Digital Engagement of Energy Consumers

A Parks Associates Whitepaper

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Digital Engagement of Energy Consumers

ENGAGING CONSUMERS IN ENERGY MANAGEMENT HAS BEEN AN ONGOING CHALLENGE FOR UTILITIES FOR DECADES.

Only a small set of consumers is dedicated to energy management for green purposes or financial savings; that set will take strong and even inconvenient measures to save energy or money. The vast majority of consumers balance their desires to "be green" or save money against their desire to be comfortable at home, and they schedule their energy usage in ways convenient to their lifestyle—not the utility's.

The diffusion of social media, the development of smart home devices, and the accelerating volume of big data are all ways utilities can increase customer engagement. Moving the needle requires understanding target segments and context so that programs can be directed at key decision points when the consumer is actively engaged, rather than trying to engage the largely apathetic mass market.

As the number of smartphone users increases, so will the number of customers who expect to connect with their utility through their smartphone at any time. Social media, web portals, and apps allow utilities to access the customer in the moments that matter most.

Smart home devices also offer the utility a path—beyond information only—to engage the consumer digitally.

Because of the rapidly growing market for these devices, utilities can leverage smart home devices that are already installed through partnerships with OEMs and service providers to enroll smart product owners into utility programs. In addition, the data from smart home devices and smart meters can be used to provide insights on consumer behavior and to tailor recommendations and advertisements to specific customer sets.

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The New Utility Consumer

CONSUMERS ARE INCREASINGLY CONNECTED, MOBILE, SOCIAL, AND CONCERNED WITH ENERGY EFFICIENCY AND COST.

They expect instant connection with their electric utilities, just as they do with any other vendor.

Utilities are trying to engage these connected utility customers but often have little insight beyond their energy usage patterns.
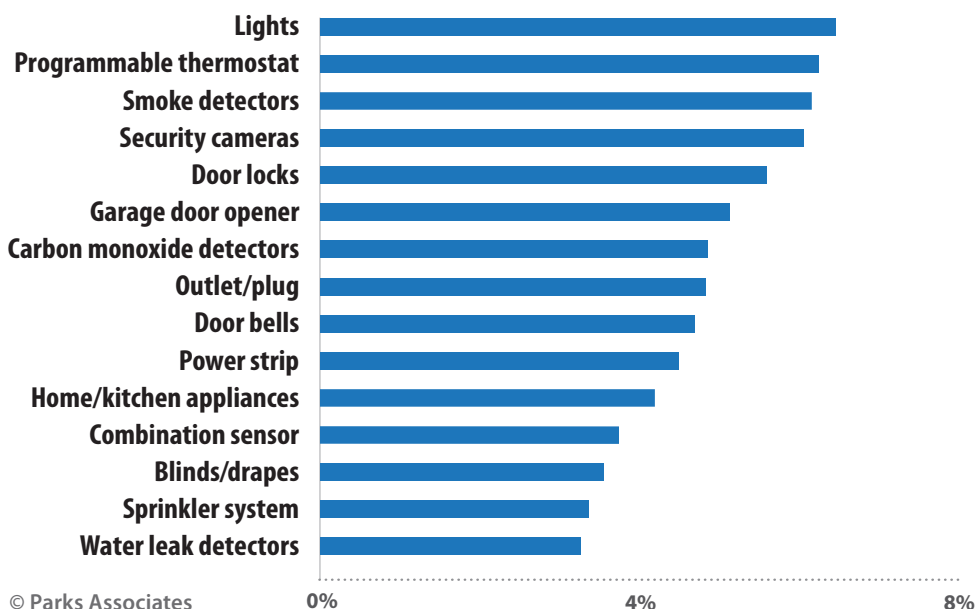
AS OF JANUARY 2014—

74% of online adults in broadband households use social networking sites.

71% use Facebook, and **19%** use Twitter.

In a survey of U.S. broadband households conducted by Parks Associates in 2013, checking social media was the second most common activity among smartphone owners. Consumers who own a smartphone spend five hours each week text messaging and four hours each week checking social media.

