

# Trends and Opportunities in Residential Energy Management

February 6, 2020  
1:00 PM CT

**PARKS**  
ASSOCIATES

**PLMA**<sup>TM</sup>  
Load Management Leadership

- **Effective ways of raising consumer awareness and familiarity of energy management solutions, programs, and tools.**
- **Adoption and impact of distributed energy products – generators, electric vehicles, solar panels, battery storage.**
- **Impact of smart home devices on energy use and utility rate structures.**
- **New partnerships driving interest, adoption, and customer satisfaction with utilities.**

## Webcast Recording Playback

Parks Associates invites you to view and listen to the webcast recording.

Click link to view recording:

<https://attendee.gotowebinar.com/recording/6011617613000472588>



**Richard Barone**

Director of Strategic Consulting for  
Customer Resources & Markets  
**Hawaiian Electric Company**



**Foued Barouni**

Product Line Manager  
**AddÉnergie | FLO**



**Abhay Gupta**

Founder & CEO  
**Bidgely**



**Moderator**

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Senior Manager, Utility Solutions  
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**Parks Associates**



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Senior Analyst  
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# About Parks Associates

**30+ year history  
focused on consumer  
technology market**

**2,000+ executives  
attending Parks  
Associates event**

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**Surveys 10,000 U.S.  
broadband households  
each quarter**

**Serves 500+ companies  
with research and  
consulting**

**Educate and inform by providing relevant and reliable  
consumer data and industry insights**

# Research Areas





## **Richard Barone**

Director of Strategic  
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Electric**







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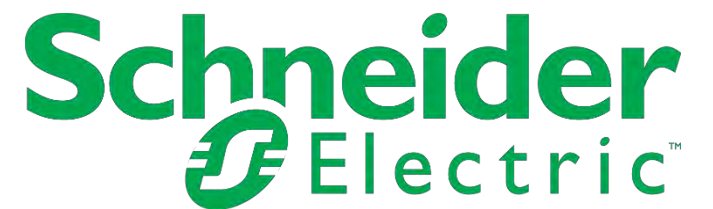




**Jenny Roehm**

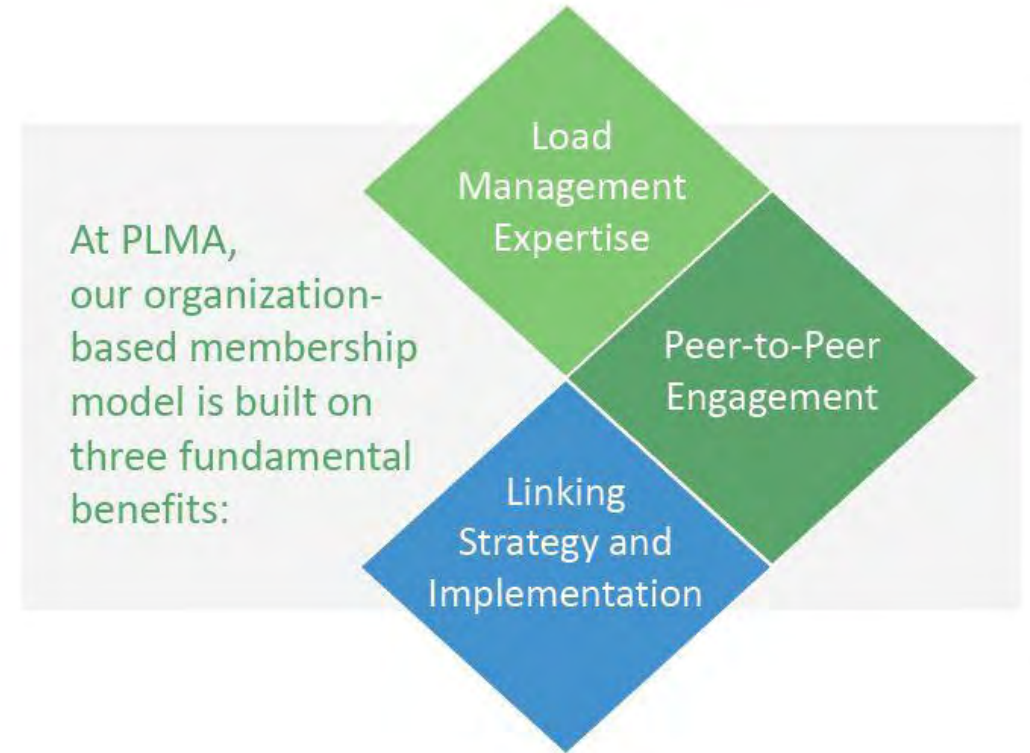
Senior Manager, Utility  
Solutions

**Schneider Electric**



# PLMA is the voice of load management practitioners...

- ◆ Energy utilities, solution providers, and trade allies share expertise in demand response and distributed energy resources.
- ◆ PLMA partners with industry allies to work toward a sustainable energy future.
- ◆ Interest Groups help members exchange lessons learned.



