

energypulse[™] special report



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energy efficiency at a standstill

Here at Shelton Group, we've been measuring American beliefs and attitudes about home energy use since 2005. And one thing is clear: Americans aren't making much progress toward energy efficiency. They've been stuck in a particularly deep rut since 2010, averaging fewer than three total completed actions such as upgrading their lighting or HVAC systems. Over the past four years, likelihood to do all the energy efficiency measures we track has flatlined. **Tired old messaging about savings has lost its potency, if it ever had any to begin with.**

But in the background, something is definitely shifting: Americans' concerns about climate change are trending slowly but steadily upward. A strong majority now believe climate change is human-caused, and 90% believe the average American should be taking action to minimize his or her environmental impact.

Up until now, we've cautioned utilities, builders and manufacturers of energy-efficient products to tread lightly around environmental messaging when it comes to home efficiency, given the sharp red-blue divide in our country and the potential for alienating those who don't believe in – or understand, or care about – a connection between home energy use and global temperatures.

But times may be changing. Energy Pulse Special Report: Playing the Planet Card polled 2,025 Americans and served up some fascinating insights about their growing concerns about the environment and their basic beliefs about energy – which actually belie the recent election results. Those insights, coupled with data points from our most recent Eco Pulse[™] surveys, lead us to one central question for energy efficiency marketers: When it comes to energy efficiency messaging, is it time to abandon saving money in favor of saving the planet?

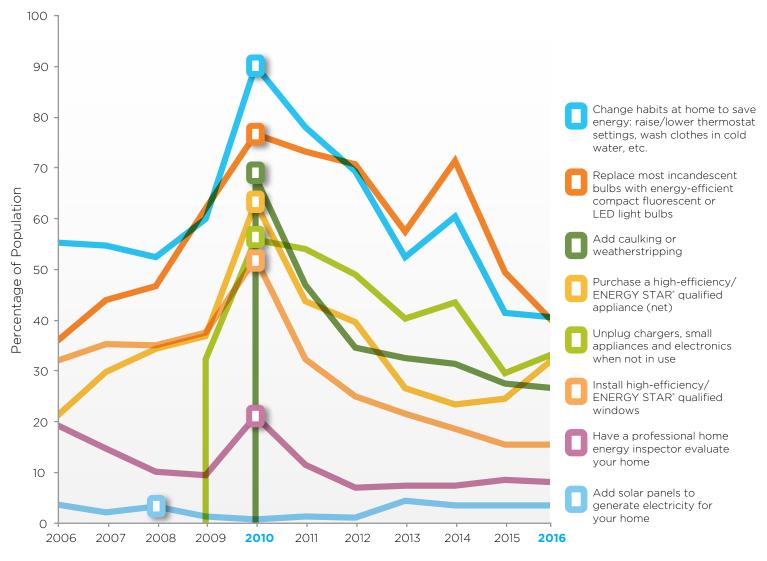
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METHODOLOGY

The Energy Pulse™ questionnaire was designed by Shelton Group and contained fixed-response alternative questions. Likert scale questions and a few open-response questions. The study was fielded in August 2016. We surveyed a total of 2,025 American respondents, using members of Survey Sampling International's online panel of more than 3.5 million U.S. Internet users. The survey sample was stratified to mirror the U.S. population, using quotas for geography, age, gender, education and race; data were weighted slightly to match U.S. population distributions. Margin of error is +/- 2.2%.

the energy efficiency state of the union

Since we first started tracking the numbers in 2005, we've seen activities and purchases related to home energy efficiency start off slow, spike noticeably during the Great Recession and its aftermath, and finally level off again – or bottom out – starting around 2013. (The one exception is adding solar panels, which tracked in the opposite direction, presumably because solar was an expense people couldn't afford in the heart of the downturn in 2010.) Some examples:



Numbers for 2015 and 2016 are very low - the lowest we've ever seen for some activities, such as installing high-efficiency windows, caulking/weatherstripping and changing home habits to be more efficient.

In this year's survey, not a single action to improve home energy efficiency had been undertaken by a majority of Americans. The most popular actions were changing habits at home and switching to LEDs, both at 39%. (There's one caveat: in 2016, we specified replacing incandescent lighting with LEDs rather than "with LEDs or CFLs." So the numbers dropped considerably from previous years; 50% said they had switched to more efficient lighting in 2015.)

