



# Better Buildings

U.S. DEPARTMENT OF ENERGY



## Better Buildings Residential Network Peer Exchange Call Series: *The Beatles, Beastie Boys, and Beyoncé: Residential Energy Efficiency Messaging for Different Generations*

November 2, 2017

*Call Slides and Discussion Summary*

# Agenda and Ground Rules

- Agenda Review and Ground Rules
- Opening Polls
- Residential Network Overview and Upcoming Call Schedule
- Featured Speakers:
  - **Peter Troast**, CEO & Founder, Energy Circle
  - **Donna Laquidara-Carr**, Industry Insights Research Director, Dodge Analytics
  - **Reuven Sussman**, Senior Research Manager, Behavior & Human Dimensions Program, American Council for an Energy-Efficient Economy (ACEEE)
- Discussion
- Closing Poll and Announcements

## Ground Rules:

1. **Sales of services and commercial messages are not appropriate** during Peer Exchange Calls.
2. Calls are a safe place for discussion; **please do not attribute information to individuals** on the call.

# Better Buildings Residential Network

## Join the Network

### Member Benefits:

- Recognition in media and publications
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- Solution Center guided tours

### Commitment:

- Members only need to provide *one number*: their organization's number of residential energy upgrades per year

### Upcoming calls:

- November 9: [Money Down the Drain: The Energy-Water Nexus](#)
- November 16: [Wicked Smart: Optimizing Diagnostics through Home Energy Monitoring](#)
- November 30: [Solar Decathlon Peer Exchange Call](#)
- December 7: [DOE Toolkit Launch: A New Approach to Evaluate as You Go](#)

*Peer Exchange Call summaries are posted on the Better Buildings [website](#) a few weeks after the call*

*For more information or to join, for no cost, email*

*[bbresidentialnetwork@ee.doe.gov](mailto:bbresidentialnetwork@ee.doe.gov), or go to [energy.gov/eere/bbrn](http://energy.gov/eere/bbrn) & click Join*

# Best Practices: Energy Circle

Peter Troast, CEO & Founder



# Energy Efficiency Messaging/Targeting for Baby Boomers

Peter Troast, Energy Circle

DOE Better Buildings Webinar

November 2, 2017

# Who's Buying Home Performance?



# Home Performance Home Buyers

## AGE DEMOGRAPHICS

Baby Boomers—Last Home Phenomenon

Gen X (35-55 yrs)

Millennials (15-35 yrs)

## OTHER CATEGORIES

Academics

Technologists (Engineers, Medical, Technology, Software)

Upscale/Wealthy

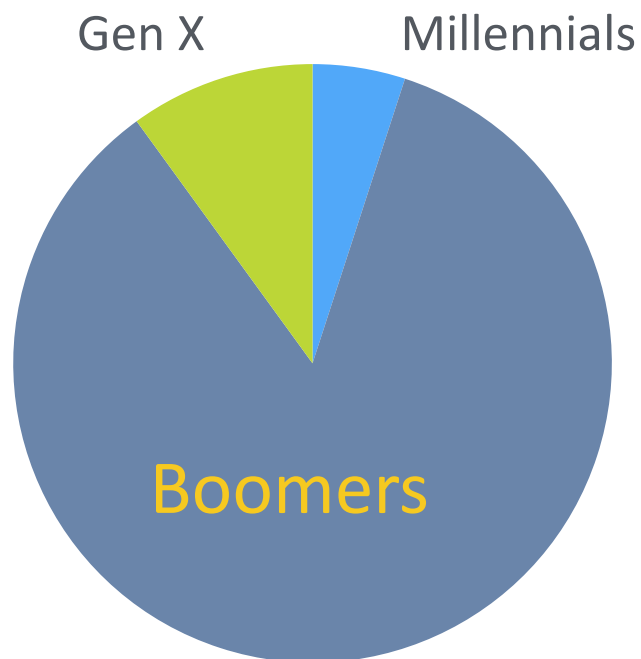
Green/Left Leaning

Health Focused

First Home

# Home Performance Home Buyers

## AGE DEMOGRAPHICS



*\*100% guesstimate*

## OTHER CATEGORIES

Academics

Technologists (Engineers, Medical, Technology, Software)

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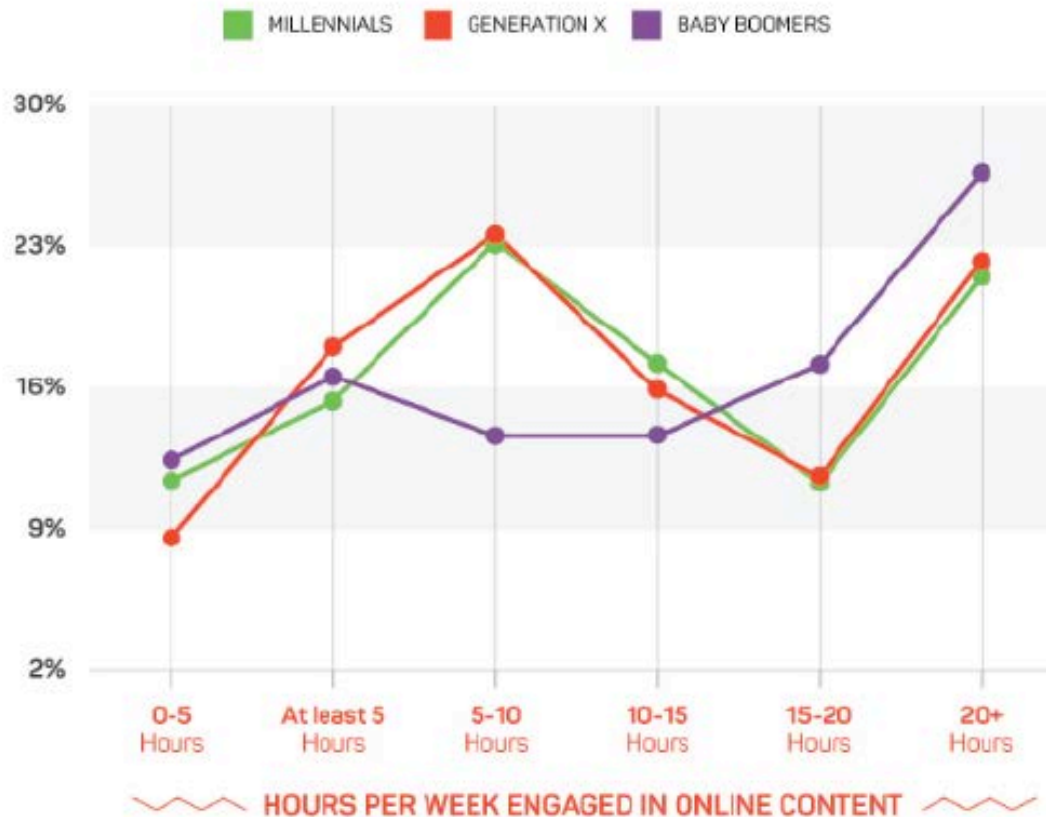
Green/Left Leaning

