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WATER-ENERGY NEXUS MESSAGE TESTING: SURVEY AND FOCUS GROUP RESULTS

RECOMMENDATIONS SUMMARY

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Methodology

This study targeted the following customers:

- * Californians ages 25-55
- * Those served by the statewide investor-owned utilities: Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric, and SoCal Gas
- * Three major California regions: Greater Los Angeles, Greater San Diego, and Northern California

The study consisted of two efforts:

- * Eight Focus Groups – across 3 language groups: English (4 groups), Spanish (2 groups) and Mandarin (2 groups)
- * Survey – 1,038 participants across 3 language groups

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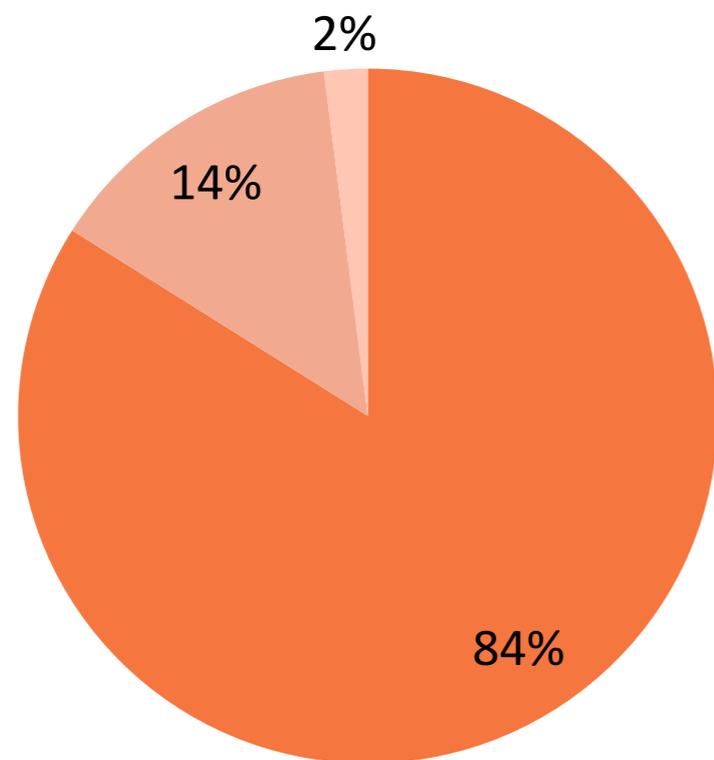
Overall Campaign Impacts

The campaign prompted a desire to use fewer water and energy resources

- * Over 80% of the survey respondents indicated that they intended to decrease their energy and/or water use as a result of this campaign

