Party or Climate? The Polarization of the US Public's Energy Preferences

Introduction

Mitigating climate change requires a significant shift away from fossil fuels toward alternative energy sources such as renewables and nuclear energy. The energy transition requires action from all sectors of society, including governments. Public policy can guide the move away from fossil fuels; however, policy actions require sufficient public support. Public opinion can influence energy policy by incentivizing policymakers through support for clean energy, voting for candidates that advocate for clean energy, and supporting renewable energy projects in their community (Gazmararian, Mildenberger, and Tingley 2026). Therefore, understanding the mechanisms that shape public opinion is important for the clean energy transition.

It is well-documented that climate change is highly polarized among both political elites and the public, particularly in the United States. Conservatives and Republicans are less likely to think climate change is happening and less supportive of policies to address climate change than Democrats and liberals (Dunlap, McCright, and Yarosh 2016; Egan and Mullin 2024; Hawes and Nowlin 2022). While views on climate change are extremely polarized among the US public, support for expanding renewable energy sources, such as wind and solar, has been generally strong in the last several years (Bergquist, Konisky, and Kotcher 2020; Crowe 2020; Gustafson et al. 2020; Ter-Mkrtchyan et al. 2022).

However, this may be changing, with views on fossil fuels and renewable energy sources becoming increasingly polarized. Recent survey data from the Pew Research Center show that support for expanding renewable energy among Republicans has declined, from 65 percent in 2020 to 28 percent in 2026, while at the same time, support for expanding fossil fuels increased from 35 percent in 2020 to 71 percent in 2026 among Republicans (Kennedy and Kikuchi 2026). In this paper, I examine two possible mechanisms that could account for the shift among Republicans, including cues that connect renewable energy to climate change or cues from prominent Republicans, most notably Donald Trump.

Using a survey experiment, I tested a set of preregistered hypotheses to examine whether partisan or climate change cues could shift the general public's preferred energy mix for electricity production. Respondents were provided with information about the current energy mix for electricity in the US. They were then either given a cue about Trump's support/opposition to fossil fuels/renewables, a cue about the need to increase the use of renewables to address climate change, or placed in a control group with no cues. Overall, I find that conservative

Republicans were responsive to the Trump cue, preferring more fossil fuels and fewer renewables than those who received the climate cue or no cue, but they were not responsive to the climate cue. Liberal Democrats were generally less responsive to either cue than Republicans. Additionally, the Trump cue polarized views on fossil fuels, largely based on the shift among conservative Republicans. Finally, all respondents preferred an energy mix with fewer fossil fuels and more renewables for electricity production than the current US mix, regardless of the treatment condition.

Cues and Energy Polarization

There is clear evidence of polarization in views on climate change among the US public, with multiple studies finding stark differences in climate views across political beliefs such as ideology and partisanship (e.g., Druckman and McGrath 2019; Dunlap and McCright 2008; Dunlap, McCright, and Yarosh 2016; McCright and Dunlap 2011; Smith, Bognar, and Mayer 2024). However, political polarization regarding energy, including the favorability of specific energy sources and support for energy policies, is more nuanced (Ansolabehere and Konisky 2016). In general, polarization varies by energy source, with views on fossil fuels being extremely polarized, whereas views on other energy sources are less polarized (Bergquist, Konisky, and Kotcher 2020).

Public opinion on fossil fuels, such as coal, oil, and gas, is largely shaped by political beliefs. Compared to conservatives and Republicans, liberals and Democrats are less supportive of coal (Hart, Stedman, and Clarke 2021) and more concerned about the extraction processes associated with oil and gas, such as hydraulic fracturing or "fracking" (Davis and Fisk 2014; Raimi, Krupnick, and Bazilian 2020). For liberals and Democrats, the risks of fossil fuels, including the health, environmental, and climate impacts, influence opposition to fossil fuels, whereas conservatives and Republicans tend to emphasize the economic and energy security benefits in their support (Clarke and Evensen 2019; Howell et al. 2019).

Renewable energy sources are generally less polarized than fossil fuels, with liberals/Democrats and conservatives/Republicans supporting increases in renewables relative to the current energy mix (Hawes and Nowlin 2022; Ter-Mkrtchyan et al. 2022). While there are some partisan differences, they are differences in *degree* rather than *direction*, as liberals/Democrats tend to be more supportive of renewables than conservatives/Republicans (Bergquist, Konisky, and Kotcher 2020; Hamilton et al. 2018). Additionally, the reasons for support vary by political beliefs. Conservatives/Republicans support renewable sources because of the economic benefits, whereas liberals/Democrats support them because of climate concerns (Gustafson et al. 2020). In general, previous research suggests that political beliefs shape the public's views on both fossil fuels and renewables because conservatives/Republicans vs liberals/Democrats emphasize different aspects of those energy sources. For conservatives/Republicans, the emphasis is on costs and benefits, whereas for liberals/Democrats, the emphasis is on health, the environment, and climate change.

Views on nuclear energy are generally less polarized across political beliefs than those on fossil fuels and renewable sources. To the extent that nuclear energy is polarized, it tends to find more support among conservatives/Republicans than among liberals/Democrats (McBeth, Warnement Wrobel, and van Woerden 2023; Yeo et al. 2014). However, public support for nuclear energy is also driven by events such as the three major nuclear accidents and shifts in the supply of other energy sources (Gupta et al. 2019). It is also

noteworthy that even though nuclear energy does not emit greenhouse gases when generating electricity, those most concerned about climate change tend to be less supportive of it as an energy source (Ter-Mkrtchyan et al. 2026).