Health Focused

First Home

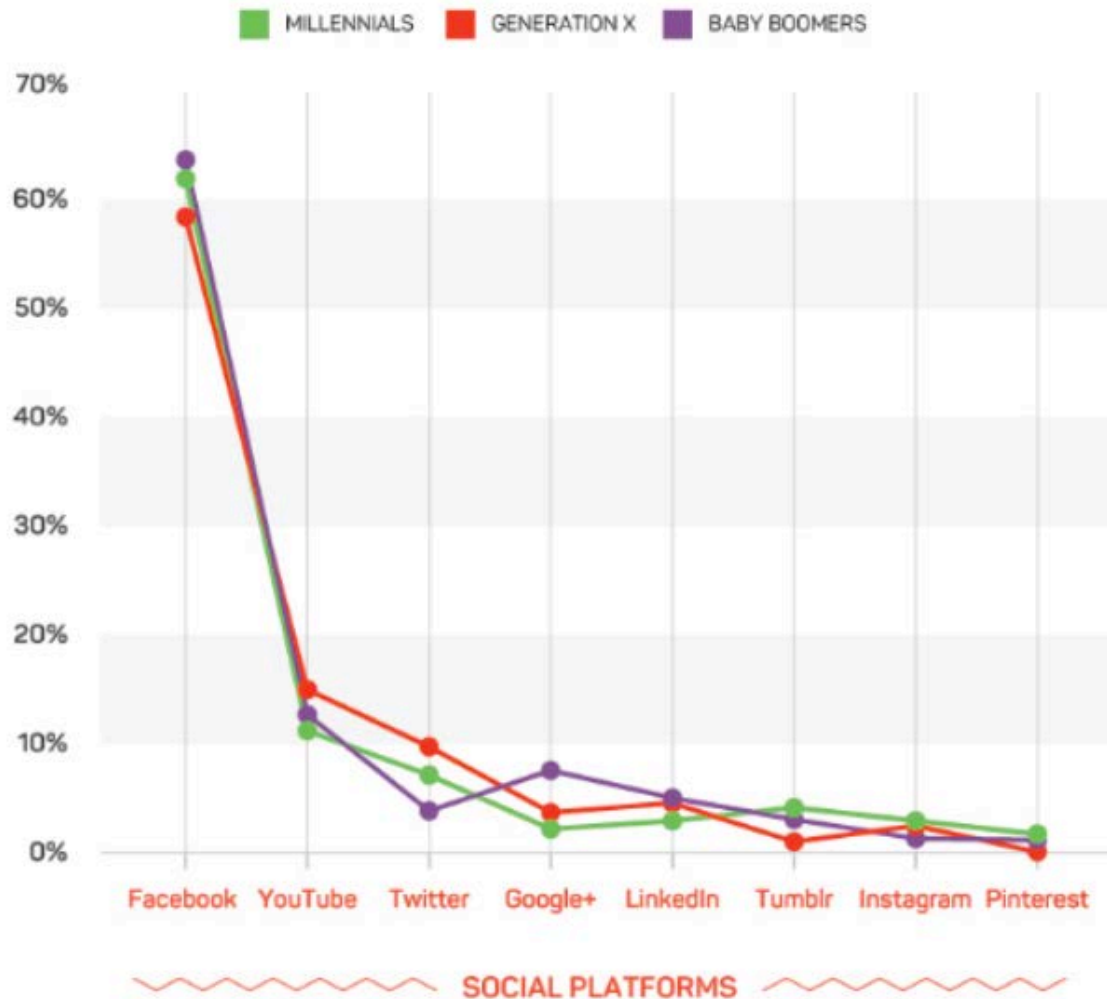


## HOW MUCH TIME DO WE SPEND CONSUMING CONTENT?



> **Baby Boomers** spend more time consuming content than any other generation. Remember that when you create content. <

# **SOCIAL PLATFORM USED MOST OFTEN TO SHARE CONTENT**



➤ **Generation X** uses Twitter as a primary content sharing platform **70.4 percent** more than Baby Boomers.

➤ **Baby Boomers** use Google+ as a primary content sharing platform **92 percent** more than Millennials.

# Best Ways for Businesses to Contact Millennials = Social Media & Chat... Worst Way = Telephone

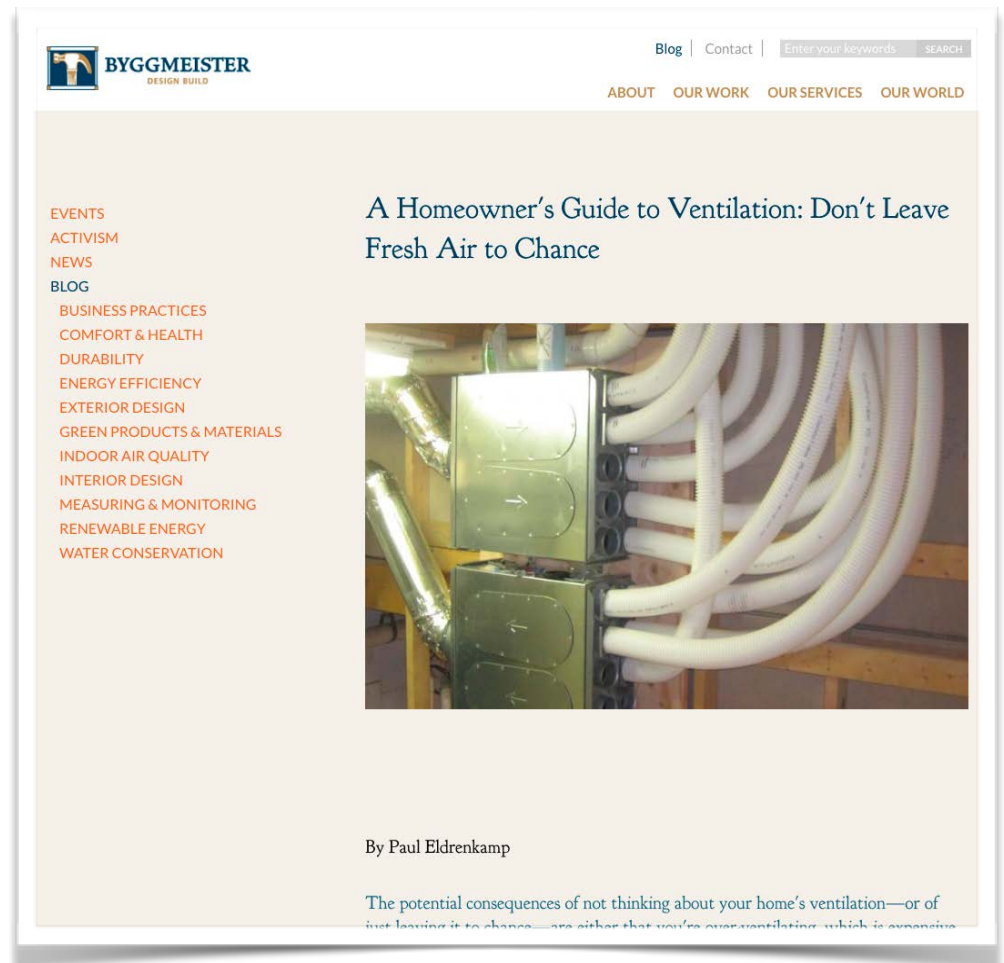
## Popularity of Business Contact Channels, by Age

*Which channels are most popular with your age-profiled customers?  
(% of contact centers)*

% of Centers Reporting Most Popular Contact Channels by Generation					
	Internet / Web Chat	Social Media	Electronic Messaging (e.g. email, SMS)	Smartphone Application	Telephone
<b>Generation Y</b> (born 1981-1999)	24% (1 <sup>st</sup> choice)	24% (1 <sup>st</sup> choice)	21% (3 <sup>rd</sup> choice)	19% (4 <sup>th</sup> choice)	12% (5 <sup>th</sup> choice)
<b>Generation X</b> (born 1961-1980)	21% (3 <sup>rd</sup> choice)	12% (4 <sup>th</sup> choice)	28% (2 <sup>nd</sup> choice)	11% (5 <sup>th</sup> choice)	29% (1 <sup>st</sup> choice)
<b>Baby Boomers</b> (born 1945-1960)	7% (3 <sup>rd</sup> choice)	2% (5 <sup>th</sup> choice)	24% (2 <sup>nd</sup> choice)	3% (4 <sup>th</sup> choice)	64% (1 <sup>st</sup> choice)
<b>Silent Generation</b> (born before 1944)	2% (3 <sup>rd</sup> choice)	1% (4 <sup>th</sup> choice)	6% (2 <sup>nd</sup> choice)	1% (5 <sup>th</sup> choice)	90% (1 <sup>st</sup> choice)