Nearly one in ten Americans claims to have done nothing whatsoever to conserve energy or improve efficiency at home.

savings - the big red herring

Here's the conundrum: Americans *think* they're motivated primarily by savings and lower bills, so much so that marketers have used savings almost exclusively as the main incentive to encourage energy efficiency. It doesn't help that concern about the ability to pay for energy has increased from 30% (Utility Pulse® 2013) to 36%. Consumers' top energy-related concern (by far) is the cost of it, and that's true no matter whether you're talking to Southerners or Westerners, Millennials or Seniors:

Which of these is your biggest energy concern?



Also, when you ask them why they make or plan to make energy-efficient home improvements, their answer is always, always, always savings. And it's never even close. This year, 59% cited savings as their top reason; the second-place answer was comfort at 35%. (See illustration on p. 5.)

But this doesn't move consumers to act. And should we really be surprised? Let's be honest: it takes time, money and consistent, repeated efforts to yield energy savings. Only a few stand-alone improvements actually pay back the whole investment in a reasonable time frame.

Here's the unfortunate truth: savings works as an emotional driver only if people are fearful about their finances. As we showed on the previous page, a faltering economy has been the main driver of energy-efficient home improvements. When times are good, the often minimal savings that energy efficiency brings are perceived as not worth the effort; even the catastrophic weather events of the past few years haven't pushed Americans to take action. (We do think, however, that there are smarter ways to talk about savings that will appeal to certain market segments; see page 14 for our recommendations.)

So if Americans' self-professed top concern doesn't move them to take action, what will?

the environment - breaking an old taboo

Until recently, we've maintained that playing the planet card to promote energy efficiency - that is, playing to consumer concerns about climate change and pollution - is a dicey proposition at best. Why touch such a potentially polarizing issue?

After all, if you ask Americans directly, they don't identify the environment as their *personal* top reason to make energy efficiency improvements. As a rule, altruistic, community-minded messaging (about the environment or the well-being of future generations) tends to lag behind personal benefit messaging (primarily about money, comfort and control) in surveys. This year, the environment came in sixth place:

Please rank your top three reasons to participate in energy conservation activities or buy an energy-efficient product/make home improvements.*

0	10) 20	30	40	50	60	70	80
					59	9% To save	e money	
			35%	To make my	y home more	comfortable		
		2	7% To mak	e my home he	althier			
		25	To be res	ponsible and r	not waste			
		25	To get m	ore control ove	er personal e	nergy consun	nption	
		22%	To protect o	ur environmer	nt			
		20%	To make my ho	me more valua	able for resal	e l		
		20%	To have a high-	quality home				
		18% ™	have a higher- _l	oerformance h	ome			
	15	To pres	erve the qualit	y of life for futu	ure generatic	ns		
	*sun	nmarv ranked	' in top 3: top 10) Danswers onlv	shown	•	•	•

summary ranked in top 3; top 10 answers only shown

So it might seem counterintuitive to use the environment to sell energy efficiency. But there are a couple of reasons to take a long, hard second look at what environmental messaging offers. The first is the possibility for genuinely inspirational messaging (saving the planet has much stronger narrative power than saving \$75 a year on your energy bill), and the second is that even though other issues such as the economy have hogged the spotlight in recent years, the American mindset on the environment has quietly shifted in the background.

the new american mindset

It's time to reassess the idea that climate change is a polarizing topic. Confirming the data we uncovered last year in our Eco Pulse and Energy Pulse studies, we again saw that despite our obvious political differences, concern for the environment is a mainstream attitude:

- 64% believe that climate change is occurring and is primarily caused by humans. And when you consider only the group of respondents with household incomes of at least \$75,000 a year - the group with the financial means to invest in energy efficiency - that number jumps to 72%.
- 67% think that personal conservation habits can make a real difference in preventing climate change. (High-income group: 74%.)
- 52% say they're "anxious" about climate change and that we need to reduce our carbon emissions up slightly from 49% (Utility Pulse[®] 2013). (High-income group: 59%.)
- Earlier this year, in our Eco Pulse 2016 survey, 90% of respondents said the average person should be taking steps to reduce environmental impact.