Consumers are also adopting more smart home devices. The number and type of different smart products entering the home are increasing at a rapid pace. Nearly every category of smart device has a five-year CAGR of over 10%, and some are as high as 25%. These devices generate more data about consumers and their habits can provide more insight to vendors for outreach efforts.

Own at Least One of the Listed Smart Home Devices
U.S. Broadband Households

Device	
Lights	
Programmable thermostat	
Smoke detectors	
Security cameras	
Door locks	
Garage door opener	
Carbon monoxide detectors	
Outlet/plug	
Door bells	
Power strip	
Home/kitchen appliances	
Combination sensor	
Blinds/drapes	
Sprinkler system	
Water leak detectors	

0%   4%   8%

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Concurrently, customers are also becoming more aware of energy-efficient devices and techniques to reduce energy usage.
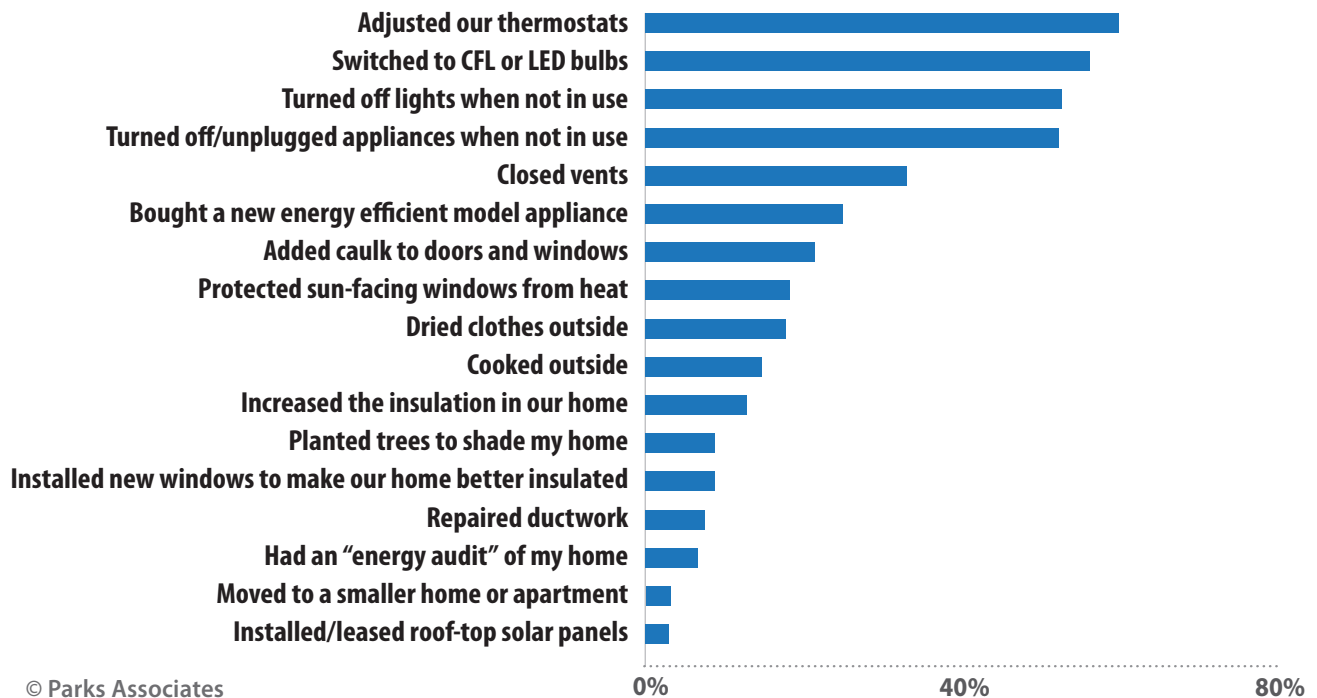
AT THE END OF 2014—

85% of U.S. broadband households took at least one action to reduce energy usage or costs in the previous 12 months.

Of the top five actions that consumers took to manage energy consumption, changing to CFL or LED lights was the only action that required an investment. This means that consumers are aware of the benefits of reducing energy use, but are cost-adverse to investing in energy management products.