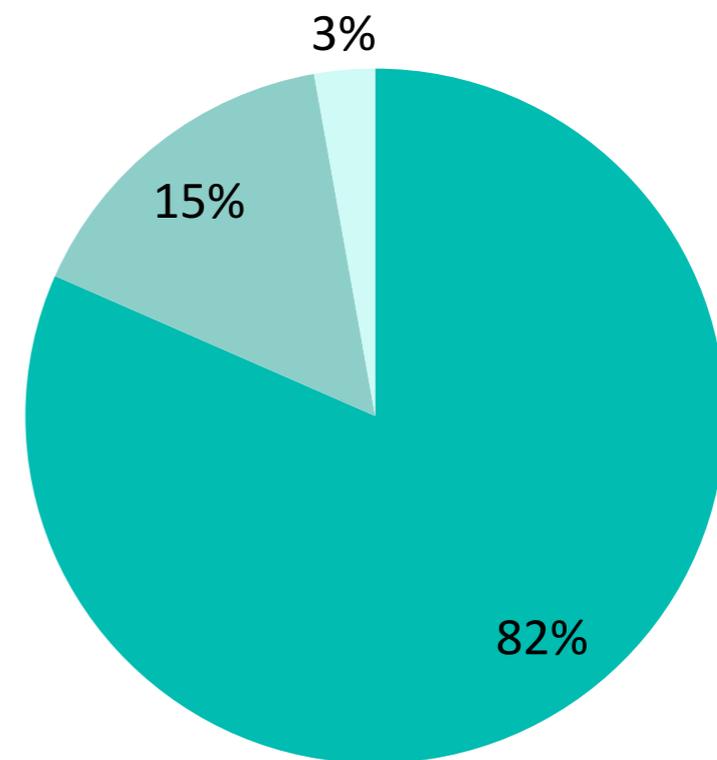
Intention to Change Water Use

Decrease use No change Increase use



Intention to Change Energy Use

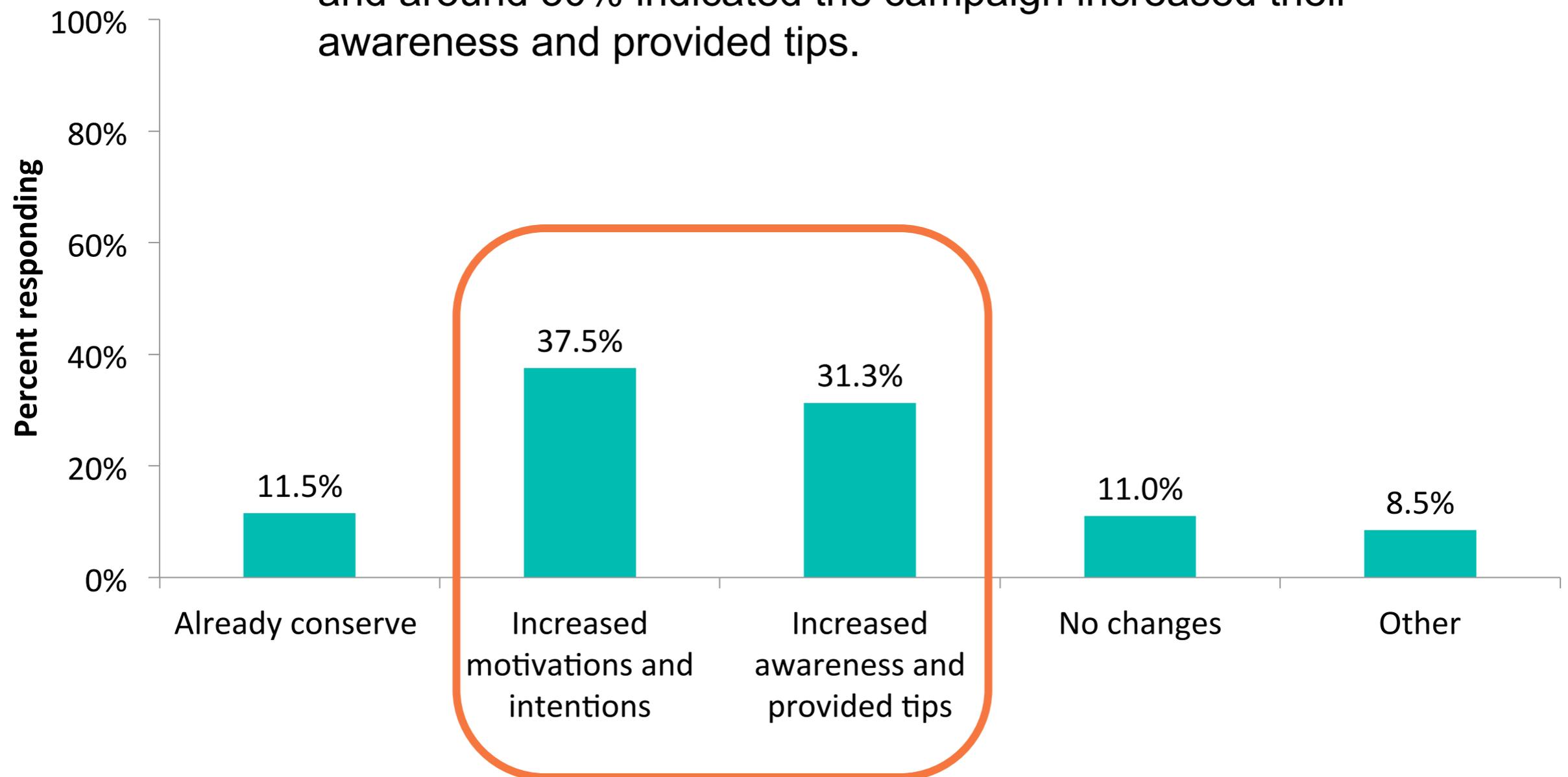
Decrease use No change Increase use



Survey Question: Has this information affected your intention to change the way you use water / energy in your home? (yes, decrease; yes, increase; no)
[Intention_Water_Post] [Intention_Energy_Post]

The campaign increased general motivation and provided new tips on how to conserve

- * Nearly 40% of the survey respondents indicated that the campaign either increased their motivations and intentions to save energy and around 30% indicated the campaign increased their awareness and provided tips.