As noted, recent public surveys indicate that support among Republicans for renewables is falling, while support for fossil fuels is increasing. One reason for this trend may be that renewable energy has become entangled with climate change, leading to less support among Republicans. For example, one study found that support for renewable energy policy declined among conservatives when the policy was paired with a carbon capture and storage climate policy (Marlow and Makovi 2023). Therefore, if renewables are framed as an approach to address climate change, which becomes a cue that connects renewables to climate change, support for the use of renewables is likely to become more polarized. Framing entails focusing on one or more aspects of an issue, which can shape how it is perceived and understood, and a cue is a signal that brings a concept front of mind. How climate policies are framed, such as through science, moral, and economic frames, can lead to more (less) support for those policies(Severson and Coleman 2015), and frames regarding reducing energy waste and producing low-carbon domestic energy can reduce climate change polarization (Whitmarsh and Corner 2017). Similarly, frames can shape views on energy sources, as a frame that emphasizes how renewables can save costs increases support for renewables across partisan groups (Gustafson et al. 2022).

The importance of framing in shaping public opinion has been demonstrated in studies that have found that climate change cues can influence views on energy. For example, one study found that Republicans were less supportive of a carbon tax, fuel efficiency, and renewables when they were framed as a way to address climate change compared to being framed as a way to address air pollution or energy security (Feldman and Hart 2018). Additionally, Republicans were more supportive of renewable energy portfolios in their state when they were framed as helping with air pollution, but there was no difference in support when those policies were associated with climate change (Stokes and Warshaw 2017). Along similar lines, views on climate change mediated views on the preferred US energy mix, but only for conservative Republicans and liberal Democrats, not for more moderate political beliefs (Hawes and Nowlin 2022). However, it should be noted that framing may have limited impacts (Hart, Stedman, and Clarke 2021; Zhou 2016), particularly in the presence of counter-frames (Aklin and Urpelainen 2013).

In addition to framing, elite cues can drive public polarization. Elites, such as prominent elected officials, political parties, and media figures, can influence public opinion and lead to polarization among the public. Indeed, elite cues may be one of the most important factors for public opinion about climate change (Brulle, Carmichael, and Jenkins 2012), and it is likely that the elite debate over the Kyoto Protocol in 1998-99 was a major factor in the development of polarization over climate change (Krosnick, Holbrook, and Visser 2000). Additionally, cues work to both strengthen the views of co-partisans and produce a backlash effect for out-partisans, which can lead to polarization (Merkley and Stecula 2021). By taking a position on an issue, elites can bring attention to it and make it more salient, creating a signal for the public to follow. This signal can lead to polarization, such as with the Green New Deal, which was widely popular but became polarized as a result of elite discourse (Gustafson et al. 2019).

Polarization on energy among the public varies by source; however, polarization among elites, specifically elected officials, grew as energy policy became more regulatory and less distributive (Lowry 2008). However, it was in the 2010s that differences on energy issues between the political parties in the US Congress became "pervasive and intense" (Jeong and Lowry 2021, 4). The growing polarization of energy issues among elites sets

the stage for more uniform polarization among the public. This becomes more likely as prominent political figures express views on energy issues, as cues that come from individual elites seem to be more impactful on public opinion than cues that are simply based on political party (Nicholson 2012).

It is likely that no political figure in the last decade has polarized the public more than President Trump. The "Trump effect" has been shown to polarize views on immigration (Taylor 2026) and free trade (Essig et al. 2021). Trump made comments suggesting his skepticism about climate change even before he ran for the presidency. As a political candidate in 2016, he expressed support for fossil fuels, and during his first term, he withdrew the US from the Paris Agreement on climate change. However, since the start of his second administration, President Trump has accelerated efforts to bolster the production and use of fossil fuels while hindering the development of renewable energy sources (Gerrard 2025; Joselow and Washington 2025). Such actions are likely to further polarize the public on energy issues. Indeed, recent work suggests that presidents can serve as key elites in driving polarization on climate change (Childree 2026).

Hypotheses

The observed growing polarization on energy issues, most notably fossil fuels and renewables, could be a result of a climate change cue associated with those energy sources and/or a result of elite cues, particularly from President Trump, regarding energy sources. To examine these possibilities, I posit the following hypotheses regarding the impact of climate and partisan cues on the public's preferred energy mix of fossil fuels and renewable energy sources.[1] Generally, I expect that the cues will move co-partisans more in the direction of the party's position and have a backlash effect on out-partisans, moving them further away from the out party's position. Given that nuclear energy is not as polarized or as central as fossil fuels and renewable sources to the current climate debate or Trump's actions on energy, I do not have any expectations regarding the impact of the cues on nuclear energy use.

