

GE Appliances and Lighting Home Energy Solutions

Energy Perceptions and Usage Survey Results

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GE imagination at work



Background, Objective and Methodology

GE wants to better understand consumers perception of various energy factors around the home including:

- What and when requires the most energy
- What electronics and entertainment devices are used
- Utility bill payment behavior and average utility bill amounts
- Attitudes towards time of use programs

An online survey among 2,000 respondents was conducted to better understand consumers behavior in these areas.

Respondents were screened to meet the following criteria:

- 25 – 65 years old
- Household income of \$40,000 or more
- Not competitively employed
- Homeowners



Executive Summary

- ✓ Over half of homeowners cite heating and cooling as contributing the most to home energy bills, especially homeowners who are 45 and older.
- ✓ Of those who are interested in time of use programs, over 9 in 10 are interested primarily to save money.
- ✓ “People who shift their energy use to off-peak times of the day should be incentivized by the utility” was ranked highest among several time-of-day opinion statements.



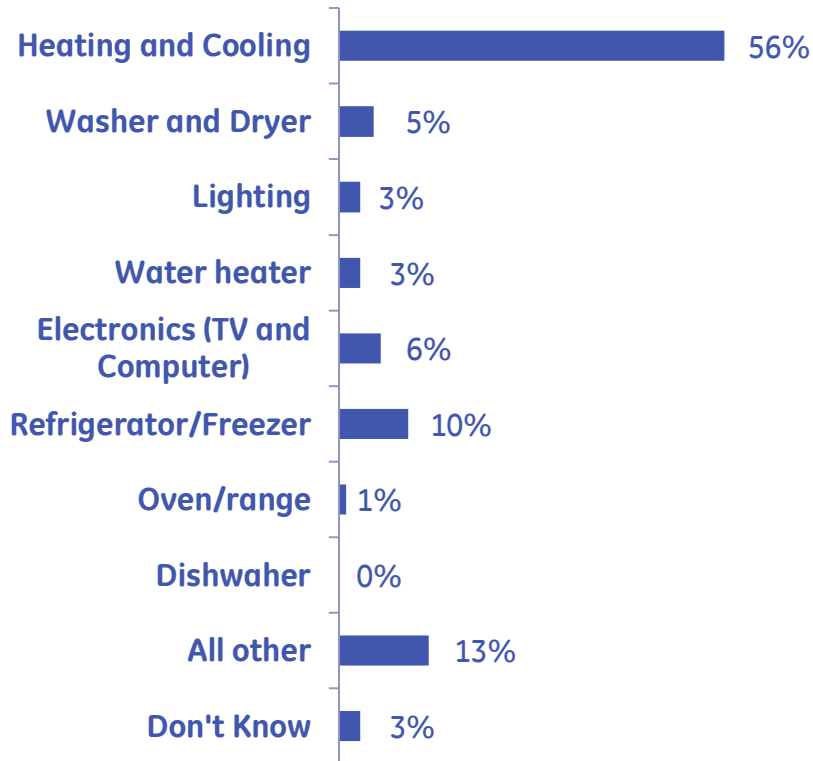
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What do consumers know?



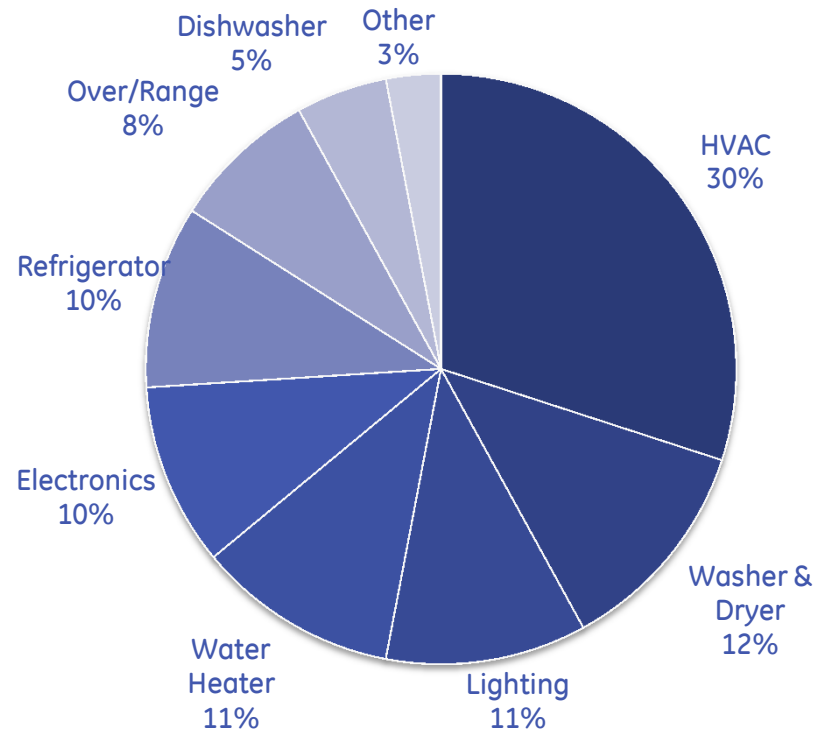
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Consumers have some concept of their current energy usage...



