



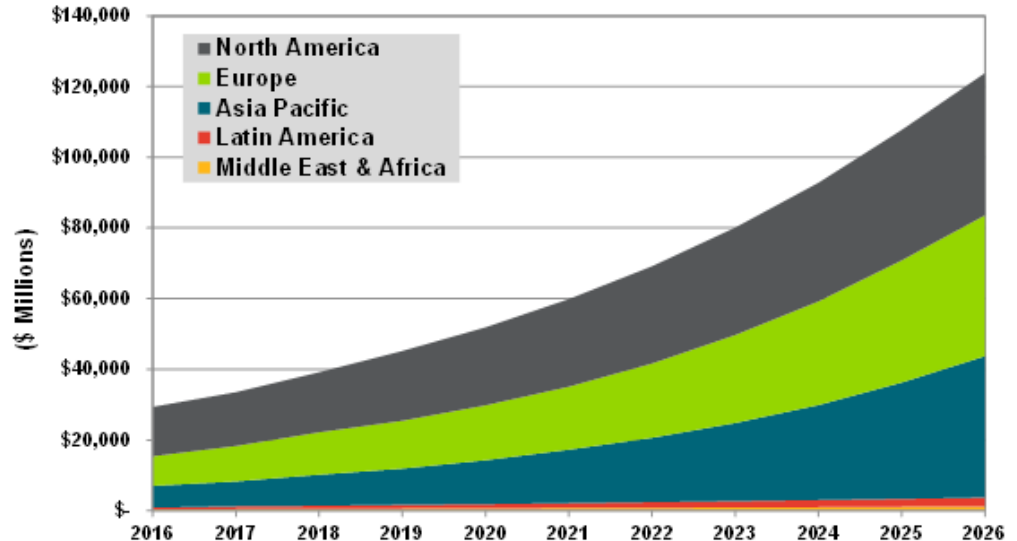
ICF Product Workshop
Connected Home Overview

August 2017

“IoT” appears to have hit a tipping point

North America revenue

From \$14.0 billion to \$40.2 billion
CAGR of 11.1%



Lots of customers are buying...

27%

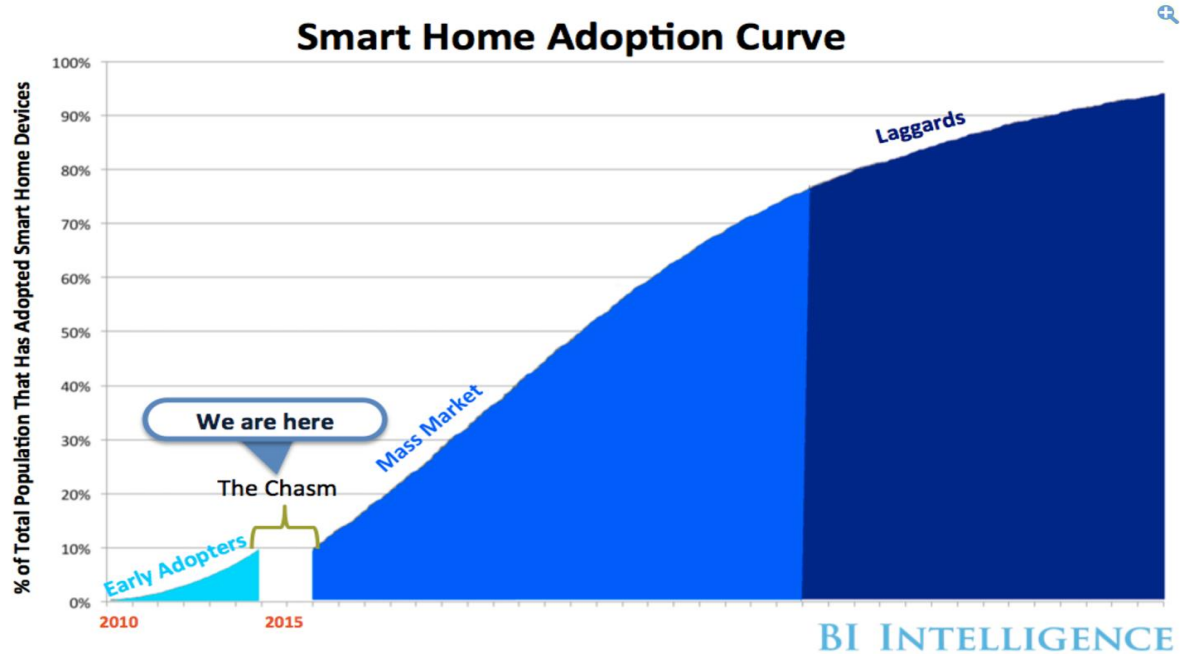
of Americans—**that's over 66 million**—have purchased a connected product for their home.