> **H1**: Conservative Republicans who receive the *Trump cue* will support a *higher* percentage of fossil fuels, and a *lower* percentage of renewable energy sources than those in the climate change or control group, and those with other political beliefs
>
> **H2**: Conservative Republicans who receive the *climate cue* will support a *higher* percentage of fossil fuels, and a *lower* percentage of renewable energy sources than those in the Trump or control group, and those with other political beliefs
>
> **H3**: Liberal Democrats who receive the *Trump cue* will support a *lower* percentage of fossil fuels, and a *higher* percentage of renewable energy sources than those in the climate change or control group, and those with other political beliefs
>
> **H4**: Liberal Democrats who receive the *climate cue* will support a *lower* percentage of fossil fuels, and a *higher* percentage of renewable energy sources than those in the climate change or control group, and those with other political beliefs

[1] The hypotheses presented here are condensed version of those that were preregistered using the Open Science Framework (OSF): https://osf.io/s2ku8/overview?view_only=8d073e8b77f44768a27184b9b0aff785. Additional hypotheses were preregistered and those are discussed in the supplemental material.

In the next section, I describe the research design used to examine the impacts of climate change or Trump cues on the US public's preferred energy mix.

Research Design and Measures

To test the hypotheses, I use a 3 × 2 experimental design, where respondents were randomly assigned to one of three experimental conditions, including a Trump cue, a climate cue, and a control condition with no cues. The impacts of the treatment conditions were compared across two types of political beliefs, including conservative Republicans and liberal Democrats. The preferred energy mix for producing electricity is the dependent variable and is measured as the percentage each respondent allocated across five energy sources, including fossil fuels, wind, solar, hydro, and nuclear.

Information: As part of the research design, respondents were first given the current energy mix of the US related to electricity as of 2024. Therefore, respondents were anchored to the actual energy mix used to produce electricity in the US.

> We currently obtain approximately 58 percent of our electricity from fossil fuels (coal, oil, and natural gas), 22 percent from renewable sources (wind, solar, and hydropower), 18 percent from nuclear energy, and 2 percent from other sources (wood, biofuels, waste products, and geothermal energy).

Following this information, respondents were placed in one of three conditions and asked about their preferred energy mix.

Cues: The Trump and climate cues were questions that asked respondents to indicate their agreement with the statements on a 1 (strongly oppose) to 5 (strongly support) scale. The question wording included the following:

> Trump cue: *As you may have heard, the Trump administration has taken steps to increase the production of fossil fuels, particularly coal, and reduce the use of renewable energy like solar and wind for electricity generation*
>
> *Using a scale of 1 to 5, where 1 means strongly oppose and 5 means strongly support, how do you feel about the Trump administration's goal of increasing the use of fossil fuels and decreasing the use of renewable sources in generating electricity?*
>
> Climate cue: *Scientists agree that the use of fossil fuels has contributed to climate change, and to address climate change, we need to increase the use of renewable sources such as wind, solar, and hydropower*
>
> *Using a scale of 1 to 5, where 1 means strongly disagree and 5 means strongly agree, how do you feel about increasing the use of renewable sources in generating electricity as a way to address climate change?*

Control: *No cue*, respondents went straight to the energy mix question

Energy mix: Respondents indicated their preferred percentage for each energy source. Respondents were reminded of the current contributions of each source to the overall energy mix, and they were instructed that the total percentages must add up to 100. The question was worded as follows:

> Thinking about the overall supply of electricity. What percentage of the total U.S. electricity supply over the next 20 years would you like to see come from each of the 5 primary sources? NOTE: The sum of the five boxes below must equal 100
>
> Fossil fuels (coal, oil, natural gas), which produced 58 percent in 2024
>
> Wind energy, which produced 10 percent in 2024
>
> Solar energy, which produced 7 percent in 2024
>
> Hydropower, which produced 5 percent in 2024
>
> Nuclear energy, which produced 18 percent in 2024

To measure political beliefs, respondents were asked with which political party they most identify and to place themselves on a 1 to 7 scale of political ideology, where 1 is strongly liberal, 4 is middle of the road, and 7 is strongly conservative. Responses were combined so that liberal Democrats were those who identified with the Democratic Party and were strongly liberal or liberal, and conservative Republicans were those who identified as Republicans and were strongly conservative or conservative. Other political beliefs, including conservative Democrats, liberal Republicans, and moderate independents are the excluded referents.

Data

The data for this study were obtained from a survey of 3113 US residents recruited through Cloud Research, a survey panel provider that uses various online recruitment methods to build a panel of respondents. Cloud Research provides a quota-based sampling approach in which US Census data are used to ensure representation across key demographic groups. The survey was internet-based and administered using QuestionPro and was fielded from April 10 to April 15, 2026. Survey weights were applied to ensure that the sample was representative of the US population. Respondents were randomly assigned to one of three conditions, and random assignment produced approximately equal groups, with the Trump cue, n = 1049, the climate cue, n = 1013, and the control, n = 1051, from the sample of N = 3113.[2]

In the next section, I first examine the cue questions to confirm that the respondents were responsive to the cues. Then, I examine the preferred energy mix by political beliefs and treatment conditions. Next, I test whether partisan gaps in the preferred energy mix differ significantly across treatment conditions. Finally, I

