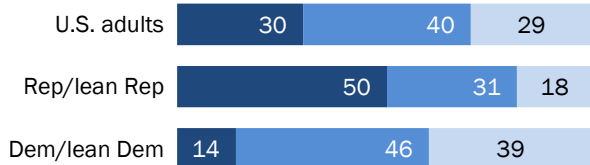
Majorities of both parties say it's very or somewhat likely that a major energy transition would not happen fast enough to prevent severe problems from climate change (85% of Democrats and 58% of Republicans say this would be at least somewhat likely).

Americans express competing concerns over possible transition from fossil fuels to renewable energy sources

% of U.S. adults who say if the U.S. greatly reduces energy production from fossil fuel sources and increases energy production from renewable sources, it ...

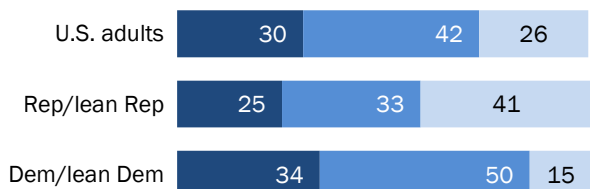
Would lead to unexpected problems for the country

■ Very likely ■ Somewhat likely ■ Not too/Not at all likely



Would not happen fast enough to prevent severe problems from climate change

■ Very likely ■ Somewhat likely ■ Not too/Not at all likely



Note: Respondents who did not give an answer are not shown.
Source: Survey conducted Jan. 24-30, 2022.
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Main benefits – and downsides – that Americans foresee if U.S. phases out fossil fuels

Environmental and climate benefits are top of mind for many Americans when asked to explain, in an open-ended question, what they think the main benefit would be from phasing out the use of oil, coal and natural gas completely.

About four-in-ten U.S. adults (43%) cite environmental and climate factors as benefits to phasing out fossil fuels, including roughly two-in-ten who mention a reduction in carbon emissions or that this shift would save the planet for future generations.

Far fewer mention other potential benefits: 8% say reducing dependence on foreign energy sources would be the main benefit to phasing out fossil fuels, while 8% also cite economic benefits such as lower energy costs or new jobs.

Overall, 13% of Americans say there would be no benefit from such a shift and 25% did not give an answer.

Americans list positive environmental and climate impacts as main benefits to possible energy transition

% of U.S. adults who say the main benefit to the U.S. phasing out oil, coal and natural gas completely would be ...

	U.S. adults	Among those who say the U.S. should ...	
		Phase out oil, coal and natural gas	Use a mix of energy sources
Environment/climate benefits NET	43	61	34
Improves environment, general	14	18	12
Lowers pollution	11	13	11
Reduces carbon emissions/ climate change impacts	11	20	7
Saves planet for future generations	10	19	6
Reduces dependence on other countries for energy	8	11	6
Economic benefits NET	8	12	6
Lowers energy costs	5	6	4
Creates jobs/higher-paying jobs	2	3	1
Improves economy, general	1	2	<1
Renewable energy is more sustainable; fossil fuels could run out	3	3	2
Improves people's health	1	2	1
Should reduce use of fossil fuels, not phase out	1	0	1
There would be no benefit	13	2	19
Other responses/unclear	7	8	6
Don't know	1	0	2
No answer	25	16	28

Note: Question was asked of a random selection of 30% of Form 1 respondents. Verbatim responses have been coded into categories. Figures add to more than 100% because multiple responses were accepted.

Source: Survey conducted Jan. 24-30, 2022.

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Among the roughly third of Americans who support the U.S. phasing out fossil fuels completely, a majority (61%) raise environmental and climate factors as the main benefit to doing so. Far fewer of those who support the U.S. continuing to use a mix of fossil fuel and renewable energy sources (34%) mention

upsides for the environment and climate from this possibility. And about two-in-ten (19%) of this group say there would be no benefit to phasing out oil, coal and natural gas completely.

Economic factors loom large in anticipated downsides from the possibility of phasing out fossil fuels completely.

About a third (35%) of U.S. adults raise economic factors as the main downside to such an energy transition, including 18% who mention job losses and 18% who point to higher energy costs.

About one-in-five (21%) raise concerns about the reliability of renewable energy sources or say that the country is not ready to phase out fossil fuels entirely.

The majority of Americans who say the U.S. should continue to use a mix of fossil fuel and renewable energy sources are more likely to raise concerns about the reliability of an energy system based solely on renewable energy sources.

Economic concerns, preparedness seen as main downsides to phasing out oil, coal and natural gas

% of U.S. adults who say the main **downside** to the U.S. phasing out oil, coal and natural gas completely would be ...

	U.S. adults	Among those who say the U.S. should ...	
		Phase out oil, coal and natural gas	Use a mix of energy sources
Economic downsides NET	35	40	34
Higher energy costs	18	15	20
Job loss/Need for worker retraining	18	24	15
Hurts the economy, general	3	2	3
Not ready to phase out fossil fuels/switch to renewable energy NET	21	12	26
Renewable energy is not reliable	12	7	15
Renewable energy would not meet demand	5	3	6
Not ready to completely phase out fossil fuels, general	5	2	6
Politicians, corporations, lobbyists would not allow this to happen	3	7	1
Should not phase out fossil fuels	3	<1	4
Would need to continue or increase reliance on other countries for energy	2	<1	3
There would be no downside	4	8	2
Other responses/unclear	7	7	7
Don't know	2	2	2
No answer	28	24	30

Note: Question was asked of a random selection of 30% of Form 2 respondents. Verbatim responses have been coded into categories. Figures add to more than 100% because multiple responses were accepted.

Source: Survey conducted Jan. 24-30, 2022.

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About four-in-ten homeowners say they've seriously considered installing solar panels

Among U.S. homeowners, 39% say they have given serious thought to installing solar panels for their home within the past 12 months; 8% say they already have installed solar panels. The share of homeowners who say they have installed solar panels is up from 6% in 2019, though the share who say they have given installation serious consideration is down 7 percentage points.

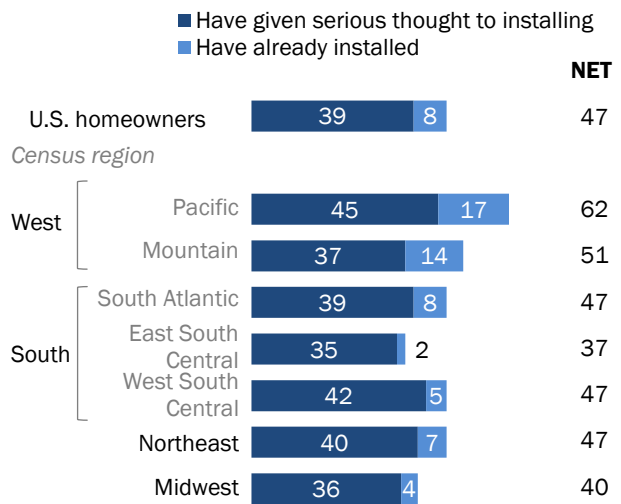
Western homeowners are especially likely to have considered, or installed, solar panels in their homes, consistent with past Center surveys and with data from the [U.S. Energy Information Administration](#) (EIA) on small-scale solar capacity.