*Number of Americans calculated using 2015 U.S. Census data

But most smart devices aren't smart enough (yet)



We're in the "chasm"



1. Businessinsider.com. October 16, 2016. <http://www.businessinsider.com/the-us-smart-home-market-report-adoption-forecasts-top-products-and-the-cost-and-fragmentation-problems-that-could-hinder-growth-2015-9>

And utilities/regulators are still figuring out their strategy

ALABAMA NEWSCENTER Birmingham | + -

BUSINESS COMMUNITY INNOVATION WEATHER CENTER ABOUT US

Share this story [f](#) [t](#) [g+](#) [in](#) [e](#) [s](#)

Alabama Power and Signature Ross Bridge

By Katie Bolton
April 21, 2017

gtm:
A Wood Mackenzie Business

- SOLAR
- GRID EDGE
- ETC.
- Podcasts
- Webinars
- White Papers
- Videos
- About
- Advertising
- Creative Strategies
- Careers
- Contact

ComEd gets \$4 million to build microgrid in Bronzeville

Blue Sky Innovation

Microgrids can incorporate multiple renewable energy sources. This in Chicago's Pullman neighborhood uses a 230-foot-tall wind turbine solar panels that shift position with the sun. (Zbigniew Bzdak, Chicago Tribune)

By **Ally Marotti**
Blue Sky Innovation

JANUARY 26, 2016, 5:30 AM

ComEd is building a microgrid in Bronzeville and just received the next step: solar power and battery storage that could eventually power the Chicago Police Department headquarters and other key buildings running during an outage.

Illinois' largest electricity utility received a \$4 million grant from the Energy's SunShot Initiative last week that will be used to design and test microgrid technology.

A microgrid is a group of electricity users and buildings...

REGULATION & POLICY

National Grid and Opus One Launch a Distributed Service Platform Test for New York REV

Testing how microgrids and distributed energy can integrate with grid operations—and get paid for the service

