The California Electricity Customer Of the Future & Residential Customer Segmentation

Joint Meeting: August 14, 2012

SDG&E connected
A Sempra Energy utility

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

PG&E Pacific Gas and Electric Company

Agenda

- Introductions → All
- Overview → Dana Santana (SDG&E)
- Future state and trends for next 5 years
- Overview of each IOU's segmentation → Dana Santana (SDG&E), Gail Malone (SCE), Jodi Stablein (PG&E)
- Statewide Segmentation → Gail Malone (SCE)
  - 2009 Statewide MEO Segmentation
  - Common segments across IOUs
- Example of program against the adoption curve → Jodi Stablein (PG&E)
- Next Steps discussion and brainstorming → All

Overview

The CPUC is embarking on a project designed to understand our customers of the future and how they are faring in California in 2020. The CPUC and the IOUs have embarked on a number of new programs that will substantially change the customer experience by 2020.

Our efforts to increase energy conservation and efficiency, renewables, and even electric vehicles require customers to be more knowledgeable, engaged and disciplined than ever before.

This is a paradigm shift from the historical view of utility consumers as merely ratepayers.

Marketplace Future Trends

Marketplace Trends: 2013 - 2020

1	Growing, aging and diverse population
2	Weak economic growth
3	Technology adoption around communications
4	Interest in alternative energy sources increasing
5	Remote energy monitoring and management
6	Electricity usage to continue to increase
7	Consumer privacy radar getting stronger
8	Two dominant generational groups (Millennials and Boomers) undergo major life stage shift through 2020
9	Increased role of consumers influencing service model
10	Next era of marketing shifting to a participative and collaborative value creation age

Growing, Aging and Diverse Population

- The state's population is expected to increase by 11.5% over the next decade due to high foreign migration.
- Latinos are projected to be the majority ethnic group in four years. Hispanics are not a monolithic group – nearly 32% of Hispanics are Spanish dominant/ preferred.
- The state's population is also aging as the number of seniors is expected to soar over the next decade.
- The age segment 65-74 is projected to increase 28% (2015 vs. 2010) and 22% (2020 vs. 2015). The opposite trend is projected to occur among the younger age groups.

Weak Economic Growth

Consumers are uncertain about their economic stability and are struggling economically

- Some will continue to have difficulty paying their bills and will have even higher expectations of our service
- Some residents are choosing to leave the state, taking with them their professional skills and their families. Main factors contributing to migration include high cost of living and importantly the lack of affordable housing
- CA unemployment remain higher than US and not reach pre-recession rates until 2020+
- The state's homeownership continue to drop to 52-54% through 2020; renters of multi-family dwellings will increase
- Increasing customers on CARE (for example, PG&E's increased 35% from 2008 levels)

Technology Adoption Around Communications

Technology is changing the landscape faster than ever and shifting the traditional interaction preferences. Self-service options and ease of access, including mobile will be critical to meeting customer expectations

- Customers are moving towards self-service or low touch methods interactions, such as email, social, mobile
- Seventy percent of US consumers desire multi-channel options (text, mobile apps, web etc.). Channel interactions will vary based on circumstances vs traditional segmentation
- Smartphones are quickly becoming one of the main mediums for customer contact. By the end of next year it is projected that over half of US mobile users will have a smartphone, rising to 70% by 2015. Hispanics are one of the youngest ethnic groups and are also one of the fastest-growing populations of smartphone users, outpacing all other ethnic groups
- Cashless and checkless society increasing widespread adoption of mobile payments expected in 2020
- Worldwide approximately 57 million customers used social media to engage utilities in 2011 - number expected to rise to 624 million customers by the end of 2017. Use of social media and online communities continues to increase: ~50% of US population estimated to have a Facebook account

Interest in Alternative Energy Sources Increasing

- Growing concern over the health of our planet sparks recognition they can take action by generating power in their home
  - Solar capacity is up and the cost of solar PV has fallen
  - High bill customers are looking for self-generation to ease their pocketbook
- While not common on the road today, EVs are predicted to be the wheels of tomorrow
  - PRTM, a management consultancy, estimates that by 2020, about 20% of vehicles will be some form of an EV
  - Technical advances in batteries will continue to make costs fall
  - It is estimated the costs will fall from about $650 per kilowatt-hour today to about $300 in 2020. EVs will also have a lower total cost of ownership to their advantage

