



**Better Buildings Residential Network Peer
Exchange Call Series: *Audience
Segmentation and Analysis Strategies for
Targeted Marketing (301)***

September 24, 2015

Call Slides and Discussion Summary

Call Participants

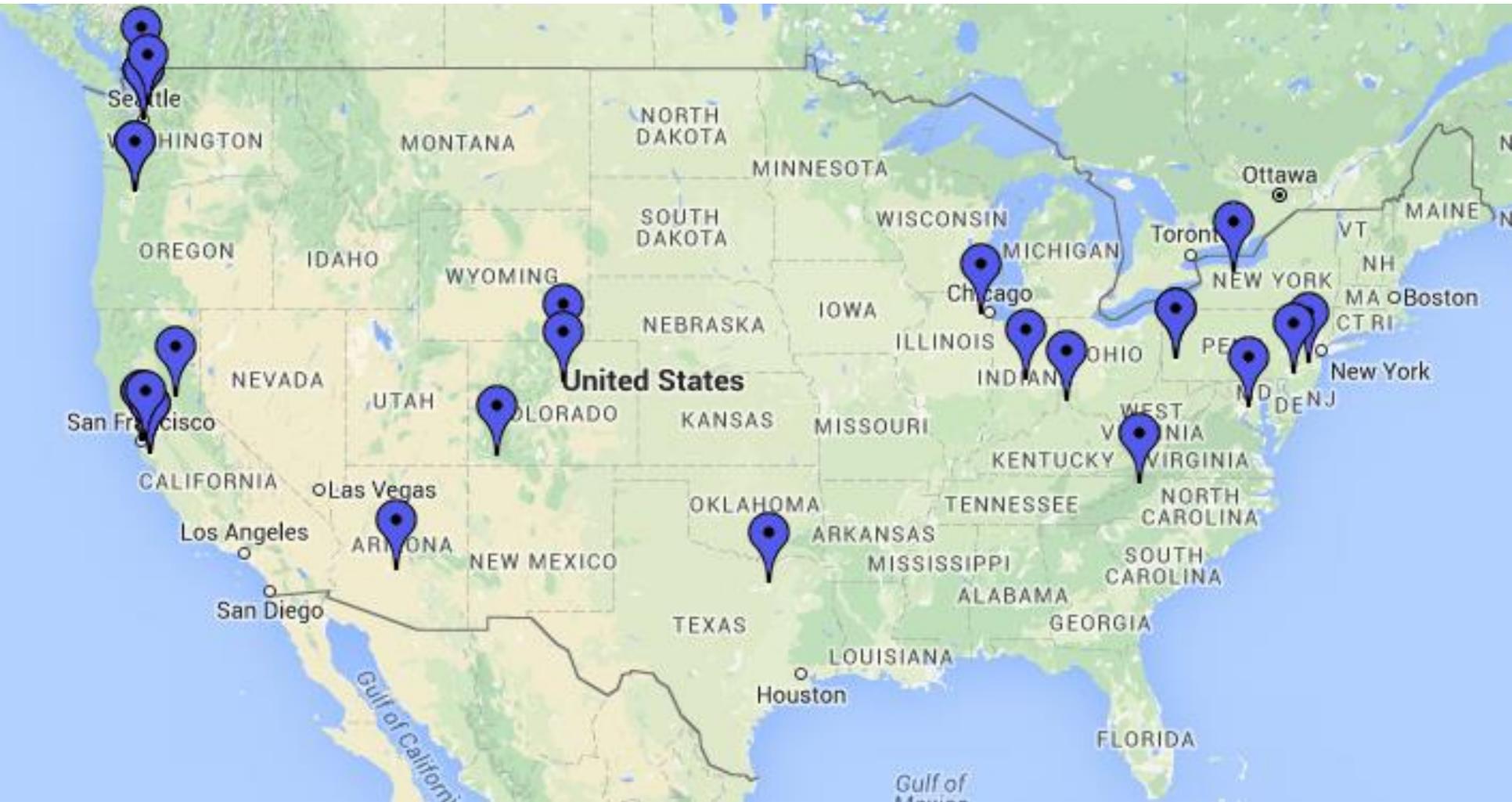
Residential Network Members

- Build It Green
- City of Fort Collins (CO)
- City of Plano (TX)
- City of Sunnyvale (CA)
- Energy Efficiency Specialists, LLC
- EnergySavvy
- Greater Cincinnati Energy Alliance (GCEA)
- International Center for Appropriate & Sustainable Technology (ICAST)
- Local Energy Alliance Program (LPEA)
- Performance Systems Development (PSD)

Call Participants Non-Members

- Bonneville Power Administration (BPA)
- Cascade Natural Gas Corporation
- CLEAResult
- CMC Energy Services
- ComEd
- Debra Little Sustainable Design
- Eco Rehab
- Erie County (NY)
- Fuel Fund of Maryland
- Mpower Oregon
- Opower
- Snohomish County Public Utilities District (WA)
- Sustainable Environments Inc.
- U.S. Department of Housing and Urban Development (HUD)

Call Participant Locations



Agenda

- Agenda Review and Ground Rules
- Opening Polls
- Brief Residential Network Overview
- Featured Speakers
 - **Ben Packer**, Principal Data Scientist, [Opower](#)
 - **Mark Ghazal**, Senior Product Manager, [EnergySavvy](#) (*Residential Network Member*)
- Discussion
 - What approaches has your organization used to differentiate energy efficiency customers for the purposes of targeted marketing?
 - What types of data has your organization used (building stock, customer behavior, demographic, energy use, etc.)?
 - What approaches have been most useful and cost-effective?
 - How have you adjusted your marketing and/or services based on knowing more about different parts of your customer base?
 - How do you determine whether/when to shift from one-size-fits-all marketing to more targeted marketing to customer segments?
 - Other questions/issues related to audience segmentation and targeted marketing?
- Closing Poll and Upcoming Call Schedule

Opening Poll #1

- Which of the following best describes your organization's experience with audience segmentation analysis for targeted marketing?
 - Some experience/familiarity – **46%**
 - Limited experience/familiarity – **38%**
 - No experience/familiarity – **8%**
 - Very experienced/familiar – **8%**
 - Not applicable – **0%**

Opening Poll #2

- How has your organization differentiated EE customers for marketing and service delivery?
 - Customer demographic data – **71%**
 - Building type/characteristics – **71%**
 - Energy use/consumption data – **42%**
 - Customer behavior data – **21%**
 - Other (please explain) – **4%**

Better Buildings Residential Network

Better Buildings Residential Network: Connects energy efficiency programs and partners to share best practices and learn from one another to increase the number of homes that are energy efficient.

Membership: Open to organizations committed to accelerating the pace of home energy upgrades.

Benefits:

- Peer Exchange Calls 4x/month
- Tools, templates, & resources
- Recognition in media, materials
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- Residential Program Solution Center guided tours

Commitment: Provide DOE with annual number of residential upgrades, and information about associated benefits.

For more information or to join, email bbresidentialnetwork@ee.doe.gov

Residential Program Solution Center

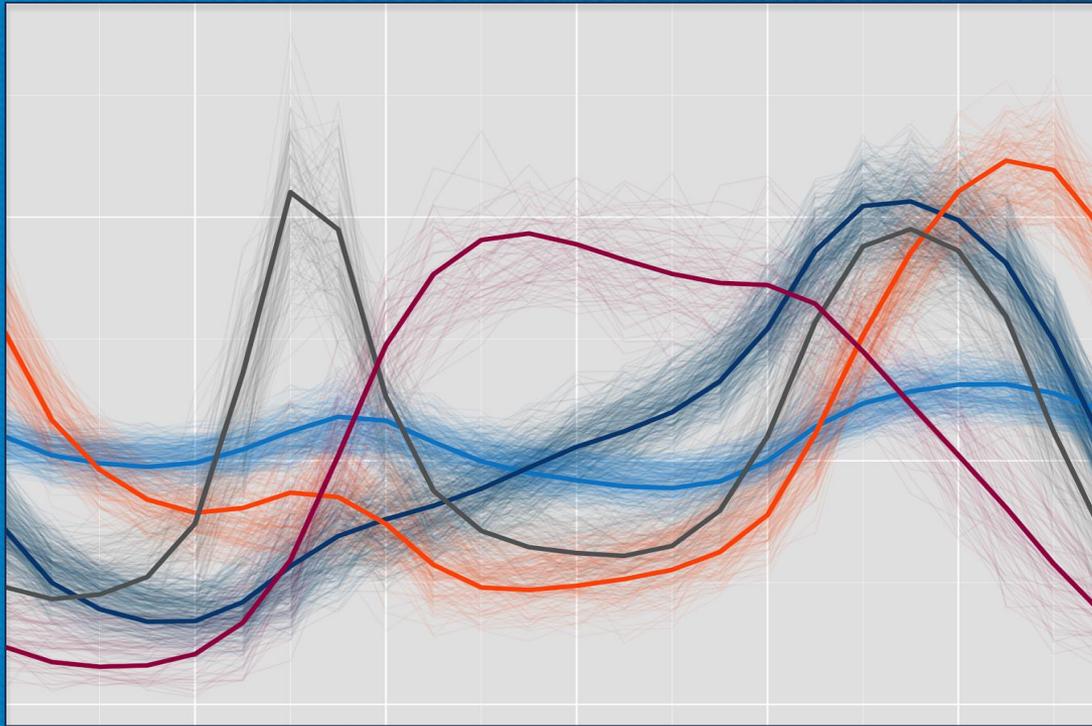
Web portal of residential EE upgrade program resources, & lessons learned to plan better, avoid reinventing the wheel.

- BB Neighborhood Program, Home Performance with ENERGY STAR Sponsors+
- Provides:
 - Step-by-step guidance
 - Examples
 - Tools and Templates
 - Quick Links and Shortcuts
 - Lessons learned
 - Proven Practices posts – see the latest on [Quality Assurance](#)
 - Tips
- Continually add content to support residential EE upgrade programs—[member ideas wanted!](#)



