

# HOW CAN ZNE MARKETING BE MOST EFFECTIVE? UNDERSTANDING NEEDS AND AWARENESS ACROSS THE RESIDENTIAL HOME MARKET

A Study of the Zero Net Energy (ZNE) Homebuyer Market in  
California

April 18, 2018



## Background

- In 2011, California mandated that all new residential construction should be ZNE by 2020
- Presently, very little is known about how residents perceive ZNE, if they understand the concepts, or if they find ZNE homes desirable
- California Energy Commission ordered a market assessment to better understand deployment
- This market assessment is part of a broader EPIC Pilot program, under which a community of ZNE homes is being built and occupied in California

## Background

The purpose of this study was to:

- Assess awareness and understanding of ZNE,
- Determine the financial value placed on ZNE homes, and
- Assess the importance of different non-price characteristics in the home purchase decision.

## Background

“Zero Net Energy (ZNE) home are those where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building.” – California Energy Commission



## Study Methodology

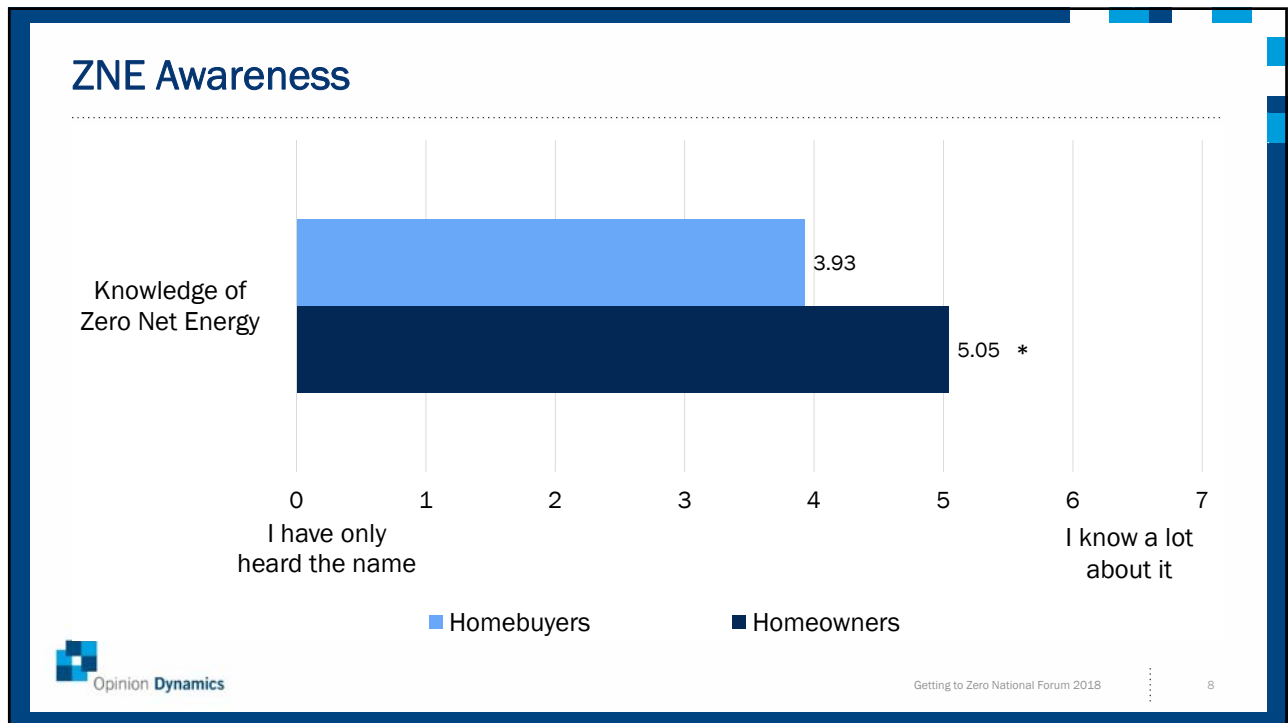
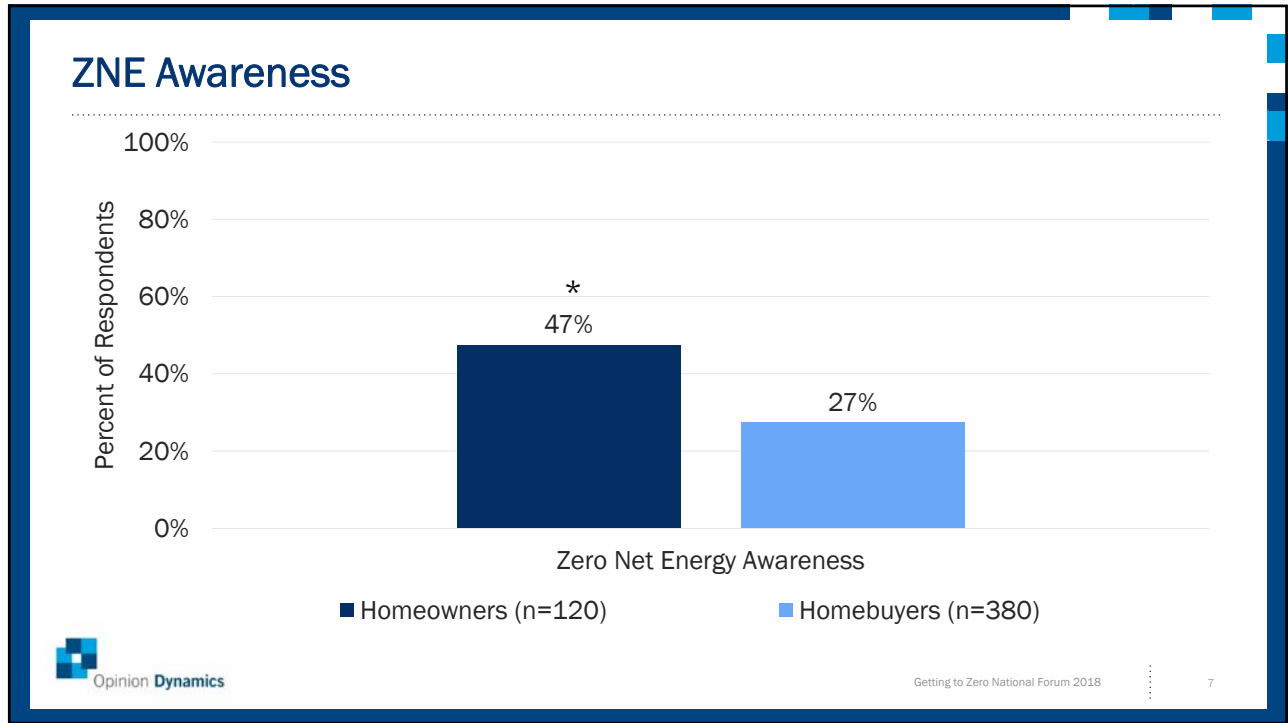
Results presented here include responses from an internet survey of 500 CA residents currently or recently active in the California homebuyer market.