But the most fascinating findings came when we asked Americans to weigh in on the environmental platforms of 2016's presidential contenders. He may have won 46% of the popular vote in November, but Donald Trump was trounced in our mock presidential election, which presented candidates' energy/environmental platforms anonymously and asked respondents to choose a single candidate:

Putting the Environment to a Vote

If the U.S. presidential election were held tomorrow and energy and the environment were the only issues on the table, which of the following candidates would you vote for based on the information shown below?

	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E
Climate Change	The climate is not changing, and the global warming crisis was invented by people who want to hurt U.S. manufacturing interests.	Climate change is real, but no one knows whether it's caused by humans.	Climate change is real, and the way to combat it is to make the United States a superpower of clean energy.	Climate change requires immediate, strong government action–it's the single biggest threat to our way of life and to national security.	Climate change is real and caused by humans, but the only good solution is a free-market solution.
Fracking	Fracking is totally safe and leads to energy independence.	Fracking should be regulated locally.	Fracking should be phased out or accepted only und a certain limited conditions.	Fracking should be banned now because it takes unnecessary risks with public health and the environment.	Fracking is potentially dangerous, but we should keep an open mind about it.
U.S. Environmental Protection Agency (EPA)	The EPA should be eliminated.	Some EPA oversight s needed, but the surrent administration has been excessive	support the current PA Clean Power Plan, plus new egulations that ensure a third of America's power comes from renewable resources by 2027.	Current EPA rules hould be upheld and should go even further, placing a tax on carbon emissions and ensuring all people's homes are energy efficient.	The EPA is necessary o protect our air and vater, but it shouldn't avor one energy source over another.
Coal/ Fossil Fuels	We need to increase coal mining jobs no bring coal back prominence in t United States.	Decisions about whether to contrue coal mining sheld balance the needs of the environmer with the peeds of king miners.	Exsil fuels should be phased out c adually, and we could invest heavily renewable energy new so that we have alternatives in place	A merica's use of cont sould be phased or completely. We should immediately stop subsidies to the foss of fuel industry	T e free market k ed coal and it isn't ning back; best to us on other ons like nuclear ene

Based on publicized statements or official political platform planks of serious contenders in the 2016 election, these platforms roughly represented the environmental views of, respectively, Donald Trump (and possibly Ted Cruz and Marco Rubio), Jeb Bush, Hillary Clinton, Bernie Sanders and Gary Johnson (viewing table from left to right).

The Results

14%	Candidate A (right Republican platform; Donald Trump)
21%	Candidate B (mainstream Republican; Jeb Bush)
32%	Candidate C (mainstream Democrat; Hillary Clinton) – THE WINNER
21%	Candidate D (left Democrat; Bernie Sanders)
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What's interesting? **53% of Americans support a progressive environmental platform** that aligns with either the mainstream Democratic Party (Hillary Clinton) or the left Democratic Party (Bernie Sanders), even if some of them vote Republican for other reasons. An additional 13% support the Libertarian environmental platform – and their answers to subsequent questions indicated that their basic beliefs about the environment align more closely with supporters of Democratic platforms than with supporters of Republican platforms, especially on climate change (see pages 9–10 for more information).

Finally, only 14% voted for a platform that explicitly denied global warming – in other words, only 14% agreed most closely with Donald Trump's views on energy and the environment. Even if you add those who agree that it exists but have some doubt about its cause (mainstream Republicans, 21%), you might expect only 35% of the total population to be averse to messaging about climate change. In fact, 64% of respondents said it was important to elect a president who acknowledges that climate change is real, even though they ultimately elected Trump. (And among the group of Americans making at least \$75,000 year? 72%).

66% of Americans supported an environmental platform that explicitly acknowledges climate change.

inside the numbers

The results of our mock election were even more eye-opening when we examined the demographics. **Support for different environmental platforms did not vary with income, age or education,** and differed only slightly along racial lines in that whites were a bit more likely than minorities to agree with a right-Republican environmental viewpoint (16% vs. 10%).