<https://bbnp.pnnl.gov/>

**Program Experience:
Ben Packer, Principal Data Scientist
Opower**

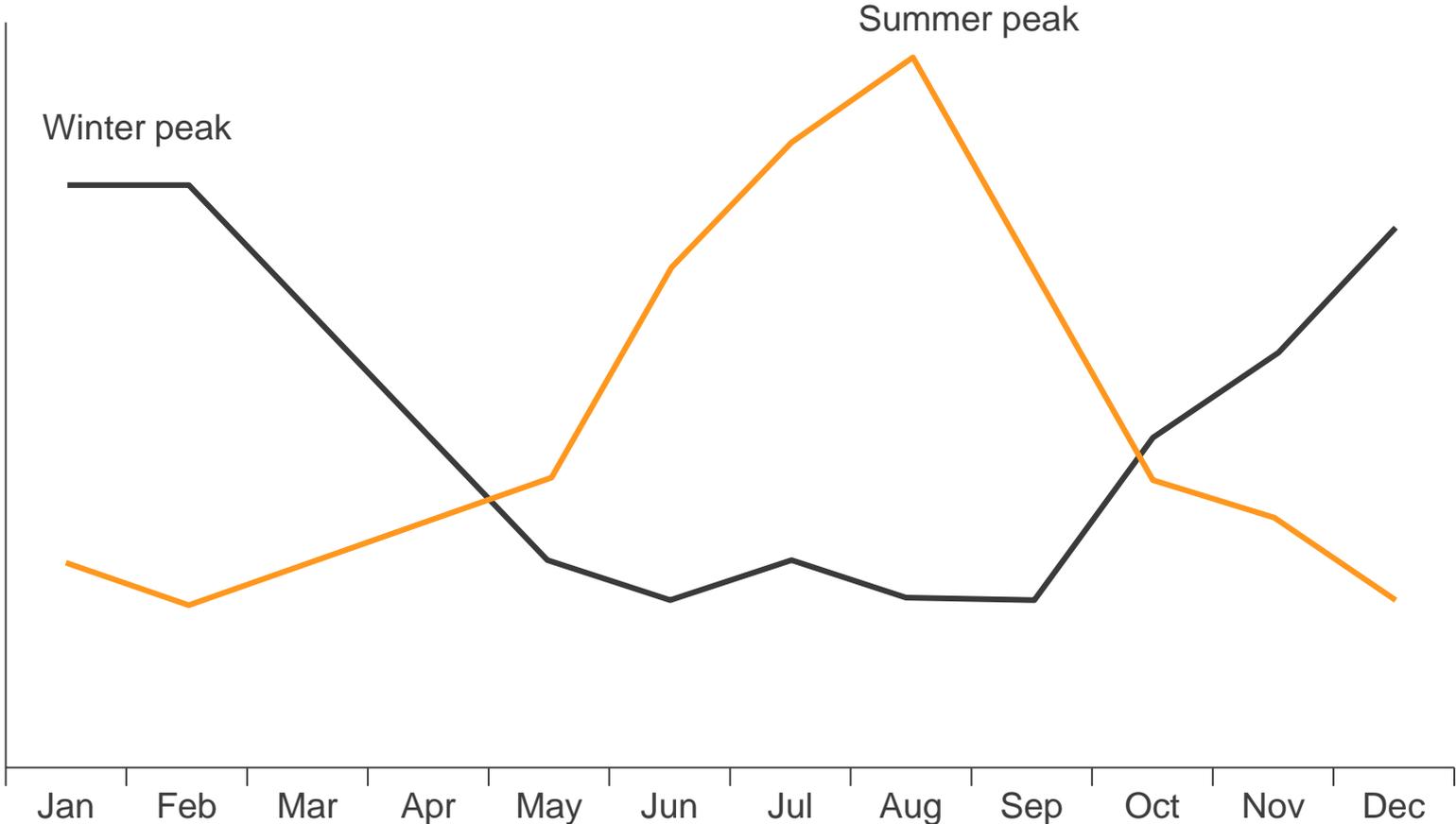


Personalization Through Load Curve Analysis

Ben Packer, Principal Data Scientist, Opower

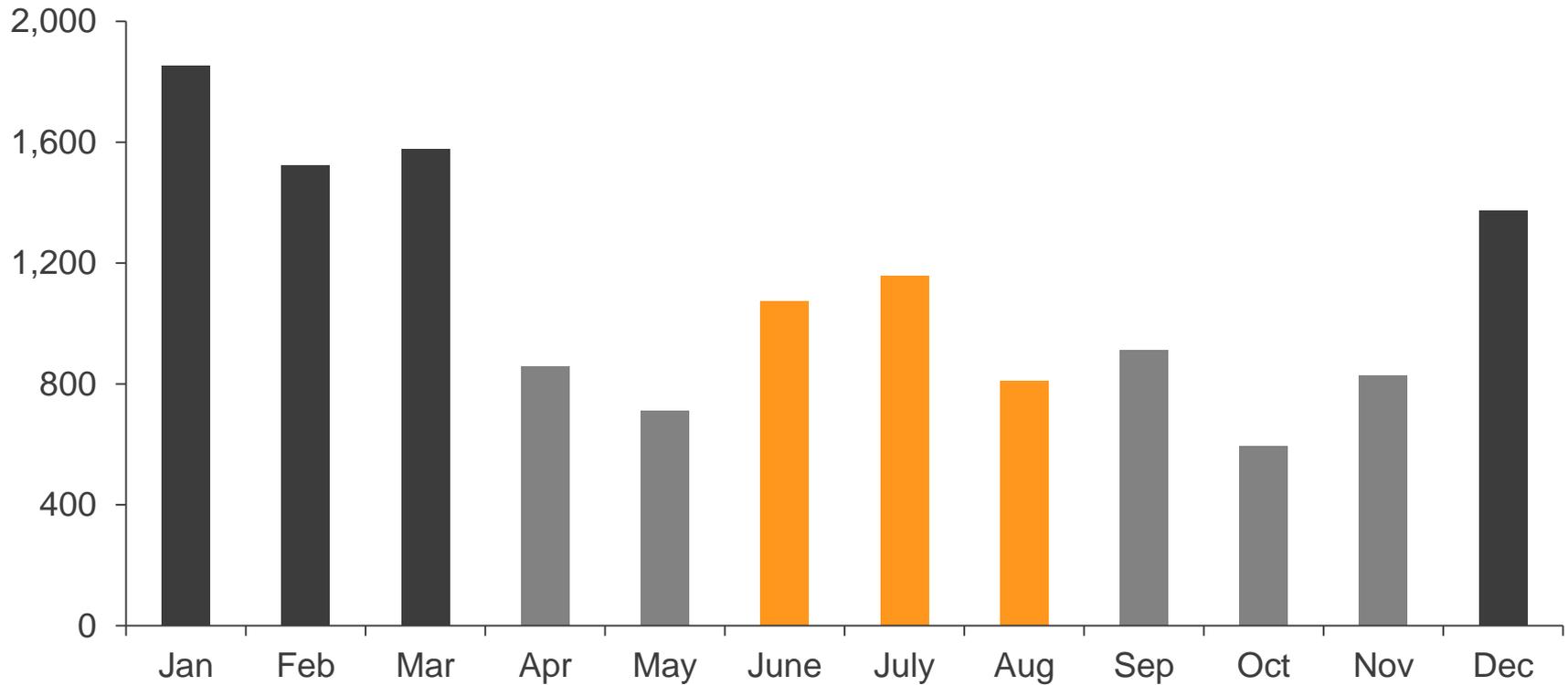
Yearly archetypes

MONTHLY ELECTRIC USAGE
KWh



Nancy is a winter peaker

NANCY HERSH 2014 MONTHLY ELECTRIC USAGE KWh



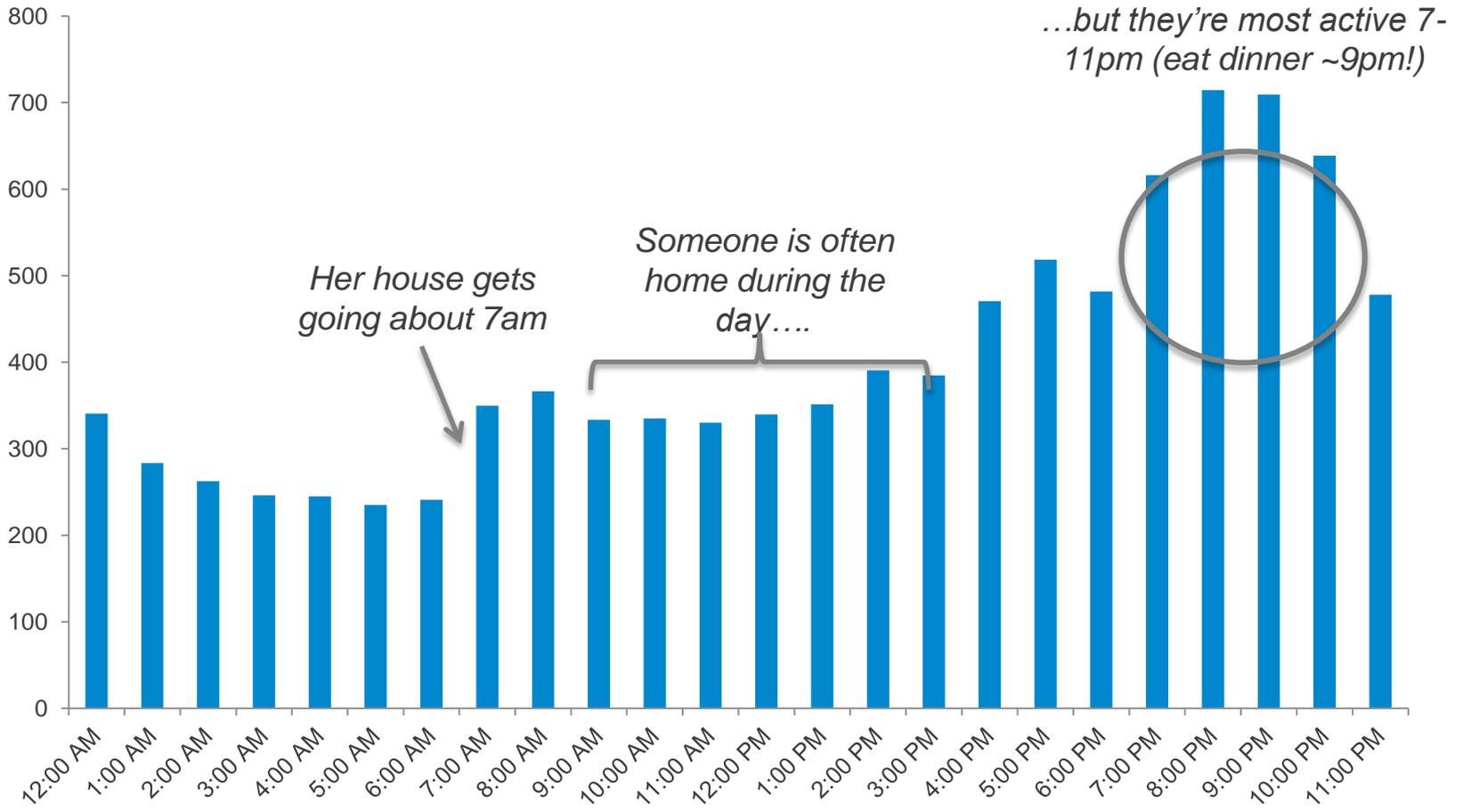
But there's more ...

Nancy has a smart meter!