Among homeowners in the Pacific region, 45% say they've given serious thought to installing solar panels to generate electricity for their home and 17% say they have already done this. The region includes California, where solar panels are [now mandated for new home construction](#) and multi-family dwellings under three stories.

Partisanship is also linked to consideration and installation of home solar panels. Democrats and those who lean to the Democratic Party are more likely (57%) than Republicans and those who lean to the Republican Party (36%) to say they have installed or given serious thought to installing solar panels in their homes. In the Pacific region, 73% of Democrats have either installed (22%) or say they have seriously considered adding solar panels to their home; this compares with 46% of Republicans in the region who have installed solar panels (13%) or given serious thought to doing so.

Homeowners in West most likely to have considered or installed solar panels

% of U.S. homeowners who say they ___ solar panels within the past 12 months



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

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Most homeowners who have installed or are seriously considering solar panels at home (92%) say that saving money on utilities is a motivation for adding solar panels.

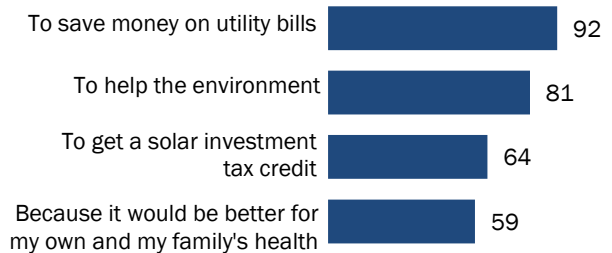
A large majority (81%) of this group also says helping the environment is a reason they have considered or installed solar panels at home.

Smaller majorities say their reasons include a solar investment tax credit (64%) and because it would be better for the health of their family (59%).

Nearly all Democratic (91%) and Republican (92%) homeowners in this group say that saving on utilities is a reason they have thought about or installed solar panels. Democratic homeowners are more likely than Republican homeowners to say that helping the environment (95% vs. 59%) or health benefits for their own or their family's health (71% vs. 39%) is a reason they have considered or installed solar panels at home.

Most homeowners who have considered installing solar panels want to both save money and help the environment

% of U.S. homeowners who say each is a reason they have installed or have considered installing solar panels at home



Note: Respondents who gave other responses or did not give an answer are not shown. Based on homeowners who have already installed or given serious thought to installing solar panels at home. Source: Survey conducted Jan. 24-30, 2022.

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Partisan disagreement over human role in climate change, policy impacts

A majority of Americans continue to see a connection between human activity, such as the burning of fossil fuels, and global climate change. However, there is no public consensus on the strength of the connection. Partisans continue to express starkly different views on climate-related questions.

In all, 46% of U.S. adults say human activity contributes a great deal to climate change, while 29% say it contributes some. About a quarter of Americans (24%) say human activities, including the burning of fossil fuels, contributes not too much or not at all to climate change.

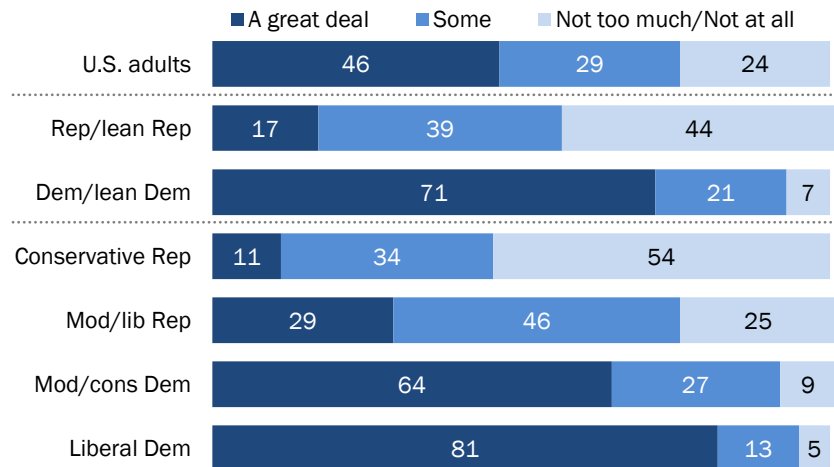
Views on this question have held mostly steady in recent years.

Democrats and Republicans continue to have very different views on the role of human activity in climate change. A large majority of Democrats say humans contribute a great deal (71%). By contrast, just 17% of Republicans say this; 39% of Republicans say human activity contributes some to climate change and 44% think it contributes not too much or not at all.

There are sizable differences by ideology within both partisan groups on this issue. A larger majority of liberal than conservative and moderate Democrats and Democratic leaners say human activity contributes a great deal to climate change (81% vs. 64%). Among Republicans and Republican leaners, moderates are more likely than conservatives to say humans contribute a great deal to climate change (29% vs. 11%). Slightly more than half of conservative Republicans (54%) say human activity contributes not too much or not at all to global climate change.

46% of Americans say human activity contributes a great deal to climate change, 29% say some

% of U.S. adults who say human activity, such as the burning of fossil fuels, contributes ___ to global climate change



Note: Respondents who did not give an answer are not shown. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

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Among Democrats, education is related to the shares who say human activity contributes a great deal to climate change. Overall, Democrats with a postgraduate degree are 26 percentage points more likely than those with a high school degree or less to say human activity contributes a great deal to climate change (84% vs. 58%). Among Republicans, there are no differences by education in the shares who take this view. This pattern is consistent with past Center surveys.

Growing shares of Republicans now say climate policies hurt the economy; Democrats increasingly see environmental benefits

Americans hold mixed views about how policies aimed at reducing the effects of global climate change affect the economy. On balance, views of how these policies impact the environment are more positive than negative.

About as many Americans say policies aimed at reducing the effects of global climate change generally help as hurt the U.S. economy (37% to 35%); 27% say they think these policies make no difference for the economy.

The share of Americans saying climate policies help the U.S. economy is up 7 points over the last four years, driven by more positive assessments of Democrats. A majority of Democrats and Democratic leaners (55%) now say climate policies generally help the economy, up 10 points from 2018. By contrast, Republicans have becoming increasingly likely to say these policies hurt the U.S. economy: 62% of Republicans and Republican leaners think policies aimed at reducing the effects of global climate change generally hurt the economy, while 57% said this in 2018.