# Relevant Content & Messaging

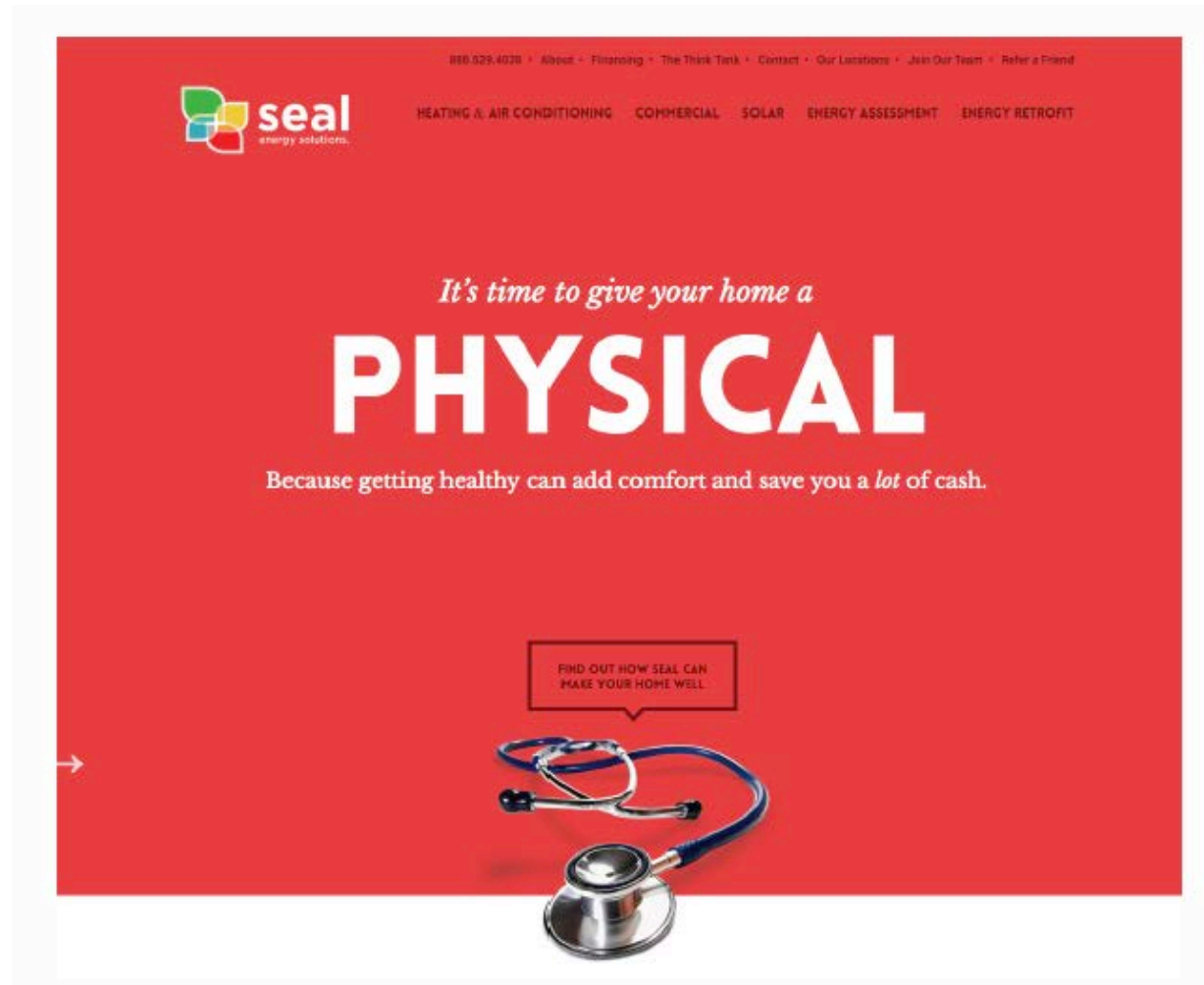
- The Core topics
  - Aging in Place
  - The indoor environment
  - Healthy Home & IAQ
  - Energy Costs & Clean Air
  - Low Maintenance
  - Comfort
  - Reliability/Resiliency
  - Lighting
  - Acoustics
- Specific services
- Expertise



## 2

# Site Design & Readability

- Easy readability
- Bold & compelling
- Large fonts
- Usability: beware non standard user interface/navigation





# 3

## Contrarian Moves

- Yellow Pages
- Direct Mail
- Print
- Community Weeklies
- Speaking in Community



# 4

## Paid Facebook

- Incredible Targeting = Very Low Cost Marketing

Audiences > Baby Boomers

Audience: **Baby Boomers**

Create Ad Create Lookalike Delete

### Audience Details

View how this audience is defined

**Audience Name** Baby Boomers

**Saved Audience Details** Location - Living In: United States: Wichita (+25 mi) Kansas

Age: 52 - 65+

People Who Match: Interests: Renovation, House Renovations, House Renovation, Indoor air quality, Home Renovations or Home Renovating, Home Ownership: Homeowners

And Must Also Match: Interests: Thermal insulation, Pipe insulation, Aging in place, Building insulation or Spray foams (insulation)

Edit

### Audience History

View all the changes for this audience

### Audience

**OVERVIEW**

Size: 660

Type: Saved Audience

Created: 07/13/2016 2:33pm

Last Updated: 07/13/2016 2:33pm

## Founder/CEO of Energy Circle

Linked In: Peter Troast

Twitter: @EnergyCircle

G+: Energy Circle

Facebook: Energy Circle

## Volunteer/Pro Bono

Efficiency First

Home Performance Project

Home Performance Coalition

1000 Home Challenge

CHERP





# Presentation Highlights – Baby Boomers: Energy Circle

- **Anecdotal evidence shows that baby boomers may make up to ~85% of home performance buyers.**
- **Baby boomers do use social media:** Facebook and YouTube are used most by all generations, but for baby boomers Google+ seems to be one popular channel for sharing information too.
- **Facebook is one of the most cost-effective marketing channels due to its targeting options and audience analytics, which allows businesses to conduct tailored communication and expand their audiences.**
  - Facebook is not a transactional environment though, so it's not meant for closing deals.
- **First point of contact with baby boomers should be via phone:** 64% of baby boomers prefer phone communication over other contact methods.
- **The more traditional approaches to marketing are still effective in some cases:** Yellow Pages and printed paper still work well when communicating with baby boomers. Many contractors are still using Yellow Pages to engage with this generation.

# **Best Practices: Dodge Analytics**

**Donna Laquidara-Carr**, Industry Insights Research  
Director

# Donna Laquidara-Carr

- BA: Middlebury College; MA: Boston University; Ph.D.: Tulane University
- Over 25 years experience in construction news data and analysis
- 7 Years as Managing Editor of SmartMarket reports

# DODGE

## DATA & ANALYTICS

**North America's leading provider of analytics and software-based workflow integration solutions for the construction industry.**



### **Dodge Global Network**

Regional construction,  
reported nationwide



### **Dodge Analytics: Market Research & Intelligence**

Off-the-Shelf and Custom Analytics



### **Sweets.com**

Leading source of  
information about building  
products

# Dodge Data & Analytics Research

Extensive industry research available for free download ([analyticsstore.construction.com](http://analyticsstore.construction.com))