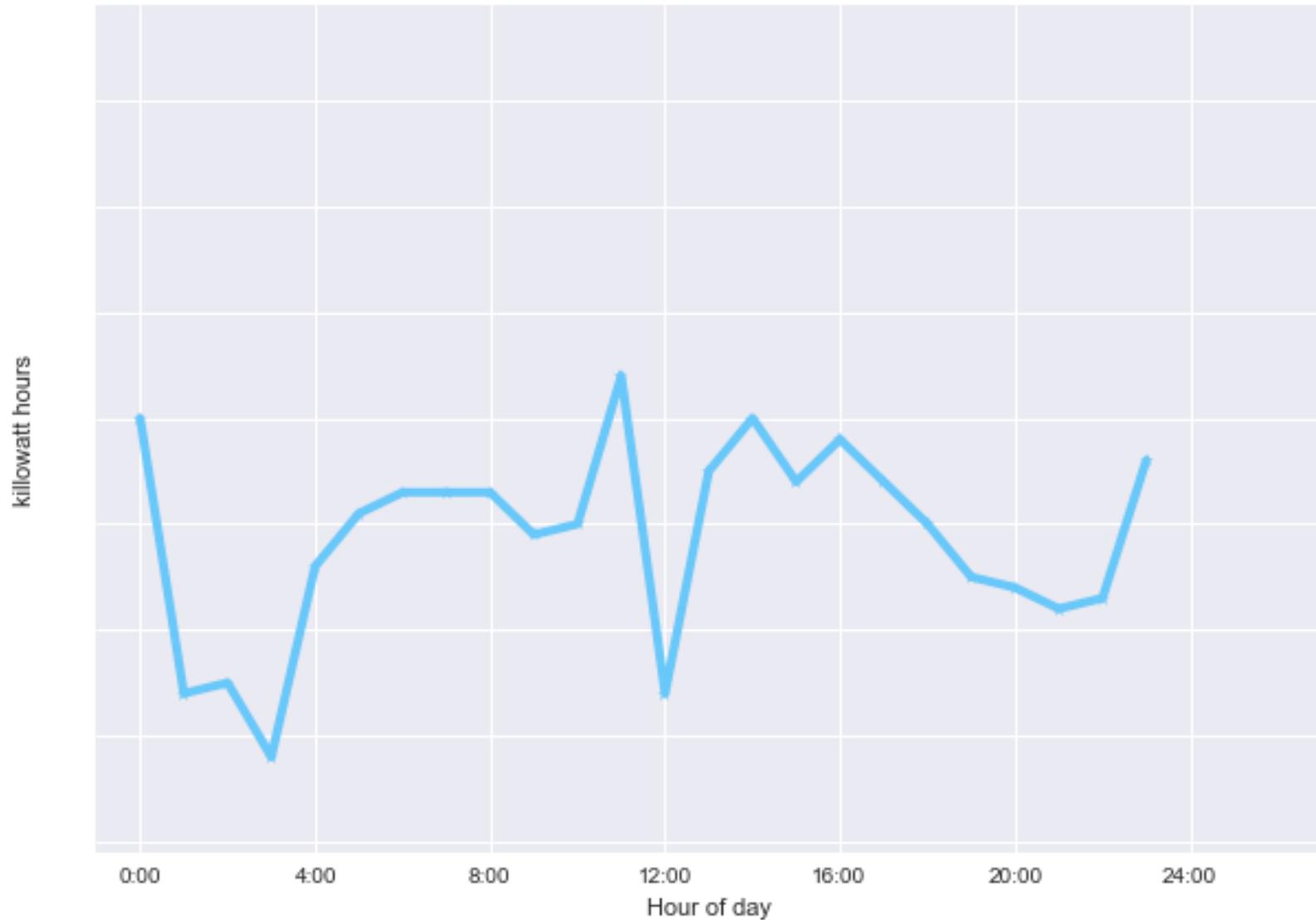


Hourly data opens a window into how she lives

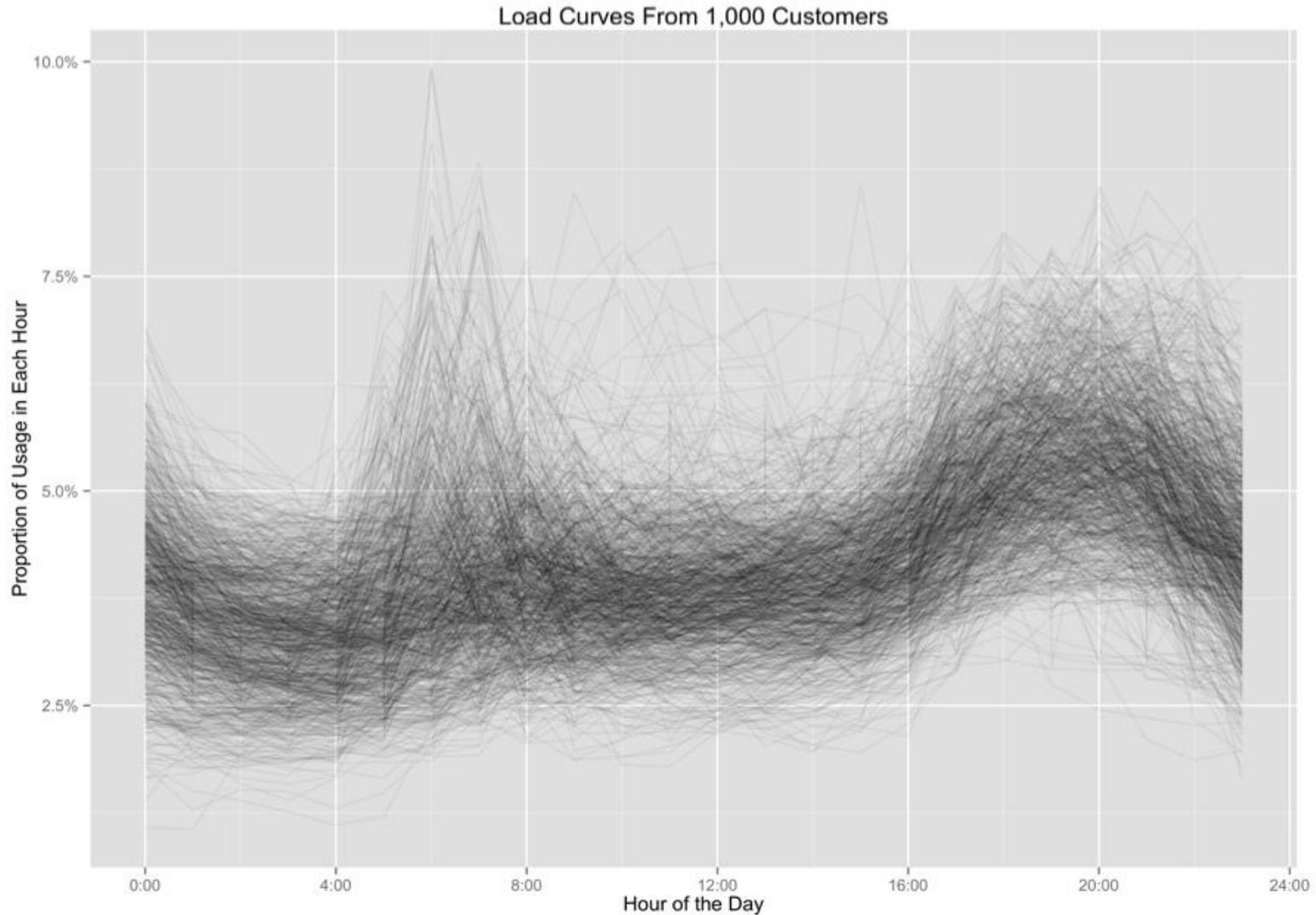
NANCY HERSH 2014 WEEKDAY HOURLY USAGE



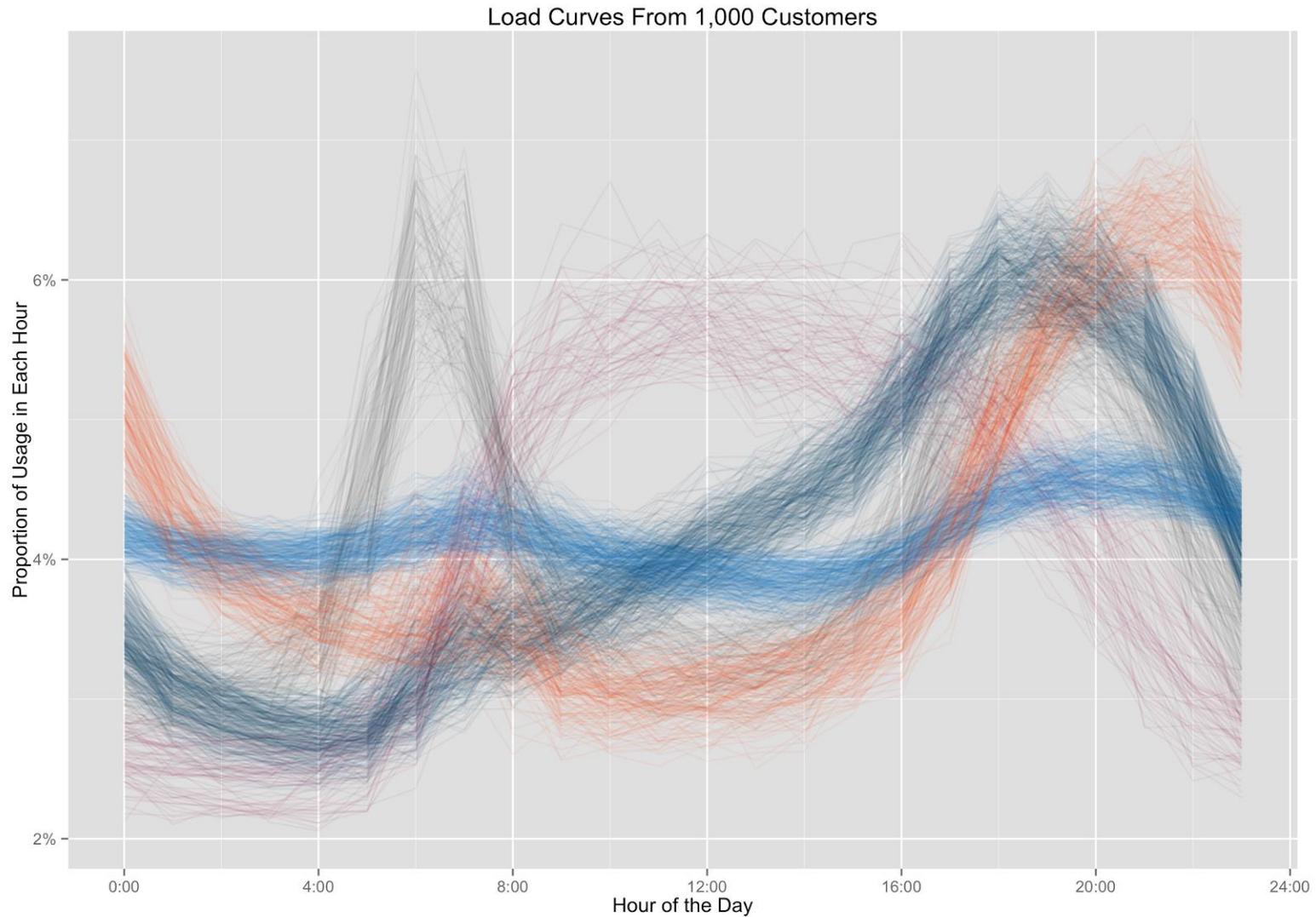
Smart Meter Data



Load Curves – All Customers

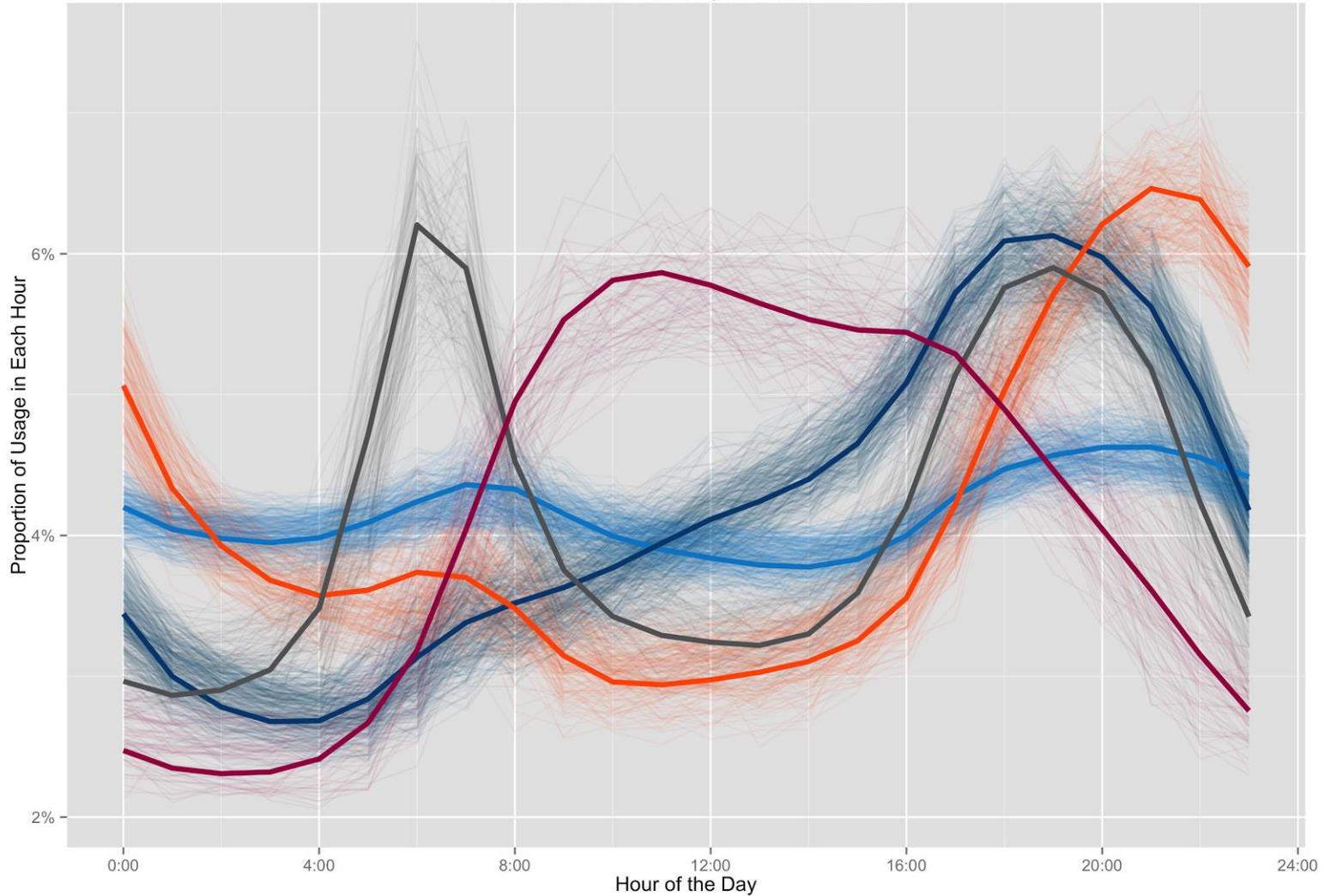


Load Curves – After Clustering

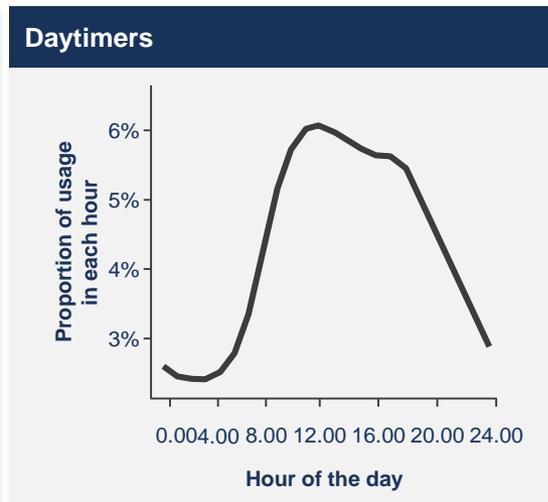
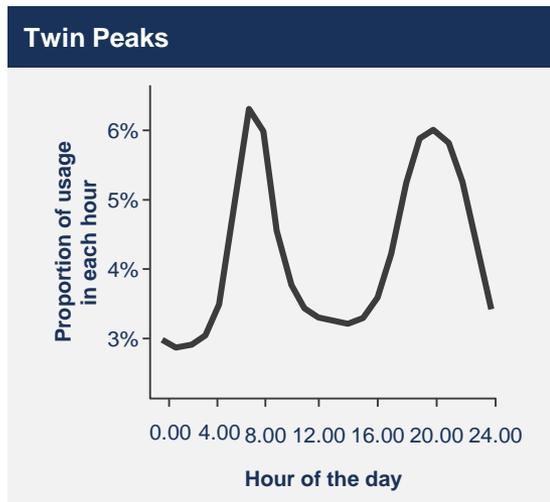
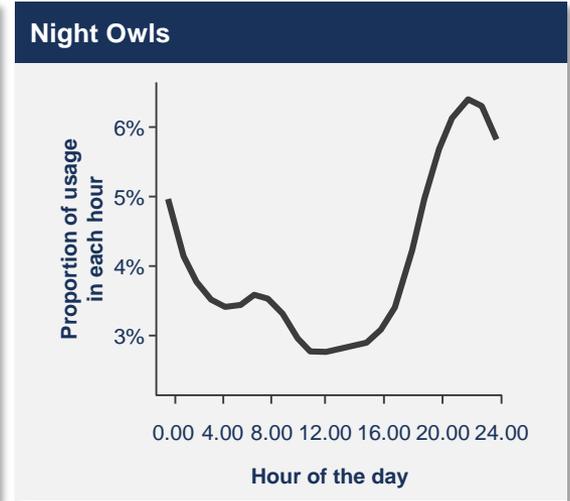
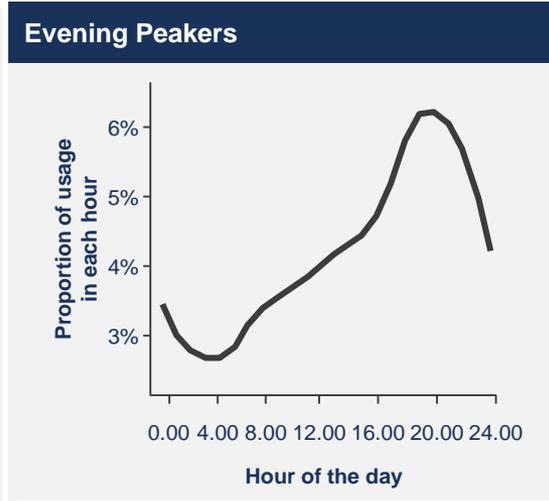
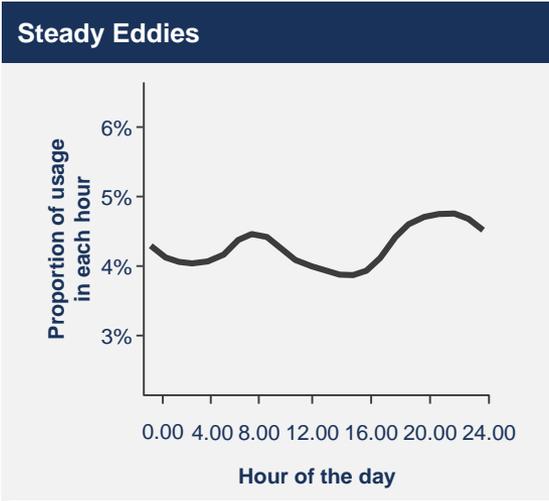