Remote Energy Monitoring and Management

- The Smart Grid enables customers to monitor and manage energy use. The market for IHDs and HAN systems will grow slowly through 2015
- Standard approvals for in-home devices expected in 2015; connect all home technologies with the touch of a button
- Pike Research sees the market for home energy management systems in the U.S. alone reaching 28 million customers by 2015. Tools and apps will allow the cost of one's appliances to be more transparent and top-of-mind by showing the phantom costs, which are the costs of running a device that's on standby

Other Key Trends

- **Electricity usage to continue to increase**: This is attributed to the increase in electronics per household, in addition to the impact the projected increase in electric vehicle sales will have on demand
- **Consumer privacy radar getting stronger**: People are in self-protection mode, rethinking strategies for privacy in networking locally and socially, and with the companies who collect information about them
- **Two dominant generational groups will undergo major life stage shift** over next eight years: Millennials will outspend Boomers by 2017. **Millennials** look to social networks and communities to provide insights and advice. Hispanic Millennials desire to succeed to help parents who are struggling to recover post-recession (different motivation); more respectful to hierarchal authorities. Their service expectations are all things connected, networked, electronic and personalized. While **Boomers** are tech savvy on baseline technology; represent ½ of consumer electronics share in 2015+. They are youthful and committed to exploring and discovering new products and services
- **Increased role of consumers influencing service model:** Consumers always connected, taking on greater roles beyond the TRADITIONAL, leading to empowerment and higher threshold of service expectations
- **Next Era of Marketing** shifting to a participative and collaborative value creation age

Therefore Increased IOU Need in the Future of…

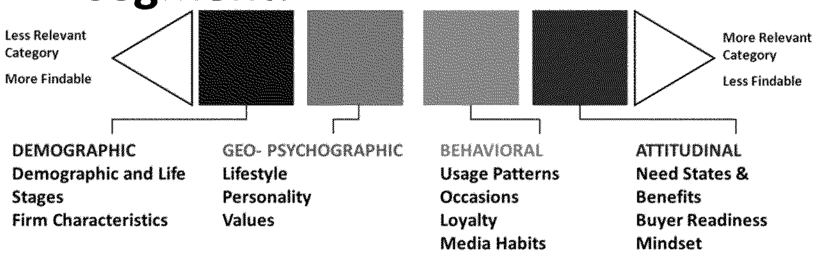
- **Segmenting**, **customization**, more **relevancy** to each customer; tailored approaches; analytics
- Providing technology driven **communications** and being quick to **modify communications channels** based on their changing needs in the future
  - We will need to engage customers in new ways such as HAN devices, social games, and apps for energy savings and conservation. We will need to provide an upgraded customer service experience through customized recommendations, seamless sign up and speedier delivery
- Providing **more information** for the taking, allowing for more sense of **control** (increasing satisfaction)
- **Making it easier to do business with us**
- **Communicating/educating** on and providing tools on **how to save energy**. More focus on the growing electronics and peripheral use, and what actions impact their bill will be key

Brief overview of each IOU's segmentation

SDGE connected
A Sempra Energy utility
SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
PG&E Pacific Gas and Electric Company

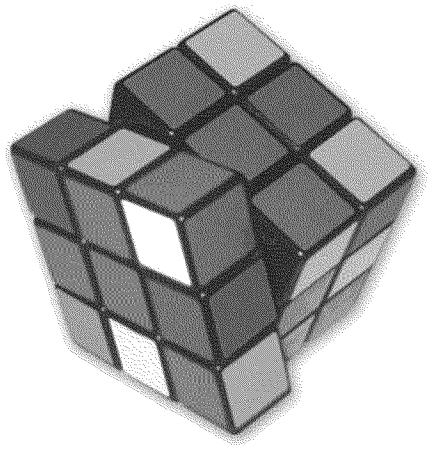
Segmentation Overview

- **What is segmentation?**
  - "Segmentation is the process of partitioning markets into groups of customers and potential customers with similar needs and/or characteristics who are likely to exhibit similar purchase behavior…" – Art Weinstein
- **There are numerous ways to segment:**