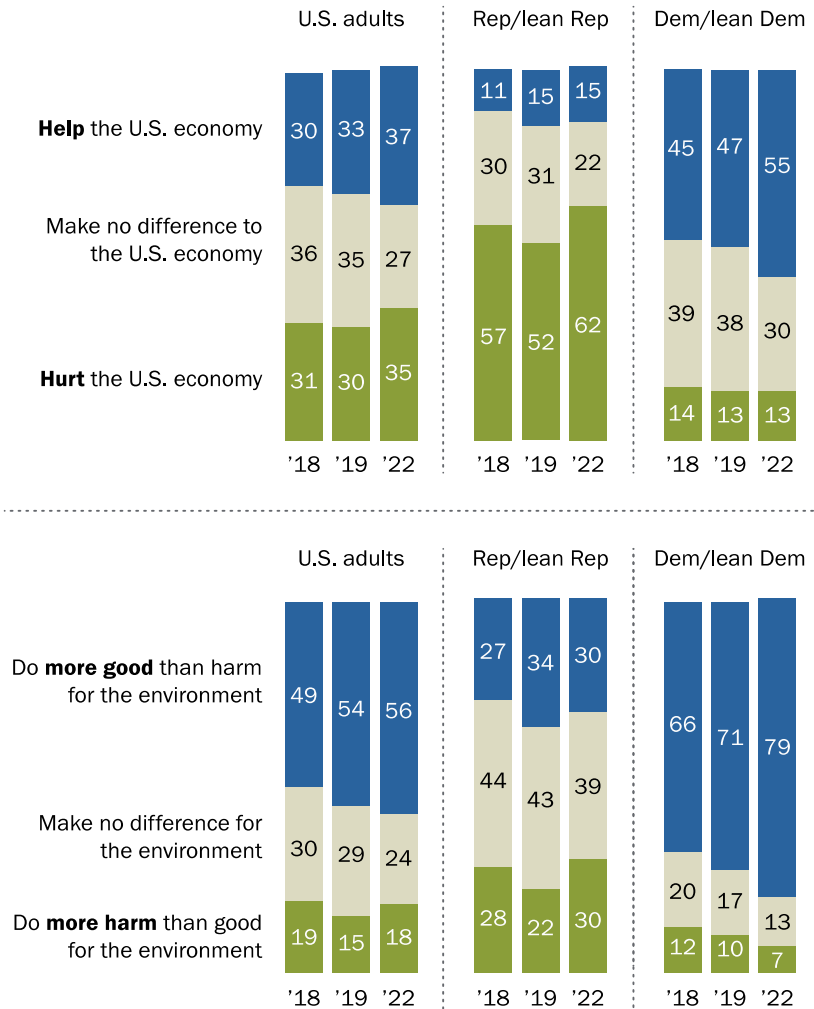
When it comes to the environment, 56% of Americans think policies aimed at addressing climate change generally do more good than harm for the environment; just 18% say they generally do more harm, while 24% say these policies don't make a difference for the environment.

Democrats have become increasingly convinced of the environmental benefits of climate policies: 79% say they generally do more good than harm for the environment, up from 66% who said this in 2018.

Republicans are divided in their views. As many say these climate policies do more good for the environment as say they do more harm (30% each); 39% say these policies don't make a difference for the environment.

Democrats and Republicans disagree on impact of climate change policies on the economy, environment

% of U.S. adults who say policies aimed at reducing the effects of global climate change generally ...



Note: Respondents who did not give an answer are not shown.
 Source: Survey conducted Jan. 24-30, 2022.
 "Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050"

Majority backs U.S. participation in international climate change efforts

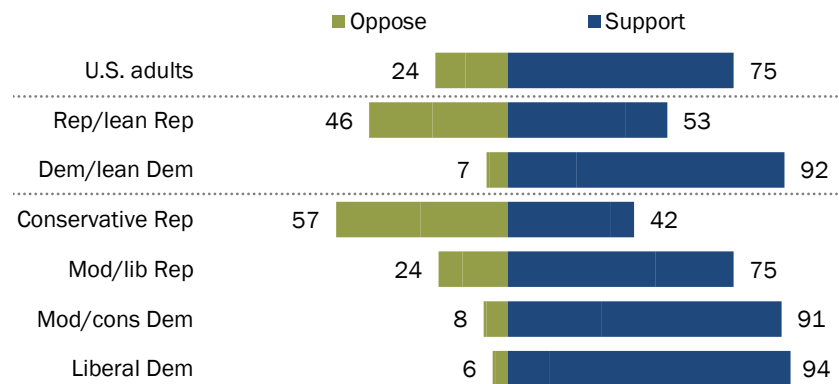
Americans are broadly supportive of the U.S. playing a role in international efforts to reduce global climate change: Three-quarters say they strongly or somewhat support the U.S. participating in international climate efforts, and 24% say they oppose this.

An overwhelming majority of Democrats and Democratic leaners (92%) support the U.S. participating in international efforts to help address global climate change. Opinion is more divided among Republicans and Republican leaners: 53% support U.S. participation in these efforts, while 46% oppose it.

A majority of moderate Republicans (75%) support the U.S. being part of international efforts to reduce climate impacts. By contrast, conservative Republicans are more likely to say they oppose (57%) than support (42%) U.S. participation.

Three-quarters of Americans support U.S. participation in international climate change efforts

% of U.S. adults who strongly/somewhat ___ the U.S. participating in international efforts to help reduce the effects of climate change



Note: Respondents who did not give an answer are not shown. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

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Asked to consider what role the U.S. should play relative to other countries who also have a large economy, 54% of Americans say the U.S. should do about as much as other countries to help reduce the effects of global climate change. About a third (31%) say it should do more than other countries with large economies, while 14% say it should do less.

Americans express mixed views on how much the U.S. is currently doing in this arena. Overall, 36% say the U.S. is doing less than other countries with large economies, while nearly as many (32%) say it is doing more; 31% say it is doing about as much as others.

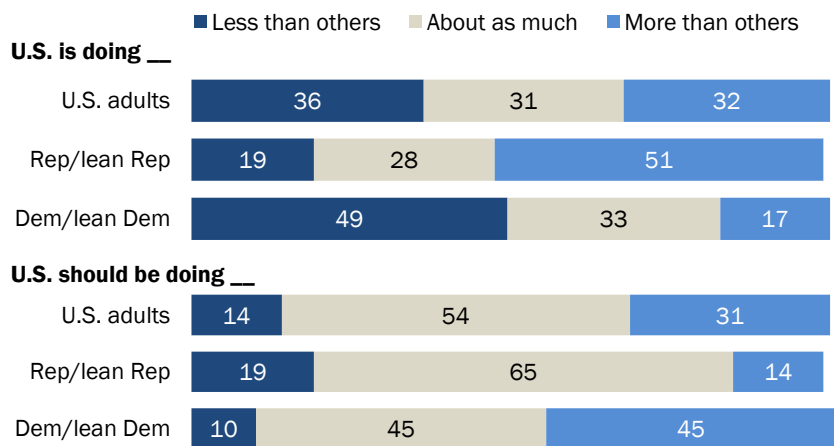
Partisan groups view U.S. participation in international climate efforts quite differently.

About two-thirds of Republicans (65%) say the U.S. should do about as much as other countries with large economies in international climate change efforts. Roughly half of Republicans (51%) say the country is currently doing *more than others*; relatively few think it is doing less (19%).

On balance, Democrats think the country is currently doing less than other countries rather than more (49% to 17%); 33% say the U.S. is currently doing about as much as other countries with large economies. Democrats generally support the U.S. doing as much (45%) or more than other countries with large economies (45%) to help reduce the effects of global climate change; just one-in-ten say it should do less than others.

54% say the U.S. should do about as much as other large economies to help reduce climate effects

% of U.S. adults who say, compared with other countries with large economies, the U.S. is/should be doing ___ to reduce the effects of global climate change



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

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53% of Americans express doubt that global efforts by the U.S. and others will be enough to avoid the worst impacts of climate change

Americans are largely pessimistic that the U.S. and countries around the world will do enough to head off the worst climate change impacts.