Load Curves – Cluster Centroids

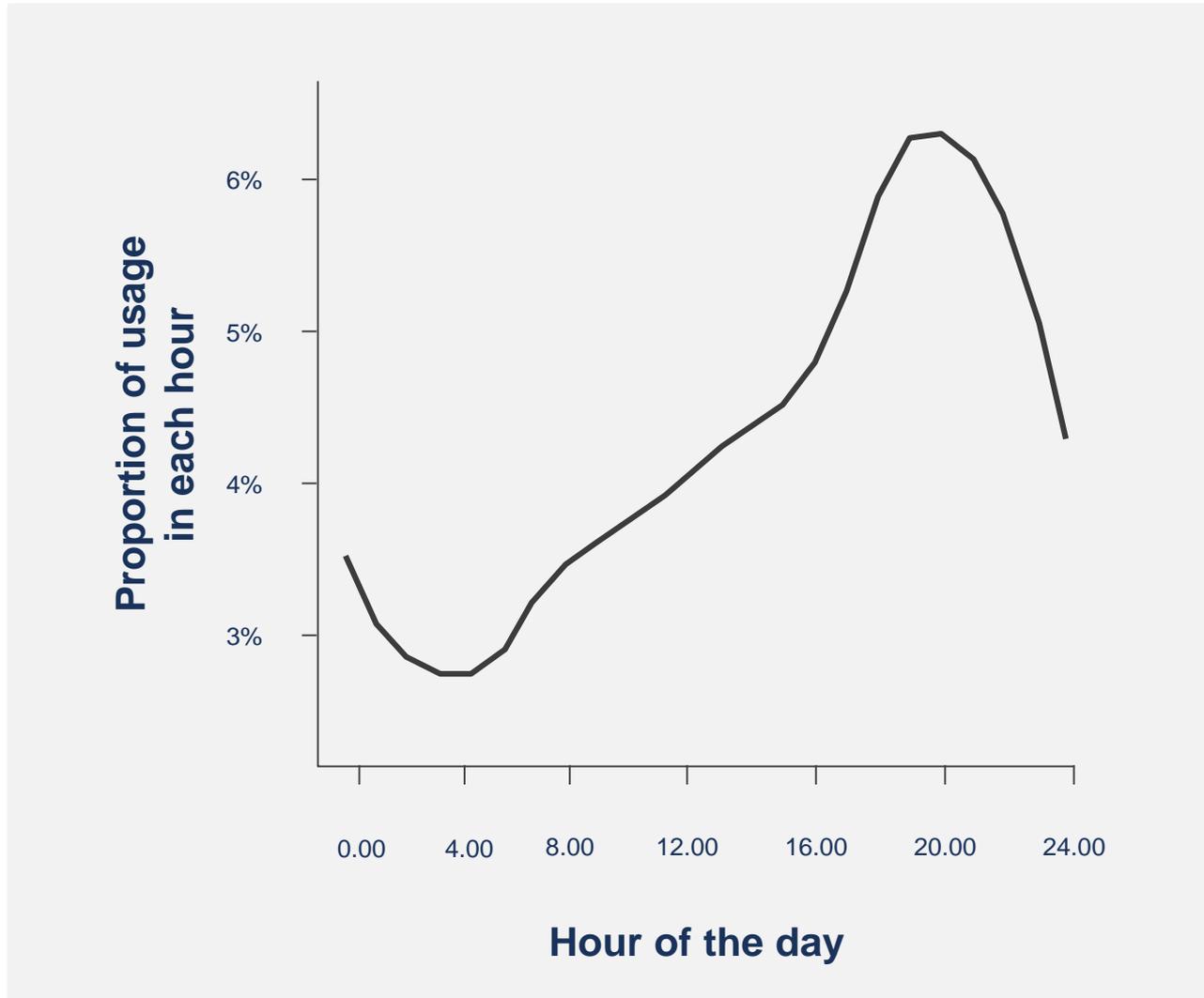
Load Curves From 1,000 Customers



Enter the AMI archetypes



Evening Peaker



Use Case: Identifying customers for DR

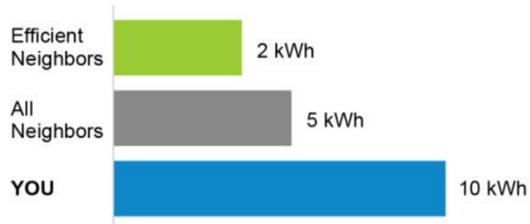
Having trouble viewing this email? [Click here](#)

UtilityCo

Please join your neighbors in reducing energy use on Wednesday afternoon, **August 18th from 2–7pm.**

⚠️ You used **MORE** than similar homes on the last peak day.

Last peak day: Wednesday, June 12th 2–7pm

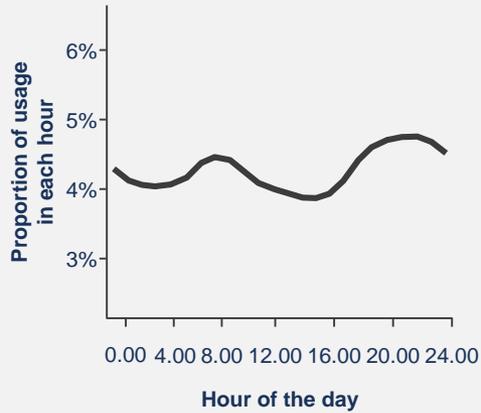


This is an alert from UtilCo: Tomorrow, Wednesday, July 10th is a peak day. From 2 PM to 7 PM join UtilCo customers by reducing your electric use. Simple ways to save on peak days include postponing dishwashing and other large appliance use until the peak day is over. Thank you for helping us save! To opt out of phone alerts, press 9