Energy-saving Actions
U.S. Broadband Households

Action	
Adjusted our thermostats	
Switched to CFL or LED bulbs	
Turned off lights when not in use	
Turned off/unplugged appliances when not in use	
Closed vents	
Bought a new energy efficient model appliance	
Added caulk to doors and windows	
Protected sun-facing windows from heat	
Dried clothes outside	
Cooked outside	
Increased the insulation in our home	
Planted trees to shade my home	
Installed new windows to make our home better insulated	
Repaired ductwork	
Had an "energy audit" of my home	
Moved to a smaller home or apartment	
Installed/leased roof-top solar panels	

0%   40%   80%

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The net effect of these three trends creates an opportunity for utilities to improve their customer relationships through innovative information dissemination and partnerships.

THREE KEY TRENDS:

1. *Increased usage of social media and networking*

2. *Adoption of smart home devices*

3. *Awareness of energy-efficient solutions and ways to reduce energy consumption*

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Leveraging Social Media Trends

SOCIAL MEDIA HAS BECOME A CRITICAL MARKETING AND ENGAGEMENT TOOL FOR BUSINESSES.

Many consumers never leave home without their smartphone, and if they want to connect with their utility, they will look on social media sites such as Facebook and Twitter.

As social media platforms expand and evolve, the key to success will be found in understanding what users want to see. Social media platforms represent a new channel to connect with customers and share information in a way that gets their attention.

To gain maximum benefit, utilities must develop messaging that takes advantage of lessons learned about which messages work and which do not.

SOCIAL MEDIA STRATEGIES

In August 2014, Parks Associates examined current steps and strategies among a variety of investor-owned utilities, municipal providers, and a co-op to see how they engage consumers using social media.

Companies included Commonwealth Edison Company (ComEd), DTE Energy Electric Company (DTE), Florida Power & Light Company (FPL), Georgia Power, Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), Dominion Virginia Power (Dominion), Austin Energy, Los Angeles Department of Water & Power (LADWP), and Jackson Electric Member Corp (Jackson EMC).

In examining the tweets and posts, the content, and the results, Parks Associates uncovered the following best practices:

- **ENCOURAGE CUSTOMERS** to follow the company on Facebook and Twitter and set customers' expectations.

- **POST CONTENT** that is engaging and relevant.

- **TREAT SOCIAL MEDIA** like any other communication path into the utility.

- **INCLUDE IMAGES** with each message.

- **ENCOURAGE PARTICIPATION** in sweepstakes and contests.

- **LEVERAGE SOCIAL MEDIA POSTS** to inform customers of other digital tools.

# RESPONDING TO CONSUMERS DURING EMERGENCIES

Consumers use social media not only to seek and share information but also as a way to share their opinions, elicit a response to an opinion, or encourage a company or organization to act in a certain way. A 2010 American Red Cross survey found that 75% of survey respondents expected help to arrive within one hour if they posted a request on a social media site.

Utility customers may believe that by "reporting" an outage to the utility on Twitter, the utility will respond to their concern. Utilities should proactively send out notifications before a weather-related event occurs, warning the customer about the dangers and introducing them to tools to report and track outages. This strategy will help the utility become the trusted source for consumer information.

IN THE INCREASINGLY CONNECTED WORLD,
good news travels fast &
bad news travels faster.

For example, a simple complaint on a business's Facebook page or a tweet by an unhappy customer can ruin a business. Social media offers endless opportunities for utilities to digitally engage consumers; conversely, a utility that handles a serious situation poorly can be slammed—and quickly.