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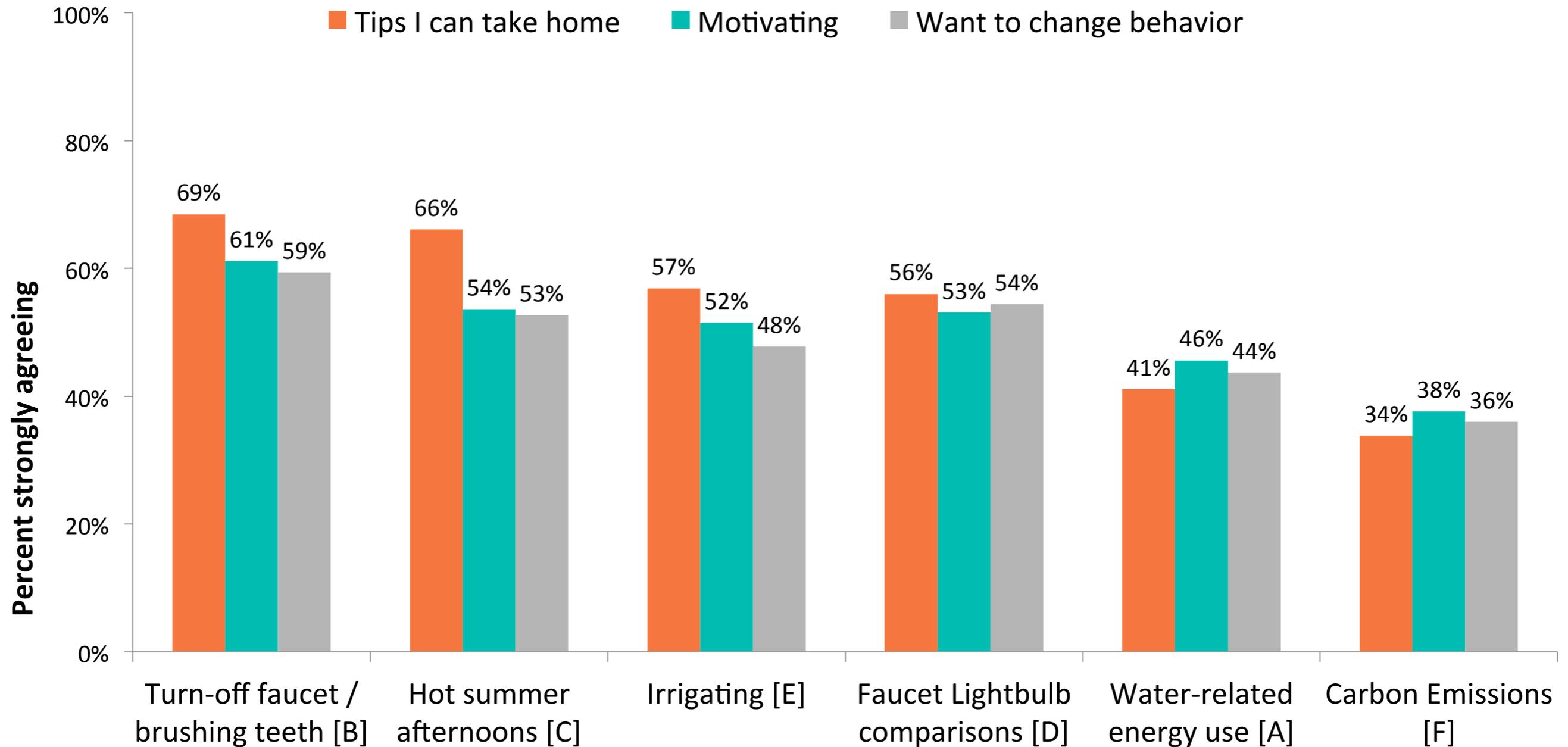
Recommendations for
Campaign Messaging

Recommendation: Make “old” tips new and more relevant by pairing them with new information that equates electricity waste with water waste

- * **Ads with the highest impact contained a clear link to energy (electricity) waste:** In both the banner ads and the flier, respondents were more responsive to messages that used comparisons with which they are familiar (i.e. leaving the faucet running and how long this powers a light bulb).
 - * “Knowing that five minutes of a faucet is equivalent to a 14 hour day of leaving the... light on - literally, I’m like oh, crap.” (LA English 4/30/14, 7pm)
 - * “I don’t think all of us knew [about] the 14-hour light bulb.” (Fresno 5/5/14, 6pm)

“Letting your faucet run for 5 minutes uses as much energy as leaving a 60-watt light bulb on for 14 hours.” – Impactful flier fact

Recommendation: Messages should include many specific tips to motivate and encourage behavior change