## SUSTAINABILITY

### Green Homes



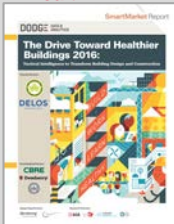
### World Green Trends



### Green Schools



### Health

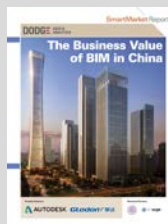


## TECHNOLOGY/INNOVATION

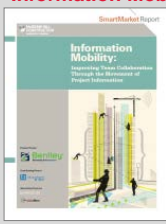
### Measuring BIM



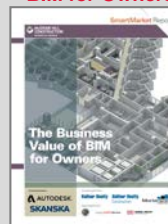
### China BIM



### Information Mobility



### BIM for Owners



## PRACTICES/PROCESSES

### Managing Uncertainty



### Safety



### Lean



### Delivery Systems



# Latest Study

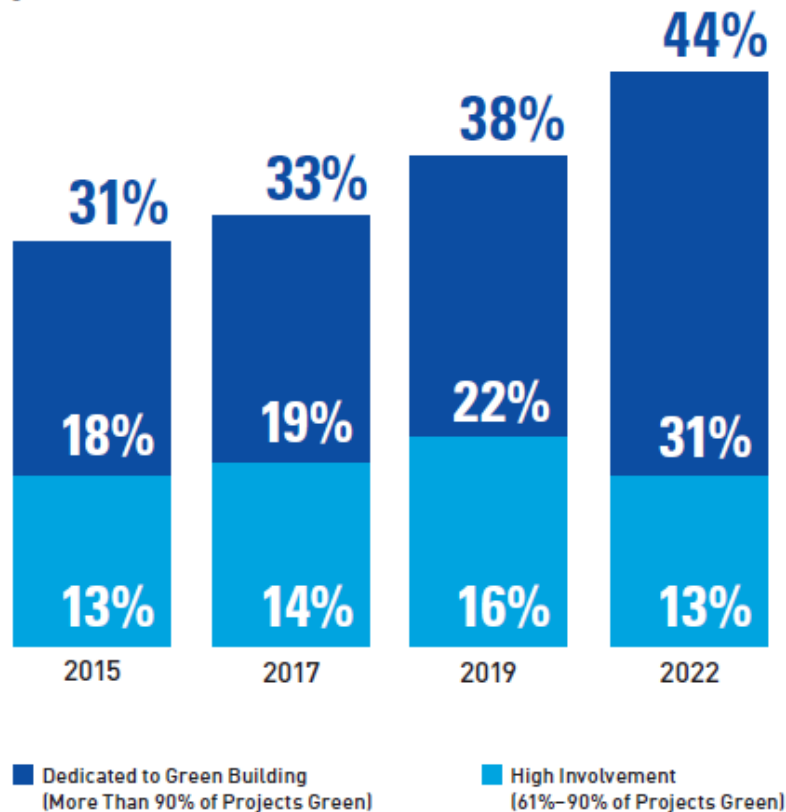


- Survey Conducted December 2016 – April 2017
- 342 Respondents
  - 231 Single Family Home Builders
  - 63 Single Family Remodelers
  - 48 Multifamily Firms

# Builders Highly Involved with Green

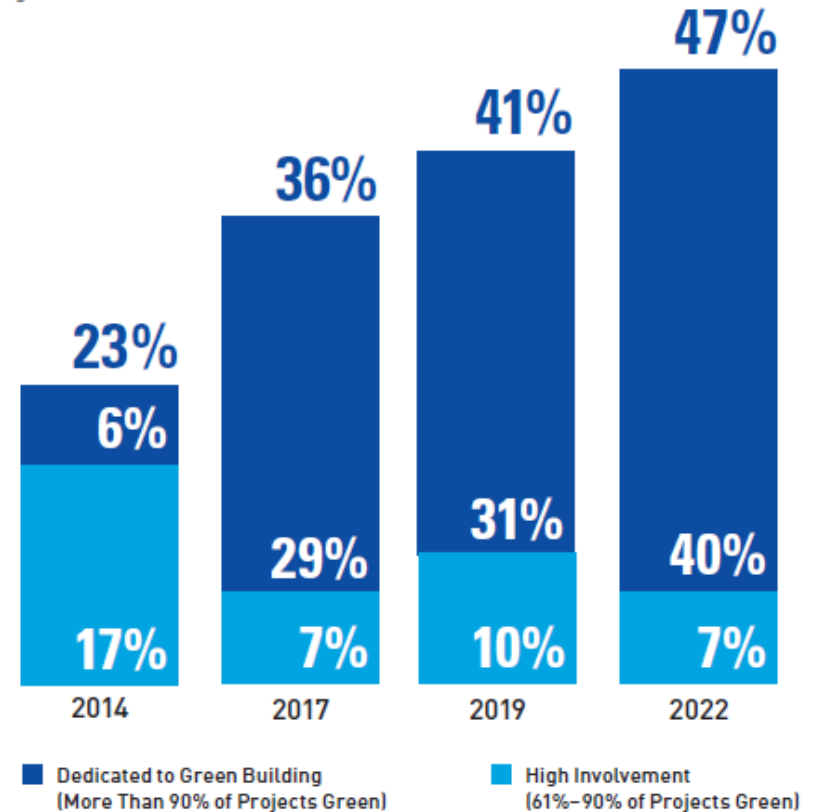
## Single Family Builders With High Level of Involvement in Green Building

Percentage doing more than 60% and more than 90% of their new homes green



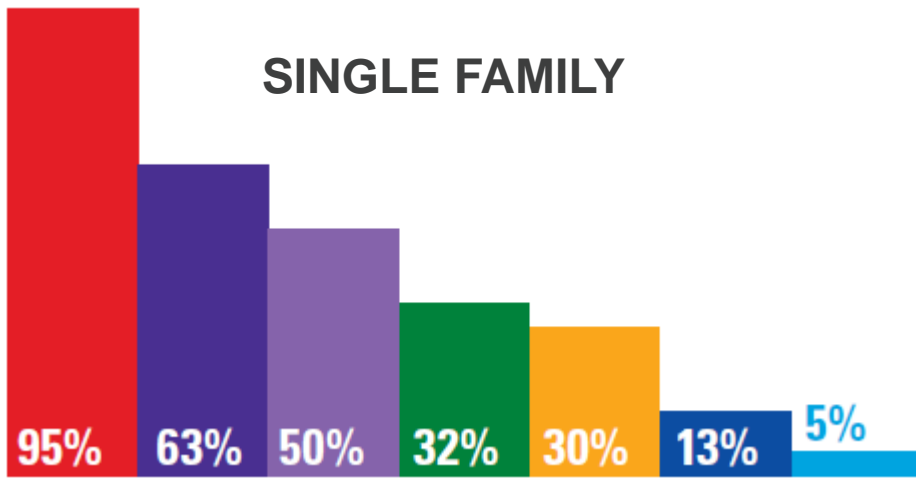
## Multifamily Builders With High Level of Involvement in Green Building

Percentage doing more than 60% and more than 90% of their new homes green

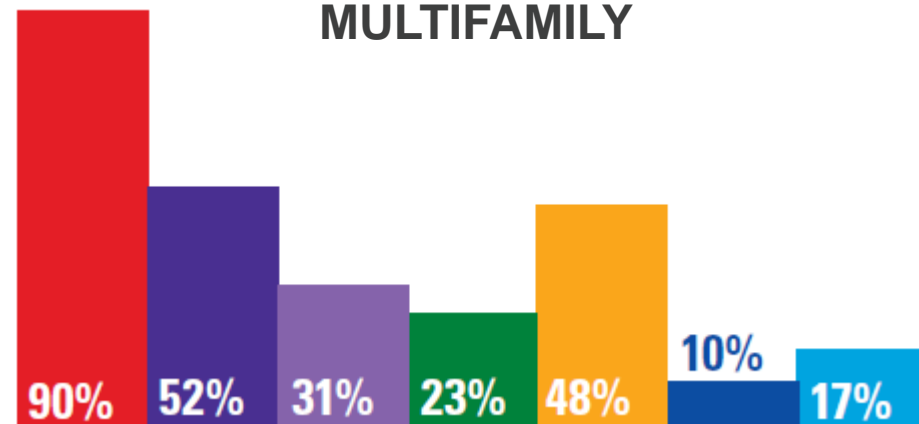


# Top Practices for Improving Green Home Performance

## SINGLE FAMILY



## MULTIFAMILY



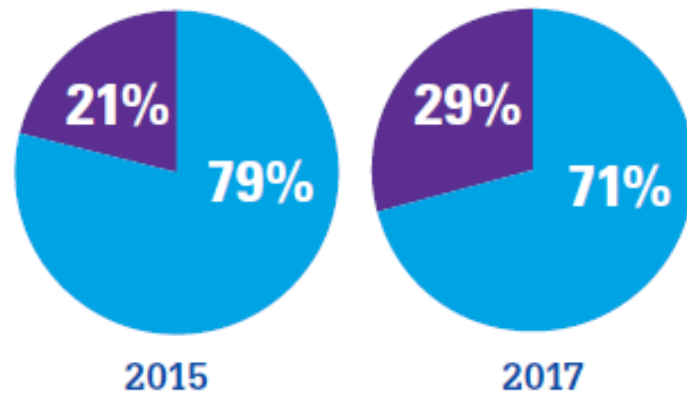
- Energy Efficient
- Healthy Indoor Living Environment
- Durable/Resilient
- Efficient Use of Natural Resources