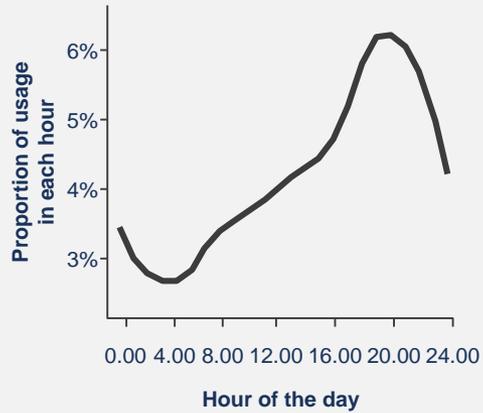


The stories behind the shapes

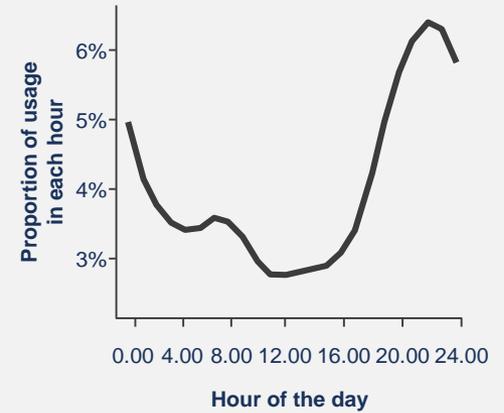
Steady Eddies



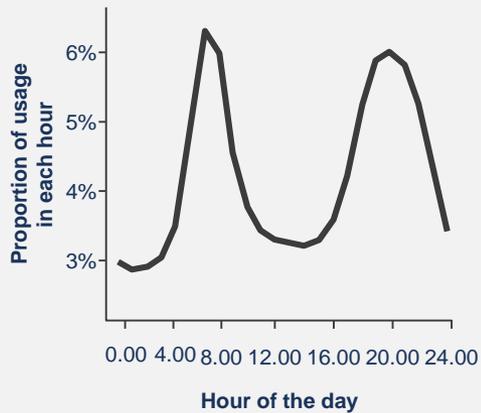
Evening Peakers



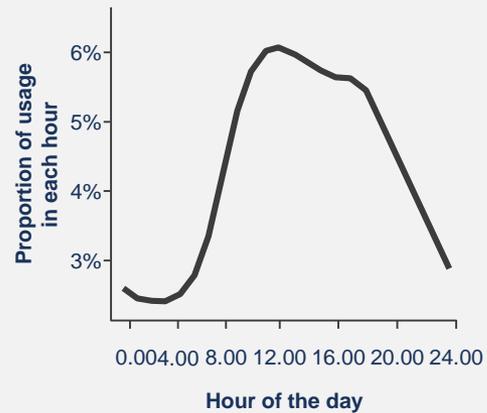
Night Owls



Twin Peaks

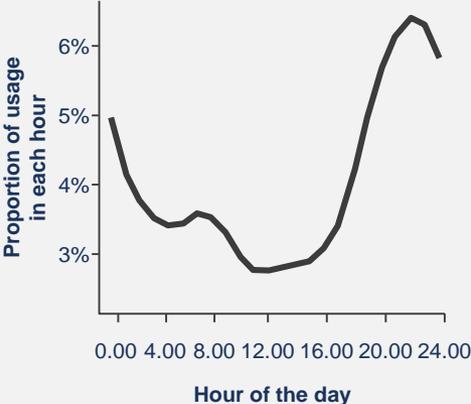


Daytimers

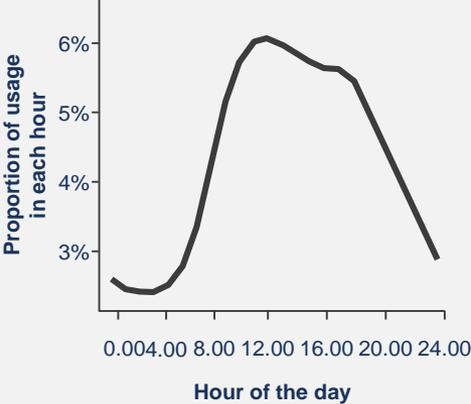


The stories behind the shapes

Night Owls

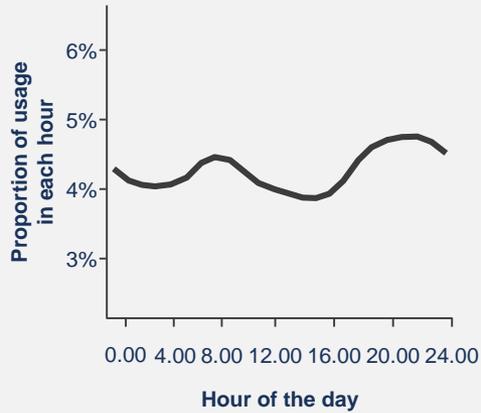


Daytimers

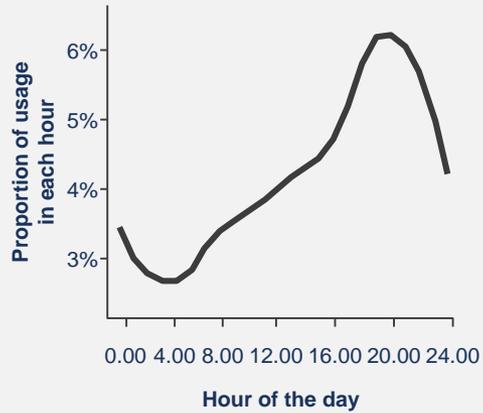


The stories behind the shapes

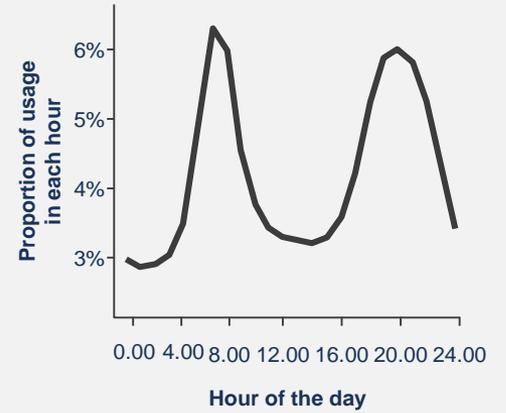
Steady Eddies



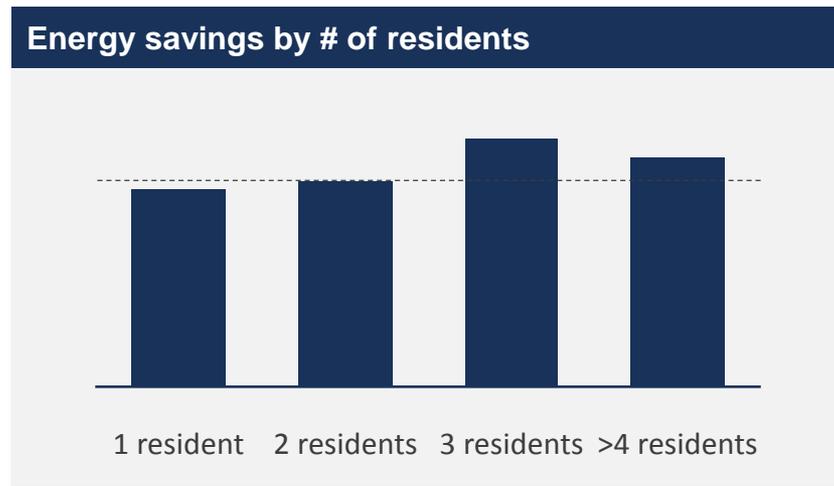
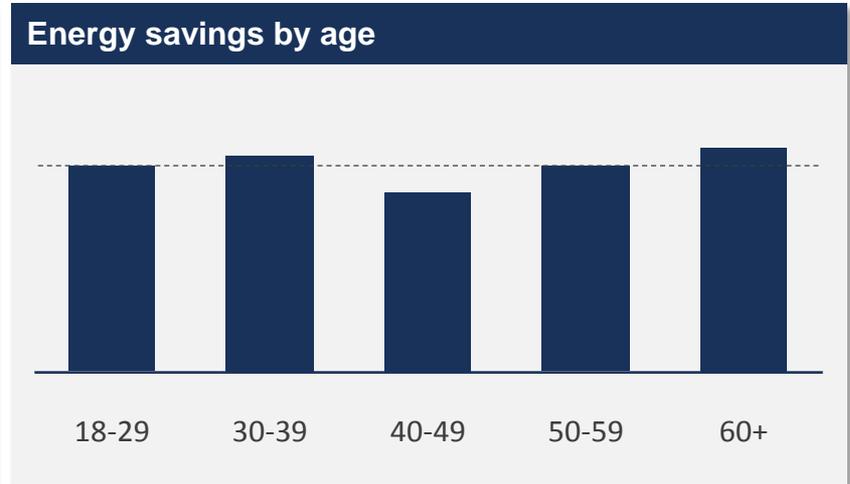
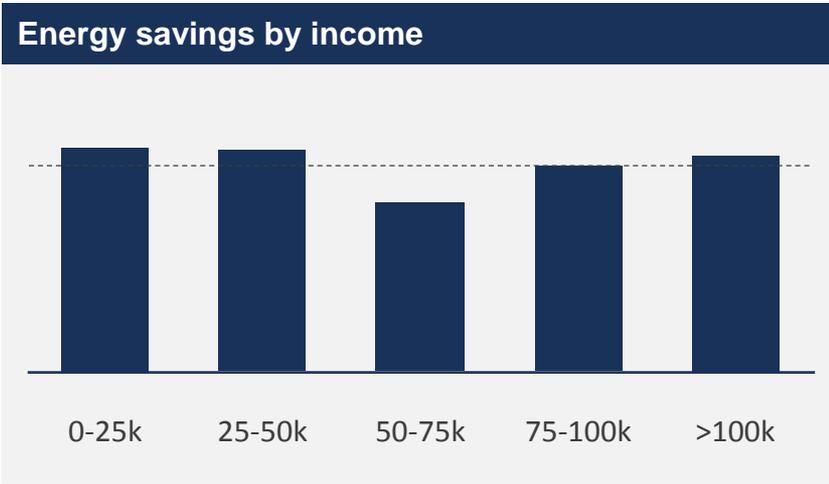
Evening Peakers



Twin Peaks



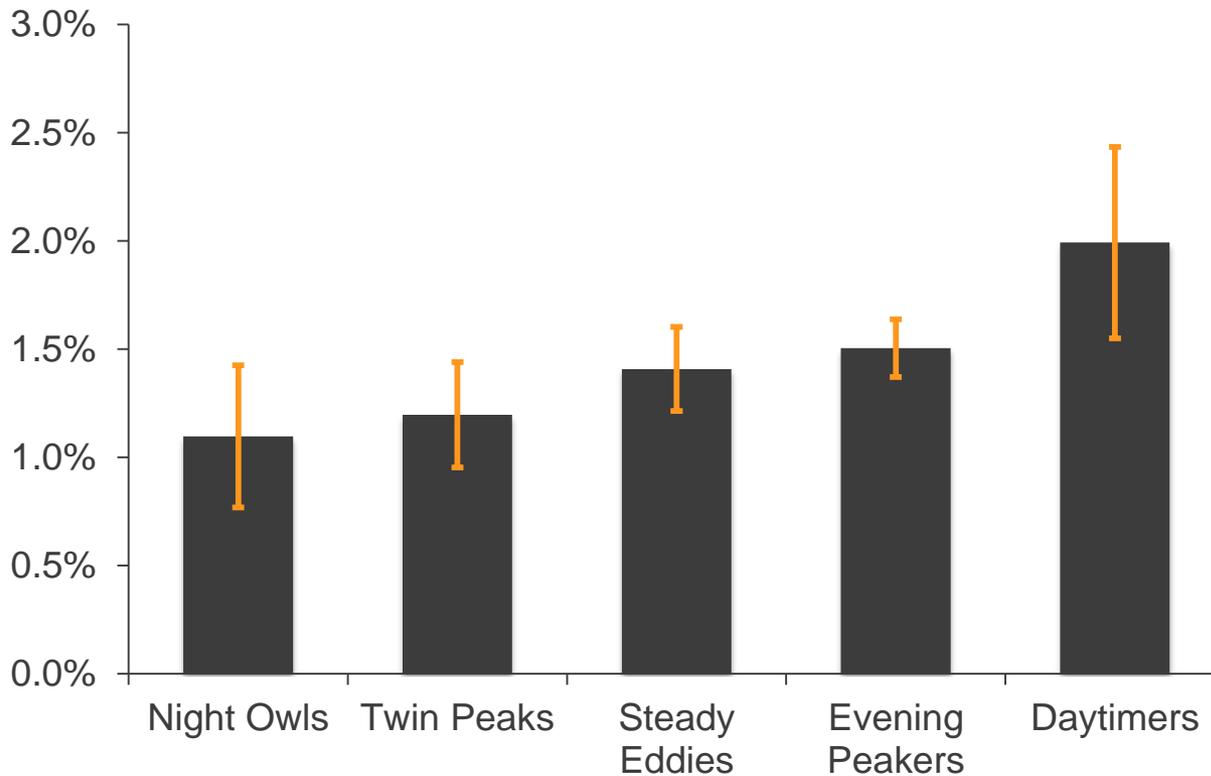
Demographics alone do not predict EE savings



No impact variance by demographic group

Analysis suggests that Daytimers save energy at above average rates

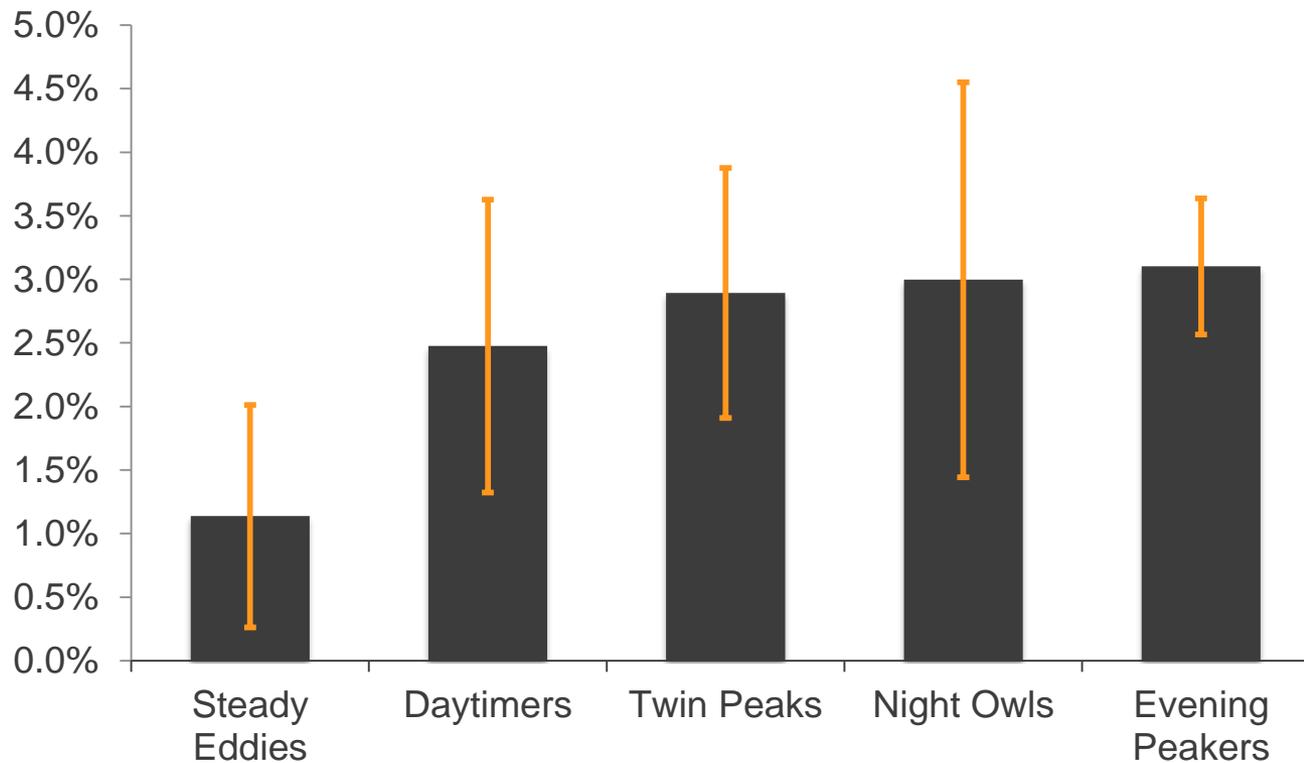
EE SAVINGS % BY ARCHETYPE ACROSS 4 CLIENTS, CONDITIONAL ON USAGE, 80% CONFIDENCE INTERVAL



Why do you think this is?

And Steady Eddies save less energy than most during BDR events

BDR PEAK REDUCTION % BY ARCHETYPE ACROSS 3 CLIENTS, CONDITIONAL ON USAGE, 80% CONFIDENCE INTERVALS



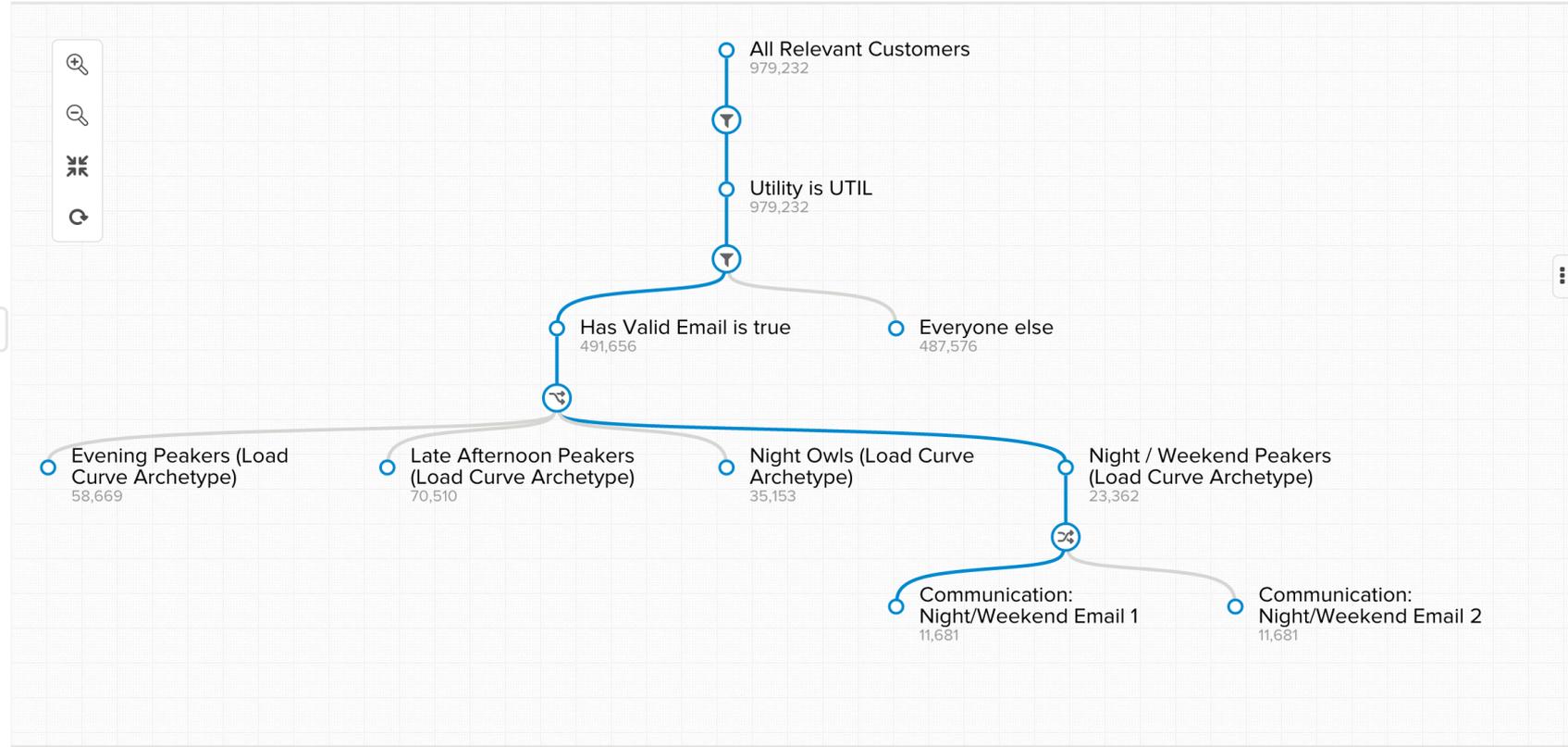
Why do you think this is?