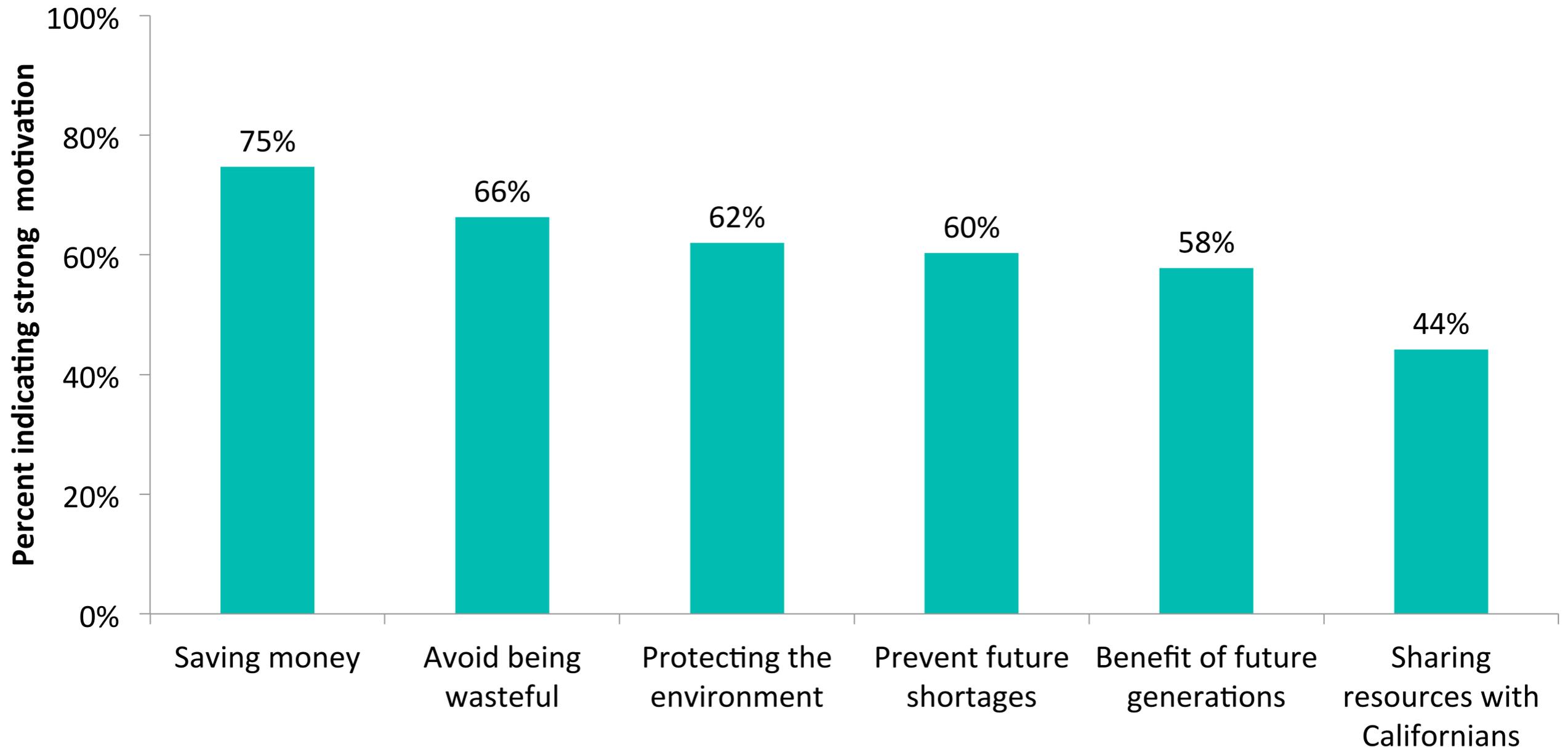
Survey Question: Please indicate how much you agree or disagree with the following statements, where 1 equals “completely disagree” and 7 equals “completely agree.” This message is... (a) is clear, (b) is believable, (c) is trustworthy (d) is visually appealing, (e) is motivating, (f) makes me want to change my behavior, (g) gives me tips on actions I can take home, (h) is relevant to me and my family.

[MessageSpecific_A_Agree] [MessageSpecific_B_Agree] [MessageSpecific_C_Agree] [MessageSpecific_D_Agree] [MessageSpecific_E_Agree] [MessageSpecific_F_Agree]

** Strongly agreeing refers to the top two categories.

Recommendation: Reinforce that saving water can save money across all utility costs (water and water heating) while reducing waste.

*Saving money and avoiding waste were the top stated motivations



There are a number of reasons why people try to save water and energy in their home. Using a scale from 1 to 7, where 1 means “not at all motivating” and 7 means “extremely motivating”, how motivating are these reasons to change your **daily actions**? (a) Saving money, (b) Protecting the environment, (c) For the benefit of future generations, (d) To avoid being wasteful, (e) To prevent future shortages, (f) Fairly sharing resources with my fellow Californians [Motivations]

Recommendation: Increase messaging and awareness around low cost options to increase conservation behaviors.

- * **Several respondents in both the survey open ended questions and the focus groups identified saving money as a significant motivation.** These comments were particularly frequent when discussing the banner and TV ad campaign. Participants were seeking information on the financial impact of waste in their households.
- * “If you tell me that I can save money by doing that, I will be more interested. The thing is to save money.” (LA Spanish 5/1/14, 6pm)
- * “One becomes conscious once it starts affecting your pocket, only then you start turning the lights off.” (LA Spanish 5/1/14, 8pm)

Recommendation: Increase family-oriented conservation messaging directed towards children who can bring those messages home and “police” the household

- * **Lack of cooperation (26%) was the most common barrier to saving energy and water.** Many focus group participants also noted that they had a difficult time convincing their families to conserve water and energy.
- * “The only way I could ever save energy is to ship my family out of state. I can’t get anybody to turn off a light. I can’t get anybody to take a shower under 20 minutes. It just drives me nuts.” (Fresno 5/5/15, 6pm)

Reason	% Indicating it’s a barrier
Lack of cooperation	26.7%
Personal circumstances	20.5%
Lack of time	19.8%
Cannot afford	15.3%
Do not know what to do	14.2%
Do not where to go for information	11.7%

Survey Question: What are some of the obstacles that you face in trying to reduce water use in your home?
(Multiple select question) [Barriers]

Recommendation: Consider using regional calls to action rather than statewide water-energy nexus messaging when communicating about water conservation. Statewide calls to action may not be impactful and may have an adverse effect.

- * **Survey respondents indicated that the tagline “Californians Don’t Waste” evoked saving water & energy.**
- * **However, “Californian’s Don’t Waste” was not an effective call to action because respondents did not identify as “Californian’s” with respect to water use and many interpreted the statement as a fact, not a call to action.**
- * **Most participants felt that they, personally, were doing a lot to conserve (not waste), but “others” needed to do more. “Others” included family members, neighbors, businesses, agriculture, government entities, and people from other regions.**
 - * “I think you can say Northern Californians don’t waste.” (SF English 5/6/14, 7pm)
 - * “It means different things in different areas...being from L.A., I don’t think L.A. people really care about water shortages.” (Fresno 5/5/14, 6pm)
 - * “Central Valley and cotton... agriculture in general is really the one using [the water].” (SF English 5/6/14, 7pm)

Recommendation: Find ways to communicate conservation messages carefully in agricultural communities, who feel adversely affected by restrictions on water use.