...in a powerful peer-to-peer network.

**PLMA**<sup>TM</sup>  
Load Management Leadership

Practitioner Perspectives<sup>TM</sup>

## The Future of Distributed Energy Resources

A Compendium of Industry Viewpoints

Produced by  
Thought Leadership and Distributed Energy Resource Integration Groups

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Practitioner Perspectives<sup>TM</sup>

## 16<sup>th</sup> PLMA Award-Winning Load Management Initiatives

A Compendium of Industry Viewpoints

Produced by  
PLMA Thought Leadership and Award Planning Groups  
November 2019

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## Thought Leadership 2019

A Compendium of Industry Viewpoints

Produced by  
PLMA Thought Leadership Group  
January 2020

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Load Management Leadership

## 2019 PLMA Annual Activity Report for Members

The Voice of Load Management Practitioners

PLMA (Peak Load Management Alliance) was founded in 1999 as a community of experts and practitioners dedicated to sharing knowledge and providing resources to promote inclusiveness in the design, delivery, technology and management of solutions addressing energy and natural resource integration.

The not-profit association provides a forum for practitioners to share dynamic load management expertise, including demand response and distributed energy resources. PLMA members share expertise to educate each other and explore innovative approaches to load management programs, price and rate response, regional regulatory issues, and technologies as the energy market evolves. PLMA will continue to maintain a forum where practical experience, ideas, and knowledge are promoted to those seeking access to a vast network of industry professionals and practitioners. It is also a place where members gather to keep abreast of the latest industry trends in load management and to inform the next generation. We offer timely subject matter and training opportunities to address key facets of our industry change.

Membership in PLMA is open to any organization interested in energy load management. PLMA represents a broad range of energy professionals and industries – private and publicly owned utilities, technology companies, energy providers, solution providers, meter and equipment suppliers, system integrators, research organizations, consultants, and end-users.