Segment Customers

OPower



UTIL | Load Archetypes



Select

Assign

Test & Run

Targeted Tips



Replace your inefficient light bulbs with LEDs

Standard incandescent bulbs are relatively inefficient and costly to use and replace. Consider switching to light-emitting diodes (LEDs) — they are shatter resistant, use up to 80% less energy, and last 25 times longer.

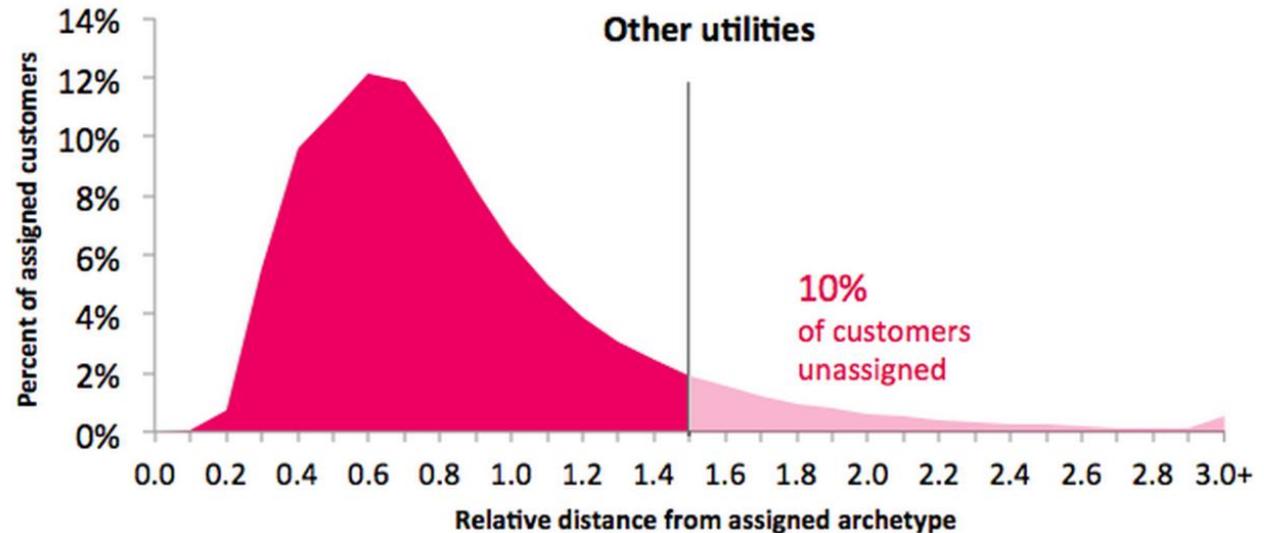
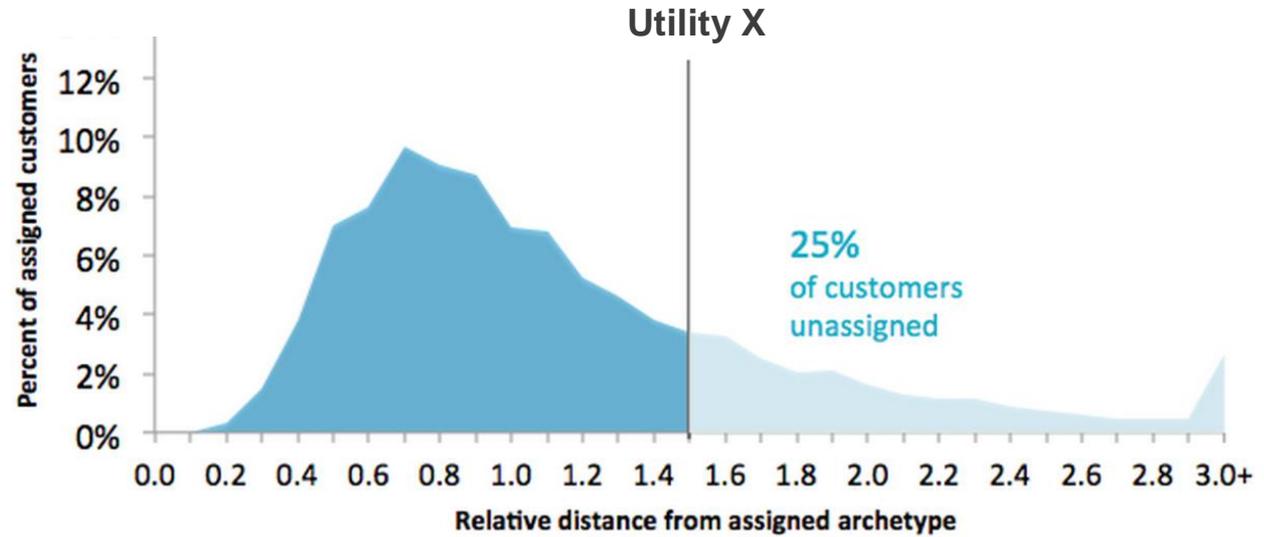


Power down your cable or DVR box when it's not in use

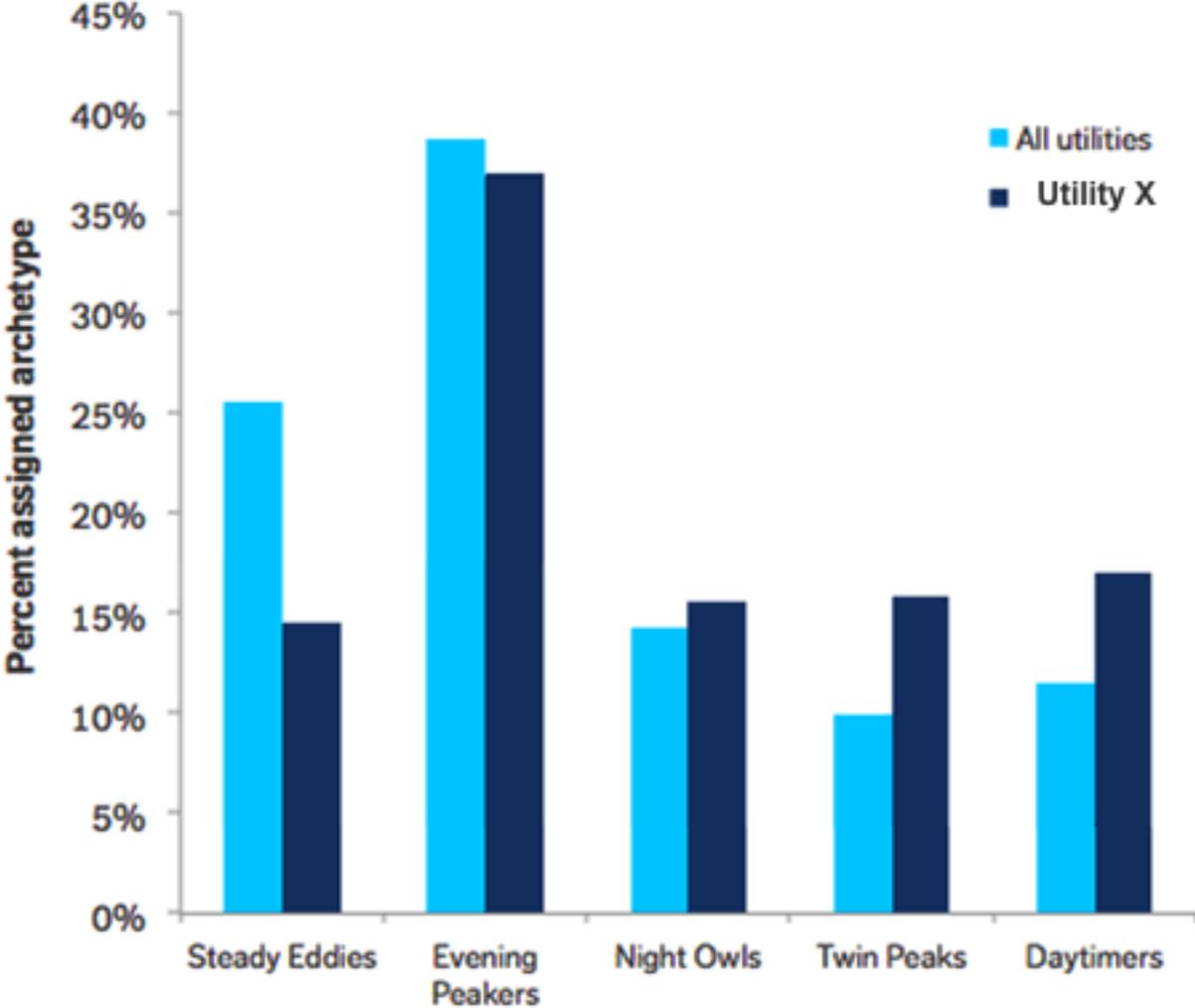
Most set-top boxes in homes today constantly operate at near full power, even when no one's watching or recording a show. Consider unplugging your set-top box when you're not using it (note that it could take a few hours to reload certain features).

Extracts to Utilities

Load curve assignments for utility with an unusual climate and demographic breakdown



Extracts to Utilities



Unlike other utilities, Steady Eddies in this utility have lower average energy consumption

Extracts to Utilities

Client 1:

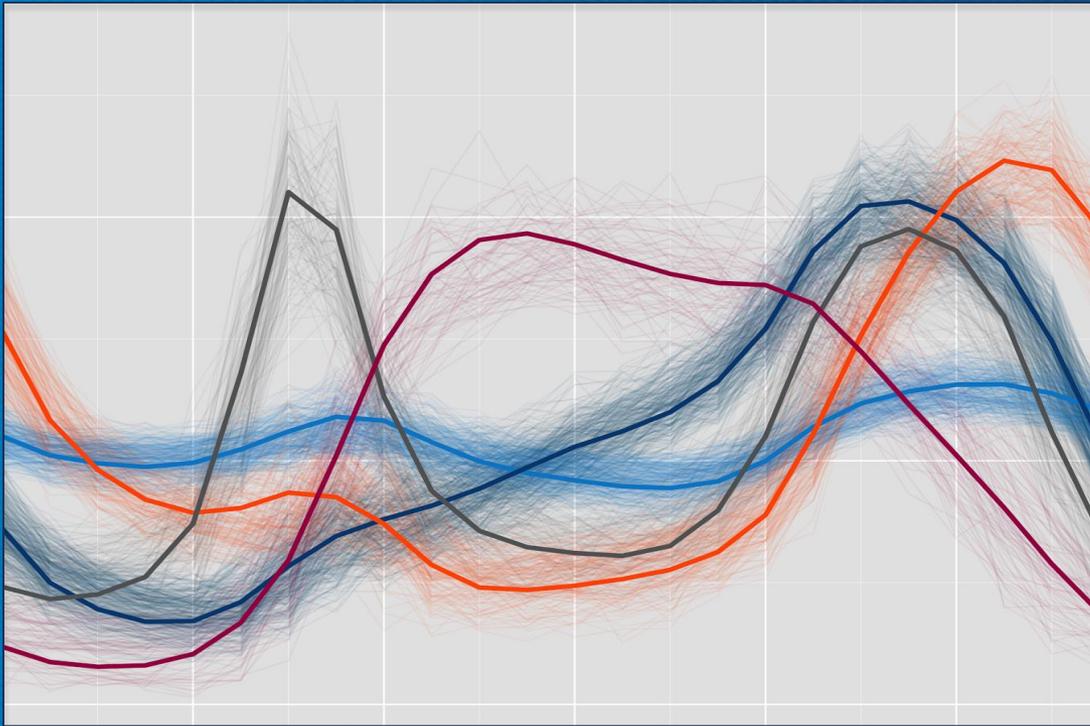
Currently using extract for descriptive analysis
Unusual demographic/climate makeup, but most customers still fit the archetypes well

Client 2:

Imported extract into their segmentation tool

Client 3:

Planning to use extract for targeted messaging and program marketing



Thank you!