Q. What one item in your home do you think has the highest contribution to your home energy bill?

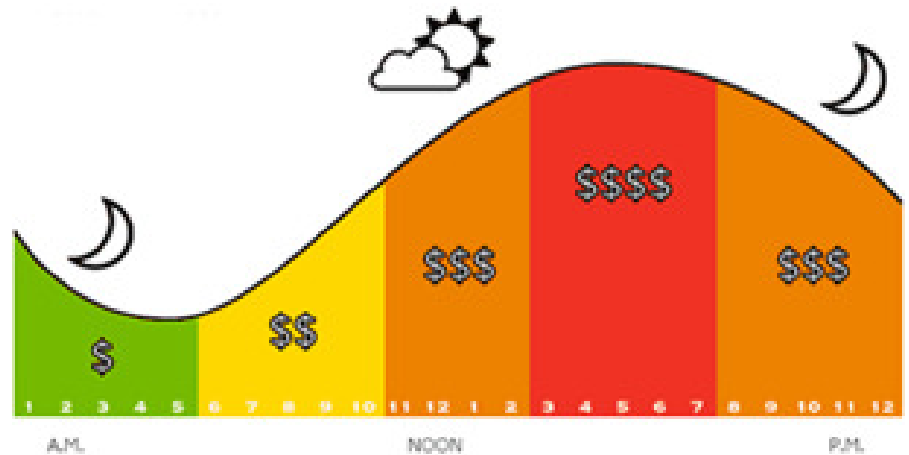
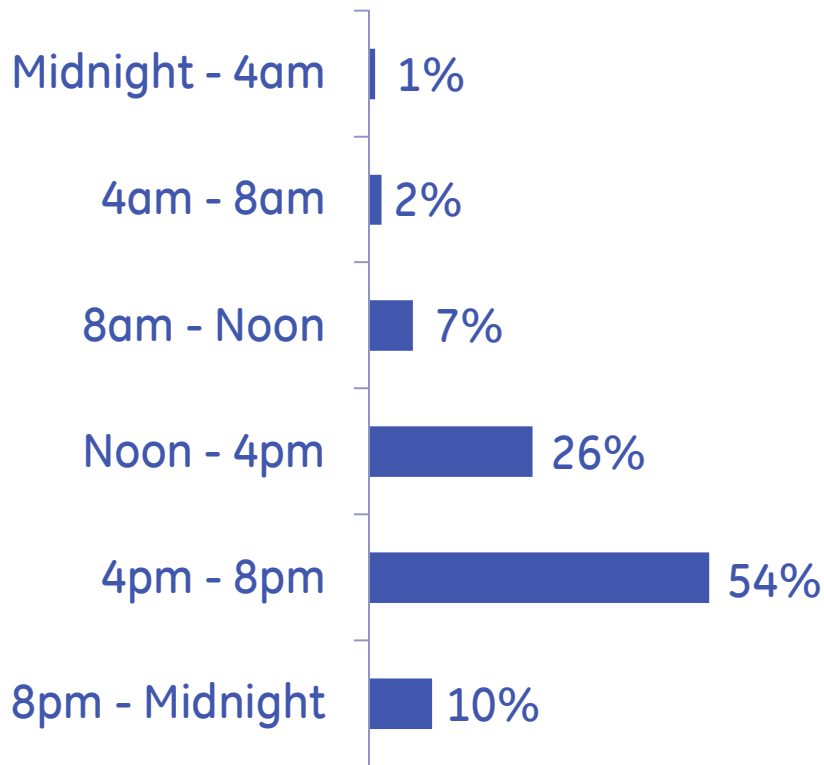
n = 2000



Q. What percentage do you think each of these items has on your monthly home energy bill?

n = 2000

They also have a grasp of when they use most of their energy...