Safety and Company Information Tweets
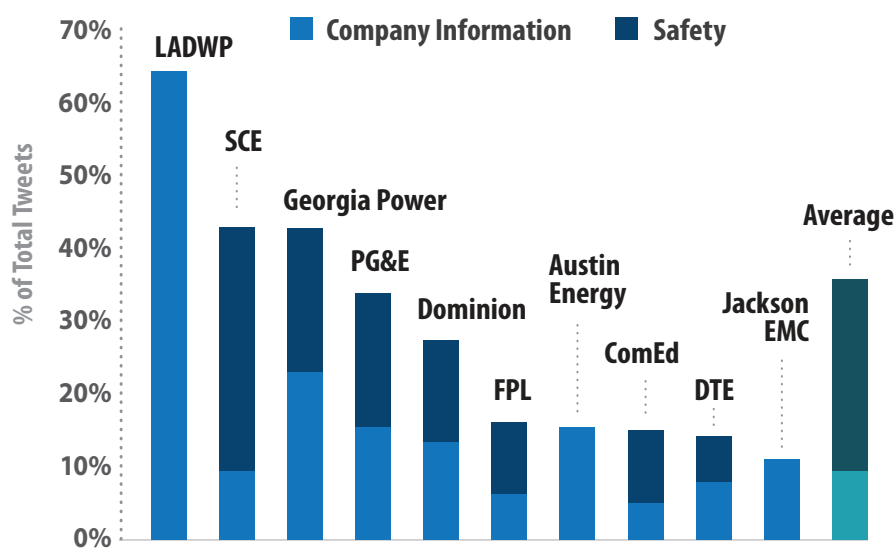
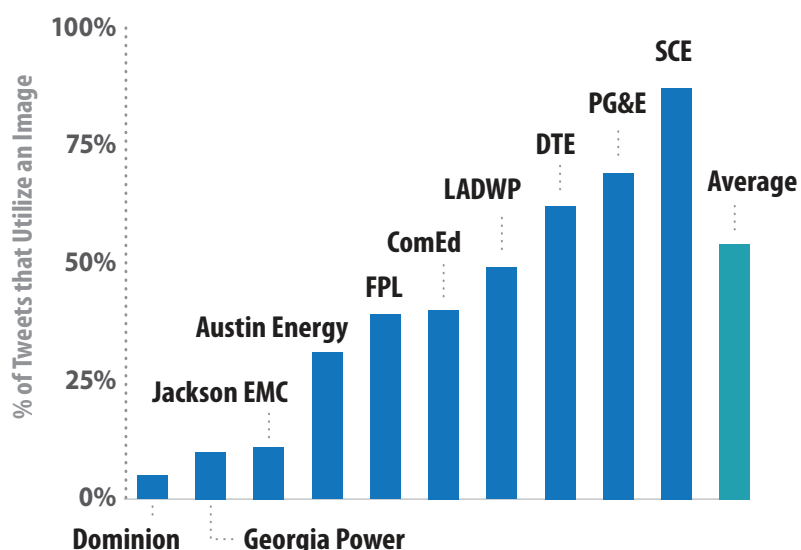From Parks Associates' August 2014 study of social media practices among utilities.

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USING IMAGES TO CREATE AN EMOTIONAL CONNECTION

Images quickly and accurately tell a story that is easy to follow. Pictures can also be good tools to capture attention when there is an important message to communicate, such as flooding dangers, or if customers need reassurance that the utility is working to fix an issue, such as a prolonged blackout.

Pictures can also create a connection to the human aspect of the utility. An image of a lineman covered in soot from working to restore the grid can share the human side of the utility and communicate the amount of work required to keep the lights on.

Human interest stories also evoke compassion and empathy, which help diffuse tensions during particularly stressful events.

Image Use in Tweets

% of Tweets that Utilize an Image

SCE
PG&E
DTE
Average
LADWP
ComEd
FPL
Austin Energy
Jackson EMC
Dominion
Georgia Power

100%
75%
50%
25%
0%

From Parks Associates' August 2014 study of social media practices among utilities.

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SEEKING CONSUMER INPUT

If utilities ask, "What do customers think?" they will find that customers are eager to share their views. Crowd-sourcing ideas for website redesign, app tools and design, and contests make customers feel included in the decision-making process. Customers will feel more attached to the final outcome if they feel a sense of ownership.

MAKING INTERACTION FUN AND INTERESTING

A way to encourage action is to inform consumers about what they will be missing, whether it is an event, an opportunity to save money, or who has the highest score on a game. When creating social media content, anything that can be made into a game should be. Consumers are not only interested in the gaming aspect but also in community giving and community engagement.

BEING CLEAR AND CONSISTENT

The bane of any customer engagement or social media efforts is inconsistency or lack of clarity. Consistency is not easy to achieve nor are clarity or message simplicity. Building safeguards into message sites ensures that inconsistencies or rogue messages are avoided.