What's more, the red-state-blue-state divide disappeared entirely. There were almost no significant differences in candidate support by region. A majority of Southerners and Midwesterners (those in so-called red states) also supported Democratic-leaning environmental platforms, same as Westerners and Northeasterners. The lone significant difference was that Midwesterners were *less likely* than Westerners to support a right Republican environmental viewpoint (11% vs. 18%).

Only about half of self-identified Republican voters supported a Republican-associated environmental platform. The other half broke out this way: 23% supported a mainstream Democratic platform, 14% supported a Libertarian platform, and 11% supported a left Democratic platform. On the other hand, 69% of self-identified Democrats voted for a Democrat-associated environmental platform, as did 65% of Independents. Only 17% of Democrats and 23% of Independents chose Republican-leaning environmental platforms.

Men and women diverged only at the fringes. Men were more likely than women to support a right Republican environmental platform (16% vs. 12%), and women were more likely than men to support a left Democratic environmental platform (22% vs. 19%).

The takeaway: majorities of every demographic group consistently selected platforms that 1) promoted renewable energy and/or 2) explicitly cited that climate change is a real problem. Concern for the environment is at an all-time high, and may actually be masked by current political realities that cause people to cast their votes based on other issues. The implication seems to be that **no matter how your marketing target area shakes out demographically, environment-focused messaging can play to a receptive crowd.**

digging into american beliefs about energy

In order to better understand the beliefs underlying the way Americans voted, we asked them to register agreement/disagreement with several statements. Here's where the numbers landed:

It's important that we elect a U.S. president who believes that climate change is real.



- Millennials (70%) were significantly more likely than all other age groups (61%) to agree.
- *Agreement* trended steadily up with increasing levels of education: from 60% agreement among those with a high school degree or less education to 75% agreement among those with graduate/professional degrees.
- Whites (15%) were significantly more likely than minorities (7%) to disagree.
- Men were more likely than women to disagree (15% vs. 10%).
- Only 42% of those who chose either Republican environmental platform in our mock election *agreed* with this statement, compared to 79% of those supporting a mainstream Democratic platform, 79% of those supporting a left Democratic platform and 63% of those supporting a Libertarian platform.

Global warming, or climate change, is occurring, and it is primarily caused by human activity.



• We ask this question every year; *agreement* remains at one of the highest levels we've seen. Demographic differences were very similar to those for the previous question.

It's important for the U.S. government to invest significantly in renewable energy.



- All age groups and ethnicities registered strong levels of agreement with this statement.
- Men were more likely than women to disagree with this statement (11% vs. 4%).
- Those with only a high school education were significantly less likely than everyone else to *agree* with this statement (66% vs. 76%).
- Only 54% of those supporting a right Republican environmental platform *agreed,* along with 61% of those supporting a mainstream Republican environmental platform. On the other hand, we saw 83% agreement among those choosing a mainstream Democratic environmental platform, 81% among those choosing a left Democratic environmental platform and 71% among those choosing a Libertarian environmental platform.

I oppose cutting carbon emissions in the United States because it will cost people their jobs.



- Opposition to a carbon cap was strongest among those who voted for a right Republican environmental platform in our mock election (63% of that group *agreed*, compared to just 38% of those who favored a mainstream Republican environmental platform and even fewer of the rest).
- Interestingly enough, Millennials were the age group most likely to *agree* at 48%, followed by Gen Xers at 37%. Boomers and Seniors came in at 22% and 23%, respectively.
- Midwesterners were less likely to agree than all other regional groups (25% vs. 38% of all others).
- This was the most divisive question in the battle of the sexes: 41% of men *agreed,* compared to just 29% of women.

Personal energy conservation habits can make a real difference in preventing climate change.