We've learned… Best fit segmentation approaches to address need:

- Attitudinal/Motivation: to develop marketing messages
- Probability Hierarchy: for targeted mailing and messages
- Geo-demographic clusters: for target mailing (addressable)



Segmentation Overview – S D G & E

SDGE connected
A Sempra Energy utility

Where we started…

6 Residential Segments – **Demographics**

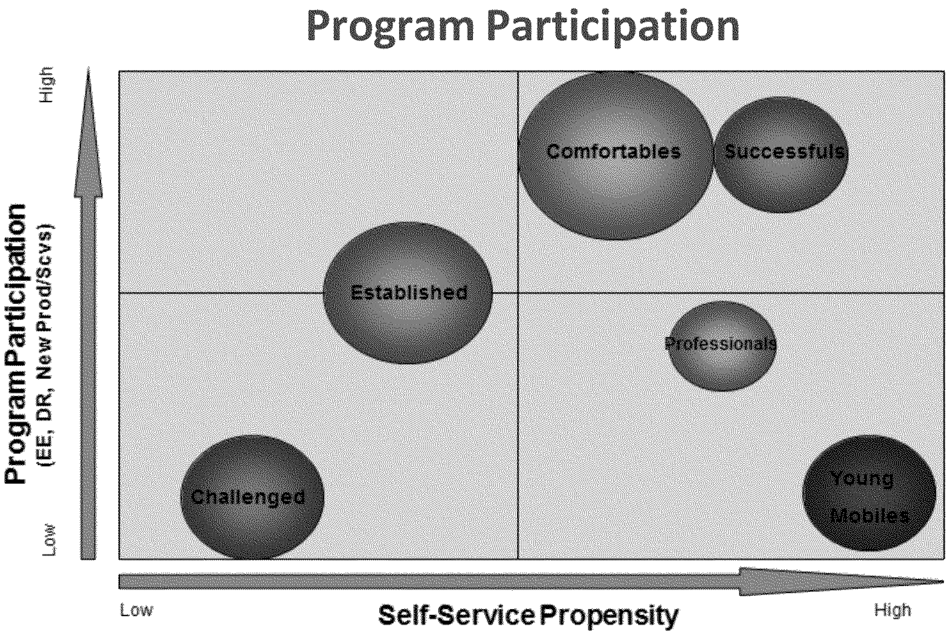
Comfortables	Established	Challenged	Successfuls	Young Mobiles	Professionals
Mainstream who value convenience	**High service users except turn on**	**Renters who need bill assistance & personal attention**	**Well-off, high energy users, outage sensitive**	**Young renters who move more often, web-savvy**	**Leave me alone, web-savvy**
Mostly homeowners Mostly college educated HHI $72K High proportion of whites High proportion of age 65+ (30%) 2nd highest A/C	Mostly homeowners HHI $49K High proportion of age 65+ (30%)	Mostly renters Least educated HHI $28K Mostly 45 or younger 20% are 65+ Highest proportion of Hispanics (about 40%)	Highest proportion of homeowners Highly educated HHI $101K Mostly 45 or older Highest proportion of whites Most have central A/C	Mostly renters High school HHI $44K Mostly 25-54 slightly younger than professionals 2nd highest Hispanics	Equal homeowners & renters Mostly college educated HHI $71K Mostly age 25-54, lowest proportion of 65+ High proportion of whites