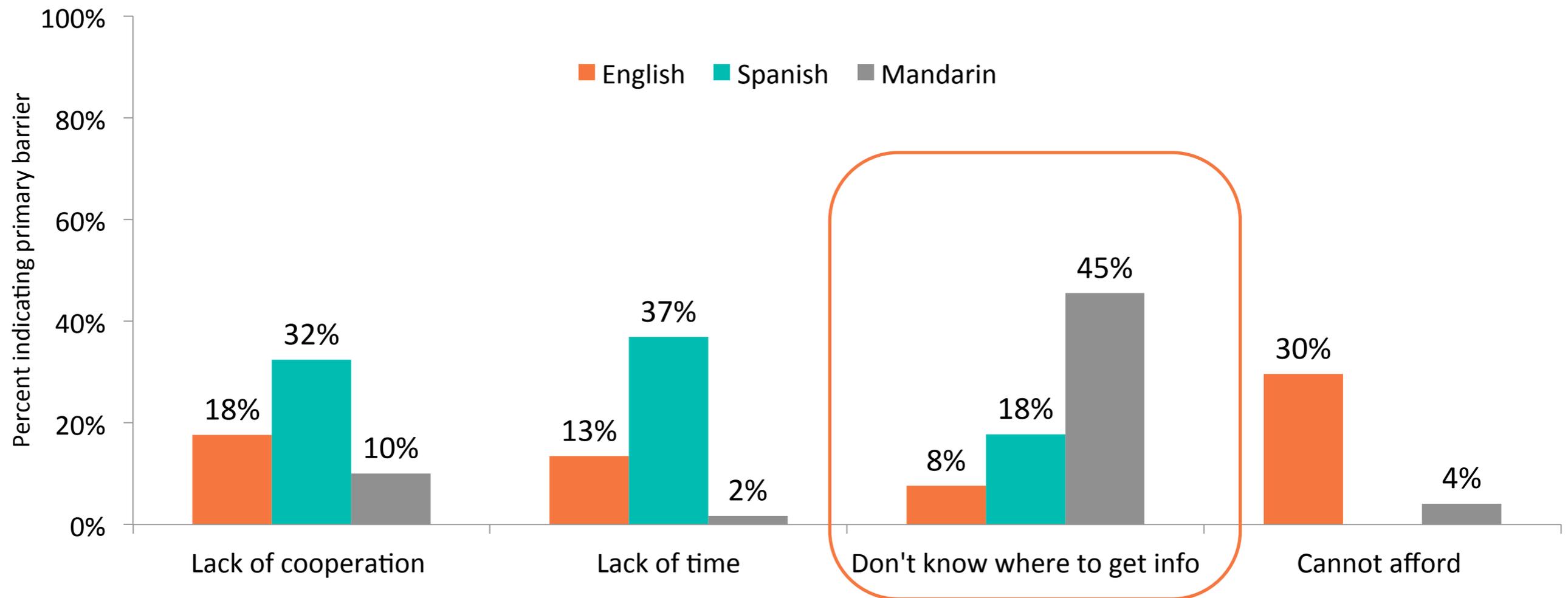
- * **Water is a “political” issue, particularly in areas with a local agriculture economy.** If there is no water, there are no jobs. Both agriculture and farming were immediate associations in Fresno, but not elsewhere.
- * “If you live in the valley, that’s our economy, so that’s why it’s political.” (Fresno 5/5/14, 6pm)
- * “If... we control our own water, we control our own power, then we can turn around and tell L.A., ‘keep your hands off, it’s ours.’” (Fresno 5/5/14, 6pm)

Recommendation: Identify a different term for “energy use” when communicating to Chinese-Americans. The term “energy” in Chinese includes water and other natural resources. As a result, it introduced significant confusion around water-energy nexus messaging.

- * **“Energy” may be too broad a term for the ads in Chinese.** The term was understood very broadly. Using specific terms for “electricity” helped clarify the confusion.
 - * “*Energy* is a very inclusive phrase, it’s more general. It includes water, it includes gas and electricity, and in the future there may be even more energies to use in our lives.” (SF Mandarin 5/7/14, 6pm)
 - * “Water is just one kind of energy.” (SF Mandarin 5/7/14, 6pm)
 - * “When we say water is a type of energy, do you mean it’s water for home use, for drinking, or water in rivers?” (SF Mandarin 5/7/14, 6pm)

Recommendation: Increase access to Chinese language materials that provide specific tips and information on how to save.

- * Significantly* more **Chinese language** respondents indicated that not knowing where to get information (45%) was primary barrier, compared to other language groups.



Survey Question: What are some of the obstacles that you face in trying to reduce water use in your home?
(Multiple select question) [Barriers]

*P<0.05

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Recommendations: Flier

Recommendation: Use a single logo and website link on the flier for clear direction on where to find information and tips on how to save water and energy.