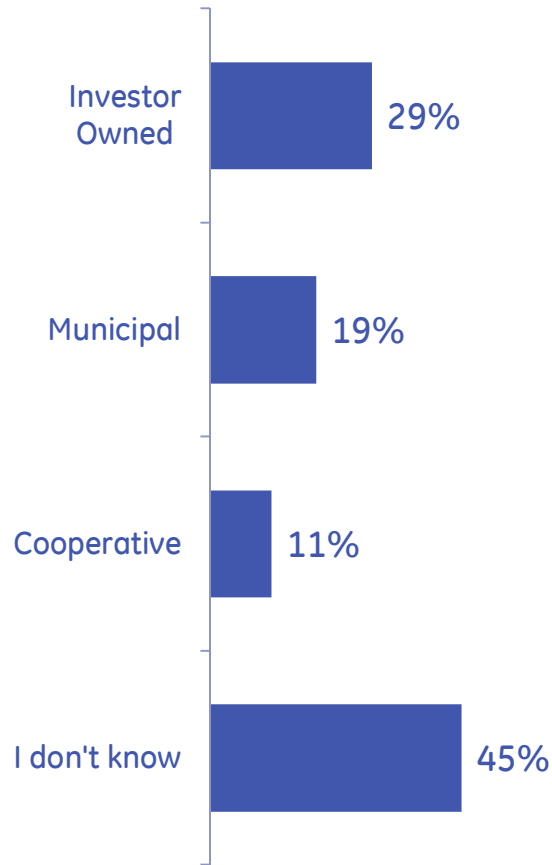


Q. What time of day do you think that the most energy is used in your community?

n = 2000

What do they know about their utility?

Electric Utility Type



Electric Utility Name

1 in 10
knew the
name of
their
utility

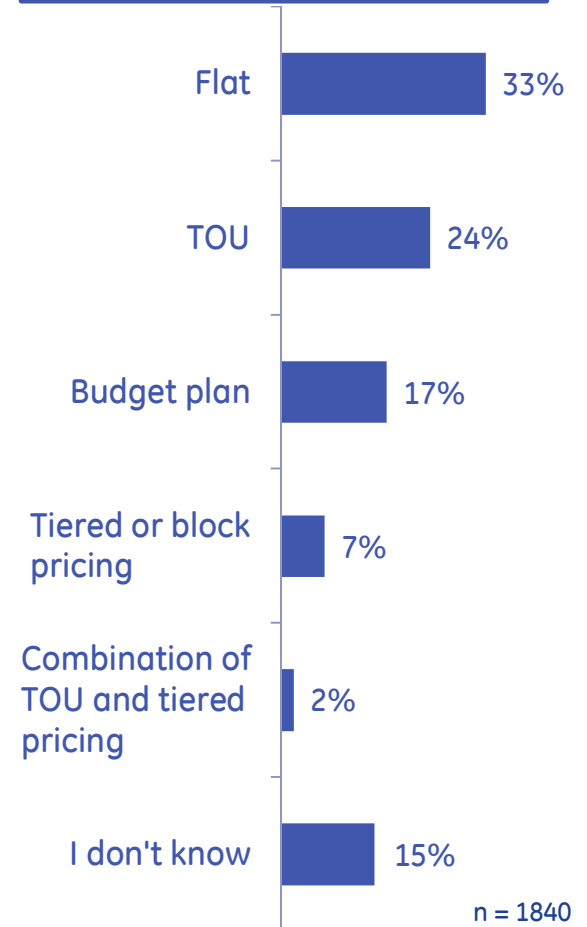
n = 1840

Q. What kind of company is your electric utility?



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Electric Bill Price Structure