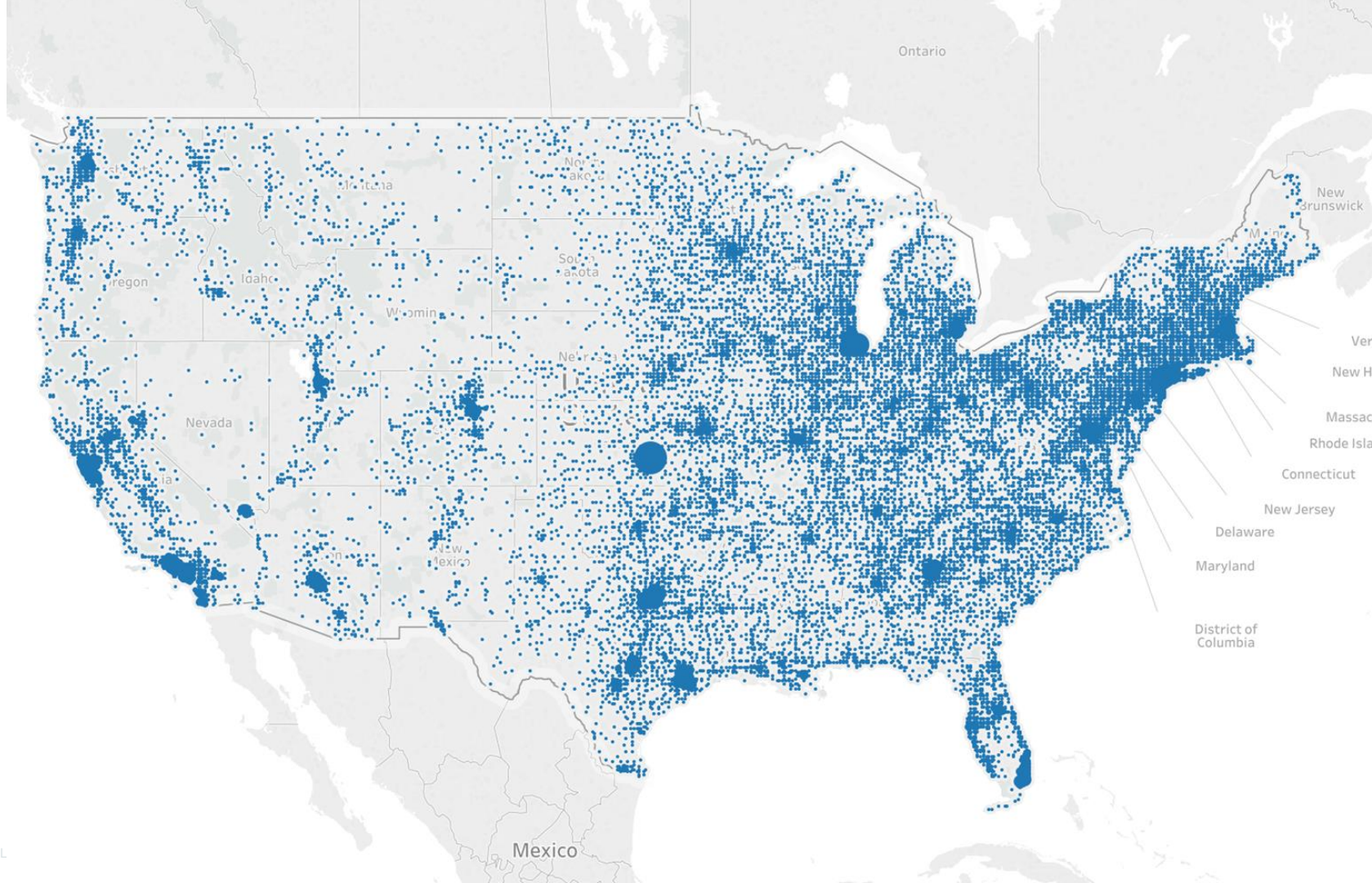
by Jeff St. John
September 28, 2016

So how can we recognize the
benefit of the Connected Home now –
and set a foundation for future programs?

With devices already at scale.