- * **Consider using a single logo on communications provide a clear sponsor with an associated website for additional information and tips.** There was no clear authority or recognized logo for the campaign. Several participants felt that having a single logo/authority would strengthen the credibility of the message and simplify the process for getting more information.
- * When asked about the logos on the flier, on participant stated, “if there's one big one that said Upgrade Your Energy, I'd be like, oh, I'd go to that site, maybe.” (SF English 5/6/14, 7pm)
- * **Multiple sources for water-energy nexus facts were confusion at worst, ignored at best.** Sources at the bottom of the flier were not perceived as valuable. Focus group participants indicated that they would not use sources for information. At worst, they were confused the respondents on where to go for more information.
 - * “I don't know... why they'd send me to seven - or six different sites.” (LA 4/30/14, 7pm)

Recommendation: Add pictures or icons to increase visual impact waste in flier

- * **Participants wanted clear visual representations of waste:** Participants repeatedly asked for clear visual representations of waste, such as showing the magnitude of waste associated with specific activities.
- * “Here are 25 gallons. OK, but I would like to see 25 gallons. What can I do with 25 gallons? I can cook for a week, or wash my clothes on the washing machine X number of times. That would stick to my mind more easily than this.” (LA Spanish 5/1/14, 6pm)



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Recommendations: TV Ad

Recommendation: Continue using humor in TV ads and play up specific actionable tips.

- * **The TV ad was well received and provided actionable tips. However, the TV ad ranked lower than other banner ads in motivating behavior change (33%)* and personal relevance (38%)*.**
- * **The TV ad was particularly appealing to family-oriented participants.** They liked the humor and the bear. This ad is something their kids would see on TV and repeat at home.
 - * “I think we get the attention of children. So I guess that’s a way to send a message to them to consider.” (SF English 5/6/14, 7pm)
- * **Most people responded positively to the scene that discouraged people hosing down their driveway.** Several people stated that they found it irritating that their neighbors hosed their driveway and were pleased to see it in the ad.
 - * “I gave it a high score because it’s specifically the anti-hosing your driveway, watering your lawn, and I think that’s our biggest thing we could be focused on, so I like to take action to that.” (LA English 4/30/14, 7pm)

Survey Question: How much do you agree with the following statements, where 1 equals “completely disagree” and 7 equals “completely agree”? This advertisement. . .

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Recommendations: Banner Ads

Overall, banner ads provide believable information and facts, but are not rated as highly motivating

- * **Participants responded favorably to the information in the ads, less so to the visual elements:** “I just like the message...I don’t know if that looks [attractive].” (SF English 5/6/14, 7pm)

Average assessment of ads (TV and Banners)		% Strongly Agreeing **	Mean
Clear & Actionable	Its clear	48.4 %	5.3
	It gives me tips on actions I can take in my home	38.5 %	4.94
Visual	Its visually appealing	42.4 %	5.06
Believability	Its believable	43.1 %	5.16
	Its trustworthy	42.0 %	5.12
Motivating	Its motivating	39.6 %	5.0
	It makes me want to change my behavior	37.3 %	4.94
Relevance	Its relevant to me and my family	42.0 %	5.12

Survey Question: How much do you agree with the following statements, where 1 equals “completely disagree” and 7 equals “completely agree”? This advertisement. . . (a) is clear, (b) is believable, (c) is trustworthy (d) is visually appealing, (e) is motivating, (f) makes me want to change my behavior, (g) gives me tips on actions I can take home, (h) is relevant to me and my family.

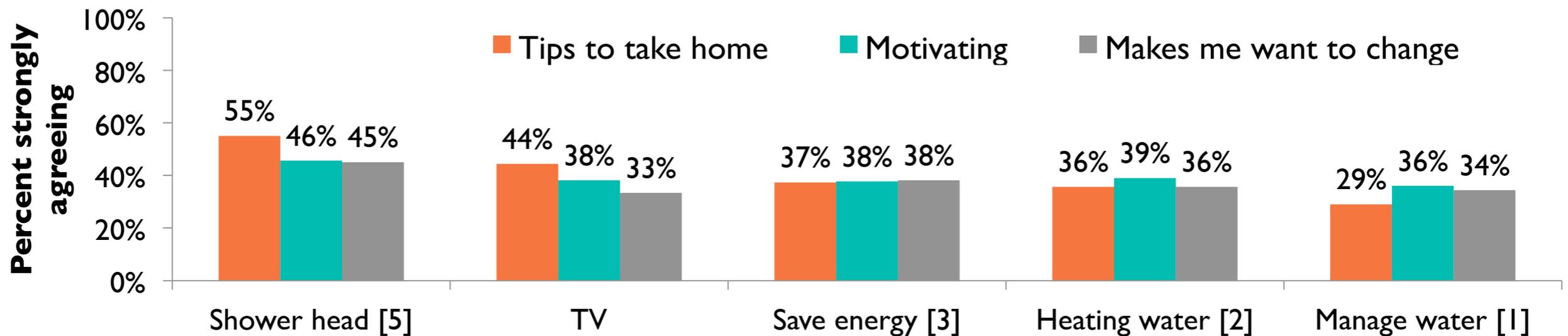
[Creative_TV_A_Agree] [Creative_Banner_1_Agree] [Creative_Banner 2_Agree] [Creative_Banner 3_Agree] [Creative_Banner 5_Agree]