n = 1840

Q. What kind of pricing structure is used for your electricity bill?

Source: GE Energy Usage and Perceptions Survey, 9/2011

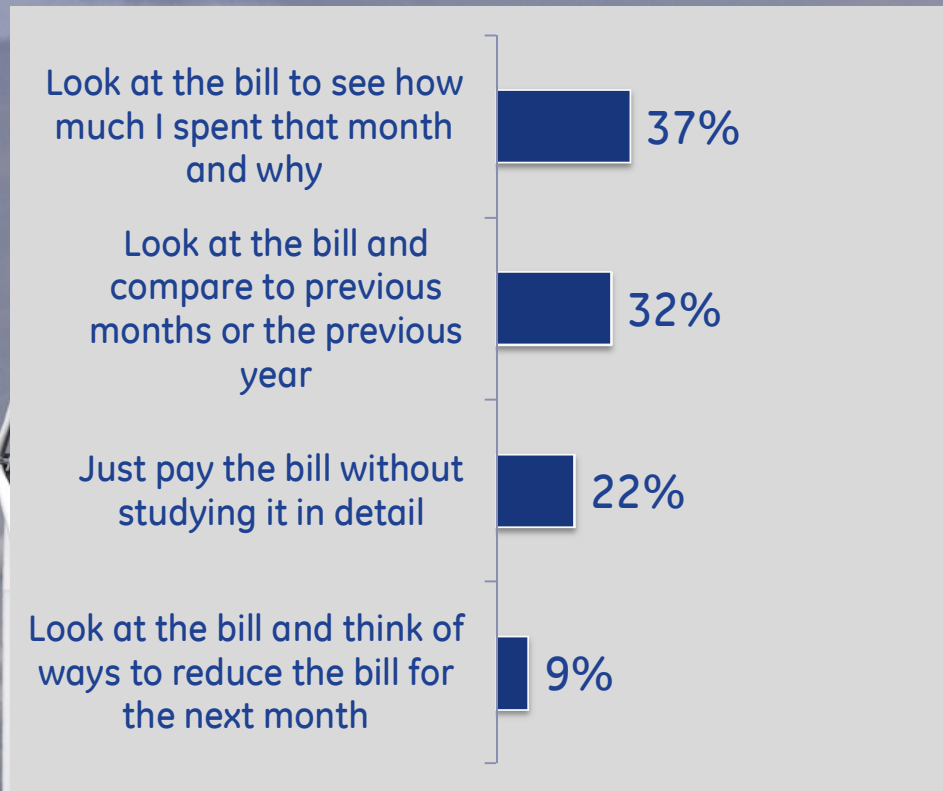
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Electric Bill Information and Cost Savings Tools



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One in eight consumers look at their electric utility bill when they receive it.

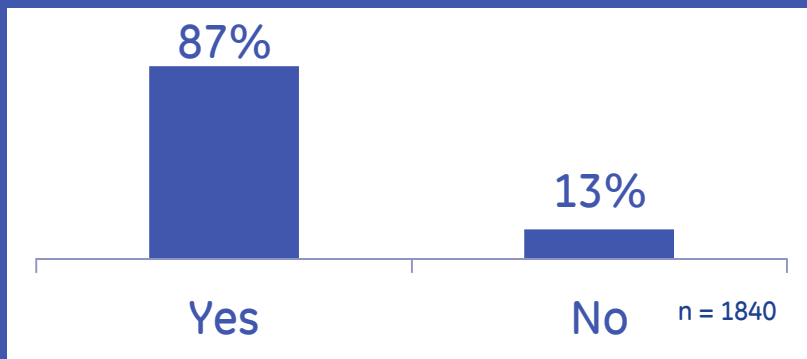


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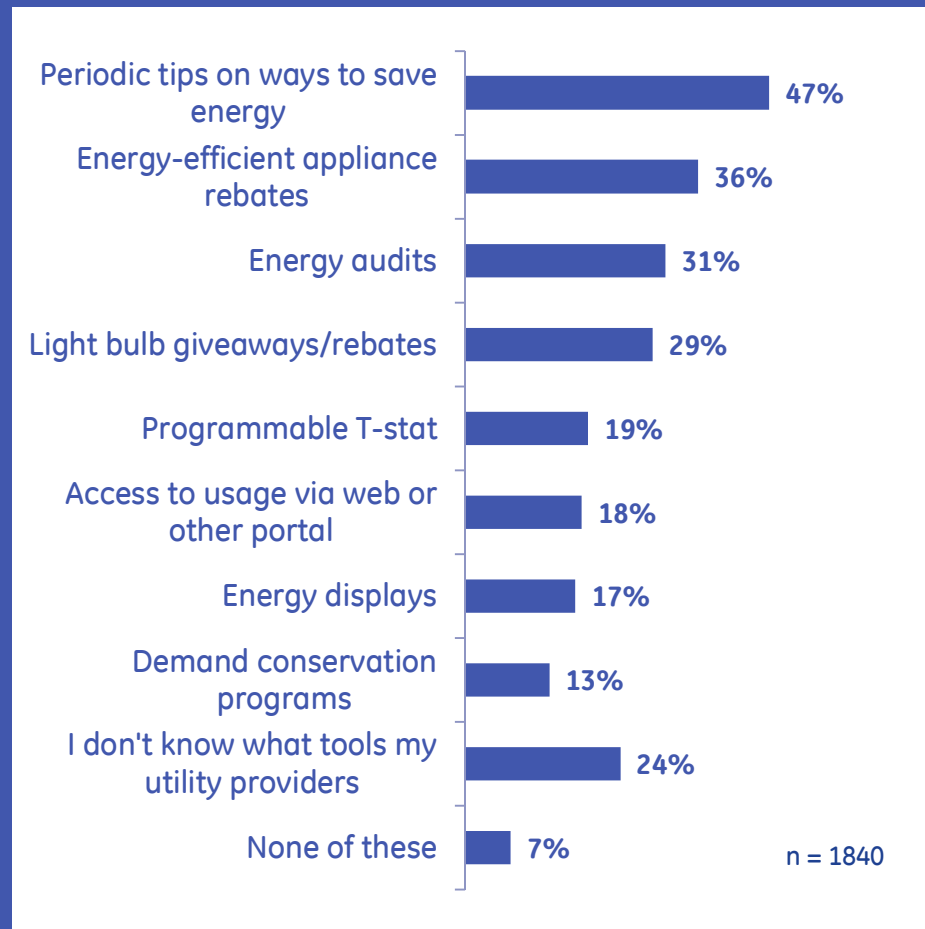
Most consumers would take a closer look and change behavior if bill changed by 10% or 25%