Ben Packer, Principal Data Scientist, Opower

Program Experience:
Mark Ghazal, Senior Product Manager
EnergySavvy

Customer Segmentation

Better Buildings Residential Network
Peer Exchange Call, 9-24-15

Mark Ghazal, EnergySavvy



EnergySavvy – Brief Introduction

Cloud solutions for customer intelligence, engagement, and action



Quick Facts

- Founded in 2008
- 25+ utility and public benefit corporation clients
- 75 employees
- 100% cloud software
- Seattle and Boston offices

Segmentation and Targeting

Traditional personas using utility and third-party data

Utility Data

- Address
- Usage

Market Data

- Demographics
- Psychographics



Customer Personas

Sample Sally

BACKGROUND:

- Head of Human Resources
- Worked at the same company for 10 years; worked her way up from HR Associate
- Married with 2 children (10 and 8)

DEMOGRAPHICS:

- Skews female
- Age 30-45
- Dual HH Income: \$140,000
- Suburban

IDENTIFIERS:

- Calm demeanor
- Probably has an assistant screening calls
- Asks to receive collateral mailed/printed



Let's start with your customers

Utility customers with different backgrounds, needs, and motivations



Persona 1: Bob

- Bob is 67 years old
- Lives in his home of 30+ years
- Married, with grandchildren
- Retired teacher
- Computer savvy, pays his bills by



Persona 3: Melissa

- Melissa is 42 years old
- Professional photographer
- Married, two kids in school
- She and husband both work
- Super busy schedules
- No time, pays bills online at 10pm



Persona 2: Emma

- Emma is 28 years old
- Bought first apartment
- Has a roommate
- Office job with in-city commute
- Tech-savvy, but little interaction with utility



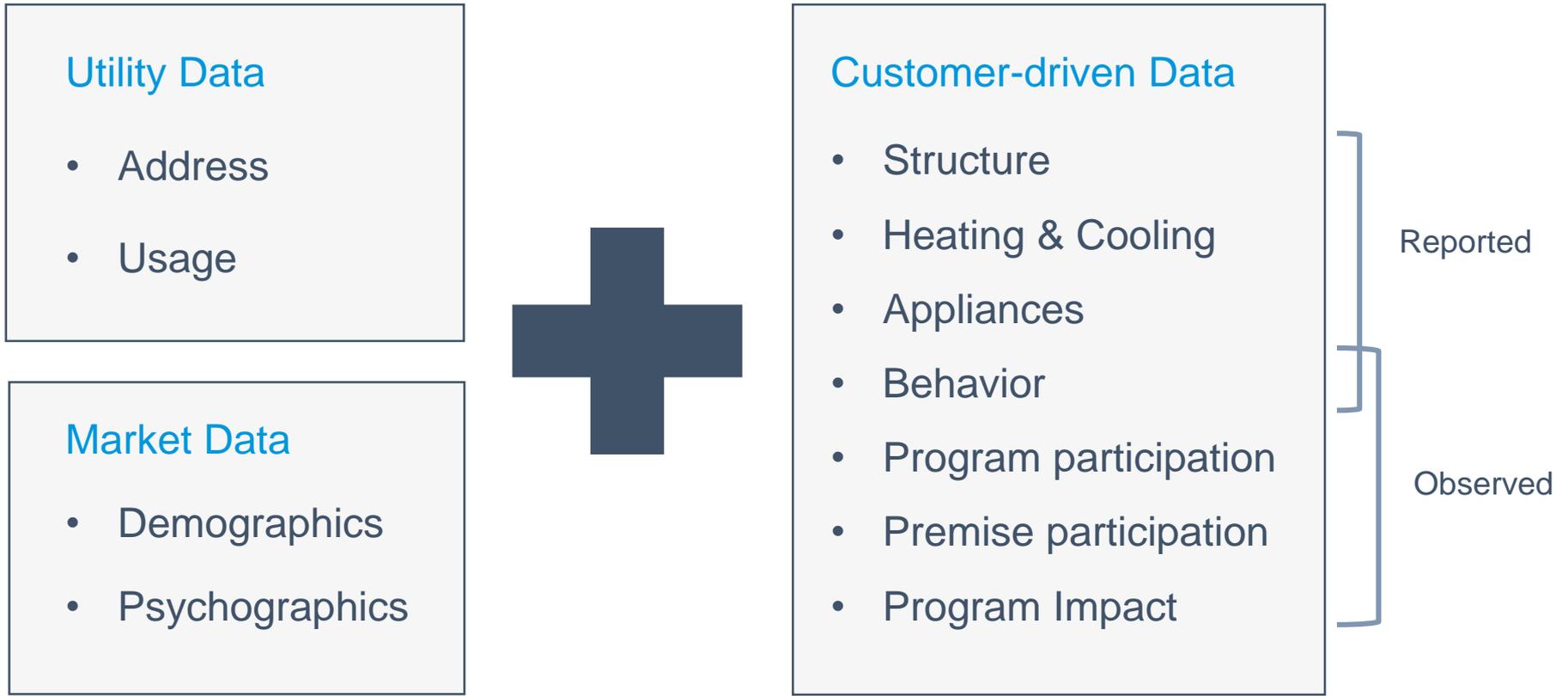
Persona 4: John

- John is 48 years old
- Hardware store owner
- Works 60-80 hours per week
- Little time and attention to utilities, but...
- Motivated by the bottom line

There's a lot more we now know.