Percentages agreeing and mean scores averaged across all ads

** Strongly agreeing refers to the top two categories.

Recommendation: Provide a wider-range of tips to the public to pique their interest in saving water and energy

- * **Ads that provide actionable tips tend to be more motivating and result in a desire to change behavior:** Several respondents said they would like the ads more if they included a “series” of tips in the same ad.
 - * “[The low-flow is] probably the one that draws me in the most, but again, it’d be nice to have any additional messages.” (LA 4/30/14, 7pm)
 - * “Many people will say ok, yes, I want to save, but how can I do it?... The ads could have presented more alternatives.” (LA Spanish 5/1/14, 6pm)
 - * “[The low flow showerhead is the best] just because it actually tells you something you can do.” (Fresno, 5/5/14, 8pm)



Survey Question: Please indicate how much you agree or disagree with the following statements, where 1 equals “completely disagree” and 7 equals “completely agree.” This advertisement is... (a) is clear, (b) is believable, (c) is trustworthy (d) is visually appealing, (e) is motivating, (f) makes me want to change my behavior, (g) gives me tips on actions I can take home, (h) is relevant to me and my family.
 [Creative_TV_A_Agree] [Creative_Banner_1_Agree] [Creative_Banner_2_Agree] [Creative_Banner_3_Agree] [Creative_Banner_5_Agree]

** Strongly agreeing refers to the top two categories.

Recommendation: Explicitly link household heating water to electricity and natural gas use.

- * **The simple message “heating water uses energy” was powerful:** Many respondents did not immediately identify heating water for showers as requiring energy. Following this message with a tip to save hot water could have an impact.
- * “The “heating water” is the strongest message.” (LA English 5/1/14, 7pm)
- * “We were talking about [this in] the beginning, which none of us really understood... “heating water uses energy.” (LA English 5/1/14, 7pm)
- * “I liked it. Because, to me, it's very explicit, it's like, heating water uses energy.” (SF English 5/6/14, 7pm)
- * **“Generating water uses energy” was confusing:** There were many people who had problems with the term “generating” when used in conjunction with water.
- * “We pump water, but we don’t generate it. Generate it to me means you’re making it. We don’t make water. We generate electricity.” (Fresno 5/5/14, 6pm)

Recommendation: Use vibrant colors in the for the symbols representing electricity and water in the advertisements.
(i.e. use green grass, yellow for bolts of electricity, blue for water)

- * **Across the banner ads** only 39-43% strongly** indicated that they were visually appealing
- * **Focus group participants did not associate the brown of the icons with the brown of the bear:** every group requested brighter colors for the symbols in the ads; specifically blue for water, and yellow or gold for electricity.
- * “Energy should have yellow... something shinning. Blue water...that would make it attractive, will motivate me to click and know more. Otherwise I would ignore it.” (LA Spanish 5/1/14, 6pm)
- * “... the colors aren’t very eye-catching.” (LA Spanish 5/1/14, 8pm)
- * “Water should never be brown because if you’re watering with brown water, you’re going to kill things. You don’t drink brown water.” (Fresno 5/5/14, 6pm)

** Strongly agreeing refers to the top two categories

Recommendation: Use the green grass in the state flag vs. xeriscaping. Green viewed as more eye-catching and did not have negative connotations among rural respondents.

* **The drought/xeriscape landscape did not test well overall.**

Participants in Fresno had a particularly bad response to the drought landscape noting that a brown landscape means a failed economy and no jobs. Several people remarked that the goal of conservation was to save water so that the plants were green, not dead.

- * “In the Bay Area it might just mean that your patch of lawn doesn’t get watered versus your family is out of work and the economy is collapsing with 17 percent unemployment rate.” (Fresno, 5/5/14, 6pm)



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Appendix: Campaign Materials

The campaign tested 6 different messages:

- * Message A: Water-related energy use accounts for more than 19% of the state's total electricity use, including treating, pumping and conveying water to your home, heating the water for your shower and washing machine, and treating the wastewater that leaves your home. This connection is especially strong in the summer when demands for energy and water are highest.
- * Message B: Turning off the faucet while you brush your teeth can save 8 gallons of water a day – that equals about 300 gallons of water saved per month.
- * Message C: On the hottest summer afternoons, everyone can help reduce strain on the electric grid by minimizing energy and water use. Turn off all unnecessary lights, postpone using major appliances until after 6 p.m., and turn your air conditioning thermostat up to 78° or higher. Also, hold off on using water for things like showering, washing your dishes and clothes, and avoid using water outdoors. Check with your local water agency for advice on when it is best to water in your area.
- * Message D: Letting your faucet run for 5 minutes uses as much energy as leaving a 60-watt light bulb on for 14 hours.
- * Message E: You can save 25 gallons of water by irrigating only in the early morning or late evening.
- * Message F: The carbon emissions embedded in California's water use are equal to 7.1 million cars.

Drop to Watts Flier

SAVE WATER AND ENERGY



Water-related energy use accounts for more than 19% of the state's total electricity use, including treating, pumping and conveying water to your home, heating the water for your shower and washing machine, and treating the wastewater that leaves your home. This connection is especially strong in the summer when demands for energy and water are highest.