- Water Efficient
- Reduced Carbon Footprint
- Lower Impact Development



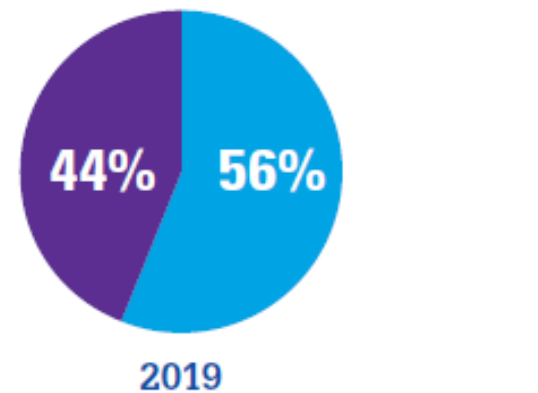
# Growth in Builders Doing Net Zero Homes

Built in the Last Two Years



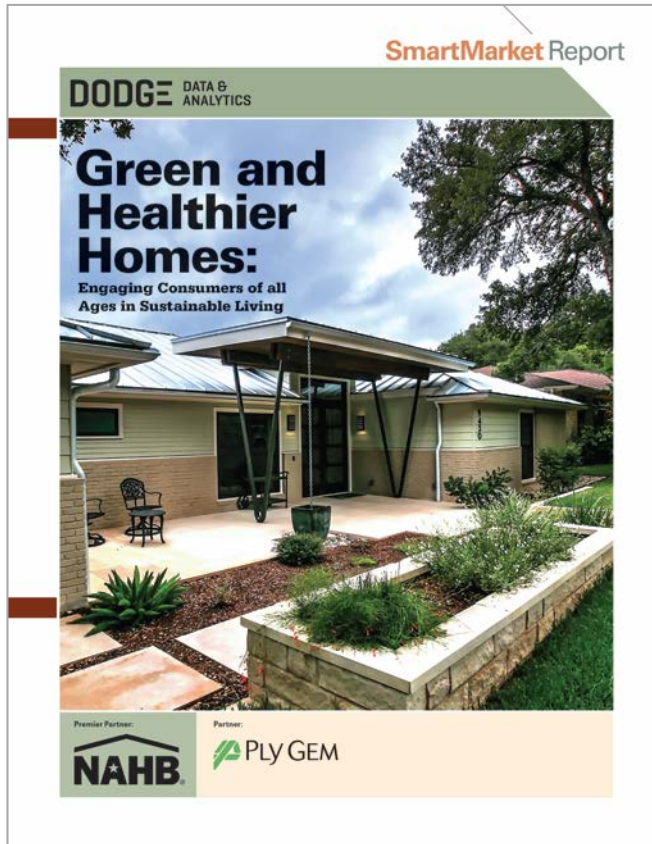
- Built a Net Zero/Near Net Zero/Net Zero Ready Home
- Has Not Built a Net Zero/Near Net Zero/Net Zero Ready Home

Expect to Build in the Next Two Years



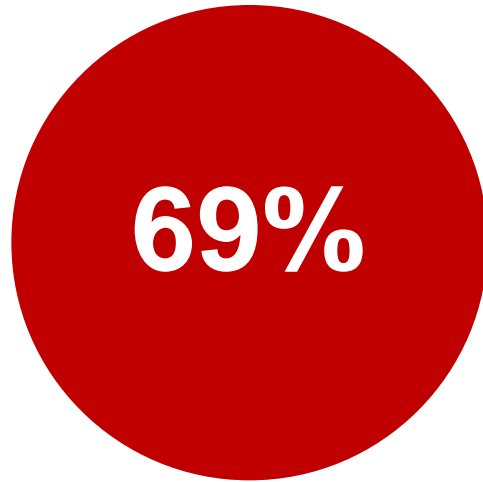
- Plans to Build a Net Zero/Near Net Zero/Net Zero Ready Home
- Does Not Plan to Build a Net Zero/Near Net Zero/Net Zero Ready Home

# Previous Study: Generational Differences



- Survey Conducted April-May 2015
- 249 Respondents
  - 177 single family home builders
  - 55 single family remodelers
  - 17 multifamily firms
- Definition of Green Building  
Home building, home remodeling and land development that incorporates environmentally sensitive site planning, resource efficiency, energy and water efficiency, improved indoor environmental quality and homeowner education – OR –  
  
Projects that comply with ICC 700 National Green Building Standard or other credible rating system.