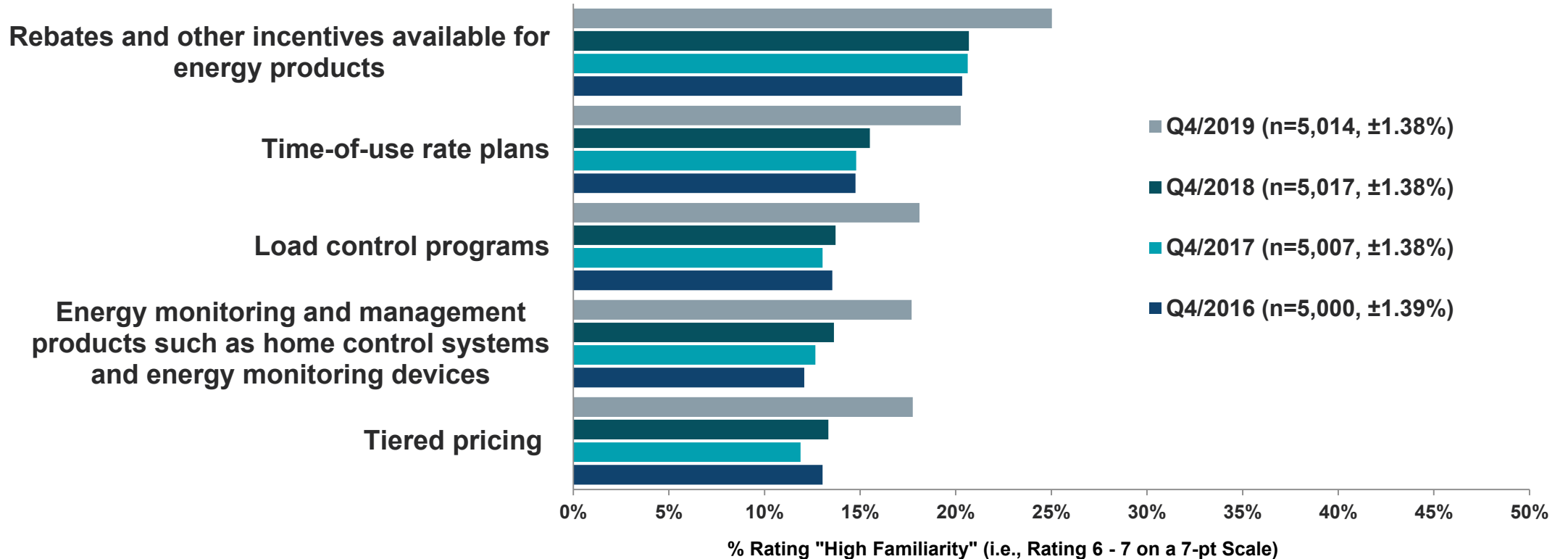
# Housekeeping Items

**Effective ways of raising consumer awareness  
of energy management solutions, programs,  
and tools**

# Consumers are most familiar with rebates for energy-efficient devices.

## High Familiarity with Energy Programs Offered (2015 - 2019)

Among US BB HHs Surveyed



"Q7515. How familiar are you with the following programs?"

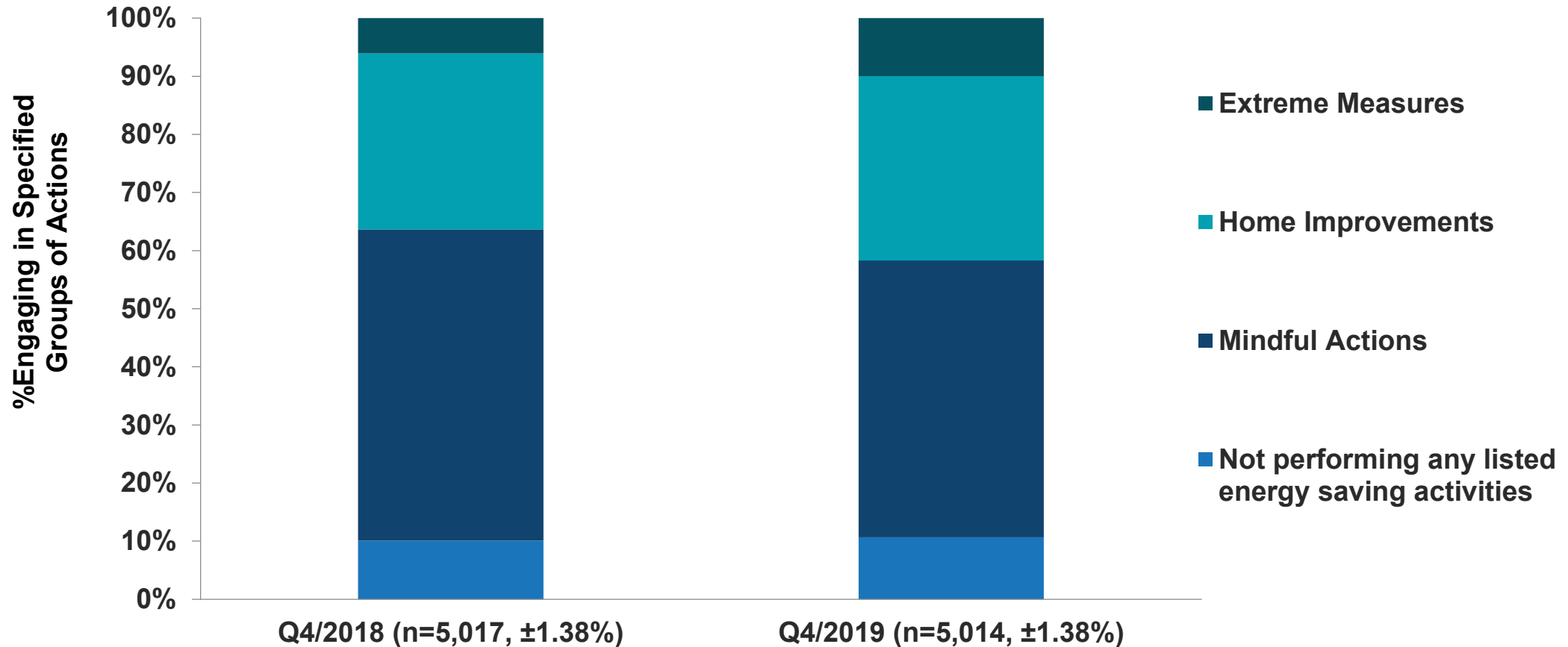
Source: Multiple Surveys: American Broadband Households and Their Technologies | © 2020Parks Associates



# Most consumers perform only mindful energy-savings actions.

## Energy-Saving Action Segments (2018 - 2019)

Among US BB HHs Surveyed



"Q7510a/Q7510b. Which of these energy saving actions have you or your household members taken over the past 12 months?"