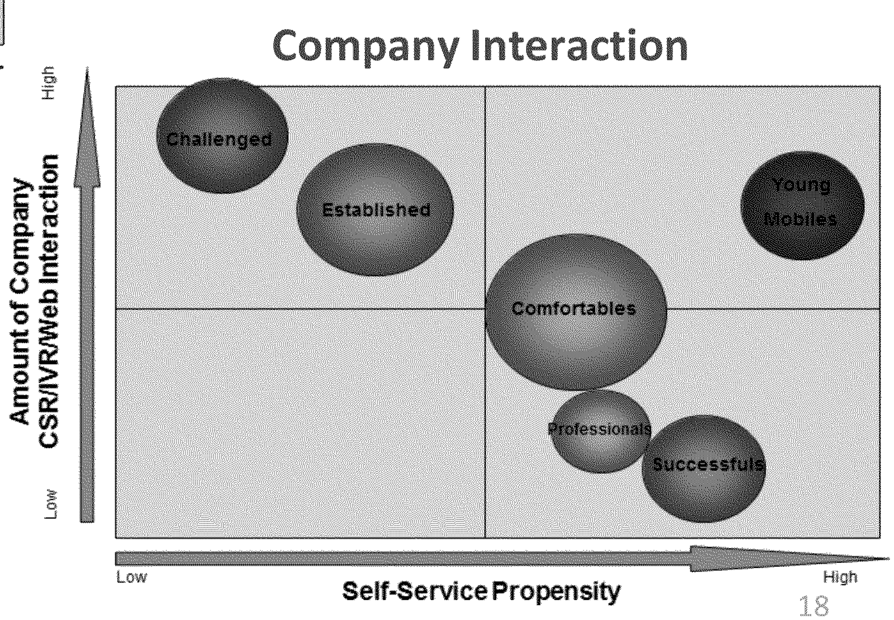
Based on lifestyle and behavioral data at the household level as well as geo-demographic data which included Census 2000 demographics and ZIP+4-level demographics.

6 Residential Segments – **Behaviors**

Comfortables	Established	Challenged	Successfuls	Young Mobiles	Professionals
Mainstream who value convenience	**High service users except turn on**	**Renters who need bill assistance & personal attention**	**Well-off, high energy users, outage sensitive**	**Young renters who move more often, web-savvy**	**Leave me alone, web-savvy**
Minimal service needs, except outage High online and auto debit/phone payments High EE/DR Longest account tenure Avg. usage 600 kWh/mo.	High seasonal service users Low My Account and online payment Mid EE/DR 2nd highest account tenure Avg. usage 500 kWh/mo.	Great needs for payment assistance BO/APL users Least online users Low EE/DR 40% enrolled CARE Avg. usage 370 kWh/mo.	Minimal service needs, except outage High online and auto debit/phone payments Highest EE/DR Highest energy usage Avg. usage 820 kWh/mo.	High service needs Highest My Account Low EE/DR Lowest account tenure due to frequent move 2nd highest CARE enrolled Avg. usage 350 kWh/mo.	Minimal service needs, except turn-on 2nd highest My Account Mid EE/DR Avg. usage 480 kWh/mo.

Self Service Propensity





2011 Residential Segmentation Study Objectives

In order to deepen our understanding of customers and their unique needs, identify distinct segments among Residential customers based on:

1. Attitudes and preferences regarding electricity rates and plans
2. Perceived ability and willingness to take action to change energy consumption patterns and behaviors
3. Motivations for adopting new behaviors, including underlying values that drive decisions
4. Attitudes toward energy efficiency and environmental issues
5. Affinity for new technologies and energy management tools
6. Communication channel preferences
7. Preferred sources of information

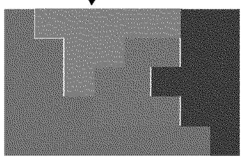
Key Measures

- Perceptions of SDG&E
- Desired level of engagement with SDG&E
- Energy efficiency and the environment
  - Attitudes regarding energy efficiency, energy costs, the environment, new technologies
  - Energy efficiency actions taken / plan to take
- Rates
  - Familiarity, perceptions, preferences
  - Response to TOU and DR scenarios / ability to adjust usage during peak demand periods
- Interest in energy management tools
- Preferred communication channels and sources for information about energy management and lowering electricity costs, pricing plans
- Demographics and home characteristics
- From the SDG&E database (CIS):
  - Household electricity consumption, contact history, program participation
  - Household-level PRIZM segments