		SUMMER AVERAGE					WINTER AVERAGE				
	Total (A)	\$50 or less (B)	\$51 to \$100 (C)	\$101 to \$200 (D)	\$201 to \$300 (E)	\$301 or more (F)	\$50 or less (G)	\$51 to \$100 (H)	\$101 to \$200 (I)	\$201 to \$300 (J)	\$301 or more (K)
How much difference in cost from the average electric utility bill amount (%) requires you to take a closer look at your energy bill?											
Sample Size	1840	118	380	644	265	115	227	595	490	155	55
10%	38%	39%	39%	41%	35%	39%	40%	39%	38%	41%	42%
25%	43%	43%	40%	43%	47%	40%	41%	43%	44%	41%	33%
50%	12%	9%	13%	10%	13%	10%	12%	11%	11%	10%	11%
75%	2%	1%	2%	3%	1%	3%	2%	2%	2%	1%	5%
100%	2%	1%	2%	1%	2%	4% G	0%	2%	2%	1%	7%
I would never take a closer look	4%	7%	3%	3%	2%	4%	4%	3%	3%	5%	2%
How much difference in cost from your average electric utility bill amount (%) would cause you to change your behaviors?											
Sample Size	1840	118	380	644	265	115	227	595	490	155	55
10%	25%	25%	29%	26%	21%	28%	29%	25%	25%	28%	31%
25%	44%	47%	42%	43%	48%	37%	44%	44%	43%	47%	31%
50%	22%	15%	21%	21%	22%	26%	18%	21%	23%	18%	24%
75%	4%	2%	4%	5%	4%	2%	4%	4%	4%	3%	5%
100%	2%	2%	2%	1%	2%	5%	0%	2%	2% G	1%	9%
I would never change my behavior	4%	8%	3%	4%	3%	2%	5%	4%	3%	3%	0%

To save money, they look to their utility...



Q. Do you believe your electric utility should provide you with the tools to lower your energy bill?



Q. What tools does your electric utility provide to help you lower your energy bill?

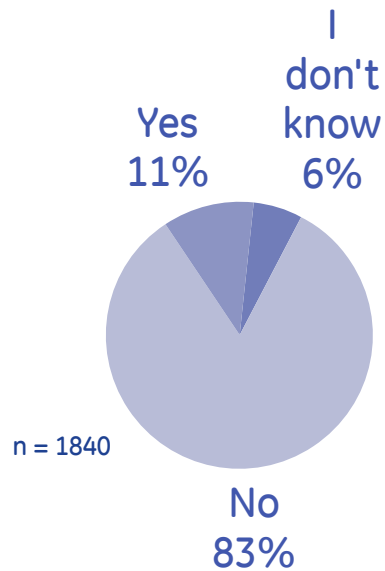
Demand Conservation and TOU Programs



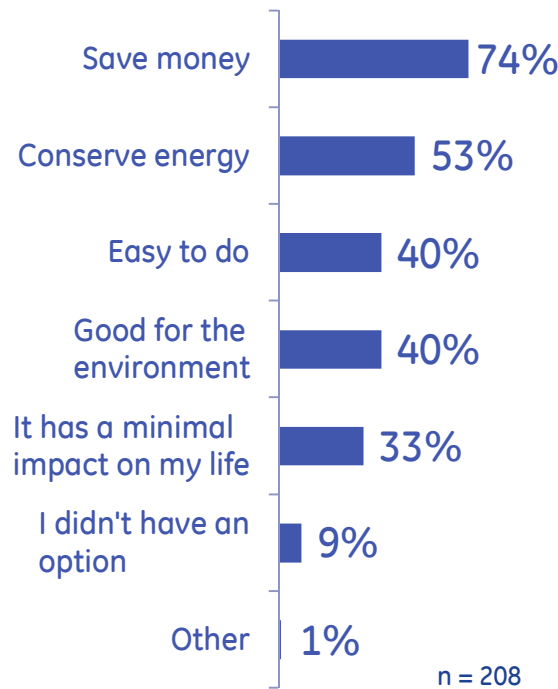
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Demand response is not widely accepted, but there's hope...