Completed Surveys by Respondent Group

Respondent Group	Number of Completes	Percent of Total Respondents
<b>Homeowners:</b> Bought a house in the last year	120	24%
<b>Homebuyers:</b> Actively looking for a home in CA	380	76%
<b>Total</b>	<b>500</b>	<b>100%</b>

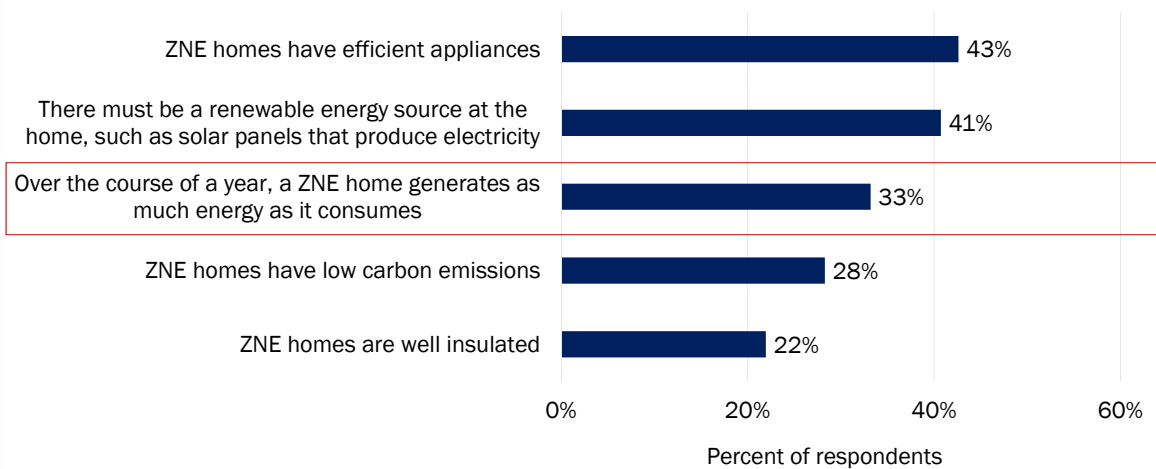
The study aimed to understand differences in knowledge and perceptions between those that had recently purchased homes (homeowners) and those that were still in the market (homebuyers).