Leveraging Smart Devices

PARTNERING WITH SMART HOME SERVICE PROVIDERS AND SMART PRODUCT MANUFACTURERS PROVIDES UTILITIES WITH ANOTHER CHANNEL TO COMMUNICATE RELEVANT INFORMATION TO THE CONSUMER.

Utilities can extract information from these devices about usage and status to help consumers better manage their energy. Manufacturers can use the same data to improve their products, and utilities can use the information to help grid management.
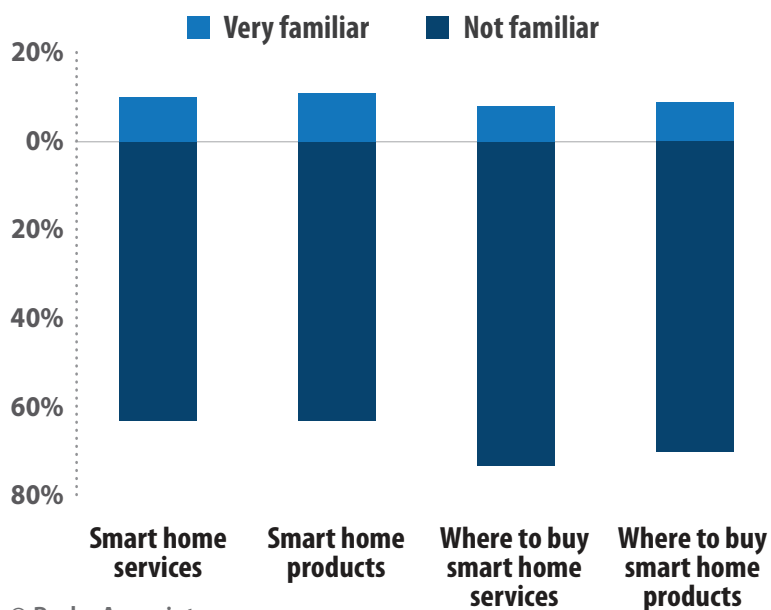
The data from smart home products opens the door to new revenue opportunities:

- ENERGY MANAGEMENT CAPABILITIES
- APP UPGRADES
- LEAD GENERATION
- COMMISSIONS FOR PRODUCT SALES
- DIRECT SALES OF PRODUCTS

Utilities can help device manufacturers and even broadband and security service providers address today's major challenge: **LACK OF CONSUMER FAMILIARITY**.

Familiarity with Smart Home Solutions and Purchase Locations
U.S. Broadband Households

Legend: Very familiar | Not familiar

Categories: Smart home services | Smart home products | Where to buy smart home services | Where to buy smart home products

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ACCORDING TO PARKS ASSOCIATES DATA—

62%

of U.S. broadband households are unfamiliar with smart home products or services.

The security market exemplifies a mature market with a clear, well-understood value proposition. Connectedness amplifies the power of its system components. Given that smart home and security complement each other, it is not surprising that the security industry is leading the market in sales of smart home systems, and most of the broadband providers entering the smart home space require the purchase of a security system.

Many utilities want to be THE trusted energy advisor to their customers—a resource for information and advice on all matters related to energy.

The broad deployment of smart home devices, without any utility input, is a potential threat to the utility's role as an energy advisor. However, it also provides the utility with an opportunity to leverage that digital communication link to smart devices and connect those products to utility demand response programs. In addition, smart home devices offer multiple points of contact with the customer, including through the local user interface and a product app.

Demand Response Engagement

MANY SMART HOME DEVICES OFFER OPPORTUNITIES FOR UTILITIES TO ENGAGE THEIR CONSUMERS.

Unfortunately, the regulatory framework of utilities constrains their ability to vet and offer new products in a timely fashion. Due to regulations and the need to serve their entire footprint, utilities have a thorough, deliberate, and slow process for evaluating and implementing new technologies.

Given the pace of change in the broader smart home market, utilities must consider alternatives to the traditional utility pilot approach—market-based approaches that reward innovation, attract new partners, and expand the breath of energy management solutions.

One example of a market-based approach is a pay-for-performance model that provides incentives to both partners and end customers.