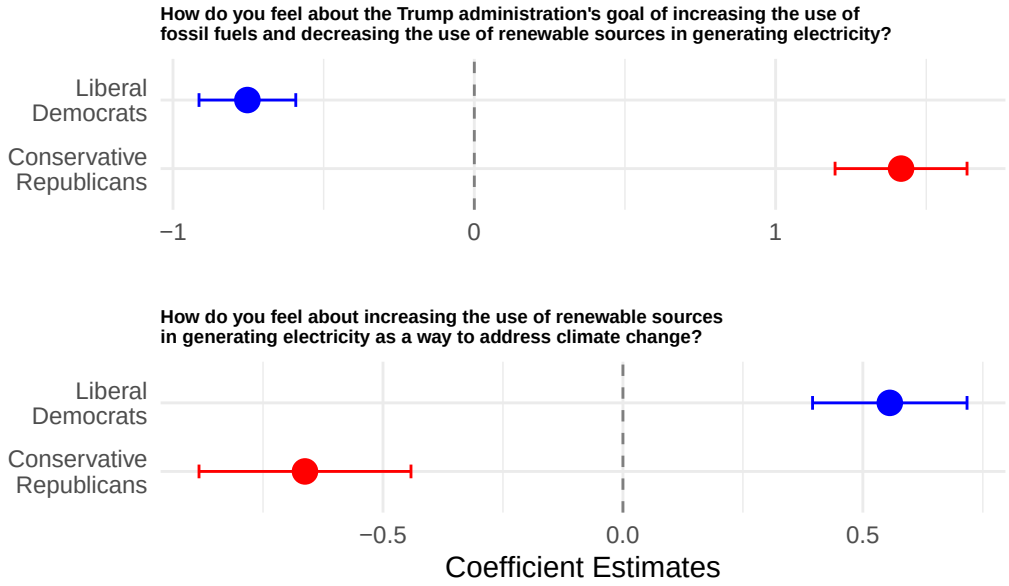
[2]The supplemental materials contain more information on the weighting procedures as well as the results using unweighted data. Additionally, it includes a comparison of covariates across the three conditions to ensure balance. Finally, it includes the results controlling for demographics.

explore the differences in the preferred energy sources from the current energy mix across treatment conditions and political beliefs.

Results

I first use OLS models to estimate agreement with the Trump and climate cue questions for liberal Democrats and conservative Republicans. Figure 1 shows the coefficient plots.

Figure 1: Coefficient Plots of Trump Cue and Climate Cue



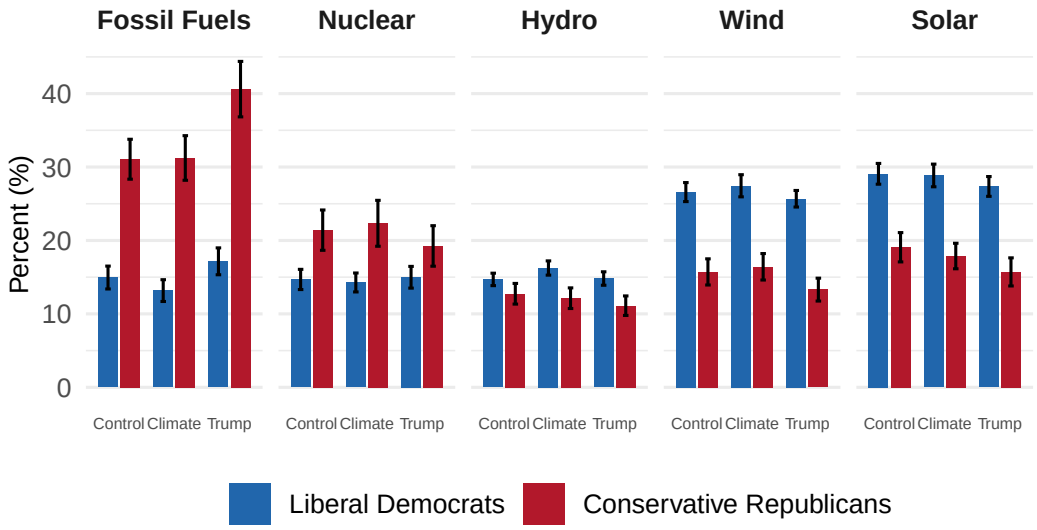
A 1=strongly disagree to 5=strongly agree scale was used on both questions

As shown, for the Trump cue, liberal democrats were significantly less likely, at -0.753, to support Trump's actions on energy, whereas conservative Republicans had an estimated level of support 1.416 points higher on the 1 to 5 scale than other political beliefs. For the climate change cue, liberal Democrats were significantly more likely than others to support renewable energy to address climate change, with an estimated coefficient of 0.556, and conservative Republicans were significantly less likely, with a coefficient of -0.663. These results suggest that the respondents were responsive to the cues in the expected ways.

Next, I examine the differences in the predicted preferred energy mix across the treatments and political beliefs. The results are shown in Figure 2.

As can be seen, conservative Republicans preferred an energy mix with more fossil fuels than liberal Democrats, particularly those who received the Trump cue. Conservative Republicans in the Trump condition preferred an energy mix that consisted of approximately 41% fossil fuels, compared to 31% in both the climate and control conditions. Liberal Democrats preferred an energy mix with more renewables than Republicans, particularly wind and solar, and the percentages of renewable sources were largely consistent for Democrats

Figure 2: Predicted Preferred Energy Mix by Political Beliefs and Cues



Bars show predicted values from OLS; whiskers are 95% confidence intervals.

across all three conditions. Finally, Republicans preferred more nuclear energy than Democrats across all conditions, but the differences were smallest in the Trump condition.