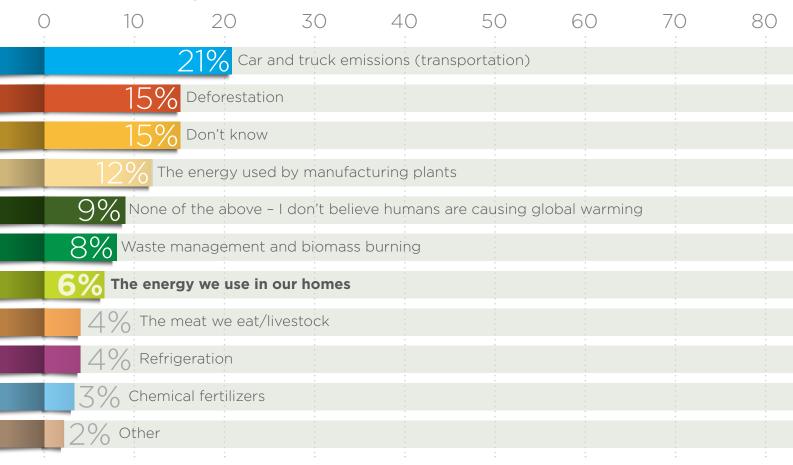


- Once again, there was a strong divide on this question by mock election results. Only 48% of those supporting a right Republican environmental platform *agreed*, along with 53% of those supporting a mainstream Republican environmental platform. On the other hand, we saw 80% agreement among those choosing a mainstream Democratic environmental platform, 73% among those choosing a left Democratic environmental platform and 71% among those choosing a Libertarian environmental platform.
- There were no noteworthy differences by age or geographic region.
- Men were slightly more likely than women to disagree (11% vs. 8%).
- Agreement trended strongly upward with increased education.
- Blacks were more likely than other ethnic groups to remain on the fence (31% *neither agreed nor disagreed*, vs. 22% of all others).

the big barrier: knowledge

Our data show clearly that Americans are concerned about protecting the environment, and that they believe their own habits can make a difference. They just don't realize their homes are such a big part of the equation.

What do you think is the number one man-made cause of global warming or climate change?



Even if they understood the impact of home energy use, you'd have to convince them their own homes were part of the problem. This year, nearly half (47%) told us their homes are already efficient, even though the evidence clearly points the other way:

- 86% acknowledged at least one indicator of lack of home comfort related to a likely energy efficiency problem, such as cold drafts or indoor allergy symptoms.
- **54% live in homes at least 20 years old.** And although confidence in efficiency does decline with the age of the home, there's a notable spot of overconfidence in those with homes 21–40 years old, 44% of whom believe those homes are plenty efficient already.
- **58% have at least two refrigerators,** or a fridge plus at least one additional freezer, plugged in at home. (And barely half are willing to give up the extra unit.)
- 32% have an HVAC system that's at least 15 years old, and an additional 12% don't know how old their systems are.

So is there a big knowledge gap that needs to be bridged? Absolutely, and we wish more influencers were approaching that in smart, creative ways.

But as we've long told our clients, education alone isn't powerful enough, because there's considerable psychological distance between knowing a fact and acting on it. For information to push action, you have to couple that information with inspiration, motivation and positive emotion.

the messaging angle

When it comes to energy efficiency messaging, protecting the planet offers an inspirational angle that strictly personal benefits, like savings or comfort, can't match. This is why we believe it may finally be time to put climate change on the table.

The challenge is delivering that message in a way that makes people feel inspired instead of guilty. Some studies have suggested that emphasizing personal responsibility may not move people to live greener or donate to climate-related causes, maybe because it fosters feelings of guilt or triggers defensiveness.¹

In other words, if you tell someone that her old, inefficient HVAC system is pouring tons of carbon dioxide into the atmosphere, she may react by feeling blamed instead of making a smart upgrade – or cognitive dissonance may make her avoid thinking about the problem altogether.

Instead, tap into her innate desire to contribute to the common good. It's true that altruism doesn't score high marks in consumer surveys. But the neuroscience of decision-making is more complicated in reality, and behavioral studies tell a slightly different tale. In one experiment, emphasis on collective responsibility actually moved people to give larger donations to climate-related causes, an effect that persisted over time.² Another similar study suggested that people have a natural tendency toward collaboration that gets stifled when they stop to consider personal benefits.³ It found that people are more likely to sacrifice money for a cooperative effort if they associate the transaction with positive emotions, like love or gratitude – *whereas deliberating on their potential return actually inhibits cooperation.*

Could it be that the act of stopping to calculate ROI for an energy-efficient improvement actually dampens interest in doing it? **We don't know, but we do know the savings angle isn't working.** For the most part, it's rational rather than emotional and less likely to inspire action. There are also inherent problems with promising an ROI when usage patterns vary widely, weather is increasingly unpredictable and rates are constantly in flux.