# Are people aware of Zero Net Energy?

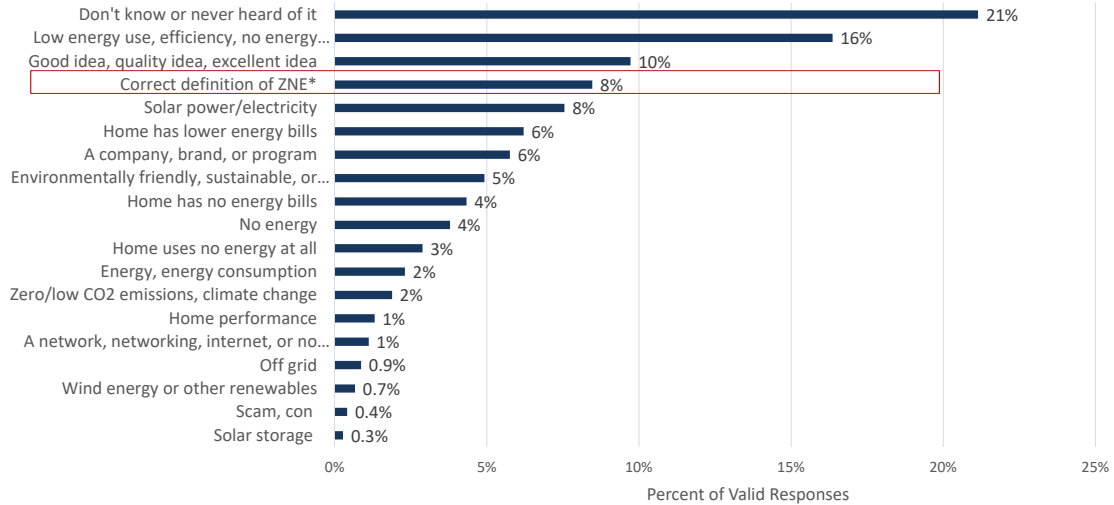


# How well do people actually understand ZNE?

## Knowledge of Zero Net Energy Attributes

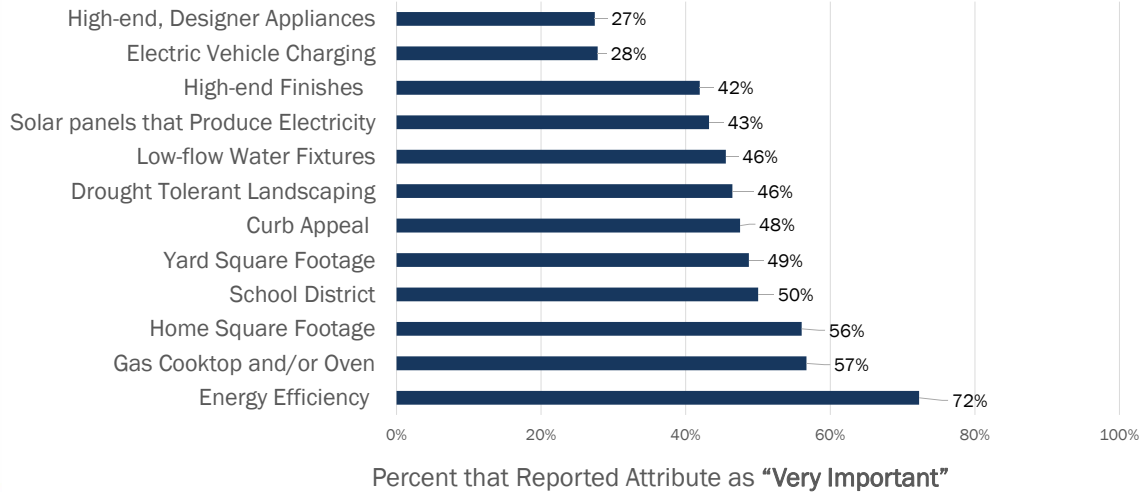


## Defining Zero Net Energy

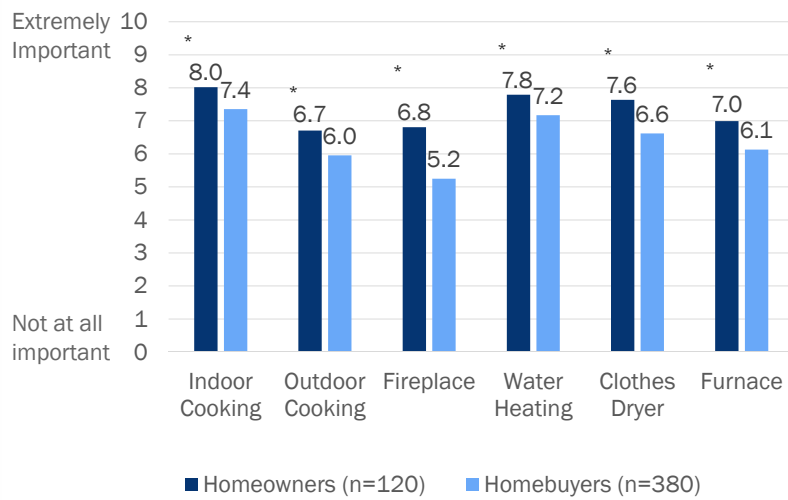


# What are people looking for in a home?