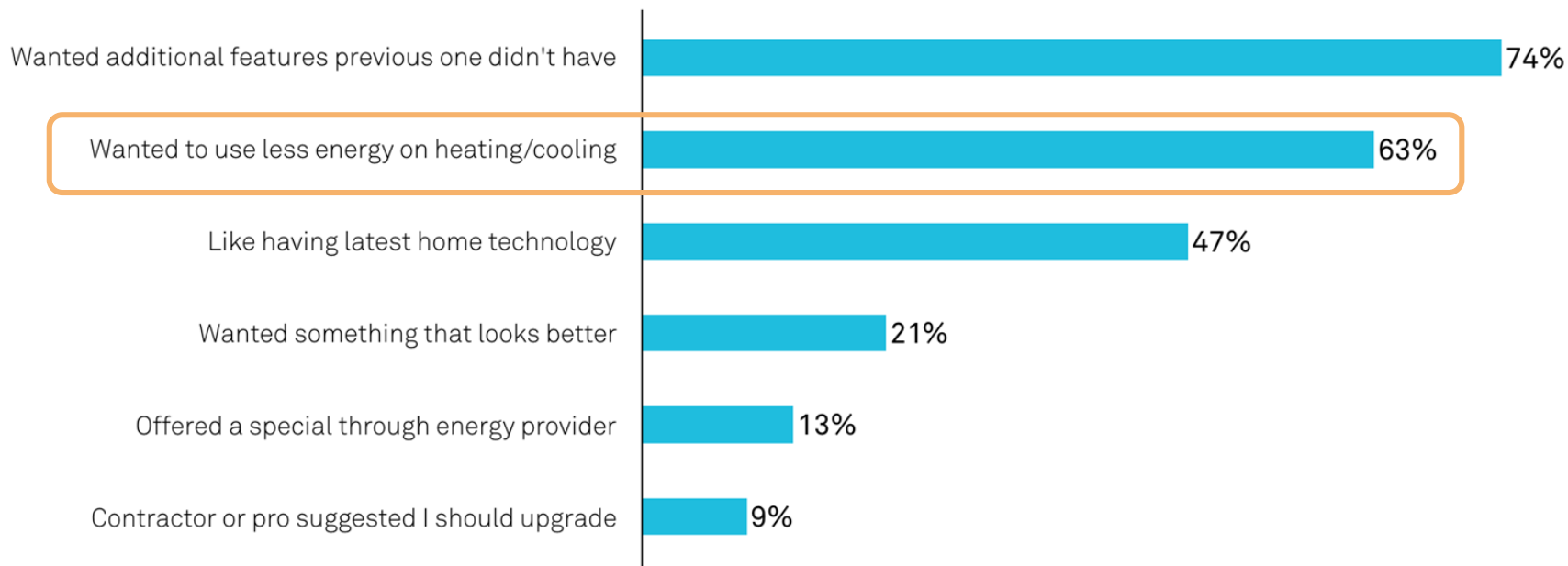


Customers buy smart thermostats for comfort, convenience, and to help them save energy.



Customers want to energy – and they like the connected technology.

Why did you choose to purchase a smart thermostat?





Meanwhile, traditional utility programs are disconnected from connected products.

And energy programs can appear complex to customers.