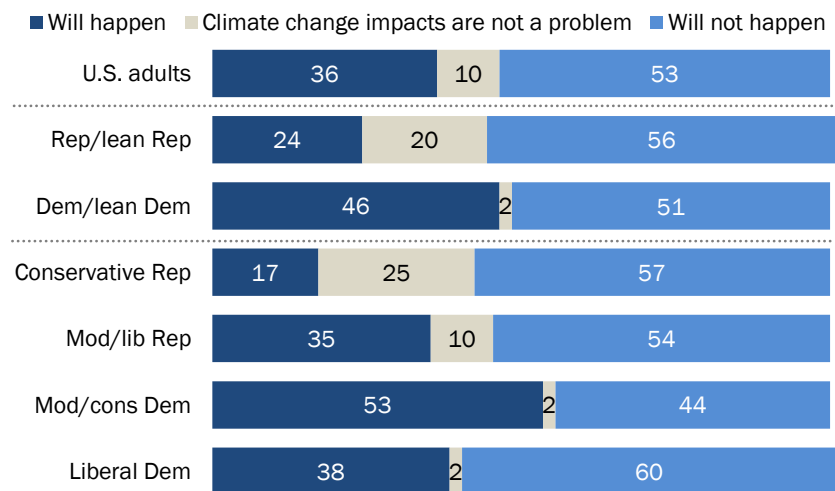
Overall, 53% of Americans think countries around the world, including the U.S., will probably or definitely *not* do enough to avoid the worst impacts from climate change. A smaller share (36%) thinks collective action globally will likely be enough to avoid the worst impacts from climate change; 10% say they don't view climate change impacts as a problem.

Among Democrats and Democratic leaners, 51% do not expect countries around the world will do enough to avoid the worst from climate change; slightly fewer (46%) think countries will collectively do enough. Moderate and conservative Democrats are more optimistic that global efforts will avert the worst impacts from climate change, compared with liberal Democrats.

The balance of opinion among Republicans and independents who lean to the GOP is more pessimistic than among Democrats: 56% of Republicans expect that global efforts will not be enough to avoid the worst impacts of climate change, while 24% think such efforts will likely be enough to avoid them and one-in-five say that climate change impacts are not a problem.

53% think it's unlikely U.S. and other countries will do enough to avoid worst impacts from climate change

How likely is it countries around the world, including the U.S., will collectively do enough to avoid the worst impacts of climate change? % of U.S. adults who say this probably/definitely ...



Note: Respondents who did not give an answer are not shown. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

"Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050"

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A majority of Americans reject idea that U.S. has a responsibility to help developing countries build more renewable energy sources as part of international climate efforts

One of the major topics discussed at the November 2021 [United Nations conference on climate change](#) (known as COP26) was financial assistance for developing countries to help increase their renewable energy sources.

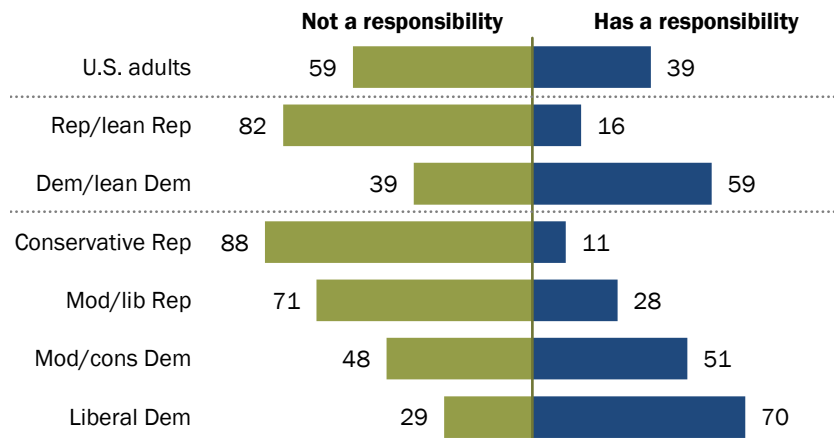
About four-in-ten Americans (39%) say the U.S. has a responsibility to provide international aid for this purpose as part of international efforts to reduce the effects of climate change, while a majority of 59% says it does not.

Most Republicans (82%) say that the U.S. does not have this responsibility, including 88% of conservative Republicans and 71% of moderate and liberal Republicans.

Among Democrats, 59% say that the U.S. has a responsibility to provide financial assistance to developing countries to help build renewable energy sources and move away from fossil fuels. Liberal Democrats are especially likely to take this view (70%). By contrast, moderate and conservative Democrats are roughly split over whether this is a U.S. responsibility or not.

Partisans differ over whether U.S. has a responsibility to help developing countries build renewable energy

% of U.S. adults who say the U.S. has/does not have a responsibility to provide financial assistance to developing countries to help build renewable energy sources as part of international efforts to reduce climate change



Note: Respondents who did not give an answer are not shown. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

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Methodology

The American Trends Panel survey methodology

Overview

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from the panel wave conducted from Jan. 24 to Jan. 30, 2022. A total of 10,237 panelists responded out of 11,609 who were sampled, for a response rate of 88%. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 3%. The break-off rate among panelists who logged on to the survey and completed at least one item is 1%. The margin of sampling error for the full sample of 10,237 respondents is plus or minus 1.5 percentage points.

Panel recruitment

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of whom 9,942 (50%) agreed to participate.

In August 2018, the ATP switched from telephone to address-based recruitment. Invitations were sent to a stratified, random sample of

American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	1,601
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	938
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	470
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	4,430
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,625
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	1,695
May 29 to July 7, 2021				
Sept. 16 to Nov. 1, 2021	ABS	1,329	1,162	936
	Total	39,540	27,414	11,695

Note: Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel.

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households selected from the U.S. Postal Service's Delivery Sequence File. Sampled households receive mailings asking a randomly selected adult to complete a survey online. A question at the end of the survey asks if the respondent is willing to join the ATP. Starting in 2020, another stage was added to the recruitment. Households that do not respond to the online survey are sent a paper version of the questionnaire, \$5 and a postage-paid return envelope. A subset of the adults returning the paper version of the survey are invited to join the ATP. This subset of adults receive a follow-up mailing with a \$10 pre-incentive and invitation to join the ATP.

Across the four address-based recruitments, a total of 19,822 adults were invited to join the ATP, of whom 17,472 agreed to join the panel and completed an initial profile survey. In each household, the adult with the next birthday was asked to go online to complete a survey, at the end of which they were invited to join the panel. Of the 27,414 individuals who have ever joined the ATP, 11,695 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The U.S. Postal Service's Delivery Sequence File has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.¹ The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

Sample design

The overall target population for this survey was non-institutionalized persons ages 18 and older, living in the U.S., including Alaska and Hawaii.

Questionnaire development and testing

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Center researchers. The Ipsos project management team also populated test data that was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

Incentives

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from \$5 to \$20 depending on

¹ AAPOR Task Force on Address-based Sampling. 2016. "[AAPOR Report: Address-based Sampling](#)."

whether the respondent belongs to a part of the population that is harder or easier to reach. Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

Data collection protocol

The data collection field period for this survey was Jan. 24 to Jan. 30, 2022. Postcard notifications were mailed to all ATP panelists with a known residential address on Jan. 25.

Invitations were sent out in two separate launches: Soft Launch and Full Launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on Jan. 24, 2022. The ATP panelists chosen for the initial soft launch were known responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking panelists were included in the full launch and were sent an invitation on Jan. 25.

All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists that consented to SMS messages received an SMS invitation and up to two SMS reminders.