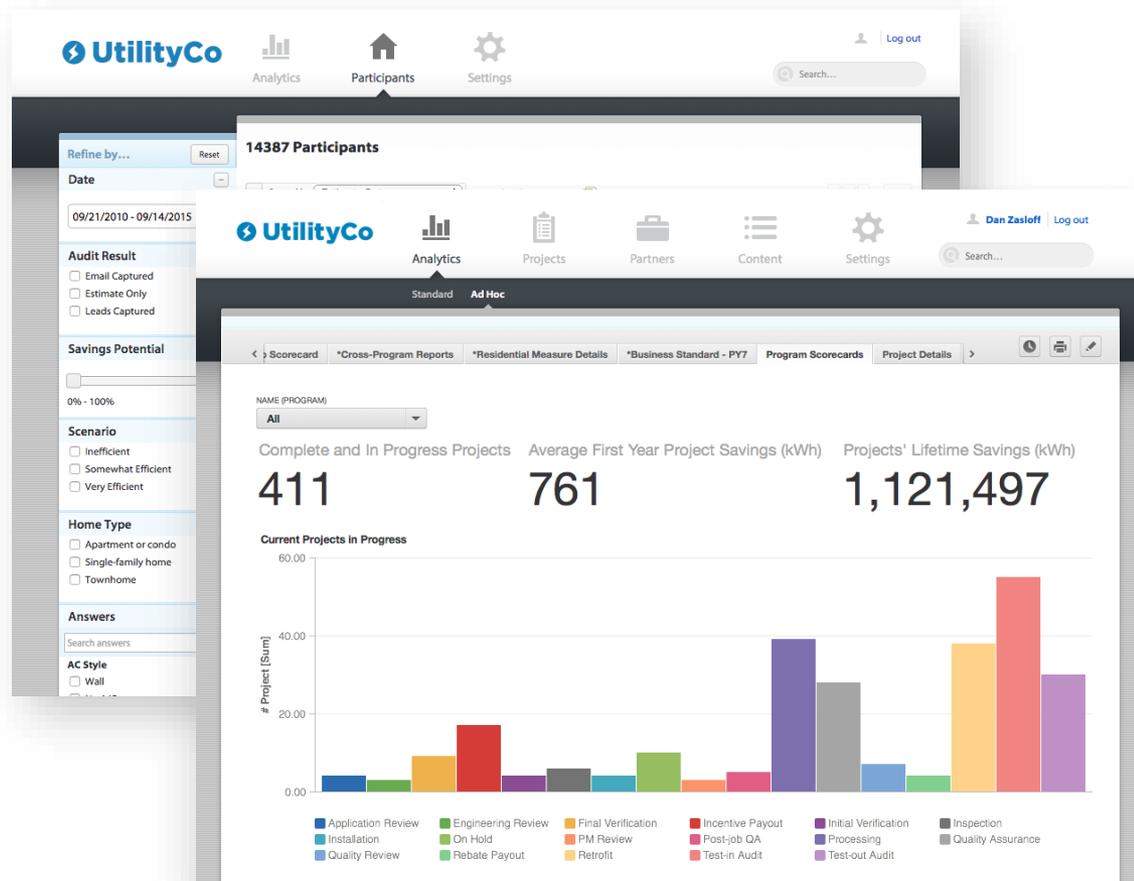
Segmentation and Targeting

Utility-accessible data AND customer-provided data



Leveraging Customer-Driven Data

Both customer reported and observed

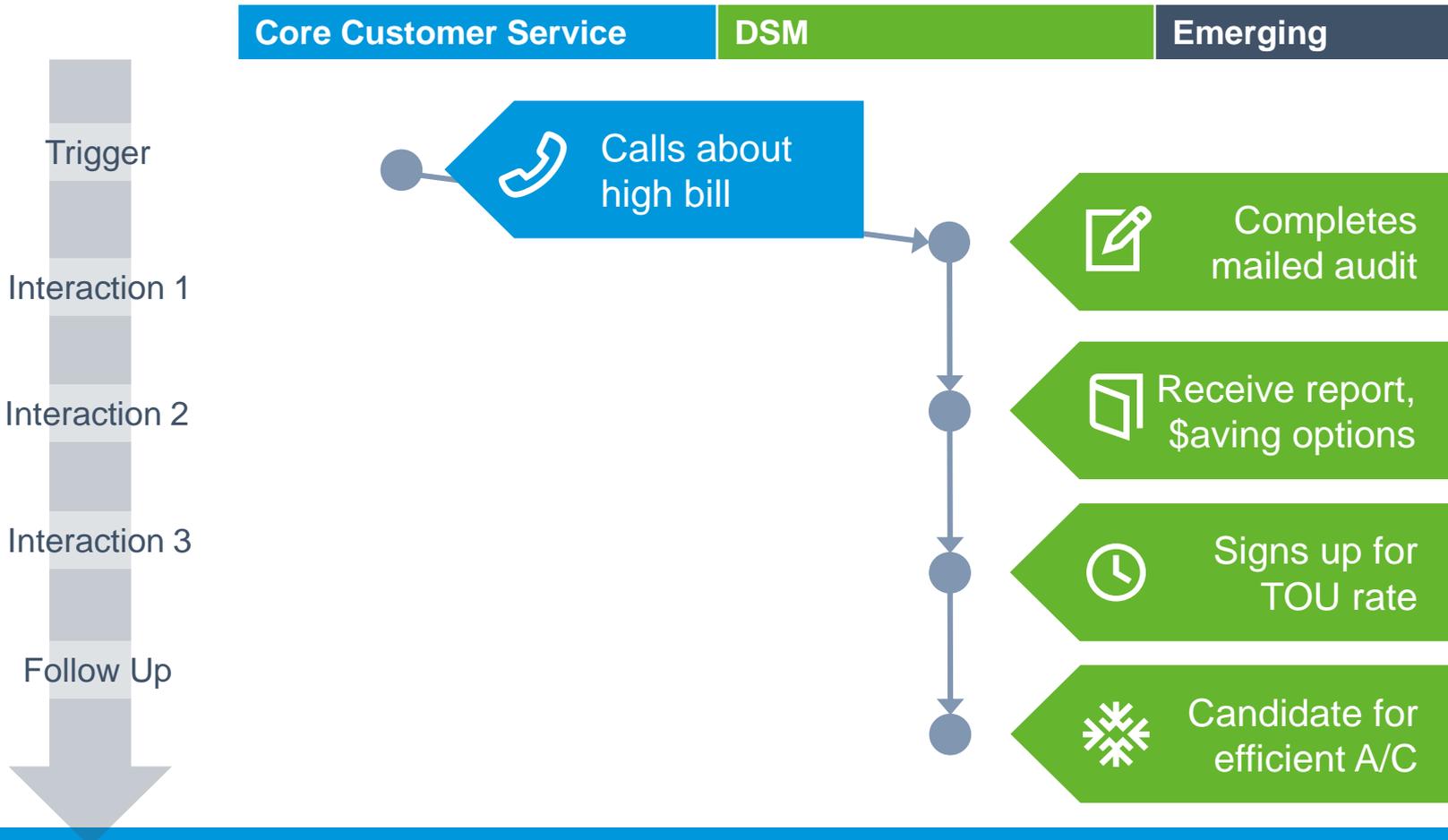


Customer Engagement

Utility Analytics

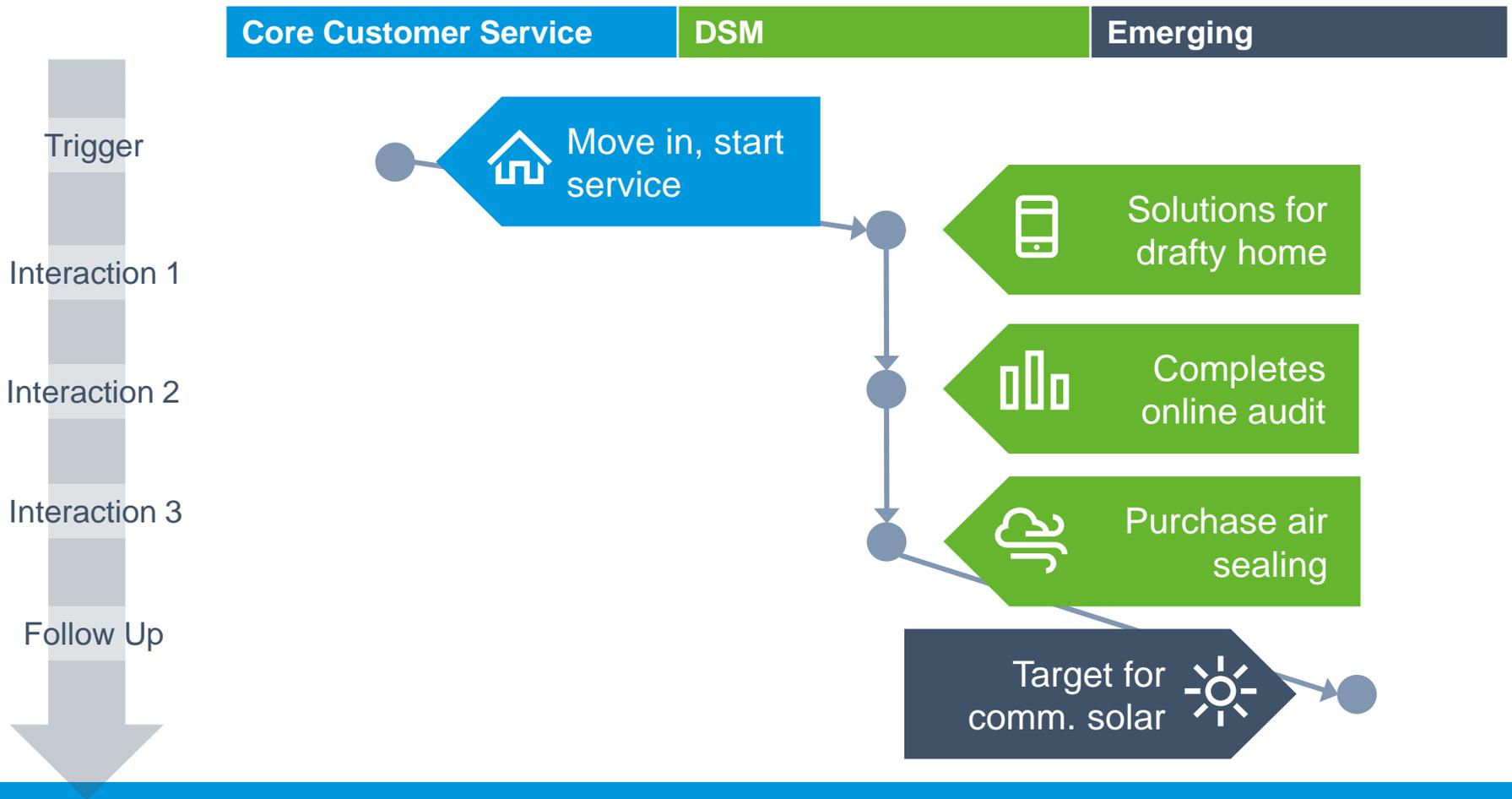
Example Customer Journey: Bob

Wants lower bills, strong preference for mail and phone



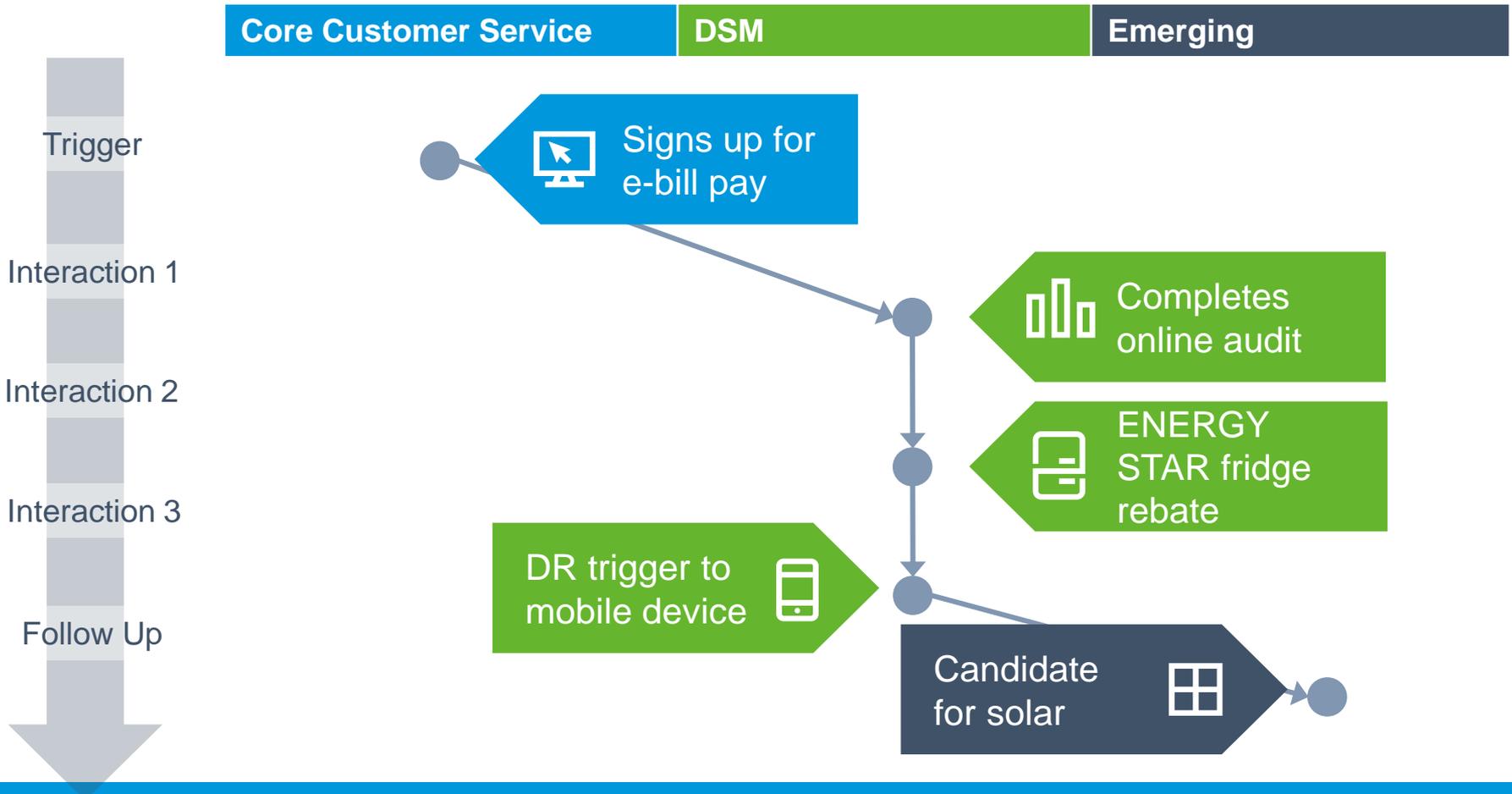
Customer Journey: Emma

Digital Millennial who wants to be comfy AND green



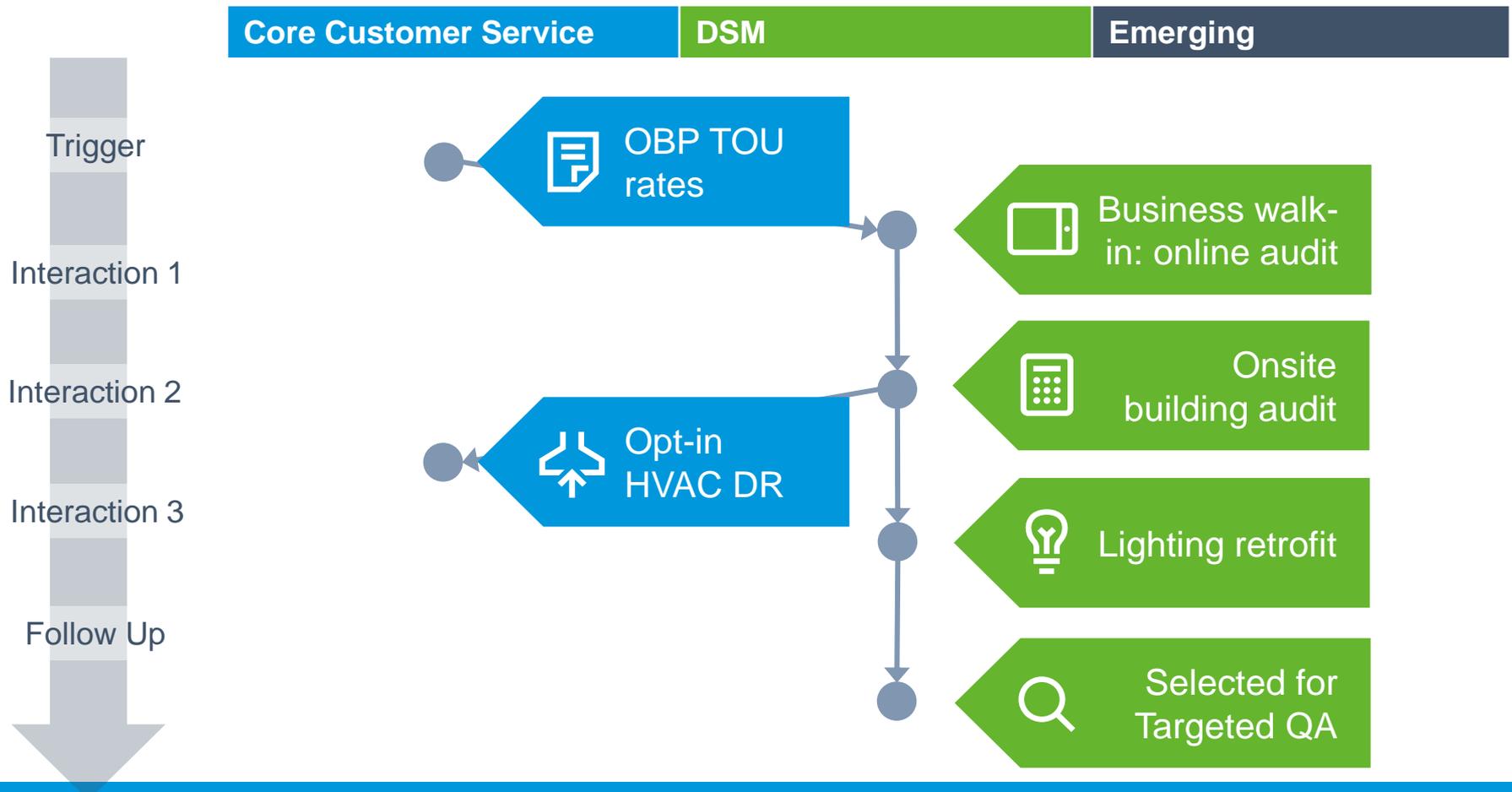
Customer Journey: Melissa

Working parent who doesn't have much free time



Customer Journey: John

Small business owner, \$\$ motivated but enviro-sensitive



Personas Become Individuals

Actionable Insights from Personalized Data

Instead of a persona applied to thousands...

Sample Sally



BACKGROUND:

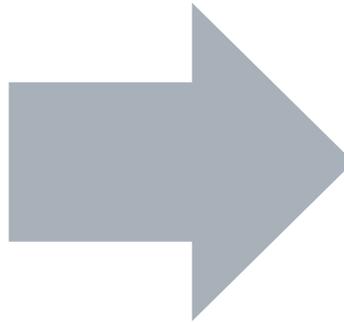
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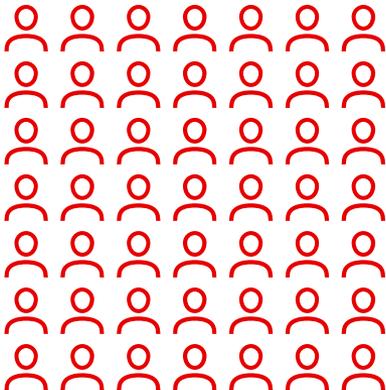
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IDENTIFIERS:

- Calm demeanor
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...insights applied to individuals.



Thank you!

ENERGYSAVVY

Mark Ghazal
Senior Product Manager

Discussion Questions

- What approaches has your organization used to differentiate energy efficiency customers for the purposes of targeted marketing?
 - What types of data has your organization used (building stock, customer behavior, demographic, energy use, etc.)?
 - What approaches have been most useful and cost-effective?
- How have you adjusted your marketing and/or services based on knowing more about different parts of your customer base?
- How do you determine whether/when to shift from one-size-fits-all marketing to more targeted marketing to customer segments?
- Other questions/issues related to audience segmentation and targeted marketing?

Discussion Summary

- Knowing customers' energy profiles, such as with detailed energy use information and/or history of program interactions, can help programs tailor custom messages and services to different groups.
- Advanced metering infrastructure (AMI) (“Smart Meter”) data makes it possible for a utility or program to develop in-depth profiles of customer energy-use patterns.
- Demographic and energy-use data alone may not tell enough to accurately pinpoint a customer, so a program may need to combine different data sources better understand target audiences. Example data sources include:
 - County data about premises and owners
 - Utility/program interaction data
 - Inputted energy audit information
 - Monthly billing data
- The [Better Buildings Residential Network Solution Center](#) has information on how to [assess and target your market](#), including examples of [surveys](#) that programs have used.

Peer Exchange Call Series

Beginning in October, we will hold one Peer Exchange call every Thursday from 1:00-2:30 pm ET.

This is a change from the current call schedule.

Calls cover a range of topics, including financing & revenue, data & evaluation, business partners, multifamily housing, and marketing & outreach for all stages of program development and implementation

Upcoming calls:

- October 8: On-Bill Financing: Reducing Cost Barriers to Energy Efficiency Improvements (201)
- October 15: You Are My Sunshine: Integrating Residential Solar and Energy Efficiency (301)
- October 22: Programs and Contractors – Top Tips for Successful Relationships! (101)
- October 29: Ghosts in the Attic – Horror Stories from the Field (What to Do When Things Go Wrong) (201)

Send call topic ideas to peerexchange@rossstrategic.com

Closing Poll

- After today's call, what will you do?
 - Seek out additional information on one or more of the ideas – **73%**
 - Make no changes to your current approach – **18%**
 - Consider implementing one or more of the ideas discussed – **9%**
 - Other (please explain) – **0%**

Please send any follow-up questions or future call topic ideas to:
peerexchange@rossstrategic.com