Source: Multiple Surveys: American Broadband Households and Their Technologies | © 2020 Parks Associates

# Awareness differs among energy segments.

## High Familiarity with Energy Programs Offered by Energy Segments (Q4/19) Among US BB HHs in Specified Group



"Q7510a/Q7510b. Which of these energy saving actions have you or your household members taken over the past 12 months?"  
 "Q7515. How familiar are you with the following programs?" | Asked of a Subgroup of 5,014 US BB HHs  
 Source: American Broadband Households and Their Technologies Q4 2019 | N=10,021, ±0.98% | © 2020 Parks Associates

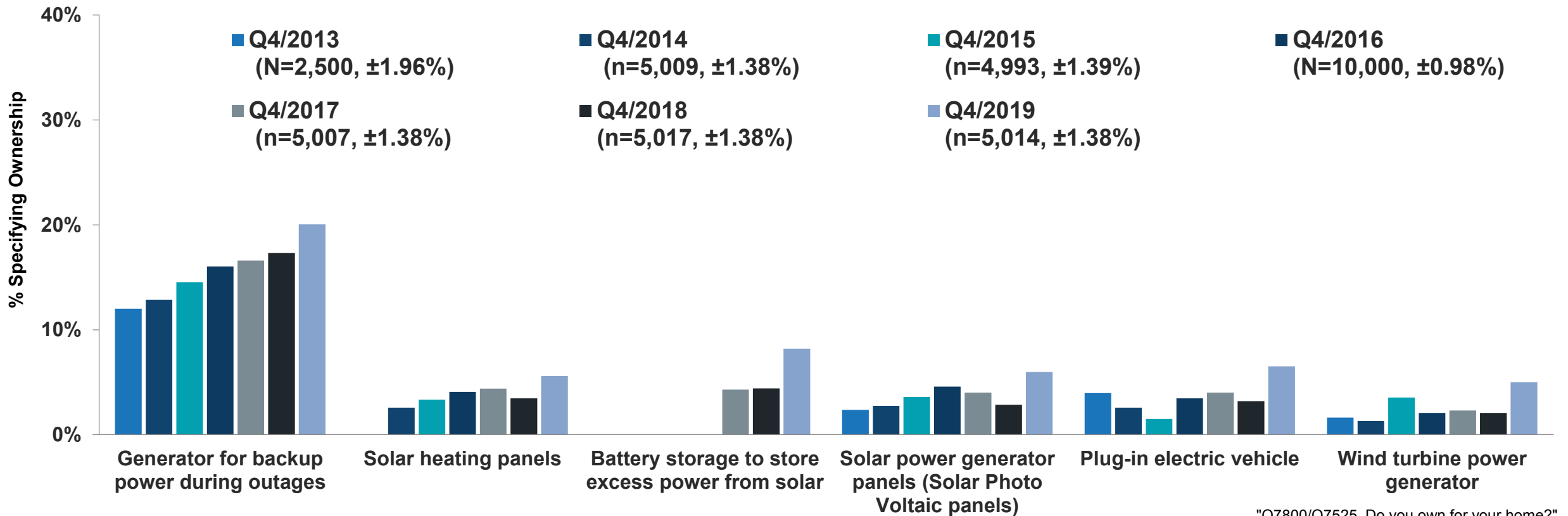
**Effective ways of raising consumer awareness  
of energy management solutions, programs,  
and tools**

**Adoption and impact of distributed energy products generators, electric vehicles, solar panels, battery storage**

# Adoption of distributed energy products remains low.

## Energy-Efficient Equipment or Vehicle Ownership (2013 - 2019)

Among US BB HHs Surveyed



"Q7800/Q7525. Do you own for your home?"