Peak-time rebates are a good example of a pay-for-performance program that can leverage smart devices already in the consumer's home. In this type of program, the smart product manufacturer solicits its customers living in the specific utility region to participate in the program. Co-marketing agreements can assure that the utility branding and message are communicated consistently through multiple partners that offer the program to their customers via their product app or the local product user interfaces.

Using multiple coordinated messaging channels that include smart product manufacturers and service providers is key to any marketing campaign. Smart thermostat vendors can extend the reach of the utility marketing efforts, using the mobile app and local user interface to sign up customers and notify them of DR events.

Energy Efficiency Engagement

TODAY, ENERGY EFFICIENCY (EE) PROGRAMS FOCUS ON OVERCOMING THE BARRIERS TO ADOPTION OF HIGH-EFFICIENCY PRODUCTS.

Those who have adopted energy management devices such as a smart thermostat are a unique market segment that have self-identified themselves as engaged in energy management. Utilities can work with partners to offer consumers advice and recommendations on other products or utility programs through the product app as well.

PROVIDING OPERATIONAL FEEDBACK

Data from a smart device allows the utility help the customer use energy more efficiently. A smart thermostat can tell a customer when the HVAC unit is stressed and can suggest basic maintenance. Users may also benefit from being able to view the frequency or length of cycles and comparing those to their neighbors. Additionally, many smart thermostats have the ability to tell the customer what the optimal setback point is and how much energy/cost will be saved by agreeing to adjust the temperature accordingly.

PROVIDING OPERATING RECOMMENDATIONS

Many products include features and capabilities that are not fully understood by users. Some of these features can lower the cost of operation and reduce energy consumption. For example, a clothes dryer consumes less power if the heat is set to a lower setting, but that setting is generally set once and not adjusted. Sensing and automation can select the best setting for a given load and time constraint. Sending messaging through an app that encourages more energy-efficient settings or modes can improve the operational efficiency smart products.

DELIVERING FAULT DIAGNOSTICS

Billing inquiries are a leading cause for calls to customer service. Consumers are very engaged if an event costs them money. Smart products can prevent expensive bills by detecting when an appliance fails but continues to operate. If a device can automatically monitor its operation and determine when performance has been degraded, the device will operate at a higher efficiency level over its lifetime.
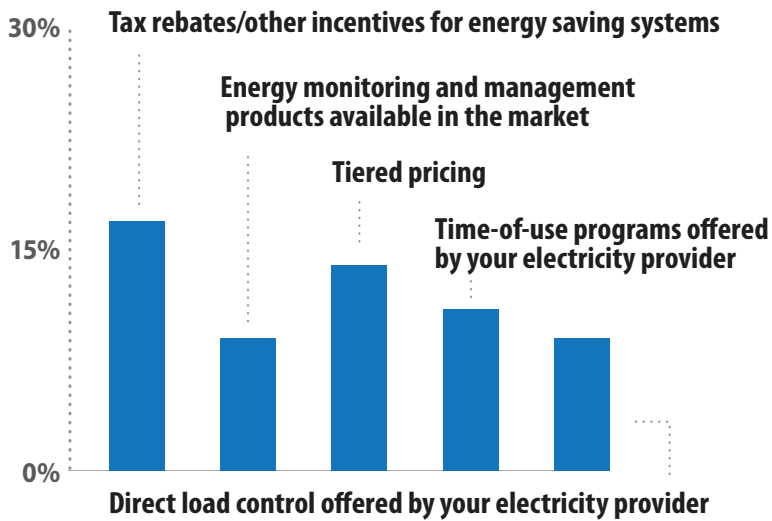
Notifications such as these help the consumer by providing information when it is most critical, before the high bill is accumulated. If the fault detection can show pervasive savings, EE programs can incentivize the capability.

CHOREOGRAPHING LOADS

Only 15% of broadband households are familiar with time-of-use (TOU) pricing, and 17% are familiar with tiered pricing. Communicating when and how customers can save money on a variable rate plan will help increase familiarity with these plans and improve the value of the smart product that enables the savings.

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Familiarity with Energy Programs
U.S. Broadband Households

Tax rebates/other incentives for energy saving systems

Energy monitoring and management products available in the market

Tiered pricing

Time-of-use programs offered by your electricity provider

Direct load control offered by your electricity provider

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CREATING A TANGIBLE PRODUCT

Engaging consumers is not an easy task; however, 70% of U.S. broadband households are interested in smart home devices that have at least one energy management feature.