# Interest in Green Homes

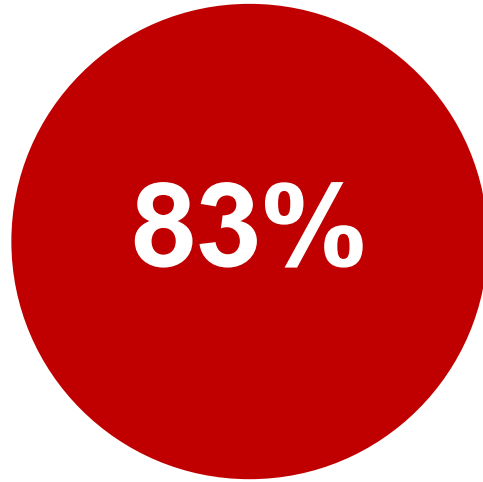


Home builders  
who believe that  
buyers will pay  
more for a green  
home



Nearly half (45%)  
believe buyers will  
pay 5% or more

# Interest in Healthy Homes

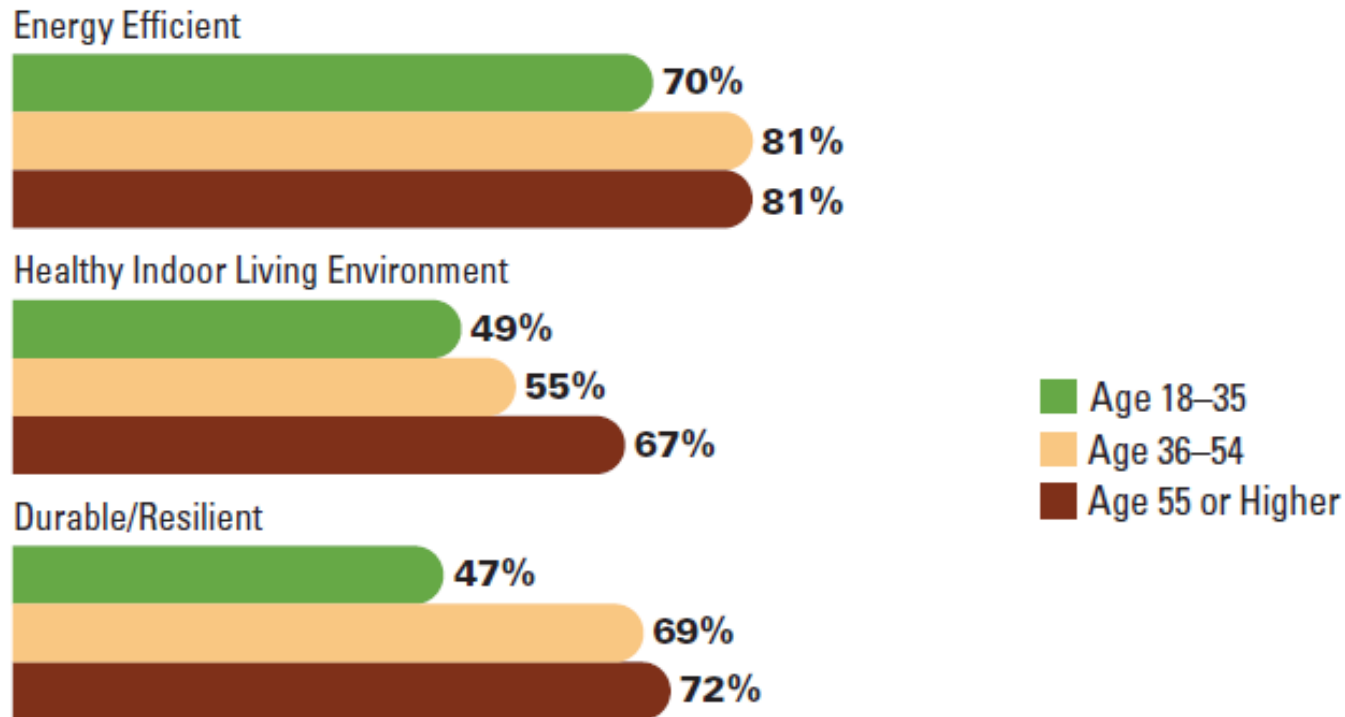


Home builders  
who believe that  
buyers will pay  
more for healthy  
homes



Nearly half (45%)  
believe buyers will  
pay 5% or more

# Most Influential Criteria for Purchasing a Green Home



# Millennials and Green Homes

- **Economic Challenges:** Do they have the resources to invest in greener/healthier homes?
  - 2014 Pew Research Study
  - White House Council of Economic Advisors
- **Green Behaviors:** Shelton Group Study suggests they talk the talk but don't walk the walk
  - Lower rates of participation in environmentally responsible behaviors
  - Same level of misunderstanding about terms like VOC and net-zero as other groups
  - More motivated by convenience than home performance



# Interviews With Recent Homebuyers

The more knowledge homebuyers had about homes in general, the more they valued high performance

- Older Buyers: could reference experience with their previous homes
- Younger Buyers: some had more knowledge about home building or environmental issues



# Presentation Highlights - Millennials:

## Dodge Analytics

- **Individual home performance is not a key motivator for millennials, but that is expected to change.**
  - Currently, millennials are more interested in the quality of the neighborhood than the actual home performance when looking for a home.
  - As millennials get more exposed to energy bills and other home performance aspects, they'll place more emphasis on energy efficiency, home comfort and health.
- **Millennials will be reaching their peak of purchase power in a few years:** Most millennials rent homes, but they'll soon have a greater impact on the housing market.
- **Within home performance, energy efficiency is by far the main factor that matters for millennials.**
  - Dodge Analytics' "Green and Healthier homes" study shows that buyers care and are willing to pay more for green and healthy homes.
- **The green building market will continue to grow:** The market is still dominated by small firms, but by 2020 it's expected to expand, with larger companies entering this segment.



# **Best Practices: American Council for an Energy-Efficient Economy (ACEEE)**

**Reuven Sussman**, Senior Research Manager,  
Behavior & Human Dimensions Program

# How to Talk About Home Energy Upgrades: Message Framing

**Reuven Sussman, Ph.D.**

Sr. Manager, Behavior and Human Dimensions Program

American Council for an Energy-Efficient Economy

Panel On:

*The Beatles, Beastie Boys, and Beyoncé: Residential Energy Efficiency Messaging for Different Generations*

# Encouraging Homeowners to Upgrade After an Audit

- Benefits to highlight
  - Financial
  - Non-Financial
- Online experiment with 1,905 homeowners



# What Motivates the Customer?



- Step 1:
  - Tailor message based on demographics or *stage of change*
- Step 2:
  - Listen and tailor

# Online Message Framing Experiment

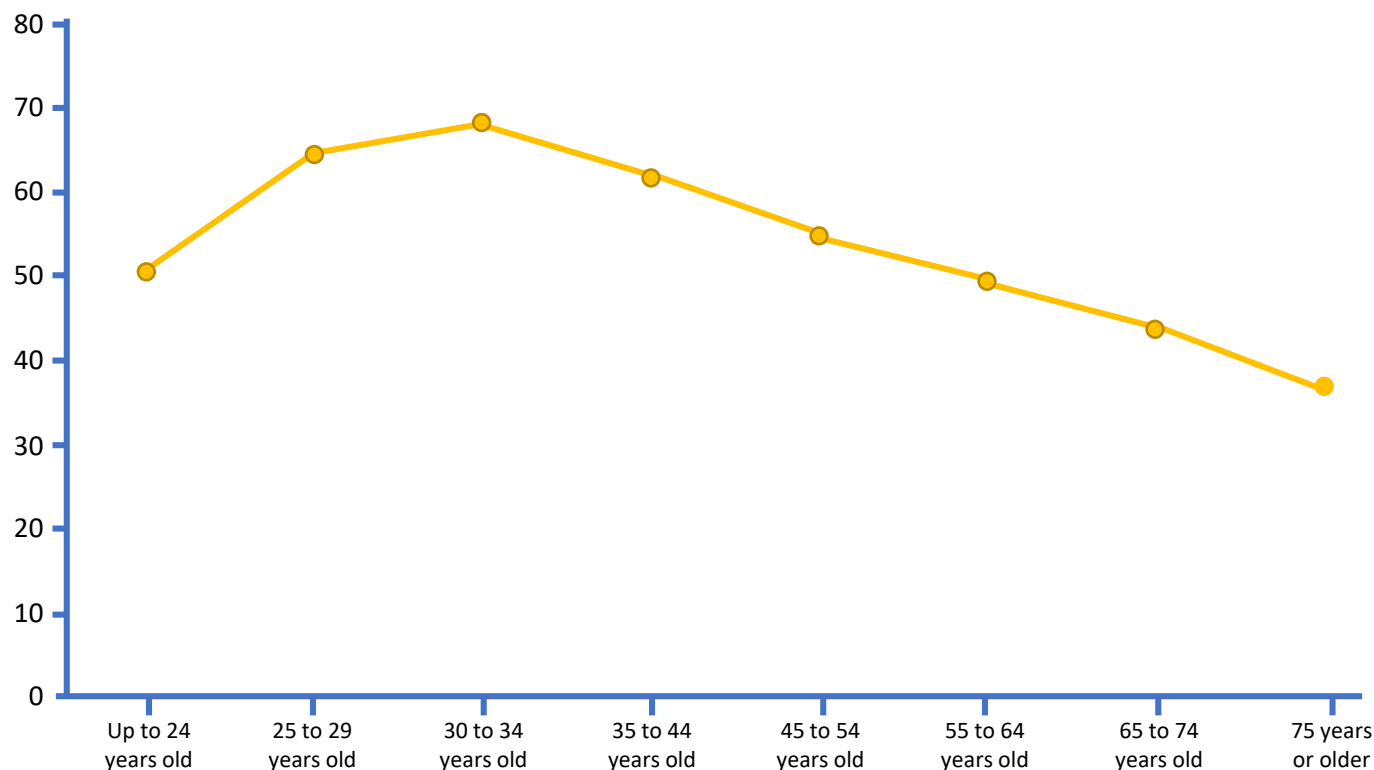


- Each presented with six hypothetical home energy upgrade situations
  - **Each situation tested a message framing strategy**
    - Benefits, Choice Architecture, Anchoring Heuristic, Payback Date, Gain/Loss, Thermal Image
  - **Outcome variable:**
    - “Given your present circumstances, how likely are you to buy the recommended upgrade within the next three years?” (0-100)
  - **Behavior**
    - Click to search for a local home energy assessor (strongly predicted by previous answers!)