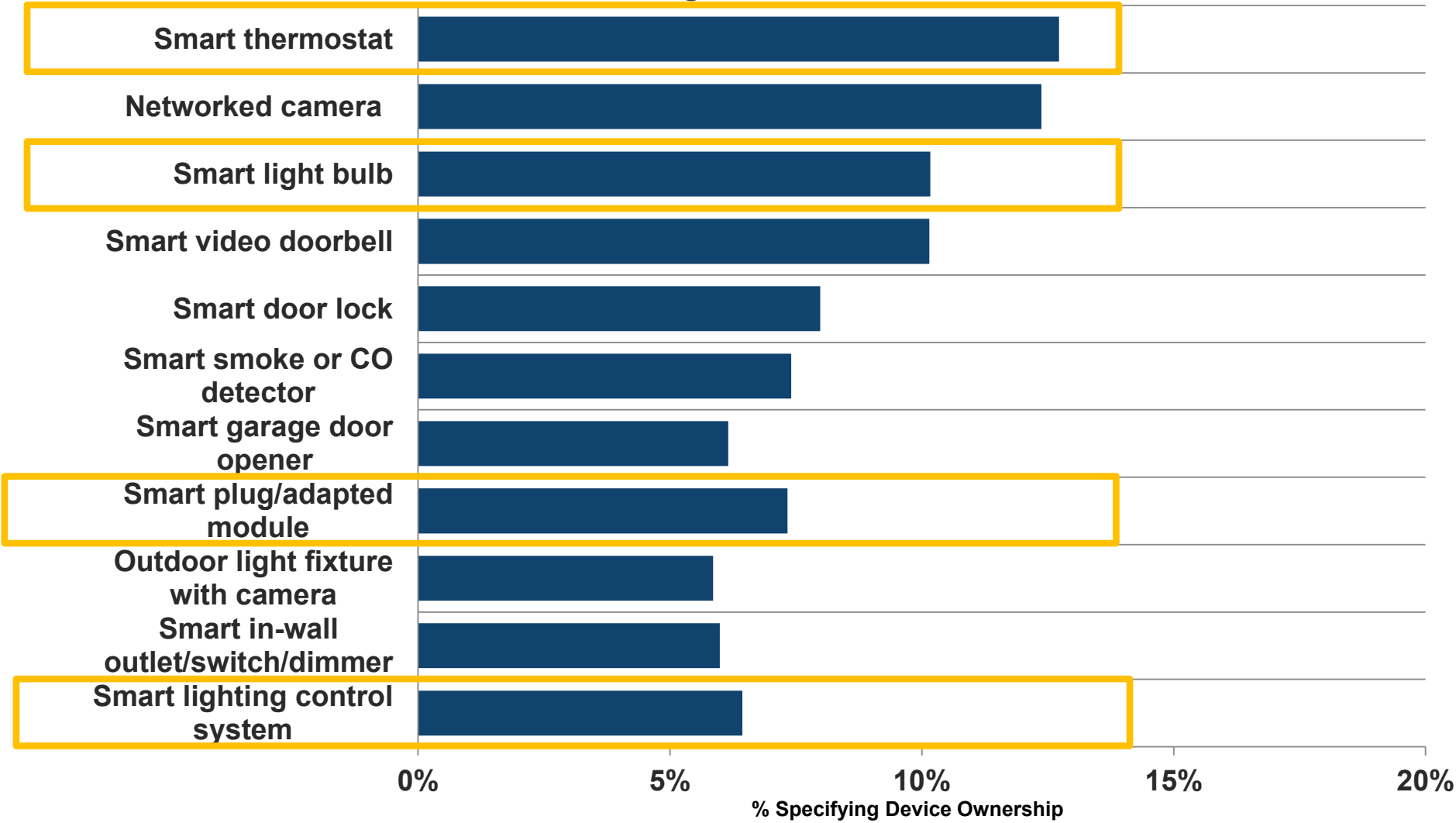
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**Adoption and impact of distributed energy products generators, electric vehicles, solar panels, battery storage**

**Impact of smart home devices on energy use  
and utility rate structures**

# Adoption of Smart Home Devices (Q4/2019)

Among All US BB HHs



**29%** of US broadband households own at least one smart home device or appliance

**11%** own at least one smart appliance

**6%** have a smart refrigerator

Source: Multiple Surveys: American Broadband Households and Their Technologies | © 2020 Parks Associates