Demand
Response

Peak Time Rebate
What's a kW?
Behavioral DR
Load Control Switch

Energy
Efficiency

HVAC Tuneup
What's a kWh?
Weatherization
Appliances

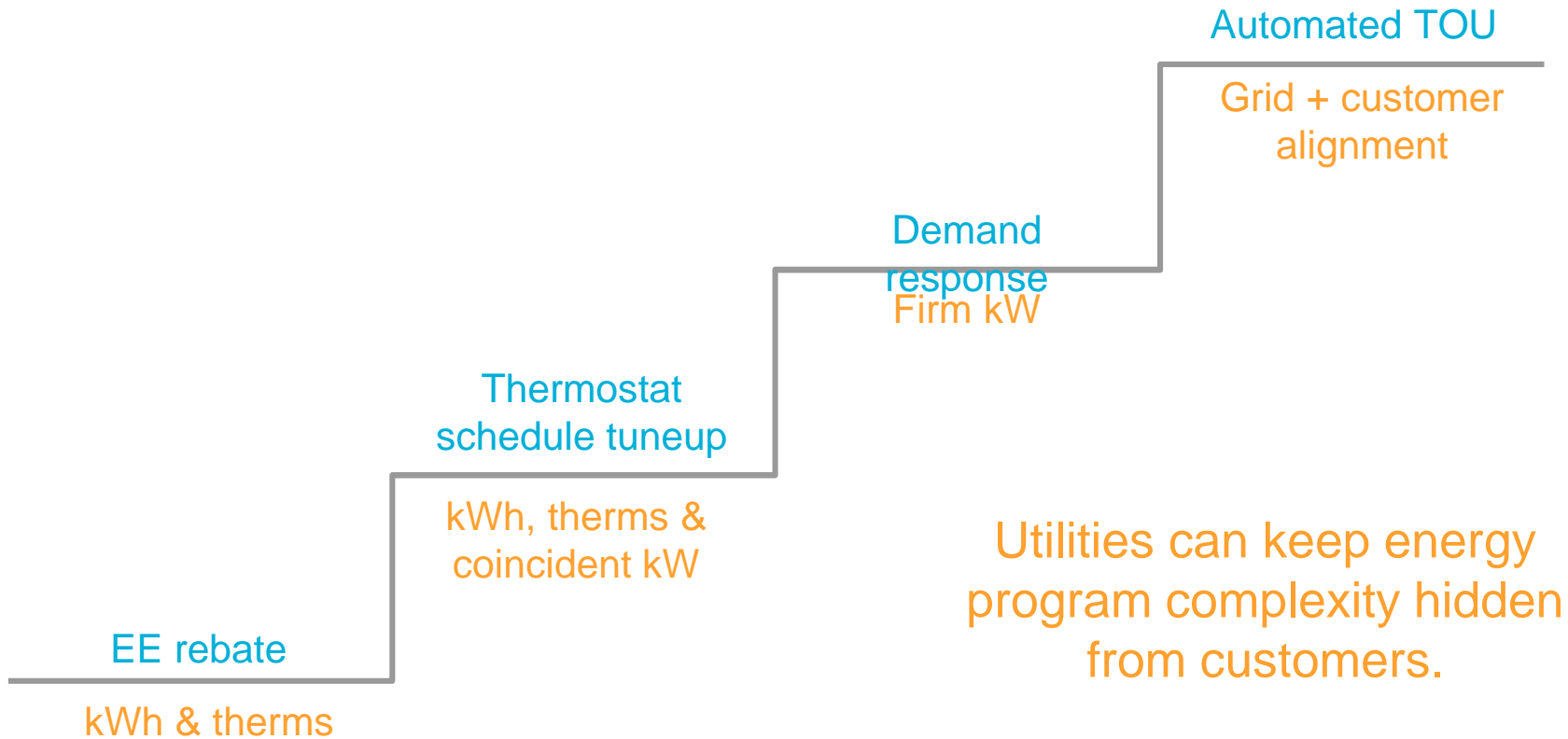
Rates

Multiple TOU Rates
I'm already on a TOU rate, right?
Critical Peak Pricing

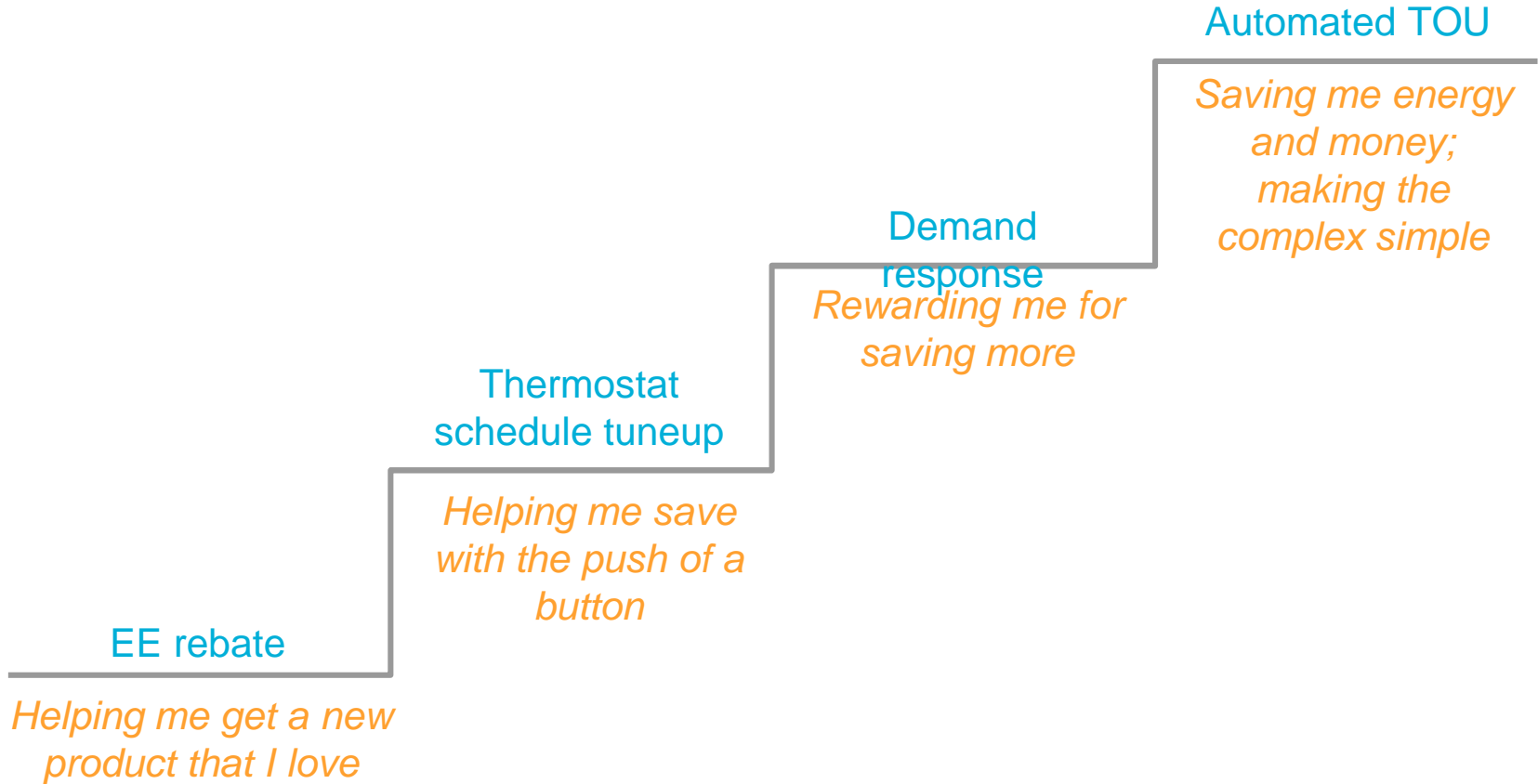


What if a single **Connected Home** program met each customer where they are on their unique energy journey?

Some customers would do a little, and some would do a lot.



Utilities: The Trusted Energy Advisor



SCG and ComEd Case Study

nest



SEASONAL SAVINGS

For the next week, Nest can learn to make your schedule more efficient. Save money on your energy bill.

ENABLE

MORE INFO

A unique path:
Each home gets algorithms tailored to its
unique characteristics.