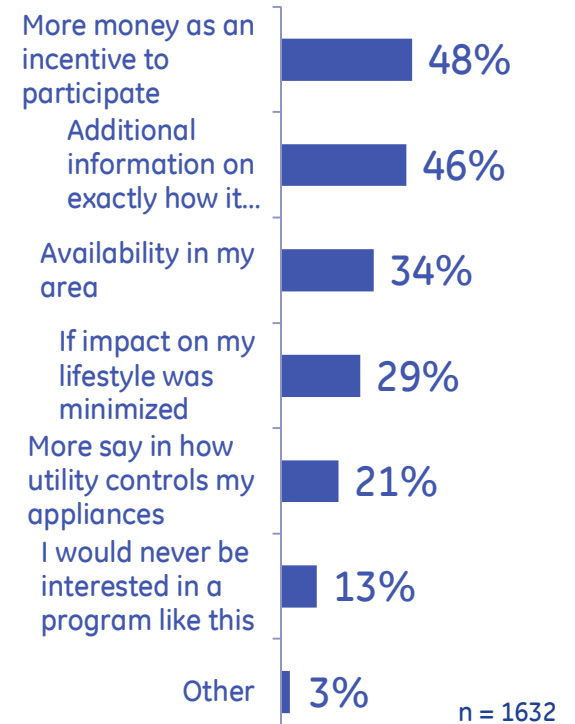
- ✓ One in ten respondents are enrolled in a demand conservation program
- ✓ Three quarters of homeowners who participate in program do so to save money
- ✓ More money and additional information are main ways to spark interest



Q. Are you currently enrolled in a demand conservation program with your electric utility?



Q. Why did you decide to participate in this program?



Q. What would make you more interested in participating in a demand conservation program?

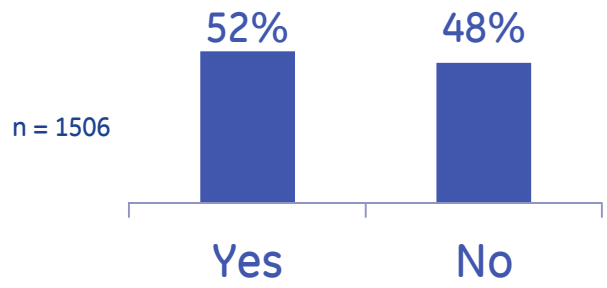
Enrollment is similar across households with all levels of electricity bills, and higher for those with an average bill of \$300 or more...

		SUMMER AVERAGE					WINTER AVERAGE				
	Total (A)	\$50 or less (B)	\$51 to \$100 (C)	\$101 to \$200 (D)	\$201 to \$300 (E)	\$301 or more (F)	\$50 or less (G)	\$51 to \$100 (H)	\$101 to \$200 (I)	\$201 to \$300 (J)	\$301 or more (K)
Are you currently enrolled in a demand response or demand conservation program with your electric utility?											
Sample Size	1840	118	380	644	265	115	227	595	490	155	55
Yes	11%	11%	12%	12%	11%	13%	7%	13%	11%	11%	22%
No	83%	85%	81%	83%	84%	80%	88%	81%	83%	83%	75%
I don't know	6%	4%	8%	5%	5%	7%	6%	6%	6%	6%	4%
Why did you decide to participate in [Demand Response]?											
Sample Size	208	13	44	75	30	15*	15	78	55	17*	12
Save money	74%	85%	61%	80%	70%	73%	87%	71%	78%	76%	50%
Conserve energy	53%	77%	48%	53%	53%	53%	67%	60%	42%	41%	67%
Easy to do	40%	54%	34%	39%	27%	67%	40%	38%	42%	29%	42%
Good for the environment	40%	77%	27%	44%	20%	53%	40%	41%	35%	41%	42%
It has a minimal impact on my life	33%	46%	25%	35%	17%	47%	27%	31%	33%	18%	50%
I didn't have an option	9%	8%	14%	7%	3%	7%	0%	8%	13%	0%	8%
Other	1%	0%	5%	0%	3%	0%	0%	3%	0%	0%	8%