Letting your faucet run for 5 minutes uses as much energy as leaving a 60-watt light bulb on for 14 hours

Turning off the faucet while you brush your teeth can save 8 gallons of water a day – that equals about 300 gallons of water saved per month

19% of electricity consumption in California goes to water-related activities

The carbon emissions embedded in California's water use are equal to

7.1 million cars

You can save **25 gallons of water** by irrigating only in the early morning or late evening

Saving water can help your water and wastewater utilities reduce the amount of water they have to pump and treat—saving energy and money. Reducing the amount of water you use can reduce your energy usage.

Install water and energy saving fixtures and appliances. **Many qualify for rebates!**

All calculations are estimates. Actual savings will vary based on water and energy supplier.

Sources (from top left to bottom right):

1. Association of California Water Agencies: <http://www.acwa.com>

2. Save Our Water: <http://www.saveourh2o.org>

3. Association of California Water Agencies: <http://www.acwa.com>

4. Water-Energy Team of the Climate Action Team and California Energy Commission:

http://www.climatechange.ca.gov/climate_action_team/reports/wetcat/2012-04-25_WET-CAT_Presentation.pdf and <http://www.consumerenergycenter.org/glossary/m.html>

5. Berkeley Law/UCLA Law, Drops of Energy: Conserving Urban Water in CA to Reduce Greenhouse Gas Emissions

http://www.law.berkeley.edu/files/Drops_of_Energy_May_2011_v1.pdf

6. Water-Energy Team of the Climate Action Team and California Energy Commission: http://www.climatechange.ca.gov/climate_action_team/reports/wetcat/2012-04-25_WET-CAT_Presentation.pdf

Tested TV advertisement (English only)

:30 TV "Drought"

The California state flag is blowing in the wind, but its iconic bear is missing. Reveal Bear sliding to the bottom like a firefighter. His landing isn't perfect and he looks around to see if anyone saw him and then realizes the camera's rolling.

BEAR: Hey there fellow Californians.

Out to Bear getting mail out of the mouth of a salmon shaped mailbox in front of his home.

BEAR: I know you're Staying Golden by managing your energy use...

A man commuting to work on a bike rides by and waves to Bear. He waves back.

BEAR: which means managing water too, especially during a drought.

Out to Bear wearing a towel standing next to the shower in his bathroom -- which is covered in forest wallpaper.

BEAR: It's easy. Install low-flow shower heads and faucet aerators.

Bear drops his towel and climbs into shower.

Out to bear in his garage. He's tossing a pair of bear-print pajamas into an Energy Star washing machine.

BEAR: Or visit EnergyUpgradeCA.org to find rebates on energy efficient and water saving appliances.

Bear walks out into the driveway and notices a neighbor about to hose down his driveway. Seeing Bear, the guy suddenly changes his mind. Bear cheerfully looks back at camera.

BEAR: There are lots of ways to save water.

Now cut to Bear driving a small forklift at a big box store.

BEAR: In fact, I'm picking up my latest upgrade right now.

He honks (SFX: beep beep) at a few people and passes by them carrying an energy-efficient water heater.

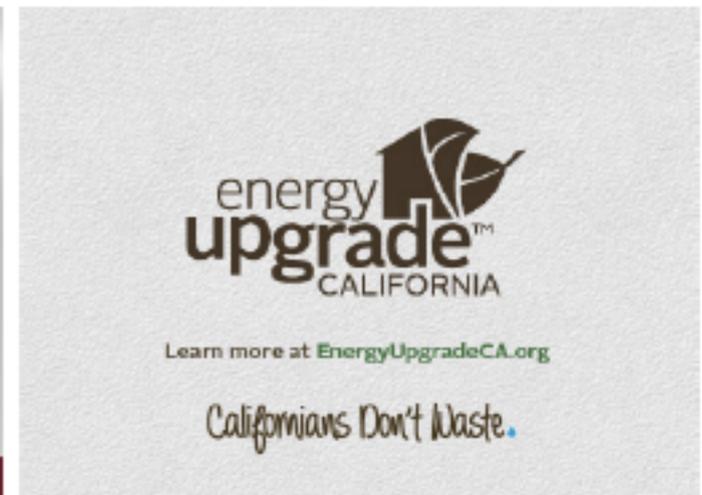
BEAR: Bear driving a forklift, coming through.

ART CARD: Stay Golden, California.

VO: Stay Golden, California.

ART CARD: Energy Upgrade California logo. Learn more at EnergyUpgradeCA.org

VO: Because Californians Don't Waste.



Tested Banner 1



Tested banner 2

★ **HEATING WATER USES ENERGY.**



★ **GENERATING WATER USES ENERGY.**



★ **SAVE WATER, SAVE ENERGY. SIMPLE.**



★ **STAY GOLDEN, CALIFORNIA.**

[LEARN MORE](#) ▶

Californians Don't Waste.



Tested Banner 3



WANT TO SAVE ENERGY?



START BY SAVING WATER.



STAY GOLDEN, CALIFORNIA.



[LEARN MORE](#)

Californians Don't Waste.

Tested banner 5