# Energy-efficiency use cases.

## Smart Thermostats

- Adjusts based on “at home” status
- Reacts to weather conditions



## Smart Lighting

- Turns off automatically
- Informs consumers about energy use



## Smart Plug

- Identifies the amount of energy used by devices and appliances



## Smart Refrigerator

- Adjusts settings automatically
- Provides tips for energy management



**Impact of smart home devices on energy use  
and utility rate structures**

**New partnerships driving interest, adoption,  
and customer satisfaction with utilities**

# Energy provider and smart home partnership use cases.

## Increase customer engagement

- Utility and smart meter data analytics companies
  - Help consumers understand consumption patterns
  - Provide personalized solutions to curtail energy usage



## Integrate smart products into DR programs

- Direct integration with smart home solution provider
- Integration with demand response aggregators



## Cross-marketing

- Preferential retail shelf space
- Manufacturers promote energy management capabilities
- Nest programs
  - Get a Nest Thermostat
  - Rush Hour Rewards



**New partnerships driving interest, adoption,  
and customer satisfaction with utilities**

**Questions?**



**PLMA**<sup>TM</sup>  
Load Management Leadership  
**41<sup>ST</sup> Conference**  
**Scottsdale, Arizona**  
**April 20-22, 2020**



*Learn more at [www.peakload.org](http://www.peakload.org)*



# Consumer Demand for Smart Energy Solutions

This research provides insights on consumer interest in energy management products and services, including features, price sensitivity, and incentives for energy efficiency solutions.

## Topics

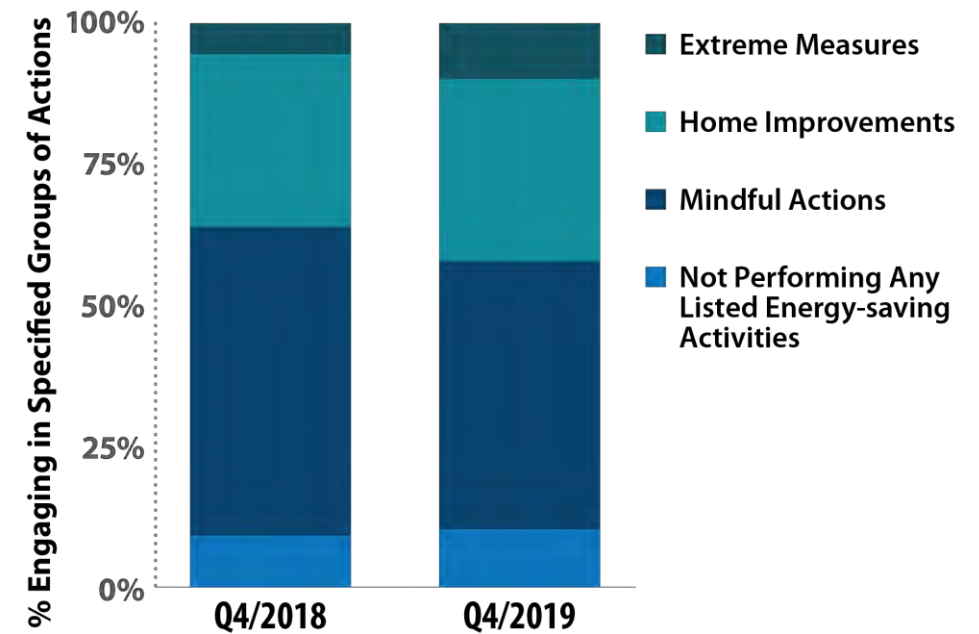
- Consumer Energy Segments – Demographics and Device Ownership
- Energy Programs and Tools
- Demand Response
- Distributed Generation and Storage
- Smart Energy Products: Smart Thermostat, Smart Lighting, Smart Plugs, Smart Appliances
- Appeal of Energy Management Features

## Methodology

All research deliverables are derived from Parks Associates quarterly surveys of 10,000 US broadband households.

### Energy-Saving Action Segments (2018-2019)

US Broadband Households

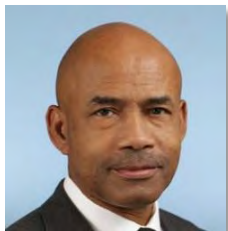


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# Join us at Smart Energy Summit, Feb 17-19 in Austin

## Keynotes



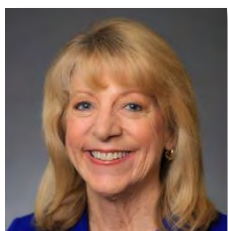
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# Thank You



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