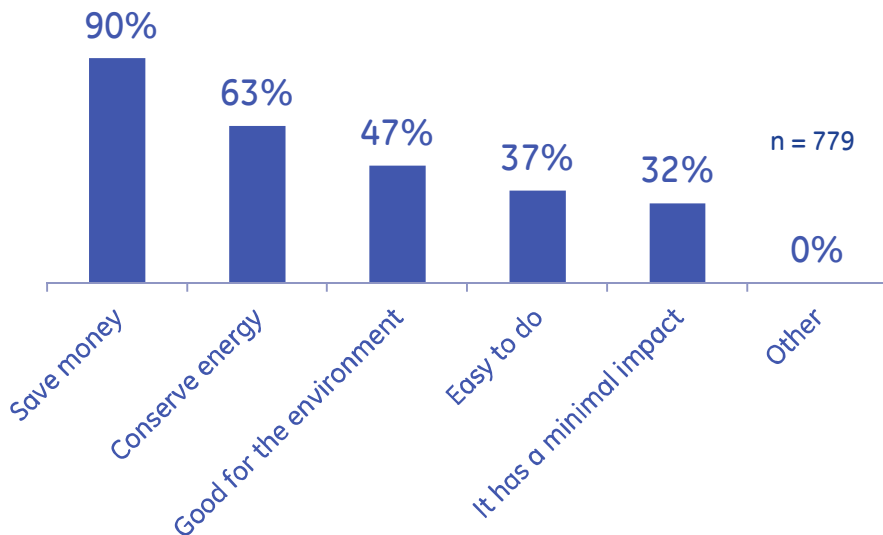
...and regardless of average monthly bill, more money or additional information on the program generates the most interest.

		SUMMER AVERAGE					WINTER AVERAGE				
	Total (A)	\$50 or less (B)	\$51 to \$100 (C)	\$101 to \$200 (D)	\$201 to \$300 (E)	\$301 or more (F)	\$50 or less (G)	\$51 to \$100 (H)	\$101 to \$200 (I)	\$201 to \$300 (J)	\$301 or more (K)
What would make you more interested in participating in a demand conservation program?											
Sample Size	1632	105	336	569	235	100	212	517	435	138	43
More money as an incentive to participate	48%	48%	44%	46%	48%	55%	50%	45%	46%	48%	49%
Additional information on exactly how it would work	46%	43%	46%	51%	51%	40%	44%	48%	51%	49%	33%
Availability in my area	34%	42%	33%	34%	30%	36%	33%	32%	35%	38%	28%
If impact on my lifestyle was minimized	29%	23%	28%	30%	31%	26%	30%	28%	29%	30%	33%
More say in how the utility controls my appliances	21%	16%	20%	21%	23%	20%	17%	20%	22%	21%	30%
I would never be interested in a program like this	13%	13%	13%	13%	11%	20%	13%	13%	14%	9%	19%
Other	3%	4%	4%	3%	4%	1%	4%	3%	3%	3%	2%

What about Time of Use Rates?