SoCalGas

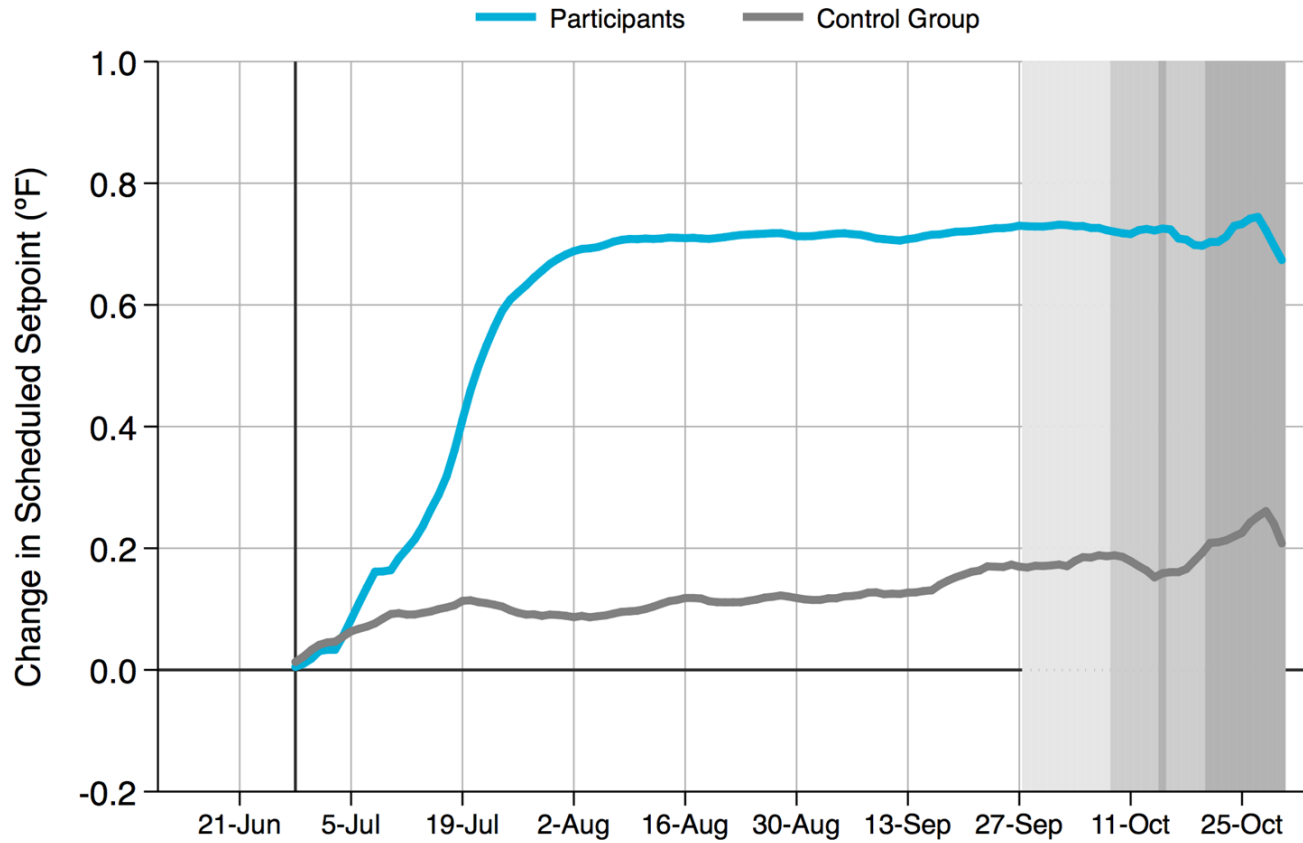


Sempra Energy utility

ComEd®

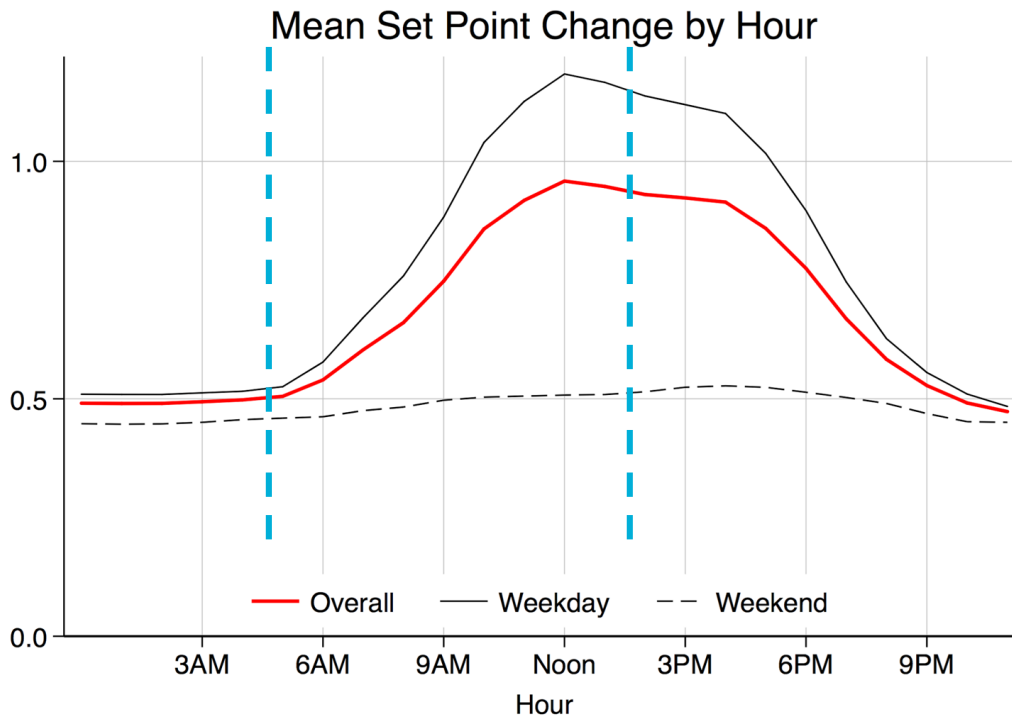
An Exelon Company

50,000 +



8%

Measurable Coincident Peak Demand Reduction



Data from Summer 2015 deployment in East Coast, over 13,000 devices

\$0.05

80%

But wait, thermostats aren't everything...
what about the rest of the Connected Home?

Increased adoption and falling costs



The future is AI/machine learned-automation