Invitation and reminder dates

	Soft Launch	Full Launch
Initial invitation	Jan. 24, 2022	Jan. 25, 2022
First reminder	Jan. 27, 2022	Jan. 27, 2022
Final reminder	Jan. 29, 2022	Jan. 29, 2022

Data quality checks

To ensure high-quality data, the Center's researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of leaving questions blank, as well as always selecting the first or last answer presented. As a result of this checking, five ATP respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The ATP data is weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. First, each panelist begins with a

base weight that reflects their probability of selection for their initial recruitment survey. The base weights for panelists recruited in different years are scaled to be proportionate to the effective sample size for all active panelists in their cohort and then calibrated to align with the population benchmarks in the accompanying table to correct for nonresponse to recruitment surveys and panel attrition. If only a subsample of panelists was invited to participate in the wave, this weight is adjusted to account for any differential probabilities of selection.

Weighting dimensions

Variable	Benchmark source
Age x Gender	2019 American Community Survey (ACS)
Education x Gender	
Education x Age	
Race/Ethnicity x Education	
Born inside vs. outside the U.S. among Hispanics and Asian Americans	
Years lived in the U.S.	
Census region x Metro/Non-metro	2020 CPS March Supplement
Volunteerism	2019 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation	2021 National Public Opinion Reference Survey (NPORS)
Frequency of internet use	
Religious affiliation	

Note: Estimates from the ACS are based on non-institutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population.

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Among the panelists who completed the survey, this weight is then calibrated again to align with the population benchmarks identified in the accompanying table and trimmed at the 1st and 99th percentiles to reduce the loss in precision stemming from variance in the weights. Sampling errors and tests of statistical significance take into account the effect of weighting.

Some of the population benchmarks used for weighting come from surveys conducted prior to the coronavirus outbreak that began in February 2020. However, the weighting variables for panelists recruited in 2021 were measured at the time they were recruited to the panel. Likewise, the profile variables for existing panelists were updated from panel surveys conducted in July or August 2021.

This does not pose a problem for most of the variables used in the weighting, which are quite stable at both the population and individual levels. However, volunteerism may have changed over the intervening period in ways that made their 2021 measurements incompatible with the available (pre-pandemic) benchmarks. To address this, volunteerism is weighted using the profile variables that were measured in 2020. For all other weighting dimensions, the more recent panelist measurements from 2021 are used.

For panelists recruited in 2021, plausible values were imputed using the 2020 volunteerism values from existing panelists with similar characteristics. This ensures that any patterns of change that were observed in the existing panelists were also reflected in the new recruits when the weighting was performed.

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey.

Sample sizes and sampling errors for other subgroups are available upon request. In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

Margins of error

	Unweighted sample size	Margin of error in percentage points
U.S. adults	10,237	+/- 1.5
Ages 18-29	925	+/- 4.9
30-49	3,268	+/- 2.6
50-64	2,982	+/- 2.7
65+	3,019	+/- 2.5
Postgraduate	2,343	+/- 2.6
College grad	2,817	+/- 2.5
Some college	3,237	+/- 2.7
HS or less	1,809	+/- 3.2
Rep/lean Rep	4,812	+/- 2.2
Dem/lean Dem	5,173	+/- 2.2
Conservative Rep	3,377	+/- 2.6
Mod/lib Rep	1,403	+/- 4.2
Mod/cons Dem	2,602	+/- 3.0
Liberal Dem	2,514	+/- 3.1

Note: The margins of error are reported at the 95% level of confidence and are calculated by taking into account the average design effect for each subgroup. Republicans and Democrats include independents and others who lean to each of the parties.

Source: Survey conducted Jan. 24-30, 2022.

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Dispositions and response rates

Final dispositions	AAPOR code	Total
Completed interview	1.1	10,237
Logged onto survey; broke off	2.12	102
Logged onto survey; did not complete any items	2.1121	118
Never logged on (implicit refusal)	2.11	1,145
Survey completed after close of the field period	2.27	2
Completed interview but was removed for data quality		5
Screened out		0
Total panelists in the survey		11,609
Completed interviews	I	10,237
Partial interviews	P	0
Refusals	R	1,370
Non-contact	NC	2
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		11,609
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		88%

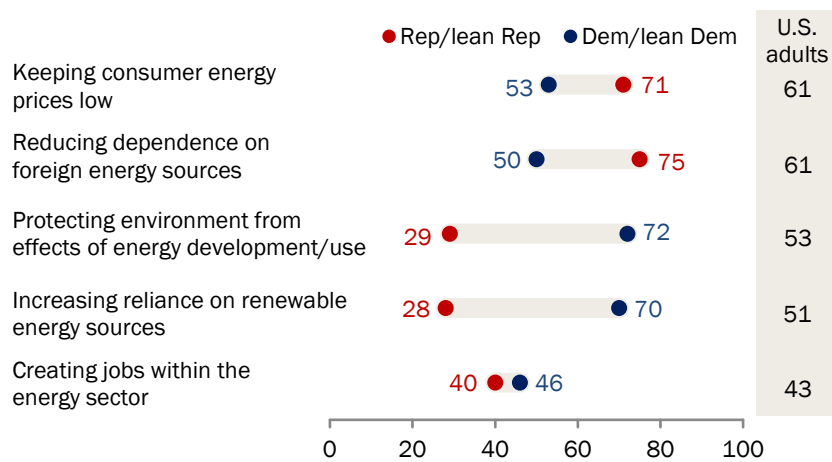
Cumulative response rate	Total
Weighted response rate to recruitment surveys	12%
% of recruitment survey respondents who agreed to join the panel, among those invited	69%
% of those agreeing to join who were active panelists at start of Wave 102	43%
Response rate to Wave 102 survey	88%
Cumulative response rate	3%

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Appendix: Detailed charts and tables

Republicans and Democrats express contrasting priorities for U.S. energy policies

% of U.S. adults who say each of the following should be a top priority for America's energy policies



Note: Respondents who gave other responses or did not give an answer are not shown.

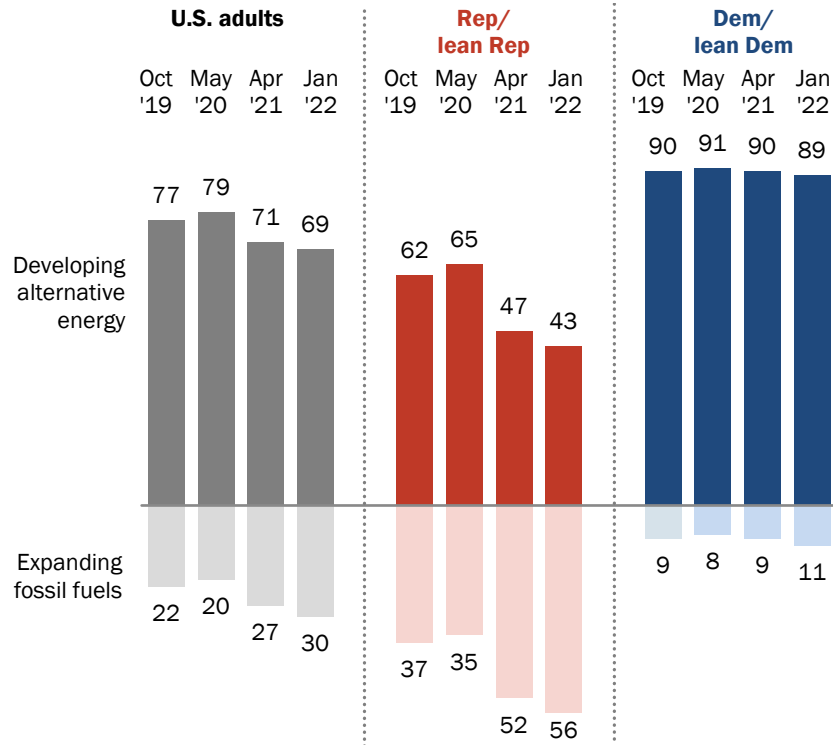
Source: Survey conducted Jan. 24-30, 2022.

