

No Matter the Method, Fewer Americans Taking Steps to Improve Energy Efficiency at Home

Solar and wind seen as the best energy sources for the environment; coal seen as the worst, with nuclear a distant second

NEW YORK, N.Y. – April 22, 2015 – A notably severe winter has finally come to a close, and some Americans may soon see drops in their utility costs as a result. But how much do Americans really know about the various energy resources heating their homes, powering their entertainment centers and charging their mobile devices? What do Americans see as the cleanest – and most harmful – energy resources? And whatever the source supplying their grids with electricity, are Americans taking steps to use less of it?

These are some of the results of **The Harris Poll**® of 2,221 adults, surveyed online between February 11 and 17, 2015.

A majority of Americans – albeit a diminishing one – say they turn off lights, televisions or other appliances when not in use in order to improve energy efficiency at home (75%, down from 79% in 2014 and 82% in 2012). There have also been drops in the percentage of Americans engaging in a number of other efficiency-boosting steps at home, including:

- Replacing incandescent bulbs with fluorescent bulbs (50%, down from 55% in 2014 and 58% in 2012),
- Looking for the ENERGY STAR label when replacing appliances (47% vs. 50% and 55%, respectively),
- Using low watt bulbs where lighting isn't critical (46% vs. 50% and 54%, respectively),
- Using power strips for home electronics (44% vs. 49% and 56%, respectively) and
- Reducing hot water use with steps like taking shorter showers or using cold water in their washer's rinse cycle (40% vs. 45% and 48%, respectively).

Men and women prefer to take action in different ways. While they differ little on steps like replacing incandescent bulbs with fluorescent ones (51% men, 49% women) and seeking out ENERGY STAR appliances (46%, 48%), women are considerably more likely to say they've taken steps to reduce hot water usage (46% women, 33% men). Men, in contrast, are more likely to say they've taken steps such as sealing gaps in floors and walls around pipes or wiring (33% men, 25% women), installing energy efficient windows (29%, 23%) and having a TV with Smart technology (23%, 17%).

Some regional differences also exist in energy-saving practices and adoptions. For example, nearly half of Southerners (47%) change their air filters monthly, in comparison to just two in ten (21%) Easterners, three in ten (29%) Westerners and a third (33%) of those in the Midwest. Meanwhile, nearly four in ten Westerners (37%) have installed low-flow faucets or showerheads, compared to fewer than one-fourth each of those in the East (22%), Midwest (23%) and South (24%).

And if knowledge is, in fact, power, then Americans would appear to have their wires crossed. On the one hand, more than six in ten (62%) believe themselves knowledgeable about energy issues including sources of electrical

power and energy efficiency; on the other, only one in ten (11%) have looked to upgrade their knowledge in this particular area by conducting a home energy evaluation or audit.

“Even though understanding of energy sources remains at historical levels, in the last few years fewer consumers are taking steps to reduce energy consumption in their homes,” says Carol M. Gstalder, Reputation & Public Relations Practice Leader for Harris Poll. “As energy prices drop, so do consumers’ commitment to energy-saving decisions from replacing light bulbs and water heaters to installing solar.”

Considering the source

Setting aside how much electricity Americans are using, it does all need to come from somewhere. When asked whether the risks outweigh the benefits, or vice versa, for several mainstream and emerging sources of electrical power in the U.S., Americans most commonly believe the benefits of solar (78%) and wind (75%) outweigh their risks.

Despite no small amount of controversy over the past few years, a strong majority of Americans also see natural gas’s benefits outweighing its risks (66%). Additionally, half of Americans (50%) believe geothermal power’s benefits outweigh the risks, while 8% say the risks outweigh the benefits and 42% are not at all sure – indicating a considerable knowledge gap but few negative sentiments.

Nuclear power, on the other hand, shows the inverse, with a 42% plurality believing its risks outweigh its benefits; 34% believe the benefits outweigh the risks and 24% are unsure. An even stronger – and growing – plurality (46%, up from 40% last year) believe coal’s risks outweigh its benefits, while 34% feel its benefits outweigh its risks and 20% are unsure.

Biomass continues to be the biggest unknown, with six in ten U.S. adults (60%) not at all sure of its risks or benefits; three in ten (29%) feel its benefits outweigh its risks, while one in ten (11%) feel the inverse is true.

There are some generational differences on perceptions of various energy sources’ benefits and risks. Perhaps most notably, older Americans are more likely than their younger counterparts to believe the benefits of natural gas outweigh the risks (82% Matures, 76% Baby Boomers, 61% Gen Xers, 53% Millennials). Matures and Boomers (43% and 38%) are also more likely than Gen Xers and Millennials (29% and 31%) to feel the benefits of coal outweigh the risks.

Turning to political affiliations, Republicans are more likely than either Democrats or Independents to feel the benefits outweigh the risks for both natural gas (79% Republicans, 59% Democrats, 64% Independents) and nuclear power (51%, 24% and 31%, respectively).

Environmental impacts

When asked to select which two energy sources they believe are best for the environment, solar (69%) and wind (60%) are the leading responses by an exponential margin. Roughly one in ten Americans select hydro (11%), electric (11%), and oil and natural gas (10%), while 7% identify nuclear power.