Similar to social media, the smart home device can become a tool to help gamify energy management. For example, the Nest display has a leaf that appears each time the customer chooses an energy-saving temperature, and the leaf disappears when the temperature is altered from its optimal setting. Partnering with an OEM will allow for the utility to co-brand the cost-savings message to the consumer.

Utility customers are more likely to alter their behavior for the purpose of saving energy when the utility's recommendations are personalized and specifically reflect what the customer will gain. Smart meter data, smart home devices, and in-app and social media advertising offer utilities the ability to pinpoint the needs of their customers and deliver personalized messages. To develop good user experiences, utilities must understand how to leverage the massive amount of data available from smart devices and smart meters to provide the most targeted and relevant messaging.

Conclusion

TO SUCCESSFULLY DIGITALLY ENGAGE
CONSUMERS, A UTILITY MUST USE SEVERAL
HIGH-QUALITY AVENUES TO REACH OUT TO
THE CUSTOMER.

The utility must consistently provide information the customer wants to know, when the customer wants to know it. Satisfaction dramatically improves when the customer feels that the utility is communicating both clearly and with relevance.

Social media is an excellent tool to convey many different types of messages. However, posting content on social media is not enough. The best practices for social media includes posting concise but broad coverage of a topic. Creating content that has a personal and human touch is also important. Social media can dramatically minimize or eliminate negative feelings toward the utility during situations such as a power outage. Social media enables utilities to make every touch point with the consumer a more positive experience.

In the increasingly connected world, smartphones have penetrated over 80% of households. If a utility does not have an app for its customers, it is not meeting the needs and expectations of its customers. It was once enough to simply have an app. Now it is expected that the app function well, is user friendly, and performs all the tasks that consumers feel are necessary.

Adoption of smart products is growing rapidly, creating many partnership opportunities for utilities to enroll those devices into programs and leverage the end product and their apps to deliver energy efficiency messages.

Consumers need to hear a message more than once, and that message needs to be consistent. Comprehensive communication strategies make sure that the customized, targeted message is consistent and reaches the customer when it matters most.
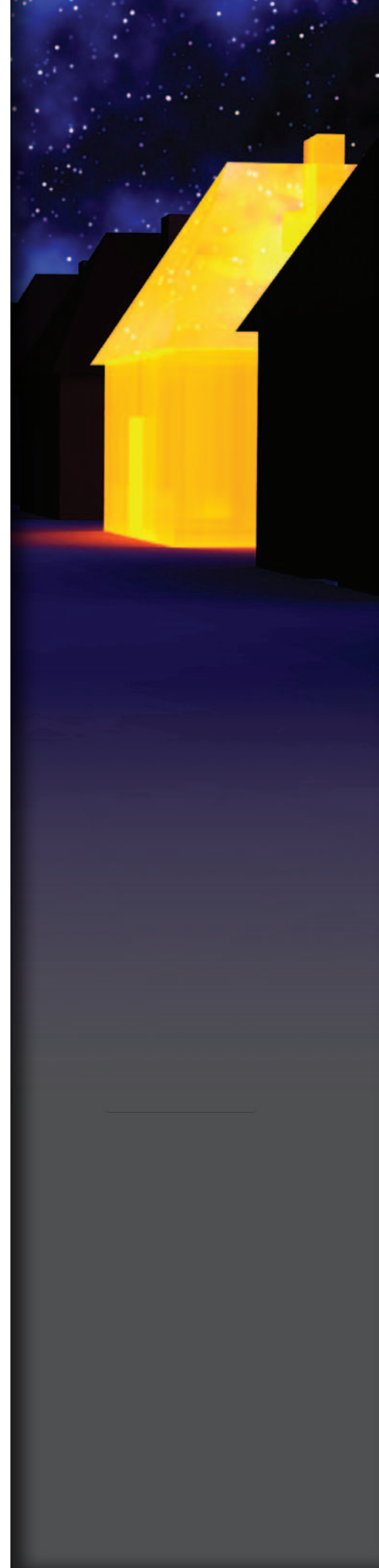
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Parks Associates is an internationally recognized market research and consulting company specializing in emerging consumer technology products and services.