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Republicans, Democrats disagree on whether to prioritize fossil fuels or wind and solar

% of U.S. adults who say the more important priority for addressing America's energy supply should be ...

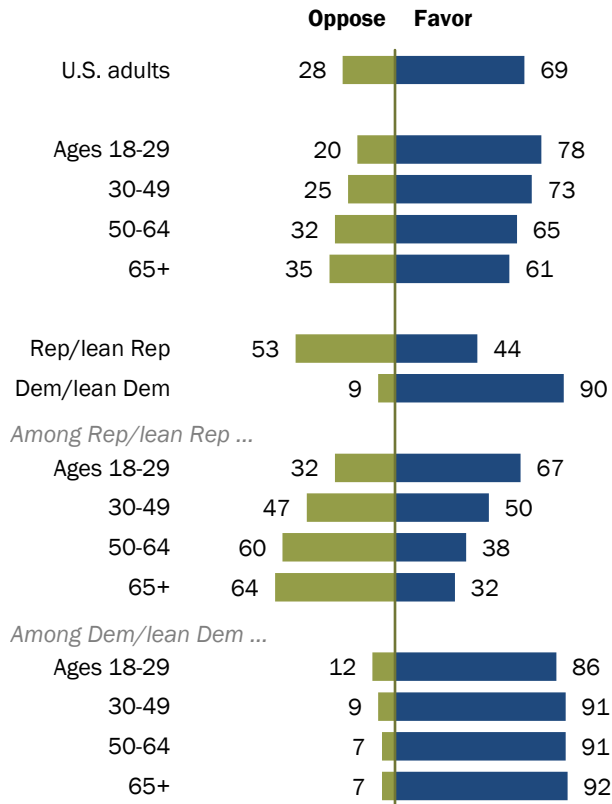


Note: Respondents who did not give an answer are not shown.
 Source: Survey conducted Jan. 24-30, 2022.
 "Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050"

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Large differences among Republicans by age in support of U.S. taking steps to becoming carbon neutral

% of U.S. adults who say they ___ the U.S. taking steps to become carbon neutral by 2050



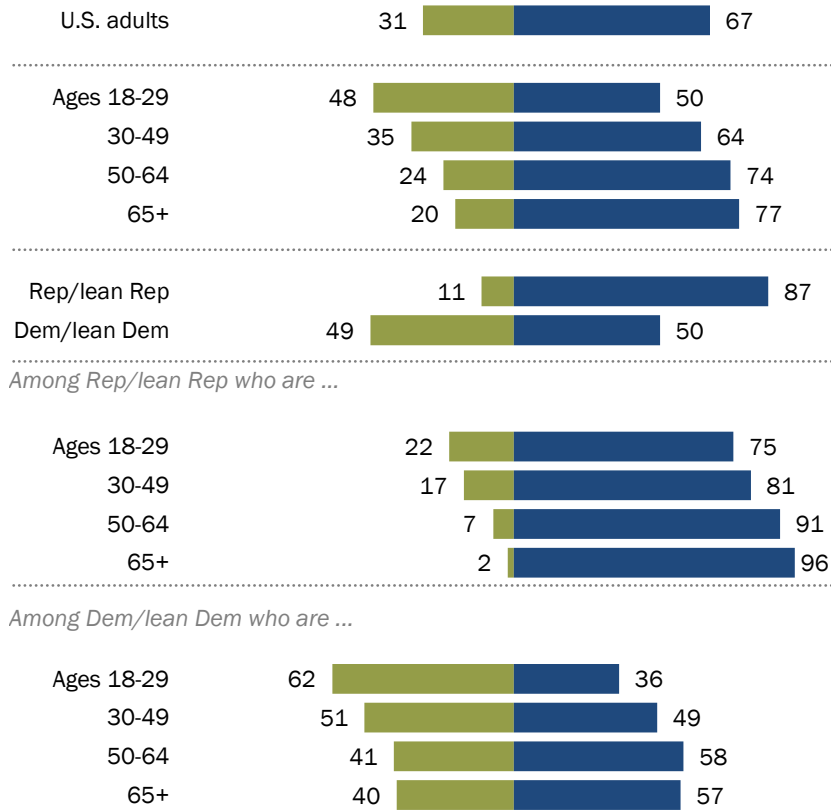
Note: Respondents who did not give an answer are not shown.
 Source: Survey conducted Jan. 24-30, 2022.
 "Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050"

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Younger Americans closely divided over whether to phase out reliance on fossil fuels altogether

% of U.S. adults who say that the U.S. should ...

- Phase out the use of oil, coal and natural gas completely, relying instead on renewable sources
- Use a mix of energy sources including oil, coal and natural gas along with renewable sources



Note: Respondents who did not give an answer are not shown.

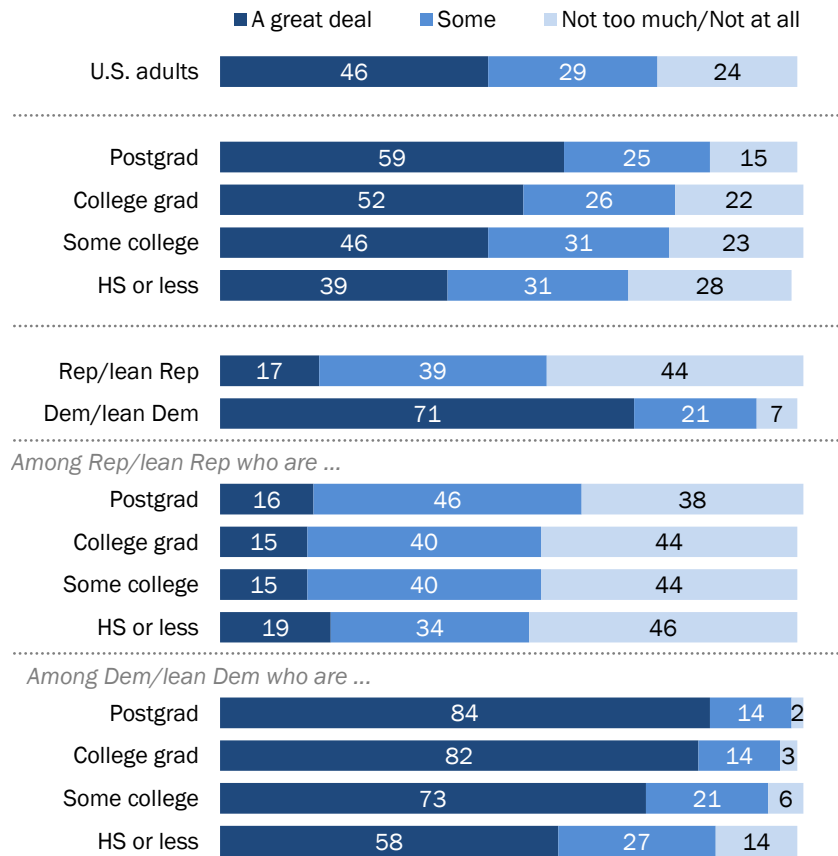
Source: Survey conducted Jan. 24-30, 2022.

"Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050"

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Among Democrats, views on how much human activity contributes to climate change differ by education

% of U.S. adults who say human activity, such as the burning of fossil fuels, contributes ___ to global climate change



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted Jan. 24-30, 2022.

"Americans Largely Favor U.S. Taking Steps To Become Carbon Neutral by 2050"

Survey question wording and topline

2022 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 102 JANUARY 2022
JANUARY 24-30, 2022
N=10,237

ASK ALL:

ENVIR4

How would you rate each of the following priorities for America's energy policies?
[RANDOMIZE ITEMS]

	Should be a top priority	Should be an important but lower priority	Should not be too important	Should not be done	No answer
a. Reducing our dependence on foreign energy sources					
Jan 24-30, 2022	61	31	6	1	1
Mar 27-Apr 9, 2018	69	24	5	1	1
b. Creating jobs within the energy sector					
Jan 24-30, 2022	43	47	8	1	1
Mar 27-Apr 9, 2018	58	33	8	1	1
c. Protecting the environment from the effects of energy development and use					
Jan 24-30, 2022	53	38	7	1	1
Mar 27-Apr 9, 2018	72	24	3	1	1
d. Keeping consumer energy prices low					
Jan 24-30, 2022	61	35	3	1	<1
Mar 27-Apr 9, 2018	66	30	3	1	1
e. Increasing reliance on renewable energy sources					
Jan 24-30, 2022	51	37	9	2	1
Mar 27-Apr 9, 2018	71	24	4	1	1

TREND FOR COMPARISON

Pew Research Center survey conducted by telephone: Right now, how would you rate each of the following priorities for America's energy policies? First, do you think **[INSERT ITEM; RANDOMIZE]** should be a top priority, important but lower priority, not too important, or should it not be done? **[NEXT ITEM]**? **[IF NECESSARY: Do you think [ITEM] should be a top priority for America's energy policies, important but lower priority, not too important, or should it not be done?**

	<u>Top priority</u>	<u>Important but lower priority</u>	<u>Not too important</u>	<u>Should not be done</u>	<u>No answer</u>
a. Reducing our dependence on foreign energy sources May 3-7, 2017	48	32	10	6	4
b. Creating jobs within the energy sector May 3-7, 2017	49	36	7	3	5
c. Protecting the environment from the effects of energy development and use May 3-7, 2017	53	33	8	3	3
d. Keeping consumer energy prices low May 3-7, 2017	49	39	6	3	1
e. Increasing reliance on renewable energy sources May 3-7, 2017	52	32	9	3	4

ASK ALL:

NRGENCTV What role should the federal government play in each of the following activities?
[RANDOMIZE ITEMS]

	<u>Encourage this activity</u>	<u>Discourage this activity</u>	<u>Neither encourage nor discourage</u>	<u>No answer</u>
a. The use of electric vehicles Jan 24-30, 2022	51	10	39	1
b. The production of wind and solar power Jan 24-30, 2022	72	5	22	1
c. Oil and gas drilling Jan 24-30, 2022	33	33	33	1
d. Coal mining Jan 24-30, 2022	20	44	35	1
e. The production of nuclear power Jan 24-30, 2022	35	26	37	2

ASK ALL:

EN1

Right now, which ONE of the following do you think should be the more important priority for addressing America's energy supply? **[RANDOMIZE ORDER OF RESPONSE 1 AND 2]**

	Developing alternative sources, such as wind, solar and <u>hydrogen technology</u>	Expanding exploration and production of oil, <u>coal and natural gas</u>	No answer
Jan 24-30, 2022	69	30	1
Apr 20-29, 2021	71	27	1
Apr 29-May 5, 2020	79	20	1
Oct 1-13, 2019	77	22	1

TREND FOR COMPARISON:

Pew Research Center survey conducted by telephone: Right now, which ONE of the following do you think should be the more important priority for addressing America's energy supply **[READ AND RANDOMIZE]**?

	Developing alternative sources such as wind, solar and <u>hydrogen technology</u>	Expanding exploration and production of oil, <u>coal and natural gas</u>	(VOL.) Both should be given equal priority	(VOL.) DK/Ref
Jan 4-9, 2017	65	27	5	3
Dec 3-7, 2014	60	30	5	4
Feb 12-26, 2014	65	28	5	2
Sep 4-8, 2013	58	34	6	3
Feb 13-18, 2013	54	34	7	4
Oct 24-28, 2012	47	39	9	5
Mar 7-11, 2012	52	39	5	4
Feb 22-Mar 1, 2011	63	29	6	2

ASK ALL:

EN2

Thinking about the country's energy supply, do you think the U.S. should... **[RANDOMIZE ORDER OF RESPONSE 1 AND 2]**

	Phase out the use of oil, coal and natural gas completely, relying instead on renewable energy sources such as wind and <u>solar power only</u>	Use a mix of energy sources including oil, coal and natural gas along with renewable <u>energy sources</u>	No answer
Jan 24-30, 2022	31	67	2
Apr 20-29, 2021	33	64	2

ASK RANDOM 30% OF RESPONDENTS ON FORM 1 [N=1,498]:

PHASEBENE Regardless of your overall views on energy, what do you think would be the main benefit to the U.S. phasing out the use of oil, coal and natural gas completely?²

Jan 24-30,
2022

43	Environment/climate benefits NET
14	<i>Improves environment, general</i>
11	<i>Lowers pollution/helps with other environmental problems</i>
11	<i>Reduces carbon emissions/climate change impacts</i>
10	<i>Saves planet for future generations</i>
8	Reduces dependence on other countries for energy
8	Economic benefits NET
5	<i>Lowers energy costs</i>
2	<i>Creates jobs/higher paying jobs</i>
1	<i>Improves economy, general</i>
3	Renewable energy is more sustainable; fossil fuels could run out
1	Improves peoples' health
13	There would be no benefit
1	Should reduce use of fossil fuels, not phase out
7	Other responses/unclear
1	Don't know
25	No answer

ASK RANDOM 30% OF RESPONDENTS ON FORM 2 [N=1,508]:

PHASEDWNS Regardless of your overall views on energy, what do you think would be the main downside to the U.S. phasing out the use of oil, coal and natural gas completely?³

Jan 24-30,
2022

35	Economic downsides NET
18	<i>Higher energy costs</i>
18	<i>Job loss/need for worker retraining</i>
3	<i>Hurts the economy, general</i>
21	Not ready to phase out fossil fuels/switch to renewable energy NET
12	<i>Renewable energy is not reliable</i>
5	<i>Renewable energy would not meet demand</i>
5	<i>Not ready to completely phase out fossil fuels, general</i>
3	Politicians, corporations, lobbyists would not allow this to happen
3	Should not phase out fossil fuels
2	Would need to continue or increase reliance on other countries for energy
4	There would be no downside
7	Other responses/unclear
2	Don't know
28	No answer

² Verbatim responses have been coded into categories. Figures add to more than 100% because multiple responses were accepted.