Next, I illustrate the polarization of energy preferences across beliefs and cues by sorting the gaps by size and direction, and the results are shown in Figure 3. As shown, fossil fuels are the most polarized, particularly in the Trump condition, with an average difference of 23.5 percentage points between liberal Democrats and conservative Republicans. In the climate condition, the gap was 18.1, and it was 16.1 in the control. Following fossil fuels, wind and solar energy are the next most polarized and preferred by liberal Democrats, roughly equally across all three conditions. For wind, the gap between the parties ranged from 11 to 12 points across the conditions, and the gaps for solar were similar, with a range of 10 to 12 points. Nuclear energy shows some polarization, with conservative Republicans more supportive than liberal Democrats, with gaps ranging from 4 to 8 points. Finally, hydro was the least polarized, with gaps of only 2–4 percentage points.

To assess the hypotheses and examine which of the differences were statistically significant, I estimated design-based contrasts both for the partisan gap (liberal Democrats – conservative Republicans) within each condition and for shifts across conditions (e.g., Trump – control). Design-based contrasts were used to account for survey weights. The results are shown in Table 1.

Table 1: Pairwise Differences in the Predicted Preferred Energy Mix

Comparison	Fossil Fuels	Wind	Solar	Hydro	Nuclear
Gap (Dem - Rep): Control	-16.1***	10.9***	10.0***	2.0*	-6.7***
Gap (Dem - Rep): Climate	-18.1***	11.0***	11.0***	4.1***	-8.1***

Comparison	Fossil Fuels	Wind	Solar	Hydro	Nuclear
Gap (Dem - Rep): Trump	-23.5***	12.4***	11.6***	3.7***	-4.3**
Republicans: Climate - Control	0.2	0.7	-1.2	-0.6	0.9
Republicans: Trump - Control	9.5***	-2.4*	-3.4*	-1.6†	-2.2
Republicans: Trump - Climate	9.4***	-3.1*	-2.2	-1.0	-3.1
Democrats: Climate - Control	-1.8	0.9	-0.2	1.6*	-0.4
Democrats: Trump - Control	2.2†	-0.9	-1.7†	0.1	0.3
Democrats: Trump - Climate	4.0***	-1.8†	-1.5	-1.4*	0.7

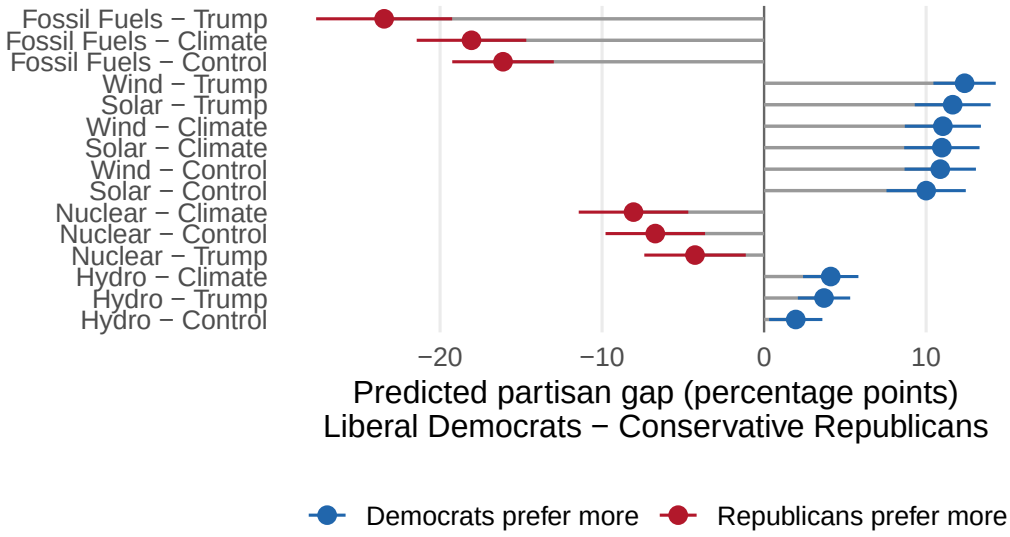
*Note: Cell entries are estimated differences in the predicted preferred share (percentage points) underlying Figure 2. Partisan-gap rows are the Liberal Democrats – Conservative Republicans difference within each condition; within-party rows are the change for that party when moving from one condition to another. Estimates use survey weights; standard errors and p-values are design-based. *** p < 0.001, ** p < 0.01, * p < 0.05, † p < 0.10.*

The first three rows in Table 1 show that the partisan gaps illustrated in Figure 3 are statistically significant for each energy source under every condition. This means that liberal Democrats and conservative Republicans differ in their preferred mix, regardless of the experimental treatment. In terms of the hypotheses, as expected (H1), conservative Republicans in the Trump condition preferred 9.5 percentage points ($p < 0.001$) more fossil fuels, and less renewables with 2.4 percentage points ($p = 0.046$) less wind, 3.4 percentage points ($p = 0.017$) less solar, and 1.6 percentage points ($p = 0.100$) less hydro than those in the control condition. Additionally, as expected, they preferred more fossil fuels, at 9.4 percentage points ($p < 0.001$), and less wind, with 3.1 percentage points ($p = 0.011$) in the Trump condition versus the climate condition. However, contrary to expectations (H2), conservative Republicans were no more or less likely to prefer fossil fuels or oppose renewables in the climate change condition than in the control condition.

