

What Americans Think About Renewables and Why It Matters For The Energy Transition

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Renewable energy technologies have the extraordinary ability to reduce pollution and mitigate climate change while also creating jobs and lowering energy costs. In the past decade, dramatic increases in efficiency and reductions in cost have unleashed a flood of funding and development.

But recently, many projects have become mired in various obstacles such as red tape in local governments and backlash by local groups expressing a “not in my backyard” (NIMBY) sentiment. Further, the focus on renewables in the 2020 U.S. presidential campaigns set the issue of renewable energy on the path toward increasing partisan political controversy.

Although the technological and economic tailwinds make a massive energy transition seem inevitable, there are many social, psychological, and political factors that have now emerged as primary obstacles that need to be navigated.

Here, we summarize the best available evidence on three key points:

1. current policy support and the growing U.S. political divide on renewable energy
2. the underlying reasons why people support renewable energy
3. how much people are willing to pay for electricity from renewable sources

Strong Overall Support, Despite a Growing Political Divide

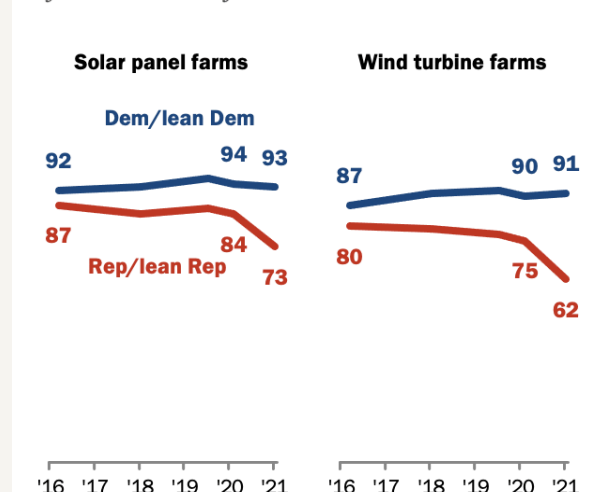
In 2018, XandY’s co-founders collaborated on research¹ showing strong bipartisan support for renewable energy. This survey found that 85% of U.S. voters said they support requiring electric utilities to run on 100% renewable energy by 2050.

This included 83% of *moderate* Republicans and 64% of *conservative* Republicans. Nearly all Democratic voters (95%) supported this proposal.

Since then, public support has dropped due to increasing political division. A Pew study² (right) noted this polarization in 2021, but found there is still strong majority support in both parties for the general idea of “more solar” and “more wind.”

Majorities in U.S. favor more wind, solar power, though GOP support has dipped

% of U.S. adults who favor more ...



¹ Leiserowitz, A., Maibach, E., Rosenthal, S., Kotcher, J., Gustafson, A., Bergquist, P., Ballew, M., & Goldberg, M. (2018). Energy in the American Mind, December 2018. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication. DOI: 10.17605/OSF.IO/BDQ25

²Pew Research Center (2021). Most Americans Support Expanding Solar and Wind Energy but Republican Support Has Dropped. <https://tinyurl.com/2p8ty2d3>

Polarization has grown the most on policies that propose ambitious goals or strict requirements. For example, a 2022 poll from Yale and George Mason³ found that 97% of liberal Democrats still support a transition to 100% renewable energy by 2050, compared to only 20% of conservative Republicans. This is a dramatic shift from just four years earlier (2018) when 64% of conservative Republicans supported this. **The growing opposition to renewables is driven almost exclusively by the most conservative subset of the Republican party.** In fact, data from the Yale and George Mason surveys shows a substantial divide *within* Republicans (between conservative and moderate Republicans).

This dramatic increase in polarization is likely a partial effect of the focus on renewable energy in the 2020 Biden presidential campaign. When any issue is presented as a fixture of a political platform, this activates tribalistic mindsets and sparks opposition simply by default among the members of an opposing party.

The Inflation Reduction Act may also further exacerbate this polarization. Although the size of this effect remains to be seen, it's important to consider that the IRA is more politically polarizing⁴ than the general topic of renewable energy. Therefore, the IRA could exacerbate polarization on renewable energy when they are consistently linked together in the public mind.