### Valuation of Non-price Home Attributes (n=500)



### Importance of Having Natural Gas in the Home



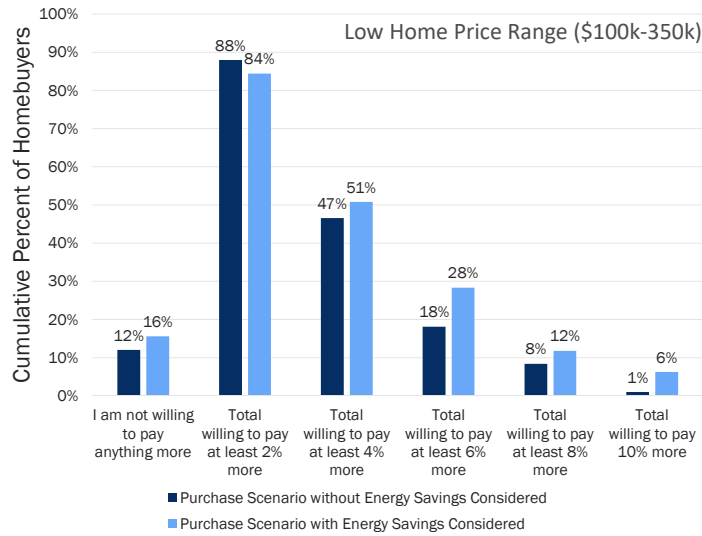
### Desirability of Potential Zero Net Energy Home Features (n=500)

	Very Desirable	Desirable	No Opinion	Undesirable	Very Undesirable
 Battery for electricity storage	41%	35%	18%	4%	2%
 Energy-use monitoring	31%	39%	22%	4%	3%
 Solar panels	48%	34%	12%	4%	2%
 High-efficiency appliances	52%	31%	13%	3%	1%