Also as shown in Table 1, overall, liberal Democrats preferred more wind, solar, and hydro and less fossil fuels and nuclear energy than Republicans across all conditions. However, contrary to expectations regarding the climate cue and renewable energy (H4), liberal Democrats only preferred more hydro, at 1.6 percentage points ($p = 0.018$) in the climate condition compared to the control. Compared to the climate condition, liberal Democrats in the Trump condition preferred 4.0 percentage points ($p < 0.001$) more fossil fuels, 1.8 percentage points ($p = 0.065$) less wind, and 1.4 percentage points ($p = 0.036$) less hydro. Similarly, compared to the control condition, liberal Democrats in the Trump condition preferred more fossil fuels, at 2.2 percentage points ($p = 0.072$) and 1.7 percentage points ($p = 0.085$) less hydro, in contrast to H3. However, the shifts for liberal Democrats were much smaller than those for conservative Republicans, and the shifts for Democrats in the Trump condition compared to the control were significant, but at $p < 0.10$.

While I didn't posit any hypotheses regarding nuclear energy, the results show that it was supported more by Republicans than by Democrats and was most polarized in the climate and control conditions. However, no within-party differences across the conditions were significant for nuclear energy. Also of note is that hydropower was the least polarized energy source. Hydropower in the control condition had the smallest gap between the parties, with a difference of only about 2 percentage points. Together, these results show

Figure 3: Polarization in the Preferred Energy Mix



Sorted by absolute size of gap. Bars are 95% confidence intervals from svyglm models.

that polarization is largely a result of conservative Republicans responding to the Trump cue and the strong support for wind and solar of liberal Democrats regardless of treatment.

Next, I compare the gaps across the treatment conditions to examine whether the cues shifted partisan differences in the preferred energy mix. Specifically, I use a difference-in-differences (DiD) approach to examine the difference between political beliefs (i.e., liberal Democrats - conservative Republicans), which are shown in Figure 3 and Table 1, and the differences between treatment conditions (e.g., Trump cue - control) using interaction terms between political beliefs and treatment conditions.[3] This approach allows me to test whether the cues shifted partisan gaps in the preferred energy mix. The results are shown in Table 2.

Table 2: Treatment Effects on the Polarization of Preferred Energy Sources

Contrast	Fossil Fuels	Wind	Solar	Hydro	Nuclear
Omnibus F-test (any treatment effect on gap)	F = 3.82*	F = 0.63	F = 0.45	F = 1.84	F = 1.37
Climate Cue vs Control	-1.95 [-6.55, 2.66]	0.16 [-3.06, 3.38]	0.97 [-2.40, 4.34]	2.16† [-0.21, 4.53]	-1.34 [-5.91, 3.22]
Trump Cue vs Control	-7.34** [-12.57, -2.10]	1.50 [-1.42, 4.42]	1.64 [-1.75, 5.02]	1.75 [-0.56, 4.05]	2.45 [-1.93, 6.84]
Trump Cue vs Climate	-5.39* [-10.78, -0.00]	1.34 [-1.69, 4.37]	0.67 [-2.63, 3.97]	-0.41 [-2.76, 1.94]	3.80 [-0.81, 8.40]

[3]Note that I am not using a traditional DiD design, which estimates differences between groups across two time periods based on an assumption of parallel trends (Baker et al. 2026).

Contrast	Fossil Fuels	Wind	Solar	Hydro	Nuclear

*Note: Top row shows the omnibus F-test for whether treatments jointly shift the partisan gap on each energy source. Subsequent rows show the estimated change in the partisan gap (Liberal Democrats – Conservative Republicans) when moving from one treatment condition to another, with 95% confidence intervals in brackets. Estimates from svyglm models fit separately by energy source, using survey weights; standard errors and confidence intervals are design-based. *** p < 0.001, ** p < 0.01, * p < 0.05, † p < 0.10.*

Table 2 illustrates the additional shift in the partisan gap as a result of a cue, relative to the comparison condition. For example, with fossil fuels the partisan gap was 15.0 – 31.1 = -16.1 percentage points in the control condition and 17.2 – 40.6 = -23.5 percentage points in the Trump condition. The difference of that difference, -7.3 percentage points, is what is shown in Table 2. Note that the differences between the parties are calculated by subtracting the preferred percentage for conservative Republicans from that of liberal Democrats for each sources. So, similar to Table 1, a negative sign indicates that Republicans preferred that source more than Democrats.

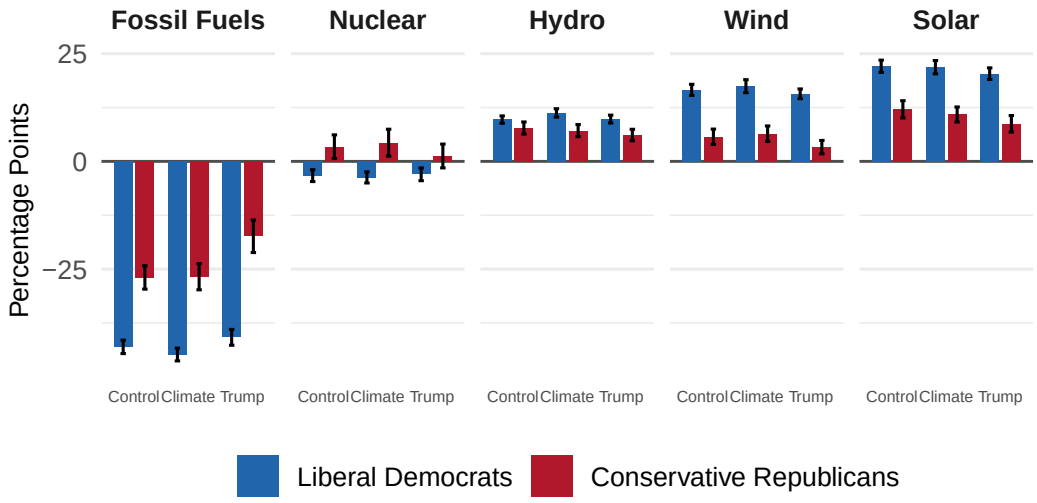
Additionally, Table 2 includes an omnibus F-test that examines whether the cues had an overall effect on partisan gaps across each energy source. As can be seen, the F-test was only significant for fossil fuels, indicating that the partisan gaps in the preferred energy mix shifted significantly for those energy sources. These impacts were a result of the Trump condition, as the gap increased by -7.3 percentage points between the Trump and control conditions and a shift of -5.4 percentage points occurred between the Trump and climate change conditions. Also, the gap for hydropower was significantly higher (at $p<0.10$) in the climate condition than in the control condition, likely because of the shift among liberal Democrats.