³ Verbatim responses have been coded into categories. Figures add to more than 100% because multiple responses were accepted.

ASK ALL:

NRGPAGE

If the U.S. greatly reduces energy production from fossil fuel sources such as oil, coal and natural gas, and increases energy production from renewable sources such as wind and solar, how likely do you think it is that this transition... **[RANDOMIZE ITEMS]**

	<u>Very likely</u>	<u>Somewhat likely</u>	<u>Not too likely</u>	<u>Not at all likely</u>	<u>No answer</u>
a. Would lead to unexpected problems for the country Jan 24-30, 2022	30	40	25	4	1
b. Would not happen fast enough to prevent severe problems from climate change Jan 24-30, 2022	30	42	18	8	1

ASK ALL:

Thinking about life in this country over the next 30 years...

NRGTRNST

If the U.S. greatly reduces energy production from fossil fuel sources such as oil, coal and natural gas, and increases production from renewable sources such as wind and solar, how do you think it would impact each of the following in your local area? **[RANDOMIZE ITEMS]**

	<u>Make better</u>	<u>Make worse</u>	<u>Not have much of an effect</u>	<u>No answer</u>
a. The reliability of the electrical grid Jan 24-30, 2022	38	31	29	2
b. Job opportunities in the energy sector Jan 24-30, 2022	56	20	23	1
c. The prices you pay to heat and cool your home Jan 24-30, 2022	39	39	20	1
d. The prices you pay for everyday goods Jan 24-30, 2022	29	40	30	1
e. Air and water quality Jan 24-30, 2022	63	8	28	1
f. The frequency of extreme weather events Jan 24-30, 2022	37	11	50	1

ASK ALL:

As you may know, the Biden administration has set a goal for the U.S. to become carbon neutral by 2050, meaning the country would release no more carbon dioxide into the atmosphere than it removes.

CARBNEUT Do you favor or oppose the U.S. taking steps to become carbon neutral by 2050?

Jan 24-30, <u>2022</u>	
69	Favor
28	Oppose
3	No answer

ASK ALL:

EN7 How much do you think human activity, such as the burning of fossil fuels, contributes to global climate change?

	<u>A great deal</u>	<u>Some</u>	<u>Not too much</u>	<u>Not at all</u>	<u>No answer</u>
Jan 24-30, 2022	46	29	17	6	1
Apr 20-29, 2021	44	33	15	6	1
Apr 29-May 5, 2020	49	32	13	6	1
Oct 1-13, 2019	49	30	14	5	2

RANDOMIZE ORDER OF CLIM5 AND CLIM6**ASK ALL:**

CLIM5 Do you think policies aimed at reducing the effects of global climate change generally...
[RANDOMIZE AND RECORD RESPONSE 1 AND 2 ORDER. SHOW IN SAME ORDER AS CLIM6]

	<u>Help the U.S. economy</u>	<u>Hurt the U.S. economy</u>	<u>Make no difference for the U.S. economy</u>	<u>No answer</u>
Jan 24-30, 2022	37	35	27	2
Oct 1-13, 2019	33	30	35	2
Mar 27-Apr 9, 2018	30	31	36	2

ASK ALL:

CLIM6

Do you think policies aimed at reducing the effects of global climate change generally...
[RANDOMIZE AND RECORD RESPONSE 1 AND 2 ORDER. SHOW IN SAME ORDER AS CLIM5]

	Do more GOOD than harm for the <u>environment</u>	Do more HARM than good for the <u>environment</u>	Make no difference for the <u>environment</u>	<u>No answer</u>
Jan 24-30, 2022	56	18	24	2
Oct 1-13, 2019	54	15	29	2
Mar 27-Apr 9, 2018	49	19	30	2

ASK ALL:

CCINTL

Do you support or oppose the U.S. participating in international efforts to help reduce the effects of global climate change?

Jan 24-30,
2022

43	Strongly support
32	Somewhat support
14	Somewhat oppose
10	Strongly oppose
1	No answer

ASK FORM 1 [N=5,124]:

CLIMCOMP1

Compared to other countries with large economies, how much do you think the U.S. is doing to help reduce the effects of global climate change?

Jan 24-30,
2022

32	More than other countries with large economies
36	Less than other countries with large economies
31	About as much as other countries with large economies
2	No answer

ASK FORM 2 [N=5,113]:

CLIMCOMP2

Compared to other countries with large economies, how much do you think the U.S. should be doing to help reduce the effects of global climate change?

Jan 24-30,
2022

31	More than other countries with large economies
14	Less than other countries with large economies
54	About as much as other countries with large economies
1	No answer

ASK ALL:

CCEFFC

How likely is it that countries around the world, including the U.S., will collectively do enough to avoid the worst impacts from climate change?

Jan 24-30,

2022

6	Will definitely happen
30	Will probably happen
45	Will probably NOT happen
8	Will definitely NOT happen
10	Climate change impacts are not a problem
1	No answer

ASK ALL:

As part of international efforts to reduce the effects of global climate change...

CCINTL2

Do you think the U.S. has a responsibility to provide financial assistance to developing countries to help build renewable energy sources and move away from fossil fuels?

Jan 24-30,

2022

39	Yes, the U.S. has this responsibility
59	No, the U.S. does not have this responsibility
2	No answer

ASK IF HOMEOWNER (XOWNRENTMOD=1) [N=7,578]:

ENV4

Have you given serious thought to installing solar panels to generate electricity for your home within the past 12 months, or haven't you done this?

	I have given serious thought to installing solar panels <u>at home</u>	I have already installed solar panels at <u>home</u>	I have not installed nor given serious thought to installing <u>solar panels</u>	<u>No answer</u>
Jan 24-30, 2022	39	8	52	1
Oct 1-13, 2019 ⁴	46	6	47	1
May 10-Jun 6, 2016	40	4	54	1

⁴ In 2016 and 2019, ENV4 was asked without the homeowner filter. The 2016 and 2019 numbers here for ENV4 and ENV5 were filtered by homeowner status so that they could be compared with the 2022 data.

ASK IF ENV4=1,2 [N=3,452]:

ENV5 **[ASK IF ENV4=1]:** Is each of the following a reason you would install solar panels at your home?

[ASK IF ENV4=2]: Is each of the following a reason that you have installed solar panels at your home? **[RANDOMIZE]**

	<u>Yes, a reason</u>	<u>No, not a reason</u>	<u>No answer</u>
a. To save money on utility bills			
Jan 24-30, 2022	92	8	<1
Oct 1-13, 2019	96	4	<1
May 10-June 6, 2016	90	7	3
b. To help the environment			
Jan 24-30, 2022	81	18	<1
Oct 1-13, 2019	87	12	1
May 10-June 6, 2016	87	12	<1
c. Because it would be better for my own health and my family's health			
Jan 24-30, 2022	59	40	<1
Oct 1-13, 2019	60	40	<1
May 10-June 6, 2016	62	37	1
d. To get a solar investment tax credit			
Jan 24-30, 2022	64	34	1
Oct 1-13, 2019	67	32	1
May 10-June 6, 2016	60	38	2

OTHER QUESTIONS PREVIOUSLY RELEASED OR HELD FOR FUTURE RELEASE