Founded in 1986, Parks Associates creates research capital for companies ranging from Fortune 500 to small start-ups through market reports, primary studies, consumer research, custom research, workshops, executive conferences, and annual service subscriptions.

The company's expertise includes the Internet of Things (IoT), digital media and platforms, entertainment and gaming, home networks, Internet and television services, digital health, mobile applications and services, support services, consumer apps, advanced advertising, consumer electronics, energy management, and home control systems and security.

For more information, visit **parksassociates.com** or contact us at **972.490.1113** | **info@parksassociates.com**

About The Author

Maia Hinkle, *Research Analyst,* **Parks Associates**

Maia currently studies home controls and energy management. Her work includes industry reports and consumer survey analysis including customized segmentation, trend analysis, and forecasting for utility, retail energy providers, OEMs, and service providers.

Prior to joining the firm, Maia worked in marketing and research within the marine industry.

Maia earned her MBA from Rollins College with concentrations in marketing and international business and BA from New College of Florida in social science.

INDUSTRY EXPERTISE: Smart Home Devices and Services, Internet of Things, and Home Energy Management

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Home Energy Management

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Parks Associates provides consumer research addressing consumer adoption and interest in energy services and related smart home solutions and industry analysis for residential energy solutions.

CONSUMER RESEARCH

360 VIEW

360 VIEW: ENERGY MANAGEMENT, SMART HOME, & UTILITY PROGRAMS

— Role of Energy in the Smart Home and IoT
— Adoption and Usage of Energy-related Smart Home Products, Systems, and Services
— Interest in Energy Management and Current Energy-saving Habits
— Bundling Opportunities for Energy
— Interest in Energy Value-added Monitoring Services

360 VIEW INCLUDES A POWERPOINT DECK OF 100-150 SLIDES FEATURING COMPREHENSIVE RESULTS AND ANALYSIS OF NATIONWIDE CONSUMER SURVEYS.

360 VIEW UPDATE—MARKET FOCUS INCLUDES A POWERPOINT DECK OF 40-50 SLIDES FOCUSING A KEY TOPIC OR TREND IN THE CONNECTED CE MARKETS.

PARKS ASSOCIATES SURVEYS UP TO 40,000 U.S. BROADBAND HOUSEHOLDS EVERY YEAR.

+ QUARTERLY UPDATE:

360 View Update—Market Focus

Quarterly updates that investigate specific facets of the market.

- Expanding Residential Demand Response Adoption
- Home Energy Management Adopters
- Trends and Segments for Home Energy Management
- Energy Services in the Smart Home
- The Market for Smart Thermostats
- Energy Management Bundles

INDUSTRY REPORTS

Industry reports incorporate elements of market knowledge: competition, consumers, new and emerging technologies, modes of distribution, business models and topline forecasts.

2015

2Q	Winning Smart Home Strategies for Energy Management
4Q	The Evolution of Home Energy Management

2014

1Q	Leveraging Partnerships to Deliver Home Energy Management
4Q	Digital Engagement of Consumers: Home Energy Management

NUMBERS™ — ANNUAL GLOBAL FORECASTS

Parks Associates NUMBERS™ extends forecast information and knowledge beyond toplines to include detailed views of numbers and graphs and the assumptions behind the forecasts. In addition, the work of cross-tabbing, compilation, and charting is done for you, and you have the ability to merge your own forecasts and compare forecasts by category and across nations. NUMBERS™ is not just information—it is a tool for ongoing use by product managers, financial planners, and company strategists.

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CONNECTIONS™

May 19-21 San Francisco 2015

The Premier Connected Home Conference

The Connected Consumer, Entertainment Services & the Internet of Things

The 19th-annual CONNECTIONS™: The Premier Connected Home Conference will take place May 19-21 at the Hyatt Regency San Francisco Airport.

TOPICS

Entertainment, Content Delivery, & Access Services

Connected CE Devices & Platforms

Smart Home: Security, Controls, Energy, & Smart Devices

Innovations Creating New Opportunities

KEYNOTES

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