Finally, I compared the preferred energy mix to the current baseline. Overall, the evidence presented here suggests that Trump may polarize energy preferences by shifting conservative Republicans to be more in favor of fossil fuels than they might be otherwise. However, shifting the energy mix from the current baseline is important for addressing climate change. Previous research has noted that the public, on average, prefers an energy portfolio with fewer fossil fuels and more renewable energy sources than the US currently uses (Bergquist, Konisky, and Kotcher 2020; Hawes and Nowlin 2022; Ter-Mkrtchyan et al. 2022). Therefore, I compare the differences in preferred energy sources from the current baseline across political beliefs and treatment conditions in Figure 4.

As shown, all respondents wanted an energy mix with fewer fossil fuels and more renewable energy sources. When comparing each group's predicted preferred share to the status quo, the preferred changes were statistically significant for 29 of the 30 group-by-source-by-condition comparisons. Both liberal Democrats and conservative Republicans preferred significantly less fossil fuel and significantly more wind, solar, and hydropower than the current mix across all three conditions, with Democrats favoring larger shifts away from fossil fuels and toward renewables than Republicans. These findings support previous research suggesting that the public generally supports a transition to renewable energy sources. Additionally, the cues had little effect on the preferred change from the current mix for most sources, except for fossil fuels, where the Trump cue led conservative Republicans to prefer a smaller reduction in fossil fuels, -17.4, than they did in the control with -26.9, or climate condition at -26.8.

The two parties diverge only on nuclear energy, with liberal Democrats preferring a small but significant reduction (about three percentage points), whereas conservative Republicans prefer an expansion in the

Figure 4: Preferred Change from Existing Energy Mix (percentage points)



Bars show predicted preferred share minus the current share shown to respondents.
Whiskers are 95% confidence intervals from svyglm models with survey weights.

control and climate conditions. The only non-significant difference is conservative Republicans' preferred nuclear share in the Trump condition, with an estimated change of only 1.3 percentage points from the current baseline.

Discussion

While climate change has been a polarized political issue for decades, energy has not been as politicized or as polarized. There are partisan differences, particularly regarding fossil fuels, but by and large, the US public has supported relying less on fossil fuels and more on renewable sources of energy. However, recent public opinion data show that Republicans have become less supportive of renewable energy over the last decade. In this paper, I tested two possible explanations, including that renewable energy has become entangled with climate change and that elite cues, particularly from Donald Trump, have made Republicans less supportive of renewables.

To test several hypotheses based on the two possible explanations, I developed a survey experiment that provided respondents with either a climate change cue, a Trump cue, or no cue. The impacts of these cues on respondents' preferred energy mix were then measured across political beliefs. Consistent with previous research, conservative Republicans preferred more fossil fuels and nuclear energy than liberal Democrats, whereas liberal Democrats preferred more renewable sources. These general results were consistent across the treatment conditions. Next, I examine the hypotheses and results for each energy source.

Fossil fuels: As expected, conservative Republicans in the Trump condition preferred more fossil fuels than those in the control or climate conditions. In addition, across energy sources, the largest partisan gaps were for

fossil fuels, with a 16.1 percentage point gap in the control condition, a 18.1 percentage point gap in the climate condition, and a 23.5 percentage point gap in the Trump condition. Looking at within-party differences, conservative Republicans in the Trump condition preferred 9.5 percentage points more fossil fuels than those in the control and 9.4 more than those in the climate condition. Significant differences existed between political beliefs for fossil fuels, as shown in the omnibus F-test in Table 2. The difference between liberal Democrats and conservative Republicans was -7.3 percentage points from the Trump to control condition, and -5.4 percentage points between the Trump and climate change conditions. Finally, all respondents across all conditions preferred an energy mix with fewer fossil fuels than the US currently uses, with conservative Republicans in the Trump condition preferring a smaller reduction.

I expected a backlash effect for liberal Democrats in the Trump condition; however, they preferred more fossil fuels at 4.0 percentage points ($p < 0.001$) percentage points and 2.2 percentage points ($p = 0.072$) percentage points compared to the climate and control conditions, respectively. Therefore, the expected backlash did not seem to occur. However, liberal Democrats preferred a low percentage of fossil fuels across all conditions, including an energy mix with 13% fossil fuels when given the climate cue, compared to 17% with the Trump cue and 15% in the control condition. Liberal Democrats want significantly fewer fossil fuels than are currently used in the US, and the within-partisan differences reflect the impact of the climate cue compared to the Trump cue and, to a lesser extent, the Trump cue versus the control.