Americans Differ in the Reasons *Why* They Support Renewables

In 2020, XandY's co-founders collaborated on a scientific study⁵ showing that people differ in the *main reasons why* they support renewables. For example, Republicans tended to say the most important reasons to transition to renewables were to "reduce energy costs" and to "get energy from sources that never run out." But Democrats tended to rank "reduce global warming" as a more important reason.

Interestingly, **both parties agreed on the high importance of one key reason** to transition to renewable energy: *reducing pollution*. This highlights that although partisans might have different motives and priorities underlying their support, one aspect of renewable energy that has strong universal support is its benefits for clean air and clean water.

For companies and organizations trying to build support and catalyze action on further development of renewables, **it is imperative to develop communication strategies that align with the unique motives of their target audience.** In a separate XandY Insights paper, we describe these communication strategies and summarize the scientific evidence that has demonstrated their effectiveness.

³ Leiserowitz, A., Maibach, E., Rosenthal, S., Kotcher, J., Carman, J., Lee, S., Verner, M., Ballew, M., Ansah, P., Badullovich, N., Myers, T., Goldberg, M., & Marlon, J. (2023). *Climate Change in the American Mind: Politics & Policy*, December 2022. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.

⁴ Ballew, M., Verner, M., Rosenthal, S., Maibach, E., Kotcher, J., & Leiserowitz, A. (2023). *Who is most supportive of the Inflation Reduction Act?* Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.

⁵ Gustafson, A., Goldberg, M. H., Kotcher, J. E., Rosenthal, S. A., Maibach, E. W., Ballew, M. T., & Leiserowitz, A. (2020). Republicans and Democrats differ in why they support renewable energy. *Energy Policy*, 141. <https://doi.org/10.1016/j.enpol.2020.111448>

Willingness to Pay More for Renewables

A practical question we often get asked is “Are people willing to pay more to get electricity from renewables? And if so, how much more?” The answers to these questions can guide the strategy of industry stakeholders and policymakers.

A 2018 national survey we co-authored found that the national average of willingness to pay (WTP) for renewable energy was about \$30 more per month. However, this average is heavily influenced by high outliers because the most common response (given by 47% of U.S. adults) was “\$0 more.”

A similar survey in California⁶ in 2022 found that 55% of residents said they were “not willing” to pay more for renewable energy, while 44% said they were “willing.” Surprisingly, an analysis led by XandY’s co-founders showed that there is little variation in WTP across income levels.⁷ Instead, the greatest variation is found between segments of education and political views.

The most comprehensive study on this topic combined the average WTP for renewable energy across several studies conducted in the U.S. from 1996 to 2011. The average WTP amount in that time period was \$11.12 extra per month. However, WTP has been increasing in the decade since, so we should not be surprised to find that the current national average WTP is substantially higher—like the \$30 average found in the 2018 study.

But an important caveat is that people often tend to report WTP amounts that are higher than their real-world purchasing behavior (a phenomenon called “hypothetical bias”). So when predicting real purchasing behavior, it’s often more accurate to discount people’s stated WTP by 30-40%, depending on the context.

From all this, there are two key takeaways that form the current best interpretation of the data. First, **about half of Americans say they would pay more for renewable energy and about half say they would not.** Second, when factoring in all the \$0 responses and the effect of “hypothetical bias,” **the amount that people would pay to get their electricity from renewables currently hovers around an average of \$20 extra per month.**

So What

Although technological and economic tailwinds have been driving the energy transition, continued progress requires careful navigation of social, psychological, and political barriers. The growing politicization of renewables creates risk of public opposition. This risk should be mitigated through communication strategies that de-politicize the issue and focus instead on shared priorities and values. Public support for renewables is largely influenced by the cost of electricity for ratepayers. Leveraging the persuasive force of cost reductions—and understanding nuances in tolerance for cost increases—are key for the success of efforts by industry and government.

⁶ Public Policy Institute of California (2022). PPIC Statewide Survey: Californians and the Environment. <https://tinyurl.com/v368pjv>

⁷ Gustafson, A., Goldberg, M., Rosenthal, S., Kotcher, J., Maibach, E., & Leiserowitz, A. (2019). *Who is willing to pay more for renewable energy?* Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.

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