When asked to identify which two sources are worst for the environment, Americans’ top selection is coal (53%), followed by nuclear (39%).

Just under a quarter of Americans (23%) identify oil and natural gas as worst for the environment, while 16% point to home heating oil and roughly one in ten each select ethanol/bio fuel (10%) and propane (9%).

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TABLE 1
KNOWLEDGE ABOUT ENERGY ISSUES AND ELECTRICAL POWER – By Region

"Thinking of something else, how knowledgeable would you say you are about energy issues including sources of electrical power and energy efficiency?"

Base: All adults

	Total	Total	Total	Total	Total	Region			
	2009	2011	2012	2014	2015	East	Midwest	South	West
	%	%	%	%	%	%	%	%	%
Knowledgeable (NET)	59	61	61	65	62	64	58	58	67
Very knowledgeable	9	12	8	10	9	10	8	9	10
Somewhat knowledgeable	50	49	53	55	52	54	50	48	57
Not knowledgeable (NET)	41	39	39	35	38	36	42	42	33
Not very knowledgeable	32	31	28	25	29	24	33	32	27
Not at all knowledgeable	8	9	11	10	9	11	9	10	5

Note: Percentages may not add to 100% due to rounding.

TABLE 2a
BENEFITS VERSUS RISKS FOR VARIOUS ENERGY SOURCES – Summary Grid

"There are many sources of electric power used in the U.S. To the best of your knowledge, would you say the benefits of each source outweigh the risks or do you believe the risks outweigh the benefits?"

Base: All adults

		BENEFITS OUTWEIGH RISKS (NET)	Benefits strongly outweigh risks	Benefits somewhat outweigh risks	RISKS OUTWEIGH BENEFITS (NET)	Risks somewhat outweigh benefits	Risks strongly outweigh benefits	Not at all sure
		%	%	%	%	%	%	%
Solar	2015	78	59	19	7	4	3	15
	2014	78	63	15	7	4	3	15
	2012	79	63	15	8	4	4	13
	2011	77	64	13	8	3	6	14
	2009	82	68	14	5	3	2	13
Wind	2015	75	53	22	8	4	4	17
	2014	76	56	20	9	5	4	15
	2012	76	61	16	9	5	5	15
	2011	75	61	14	10	3	7	15
	2009	78	62	17	7	4	2	15
Natural gas	2015	66	31	35	15	12	4	19
	2014	68	34	34	15	11	4	17
	2012	66	34	32	17	12	5	17
	2011	64	31	34	17	11	6	18
	2009	66	30	36	14	11	3	20
Geothermal	2015	50	28	22	8	5	3	42
	2014	52	31	21	8	6	2	40
	2012	53	32	21	10	6	4	37
	2011	52	33	18	10	5	5	38
	2009	52	32	20	7	5	2	40
Nuclear	2015	34	14	20	42	18	24	24
	2014	37	14	24	40	19	21	22
	2012	40	15	24	41	19	21	20
	2011	42	20	22	37	18	19	21
	2009	44	21	23	34	17	17	22
Coal	2015	34	12	22	46	25	20	20
	2014	41	14	27	40	23	17	19
	2012	42	15	27	40	23	17	18
	2011	38	15	23	43	24	18	19
	2009	36	13	23	42	22	20	22
Biomass	2015	29	11	17	11	8	3	60
	2014	29	13	16	9	6	3	61
	2012	30	13	17	12	8	4	58
	2011	30	14	17	12	7	6	57
	2009	28	12	16	12	8	4	60

Note: Percentages may not add up to 100% due to rounding

TABLE 2b

BENEFITS VERSUS RISKS FOR VARIOUS ENERGY SOURCES – By Political Party & Generation

"There are many sources of electric power used in the U.S. To the best of your knowledge, would you say the benefits of each source outweigh the risks or do you believe the risks outweigh the benefits?"

Percentage Saying "Benefits Outweigh Risks"

Base: All adults

	Total	Political Party			Generation			
		Republican	Democrat	Independent	Millennials (18-37)	Gen X (38-49)	Baby Boomers (50-68)	Matures (69+)
	%	%	%	%	%	%	%	%
Solar	78	75	80	82	76	74	82	79
Wind	75	69	77	80	76	70	77	75
Natural Gas	66	79	59	64	53	61	76	82
Geothermal	50	53	44	58	49	46	52	58
Coal	34	48	25	36	31	29	38	43
Nuclear	34	51	24	31	26	34	42	37
Biomass	29	31	26	32	33	22	30	27

TABLE 3
DONE ACTIVITIES TO IMPROVE ENERGY EFFICIENCY AT HOME – By Region & Gender
 "Which of the following have you done to improve energy efficiency in your place of living?"