Renewables: I hypothesized that Conservative Republicans who received the Trump cue would prefer an energy mix with fewer renewables, and that is the case. Compared to the control, Republicans given the Trump cue preferred 2.4 percentage points ($p = 0.046$) percentage points, 3.4 percentage points ($p = 0.017$) less solar, and 1.6 percentage points ($p = 0.100$) less hydro. For the Trump cue versus the climate cue, Republicans preferred less wind at 3.1 percentage points ($p = 0.011$). However, there was no evidence of a backlash, as no significant differences existed between the climate and control conditions for Republicans. While renewables were polarized and the Trump cue served to shift Republicans away from renewables, Republicans, on average, still preferred an energy mix with more renewable sources than the current baseline across all conditions.

For liberal Democrats, I expected that they would prefer more renewables in the climate and Trump conditions. This was only the case for hydro in the climate versus control condition, with a difference of 1.6 percentage points ($p = 0.018$). Additionally, contrary to expectations, there was no backlash effect as Democrats preferred slightly less solar energy in the Trump condition versus the control and slightly less wind energy in the Trump condition versus the climate condition. Similar to the fossil fuel results, these differences are small as the preferred energy mix of liberal Democrats is dominated by renewables, with solar at 29%, 29%, and 27% in the control, climate, and Trump conditions, respectively. This was followed by wind at 27%, 27%, and 26% under the three respective conditions.

Nuclear: While I had no clear expectation regarding nuclear energy, there were some differences across political beliefs, even though there were no within-party differences across treatment conditions. Republicans preferred an energy mix with more nuclear energy than Democrats, with the largest gap (8 percentage points) occurring under the climate condition. Nuclear energy is a carbon-free source of electricity, yet it is supported by conservative Republicans. Nuclear energy will likely need to be part of the energy transition, and the degree to which it is polarized is not likely, at this point, to drive strong opposition as the second Trump administration takes action to support the development of nuclear energy (e.g., McDermott and Daly 2026). Liberals, Democrats, and others concerned about climate change but skeptical about nuclear energy have

long faced the tension between the risks of nuclear energy and its availability as a carbon-free way to generate electricity. Perhaps Trump's efforts regarding nuclear energy will push Democrats toward opposition, but the findings here suggest a limited potential for that type of backlash.

Overall, these results suggest that the Trump effect is the most likely explanation for the Republican shift on fossil fuels and renewable energy. Democrats were not as responsive to cues as Republicans, although they did prefer less use of fossil fuels in the climate condition compared to the Trump condition and slightly more hydropower in the climate condition compared to the control. In general, Trump seems to have exacerbated some existing polarization, particularly on fossil fuels, rather than creating polarization where none had existed before. Additionally, respondents of all political beliefs across all conditions, anchored by information regarding the current US energy mix, preferred fewer fossil fuels and more renewable sources of energy for electricity production. Finally, there was limited evidence of the expected backlash effects. Compared to the control, Republicans in the climate condition saw no shifts in their support for fossil fuels or opposition to renewables. Similarly, Democrats in the Trump condition did not support fossil fuels less or renewables more. In fact, Democrats preferred *more* fossil fuels after receiving the Trump cue than the climate cue or the control. However, these results reflect the impact of the climate cue as the preferred percentage for Democrats in the climate change condition was low at 13%, compared to Trump's condition at 17% and 15% in the control.

Looking ahead, the potential for Trump to further polarize energy sources is likely constrained by the political environment, including his popularity and events related to energy. Since taking office for the second time, Trump's approval has fallen, inflation has increased, and military actions against Iran have impacted global energy supplies. These factors likely limit the impact of Trump's actions on energy on the US public's views of energy sources. Indeed, perhaps one reason that energy is a less politicized and polarized issue than climate change is that the costs of energy are so readily apparent to consumers. Therefore, views on energy are driven in large part by day-to-day experiences with prices and less by political identities.

While this paper provides some insights into the polarization of energy issues, it has some limitations. One possible limitation is the timing of the survey. It was fielded in April 2026 when US military actions in Iran created high levels of uncertainty regarding energy supply and prices. Additionally, the data are cross-sectional, which limits the ability to understand opinion dynamics at a time when there is a lot happening regarding energy. Future research should use panel data to explore responses to Trump's actions in the context of other events. Finally, survey experiments such as the one used here are generally strong in terms of internal validity; however, they are weaker on external validity as multiple factors shape how the public views issues such as energy. Utilizing panel data could also help address concerns regarding external validity.

Conclusion

Addressing and limiting the impacts of climate change requires transitioning away from fossil fuels as the primary energy source. In general, the US public supports the energy transition, even as climate change remains polarized. However, support for fossil fuels and opposition to renewables have increased among Republicans over the last decade.

Using a survey experiment, I found that the Trump effect was the most likely cause of the shift in energy preferences among Republicans. Trump has long indicated his support for fossil fuels and opposition to renewables. Since taking office in 2025, he has aggressively sought to limit the development of renewable sources of energy. These actions and rhetoric likely served to further polarize support for various energy sources, particularly fossil fuels as support grew among conservative Republicans. Despite this increased polarization, the US public still seems to prefer an energy mix with more renewables and fewer fossil fuels.

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