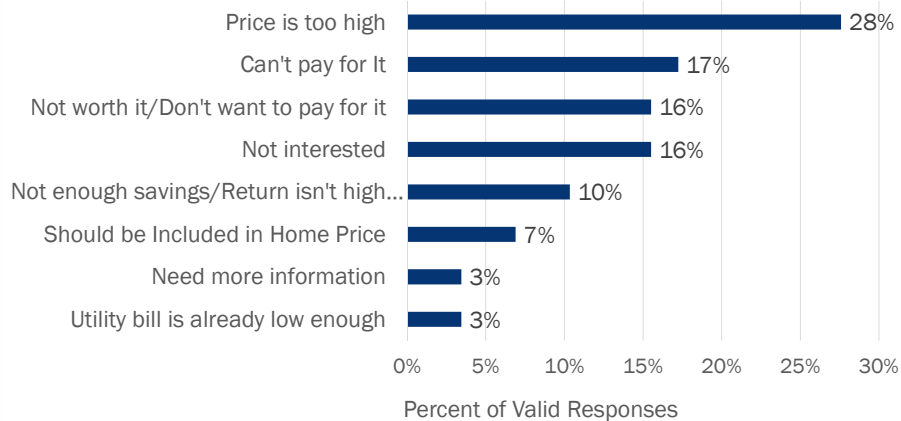
Are people willing to pay more for a ZNE home?



### Homebuyers' Willingness to Pay for ZNE



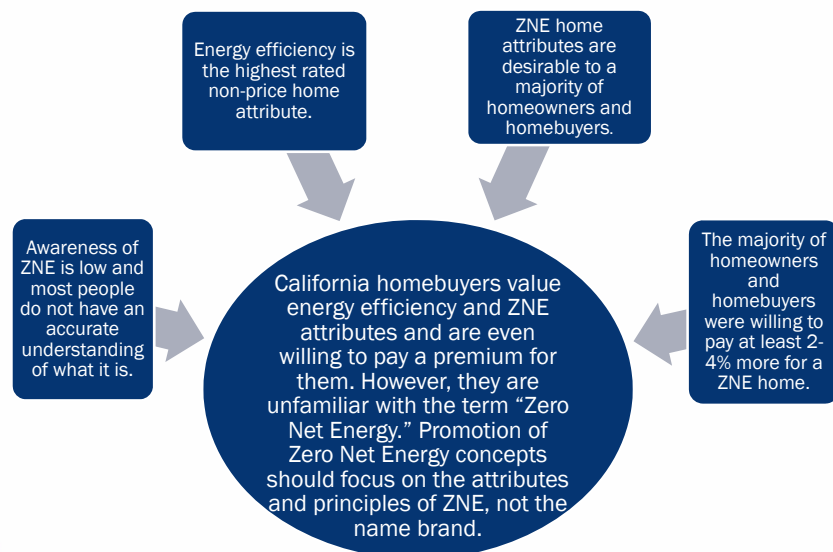
### Reasons for Not Wanting to Pay for a Zero Net Energy Home (n=58)



Twelve percent of all respondents reported that they were unwilling to pay a premium for a ZNE home.

# Key Takeaways

## Key Takeaways





## Selling ZNE Homes in Practice: Lessons Learned from the ZNE EPIC Pilot

- All-electric homes are better suited for ZNE, but how do we get builders and buyers on board?
  - Electric water heaters and other electric appliances present real and/or perceived barriers
- Getting early buy-in from all parties is key to project success:
  - Designing, building, and selling ZNE homes requires cooperation across parties
  - Having a ZNE champion to work across groups is critical- but who should this champion be?
- Marketing is Critical
  - Utilizing a green showroom can help buyers understand the “behind-the-walls” features that aren’t apparent in the final product
  - Salespeople need training specifically in ZNE topics



## Next Steps

- We are conducting interviews with key market actors such as mortgage lenders, realtors, and homebuilders.
- Continuing to learn from the ZNE EPIC Pilot, and home construction is beginning soon.
- Energy use of these homes will be monitored after they are occupied, and homeowners will be asked to participate in further research on home preferences and satisfaction.