# Results

- Age and overall willingness to upgrade
- Which benefits are best to highlight?

# Which age group is most willing?



- Across five questions, “how likely would you be to invest...?”

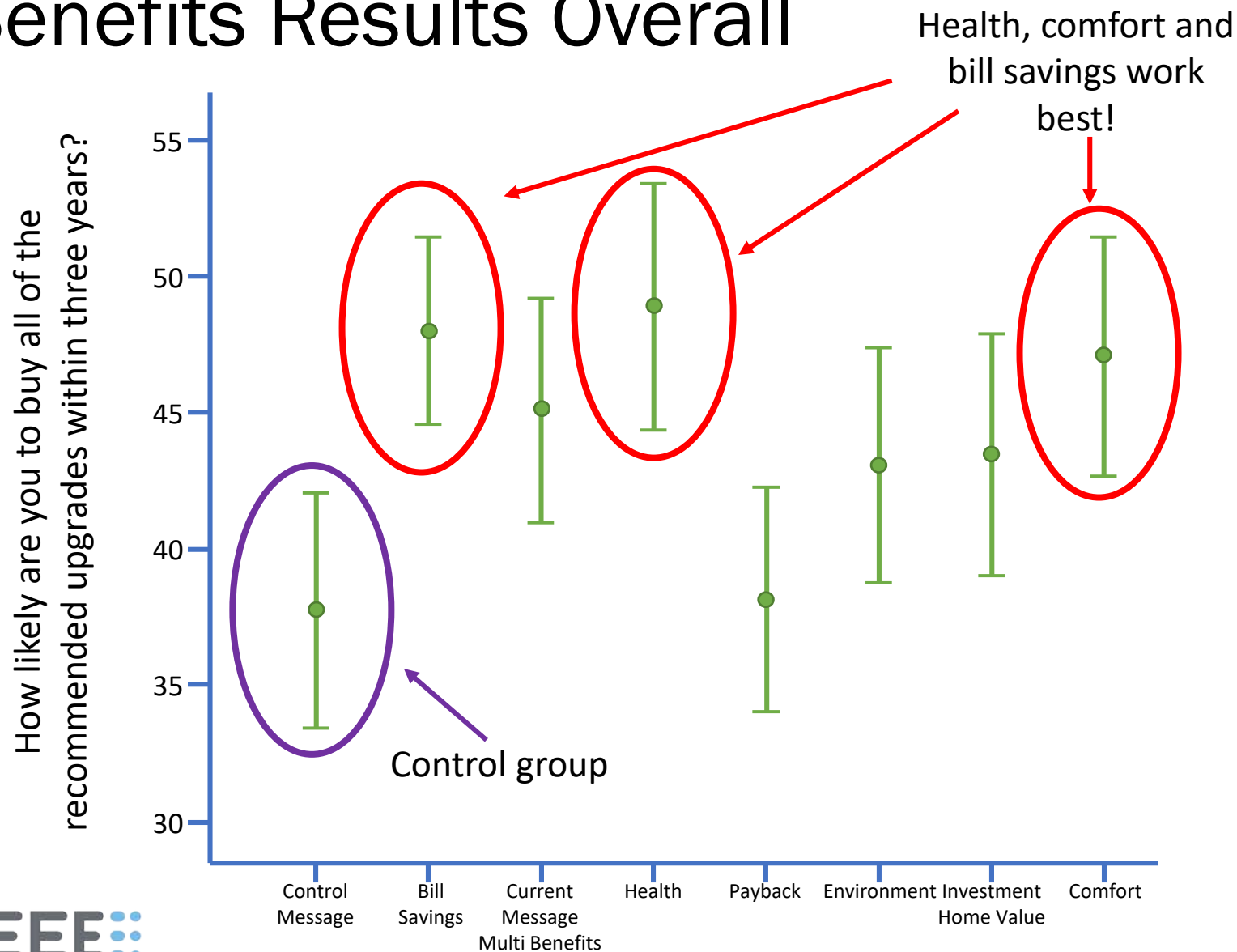
# Which Benefits are Best to Highlight?

Imagine that you enrolled in the Home Performance with ENERGY STAR program and received a home energy assessment a few days ago. The contractor came to your house, performed diagnostic tests, discussed your needs, and provided a list of actions you could take to upgrade your home. The list of recommendations totaled about \$7,500.

- Participants see one of the following benefit messages:
  - Bill savings
  - Health
  - Payback
  - Environment
  - Good investment/increases home value
  - Comfort
  - Current Energy Star message (multi benefits)
  - Control



# Benefits Results Overall



# Benefits Results - Exploratory

- Most age groups responded the same to each benefits message
- However, people aged 45-54
  - Responded best to **bill savings** or **health<sup>#</sup>** messages



# Conclusion

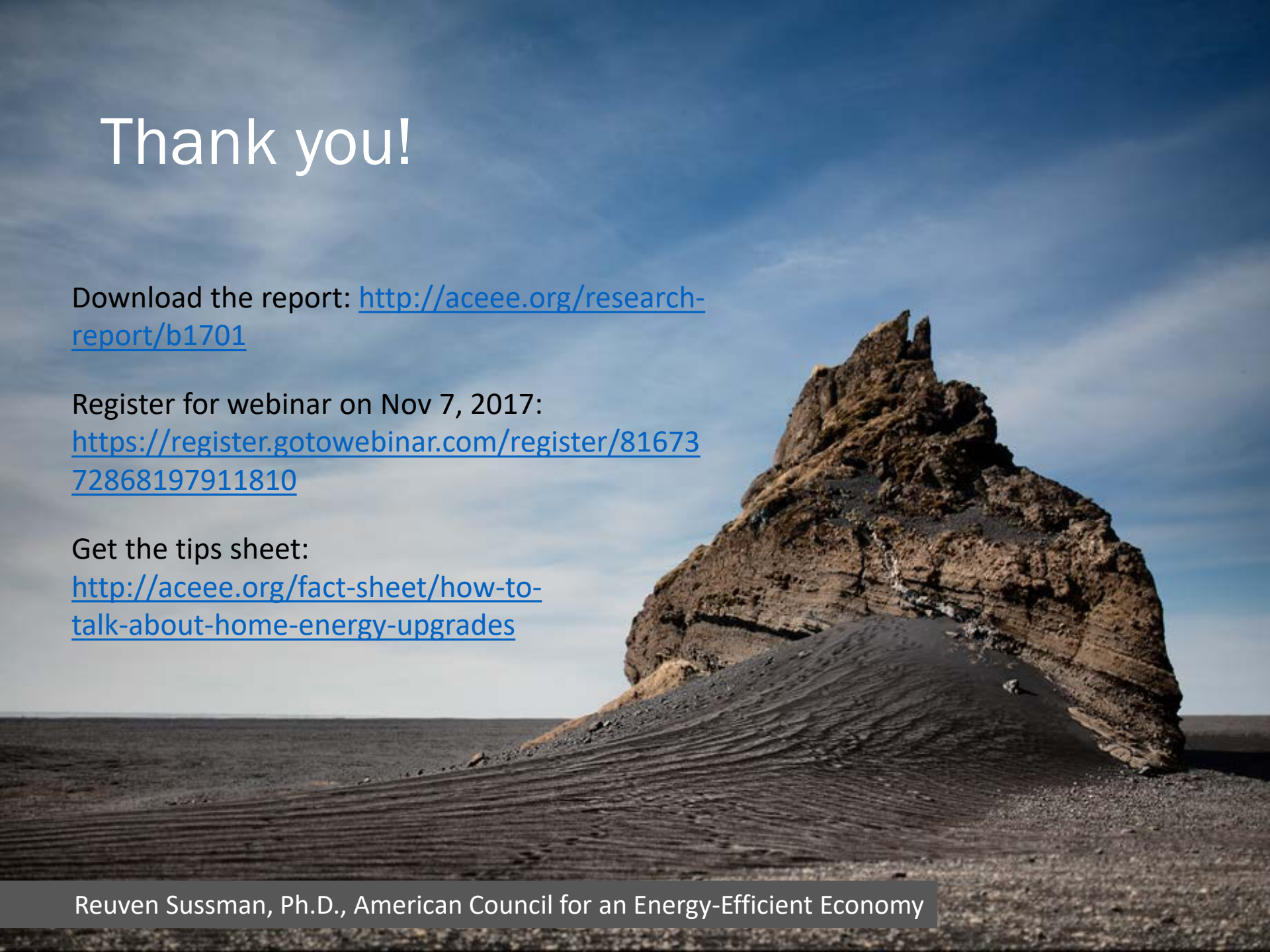
- Homeowners in 30-44 age range may be most likely to upgrade
- 45-54 year-olds responded best to **health** and **bill savings** messages
- Overall: health, bill savings or comfort messages are usually best
- But! Always **listen** and personally **tailor** messages