What might happen if you tried to inspire consumers instead? Can you tell them a story that makes them feel like they're stars, even heroes, when they take action to curb their home energy use? Can you tap their natural instinct for collaboration – the instinct that gets clobbered by rational considerations about personal benefit? Can you use humor and storytelling magic to make them feel a rush of positive emotion about making energy upgrades? Can you make them viscerally *feel* the better environment we'll all inhabit if they just do their part?

It's time for energy efficiency messaging to get bigger. More emotional. More connected to what makes people feel proud of themselves. What would happen if we took practical, unsexy stuff like insulation, old fridges and SEER ratings and connected those things to feeling heroic and empowered – to feeling like a champion for an endangered planet?

¹Obradovich, N., & Guenther, S.M. (2016). Collective responsibility amplifies mitigation behaviors. *Climatic Change 137*, 307-319. ²Ibid.

³Rand, D., Kraft-Todd, G., Gruber, J. (2015). The collective benefits of feeling good and letting go: Positive emotion and (dis)inhibition interact to predict cooperative behavior. *PLOS ONE*, *10*(1).

our conclusions and recommendations

Adoption of energy efficiency measures is at an all-time low in America. If we're going to make headway in curbing home energy use, we need better incentives. (We believe there's a critical role for sticks as well as carrots, actually, but policy is a topic for another report.)

Marketers can be forgiven for thinking savings will work – after all, if you ask people to choose from a list of reasons for making energy-efficient home improvements, they'll choose saving money over every other option you offer them. By a wide margin. People have a positive knee-jerk response to the idea of saving money (it's good!), and it seems like a smart, rational motivator. But in the real world, other emotional factors influence their decisions far more. Inertia. Stress avoidance. Desire for status. Need for control. Need for novelty. Need for self-affirmation. And jumping through a bunch of hoops for a small amount of savings isn't going to push any of those buttons.

It's time to lead with a different motivator. An emotional motivator. And the potential answer may be right in front of us: over the last 10 years, a majority of Americans have quietly come to believe in human-caused climate change and feel anxiety over its potential effects. They care about the environment, and a whopping 90% think the average person should be making changes to minimize environmental impact. And these concerns are highest among those with the financial means to make energy-efficient improvements.

What surprised us most about this survey was the indication that environmental messaging can work everywhere. Even if your marketing area is traditionally conservative, there's evidence to suggest it may not matter. In our mock presidential election, there were almost no significant differences by region – majorities in all regions voted for progressive environmental policies that acknowledged climate change.

a one-two punch for energy efficiency

With the previous points in mind, think about this possible two-part solution for energy efficiency messaging:

1) Lead with the environment. There's a clear need for a wake-up call about home energy use and its relationship to climate change. But you must sound that warning thoughtfully. Instead of pointing a nagging finger at people's shortcomings, show them how making their homes more efficient can transform the environment they live in – the air they breathe, the water they drink – as well as the larger planet we all share. Give them permission to feel like superheroes. Make them feel a weight has been lifted – the weight of tons of carbon emissions they're no longer contributing. Use humor, affirmation and encouragement to keep the association positive.

2) Then, offer savings as a rationale for getting on board. It's a perk, not a primary motivator. Frame energy efficiency as an investment with a return rather than a money-saving venture: if you put money in, you'll get a specific number of benefits out. This is an idea that appeals to Shelton Group's True Believer and Cautious Conservative segments, who have financial wherewithal and an investor's mindset. (Get in touch with us, by the way, if you'd like to learn more about our consumer energy segments and how to speak to them.)

This approach represents a departure from the status quo of energy efficiency messaging, and a subtle shift in thinking for us as longtime inhabitants of this marketing space. But the need for a real emotional button to push for energy efficiency is clear.

Are you ready to push that button?



Shelton Group is the nation's leading marketing communications agency focused exclusively on energy and the environment. If you're a utility, builder or product manufacturer trying to get Americans to use energy more wisely at home, we understand your marketing challenges like no one else.

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