Base: All adults

	Total 2012	Total 2014	Total 2015	Region				Gender	
				East	Midwest	South	West	Men	Women
				%	%	%	%	%	%
Turn off lights, televisions or other appliances when not in use	82	79	75	72	74	76	79	73	77
Replace incandescent bulbs with fluorescent bulbs	58	55	50	45	51	48	55	51	49
Look for ENERGY STAR label when replacing large or small appliances	55	50	47	57	42	44	48	46	48
Use low watt bulbs where lighting is not critical	54	50	46	45	45	43	51	48	44
Use power strips for home electronics	56	49	44	40	47	43	45	43	45
Reduce hot water usage by taking shorter showers or using cold water in the rinse cycle in your washer	48	45	40	36	37	41	44	33	46
Weather stripping around windows or doors to stop air leaks	38	37	34	36	33	36	30	36	31
Change air filters monthly	40	41	34	21	33	47	29	35	32
Installed a programmable thermostat	37	36	31	32	32	29	30	33	29
Seal gaps in floors, walls around pipes or electrical wiring	34	32	29	32	31	29	24	33	25
Install low-flow faucets or showerheads	29	27	26	22	23	24	37	29	24
Installed energy efficient windows	28	29	26	29	28	23	27	29	23
Add insulation to your attic, crawl space or any accessible exterior walls	27	26	24	25	26	21	26	27	22
Have TV with Smart technology	21	24	19	20	20	16	22	23	17
Conducted a home energy evaluation or audit	11	10	11	11	7	12	14	13	9
Purchased a new HVAC system	10	13	11	7	10	15	10	13	9
Installed a tankless water heater	3	4	4	6	1	4	5	4	4
Installed Solar technology	3	3	3	3	1	2	5	3	2
Installed Wind technology	1	2	1	1	*	1	2	1	1
None of these	7	8	11	14	10	11	11	12	11

Note: Percentages may not add up to 100% due to rounding

TABLE 4
BEST ENERGY SOURCES FOR THE ENVIRONMENT – By Generation & Gender

"Thinking about the following energy sources, what two sources do you believe are best for the environment?"

Base: All adults

	Total 2008	Total 2014	Total 2015	Generation				Gender	
				Millennials (18-37)	Gen X (38-49)	Baby Boomers (50-68)	Matures (69+)	Men	Women
				%	%	%	%	%	%
Solar	69	68	69	67	70	67	74	69	69
Wind	64	57	60	61	64	59	51	60	60
Hydro	12	12	11	15	7	10	13	14	8
Electric	7	11	11	11	7	12	14	10	11
Oil and Natural Gas	6	11	10	6	9	13	18	9	11
Nuclear Power	15	8	7	5	6	7	14	11	3
Hydrogen	8	5	4	4	4	5	4	7	2
Coal	1	3	3	2	5	4	1	3	3
Ethanol/Bio fuel	5	3	2	2	2	1	1	1	2
Home Heating Oil	*	1	1	1	1	2	*	*	1
Propane	1	1	1	1	*	1	1	1	1
Other	1	1	1	1	1	*	1	*	1
Not sure	7	10	9	11	11	8	4	6	12

Note: * indicates a response rate of <0.5%

TABLE 6
WORST ENERGY SOURCES FOR THE ENVIRONMENT – By Generation & Gender

"Which two sources do you believe are worst for the environment?"

Base: All adults

	Total 2008	Total 2014	Total 2015	Generation				Gender	
				Millennials (18-37)	Gen X (38-49)	Baby Boomers (50-68)	Matures (69+)	Men	Women
				%	%	%	%	%	%
Coal	57	53	54	52	50	54	65	65	44
Nuclear Power	27	40	39	38	45	41	28	34	44
Oil and Natural Gas	35	21	23	35	22	14	17	29	18
Home Heating Oil	22	16	16	6	12	22	31	18	14
Ethanol/Bio fuel	13	13	10	9	12	10	10	8	12
Propane	6	7	9	10	9	8	11	7	12
Hydrogen	3	5	4	4	3	3	8	3	5
Wind	1	3	2	2	1	3	3	3	1
Solar	*	2	2	3	2	1	1	3	1
Hydro	1	2	1	1	1	1	*	1	1
Electric	4	3	1	2	1	1	*	1	1
Other	4	2	2	1	2	2	3	3	1
Not sure	13	17	17	16	17	19	11	11	22

Note: * indicates a response rate of <0.5%

Methodology

This **Harris Poll** was conducted online, in English, within the United States between February 11 and 17, 2015 among 2,221 adults (aged 18 and over). Figures for age, sex, race/ethnicity, education, region and household income were weighted where necessary to bring them into line with their actual proportions in the population. Propensity score weighting was also used to adjust for respondents' propensity to be online.

All sample surveys and polls, whether or not they use probability sampling, are subject to multiple sources of error which are most often not possible to quantify or estimate, including sampling error, coverage error, error associated with nonresponse, error associated with question wording and response options, and post-survey weighting and adjustments. Therefore, The Harris Poll avoids the words "margin of error" as they are misleading. All that can be calculated are different possible sampling errors with different probabilities for pure, unweighted, random samples with 100% response rates. These are only theoretical because no published polls come close to this ideal.

Respondents for this survey were selected from among those who have agreed to participate in Harris Poll surveys. The data have been weighted to reflect the composition of the adult population. Because the sample is based on those who agreed to participate in the Harris panel, no estimates of theoretical sampling error can be calculated.

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