# Thank you!

Download the report: <http://aceee.org/research-report/b1701>

Register for webinar on Nov 7, 2017:  
<https://register.gotowebinar.com/register/8167372868197911810>

Get the tips sheet:  
<http://aceee.org/fact-sheet/how-to-talk-about-home-energy-upgrades>



# Presentation Highlights – All Generations: American Council for an Energy-Efficient Economy (ACEEE)

- **Discuss more than just financial benefits:** Non-financial benefits can be a big draw for upgrading. In the study “*How to Talk about Home Energy Upgrades*,” ACEEE found that telling homeowners about comfort or health benefits such as reduced noise, less asthma and allergies, and fewer cold drafts can be very persuasive.
- **Listen and tailor your messages:**
  - If you don’t know what the homeowner’s interests are, craft your messages around demographic characteristics.
  - If you already know the homeowner’s motivations, tailor messages around what matters most to them (e.g., energy use, health, comfort, etc.).
- **All age groups respond well to messages about health, comfort and bill savings.** The 45-55 age group seemed to respond better to bill savings and health messages.
- **Payback-related messages can be a double-edged sword:** A short payback period can be a strong driver for energy upgrades, while longer paybacks tend to demotivate homeowners.
  - Mentioning a specific payback time (such as concrete year/month) is more effective than saying “10 years from now”.

# Discussion Highlights: What are the gaps in knowledge for this topic that, if filled, would help improve work in this area?

- **Unpacking the definition of “healthy homes”:** while all the value chain actors use this terminology, there is not a common definition or reference standards for “healthy homes” across the sector.
  - People can have different understandings of a “healthy home.”
  - Dodge Analytics found that when a house is branded as “healthy,” homeowners tend to ask about evidence on the link between housing and health.
  - Tenants’ behavior in keeping homes healthy is essential: renters or home sellers can’t have any impact on how a house will be used (e.g., contaminants can be brought into a home through furniture).
- **Further in-field research on the impact of different marketing strategies on various demographics:**
  - Specific demographic characteristics may predict what categories of homeowners are more likely to invest in energy upgrades, e.g., pregnant women tend to spend more on upgrades for greater health and comfort.
  - The way messages are framed makes a difference:
    - Speaking about “healthy” not “healthier” homes is more convincing.
    - Using terms that carry multiple meanings such as “sustainable” tends to be too vague.

# Additional Resources

- **KSV**, [Why Generation X is Critical to Energy Efficiency Programs](#)
- **Dodge Analytics**, [Green and Healthier Homes: Engaging Consumers of all Ages in Sustainable Living](#)
- **Dodge Analytics**, [Green Multifamily and Single Family Homes](#)



# Upcoming Seasonal Messaging Opportunities

Now is the time to start planning energy efficiency messaging!



## Mass Save

[Article](#): Avoid the Shadow this Groundhog Day



## American Home Shield

[Article & Card: Valentine's Cards for our Appliances](#)

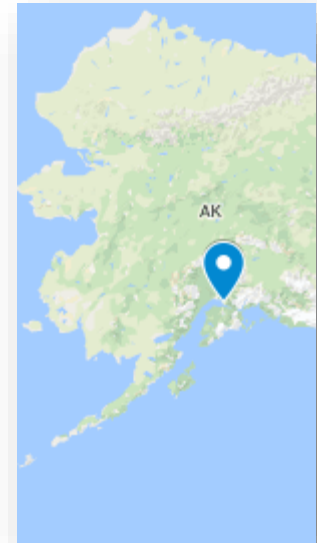


## Energize Delaware

Facebook Post: Don't let energy leaks sack your next game day. A [#HPwES](#) home energy audit is the winning play.



# Call Attendee Locations



# Call Attendees: Network Members (1 of 2)

- Alaska Housing Finance Corporation
- American Council for an Energy-Efficient Economy (ACEEE)
- AppleBlossom Energy Inc.
- Boulder County
- California Energy Commission
- Center for Energy and Environment
- Center for Sustainable Energy
- City of Berkeley
- City of Kansas City
- City of Providence
- CLEAResult
- County of San Luis Obispo
- Earth Advantage Institute
- Efficiency Maine
- Efficiency Nova Scotia
- Energy Efficiency Specialists
- Focus on Energy
- Greater Cincinnati Energy Alliance
- Group14 Engineering Inc.
- Habitat for Humanity of Michigan

# Call Attendees: Network Members (2 of 2)

- Home Performance Guild of Oregon
- Honeywell International, Inc.
- Ingham County Land Bank
- Institute for Market Transformation (IMT)
- International Center for Appropriate and Sustainable Technology (ICAST)
- NeighborWorks of Western Vermont
- New York State Energy Research & Development Authority (NYSERDA)
- OmStout Consulting
- TRC energy services

# Call Attendees: Non-Members (1 of 3)

- AEMEP Group
- Alliant Energy
- Appalachian Voices
- AspenCore LLC
- Association for Energy Affordability
- Bay City Electric Light & Power
- Bosch
- CenterPoint Energy
- City of Orlando
- Civic Works' Retrofit Baltimore
- Clallam County
- Climate Smart Missoula
- Codman Square Neighborhood Development Corporation
- DDB San Francisco
- DDC Public Affairs
- Delaware Division of Energy & Climate
- Design-Manage-Sustain
- Dodge Analytics
- Energetics Incorporated
- Energy Circle
- Energy Solutions Professionals

# Call Attendees: Non-Members (2 of 3)

- Energy Wise
- Focus: HOPE
- Heartwood Solutions Consulting
- ICF
- Idaho Power Company
- Lockheed Martin
- Mercy Housing Management Group
- Minnesota Pollution Control Agency
- Nexant
- Oregon Institute of Technology
- Parker Interests Unlimited, LLC
- Proctor Engineering
- PV Blue
- Resource Media
- Sacramento Air Quality Management District
- Salcido Solutions
- Snohomish County
- Southwest Energy Efficiency Project
- SPEER
- StopWaste
- The Build Coach

# Call Attendees: Non-Members (3 of 3)

- The University of Tennessee, Knoxville
- University of Idaho
- Utah Governor's Office of Energy Development
- Walking Mountains Science Center
- Waters Capital Group
- Wisconsin Energy Conservation Corporation (WECC)

# Opening Poll #1

- Which best describes your organization's experience with residential energy efficiency messaging for different generations?
  - Some experience/familiarity – **41%**
  - Very experienced/familiar – **25%**
  - Limited experience/familiarity – **25%**
  - Not applicable – **5%**
  - No experience/familiarity – **4%**

# Closing Poll

- After today's call, what will you do?
  - Seek out additional information on one or more of the ideas – **61%**
  - Consider implementing one or more of the ideas discussed – **34%**
  - Make no changes to your current approach – **5%**
  - Other (please explain) – **0%**