Q. Would you be interested in a time of use program for your electricity bills?



Q. Why would you be interested in a time of use program for your electricity bills?

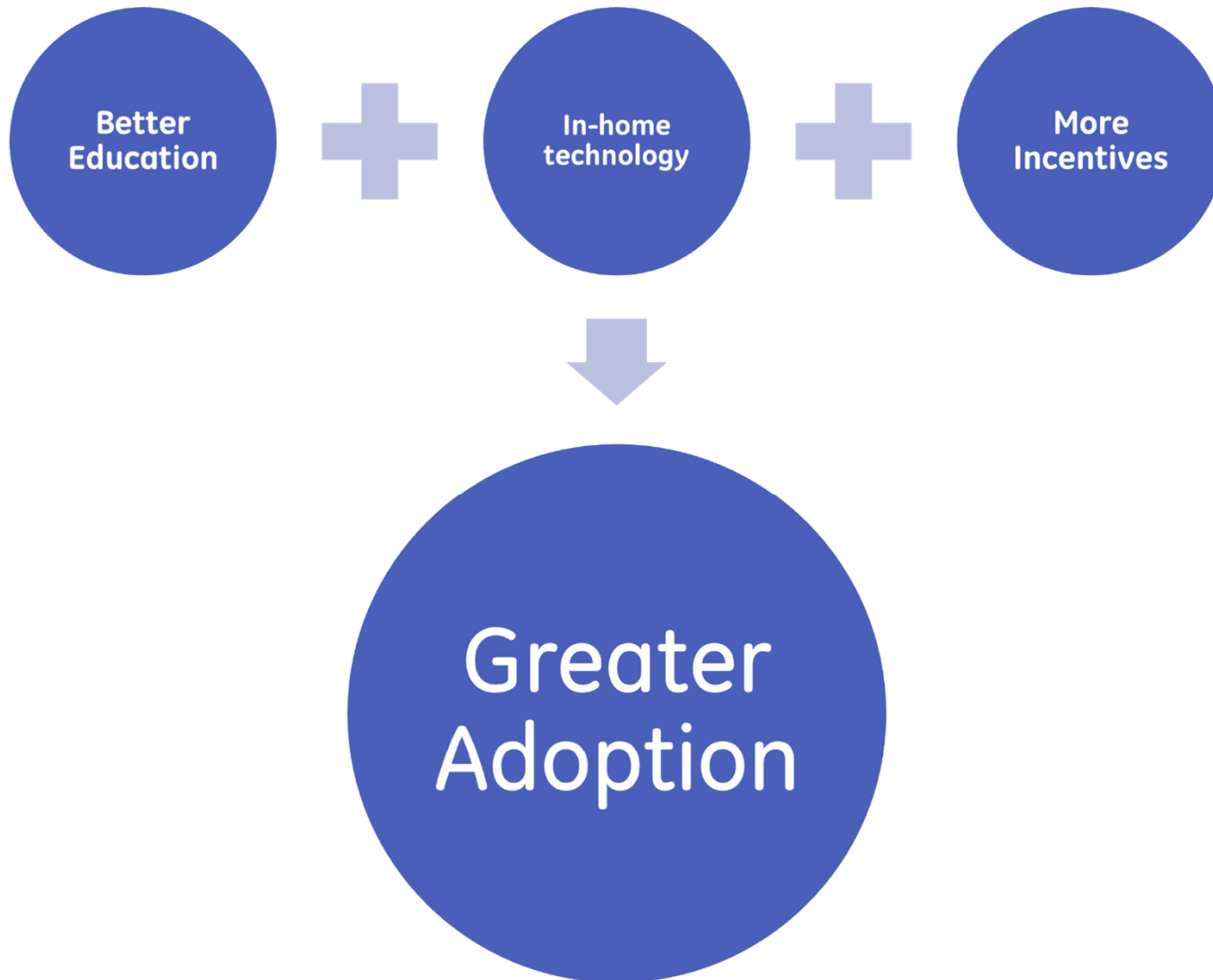
Opinions on TOU Programs

	Total
Sample size	2000
People who shift their energy use to off-peak times of the day should be incentivized by the utility	49%
Time-of-day pricing is simply a way for utility companies to make more money	38%
Even if they want to, consumers will not be able to shift enough of their electricity usage to other times of the day to keep their overall electrical bills down	32%
I don't believe that the time-of-day pricing will work because people will not shift their use of electricity	29%
Time-of-day pricing is a good idea because it makes people who use more electricity during peak periods pay for it	28%
Charging more for electricity at peak periods (i.e. hitting people in their pocketbooks) is probably the best way to get consumers to shift their use of electricity to other times of the day	26%
I trust my utility company to create a pricing structure that is fair for all consumers	18%

Why are consumers not interested in TOU?

		SUMMER AVERAGE					WINTER AVERAGE				
	Total (A)	\$50 or less (B)	\$51 to \$100 (C)	\$101 to \$200 (D)	\$201 to \$300 (E)	\$301 or more (F)	\$50 or less (G)	\$51 to \$100 (H)	\$101 to \$200 (I)	\$201 to \$300 (J)	\$301 or more (K)
Why would you not be interested in a Time of use program for your electricity bills?											
Sample Size	727	40	122	219	85	46	75	200	164	56	17
My lifestyle doesn't fit the rate plan	43%	38%	43%	42%	47%	39%	35%	47%	41%	43%	41%
Afraid my bill will be higher	42%	23%	42%	47%	39%	48%	39%	40%	46%	41%	65%
The potential savings are too low to justify the move	27%	35%	28%	35%	18%	24%	43%	30%	22%	29%	41%
Not familiar with the plan	26%	20%	25%	28%	22%	41%	23%	27%	29%	27%	35%
Not offered in my area	20%	25%	18%	19%	15%	17%	17%	19%	19%	21%	12%
Other	6%	8%	5%	4%	9%	7%	5%	5%	5%	5%	18%
Would you be interested in appliances that automatically shift energy-using functions to off-peak times?											
Sample Size	2000	118	380	644	265	115	227	595	490	155	55
Yes	64%	58%	64%	66%	68%	62%	59%	66%	65%	69%	67%
No	36%	42%	36%	34%	32%	38%	41%	34%	35%	31%	33%

Key Takeaway...





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