IoT and BYOD - Changing the Way Utilities Engage with Customers

Utility Energy Forum

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The Connected Home – more than just a passive consumer....

More devices are now able to work together.
Advances in the industry are creating more interoperability between products. Bridging the gaps between different communication protocols, technologies and standards.

Home automation is becoming more affordable and easier to implement. The "Internet of Things" and cloud services are only furthering the drive for communicating products in and outside of the home.

The Cloud has changed the connected world (and democratized it)
The cloud has transformed how customers connect to and use smart energy efficient devices.
Connectivity Enables *Greater* Choice

- New technologies, and markets evolved creating a shift in customer preference for “smart home solutions”.

- Leveraging the utility and IoT communications pathways enable customer options for energy management and support Smart Grid functionality that can enhance reliability and optimize investments.
Smart Thermostats: Part of the Solution

- SCE is partnering with industry innovators including Nest Labs, Alarm.com, EnergyHub, Ecobee, Filtrete, Honeywell, Lux, Zen, Swann, Sense, Vivint.com, RadioThermostat
- Global smart thermostat sales grew +123% in 2015, $785M USD
- Each year, an estimated 50,000 households served by SCE install interconnected “smart” thermostats and energy management systems
- Third party market research predicts smart thermostat adoption will grow 43% in the next five years; by 2020, 1 out of 4 SCE customers will likely own a smart thermostat
3rd Party BYOD Communication Architecture

Providing multiple pathways communications and minimizing the opportunities for obsolescence
Co-Marketing and Co-Branding
Net Zero Energy Homes

Designed to generate as much energy as it uses over the course of a year.
Grid Integration of ZNE Communities

Project Partners

- Meritage Homes
- Southern California Edison
- EPRI
- Go Solar California
- Itron
- Bira Energy
Control your energy account using just your voice

What’s Amazon Echo and who is Alexa?

Alexa, ask EDF Energy...
Future State of Grid Needs

What areas of focus are most important for 2018 and beyond?

**Inclusion of Fast and Flexible two-way supply and demand**
- Fast response, providing *flexible dispatch that can ramp up or down* to accommodate increased renewables

**Reliable, Predictable Resource**
- DSM that can provide *consistent* results and be incorporated as a resource in procurement and system planning processes

**Locational and Granular Deployment & Dispatch**
- Ability to dispatch at a partial MW or territory level (S-LAP or more granular) to meet distribution system needs and minimize customer impact

**Customer Choices**
- Providing *customers with tools and choices (dynamic rates and incentive programs)* to manage their energy bill

As a guiding principle, all of these areas of focus should be integrated and seamless, and match customer needs and values FIRST
Thank you!

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