Segment Platforms Used in the Segment Solutions

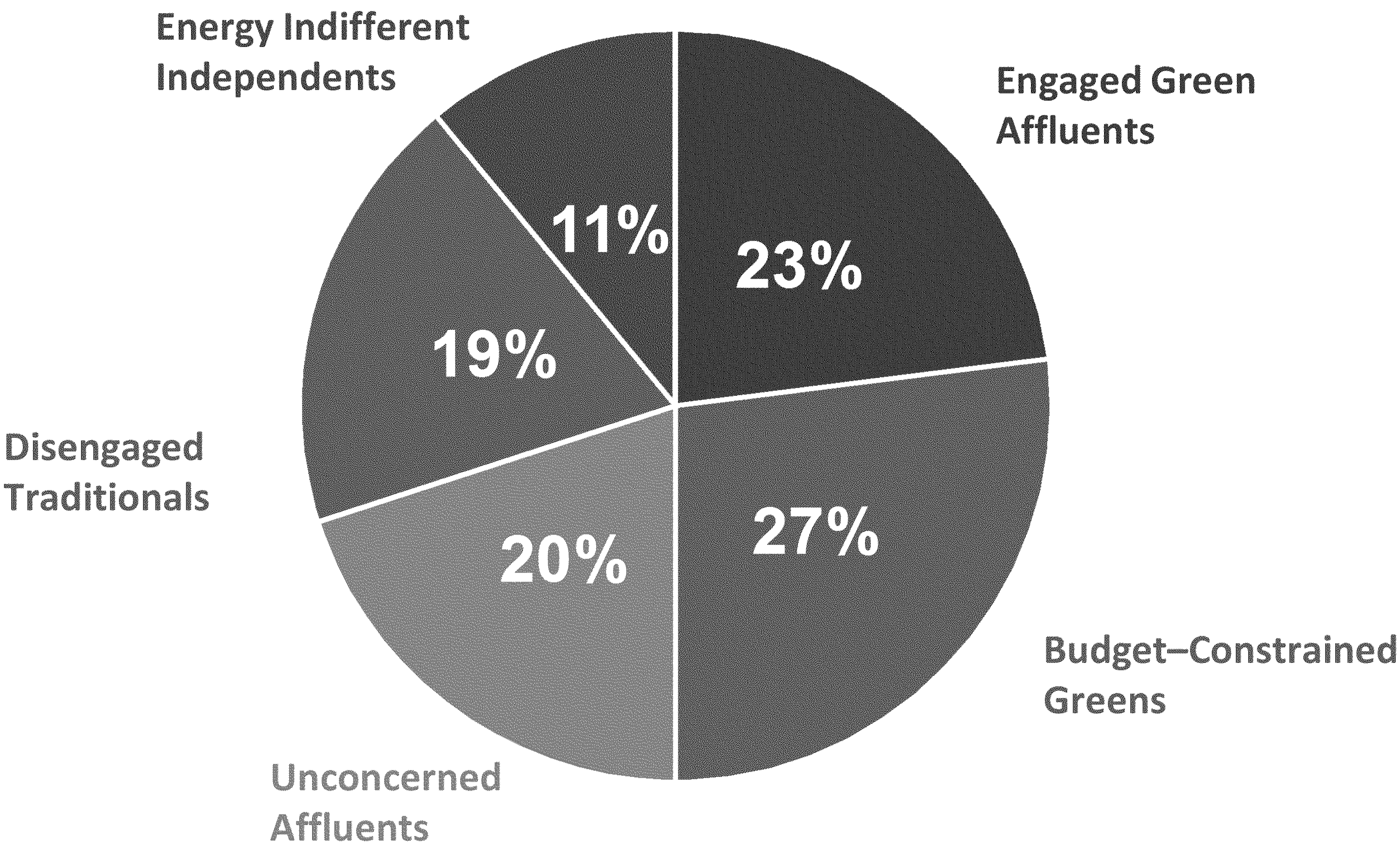
- Eight platforms were used in the final five segment blended solution:

Perceptions of SDG&E / Desired relationship	Attitudes regarding energy usage, cost, and the environment	Communication channel preferences	Electricity usage, contact history, programs (from CIS database)
Electric rate attitudes and preferences	Energy efficiency and conservation behaviors	Demographics and Home Characteristics	Household level PRIZM segments



Blended Segmentation: 5 segments

Five Residential Customer Segments



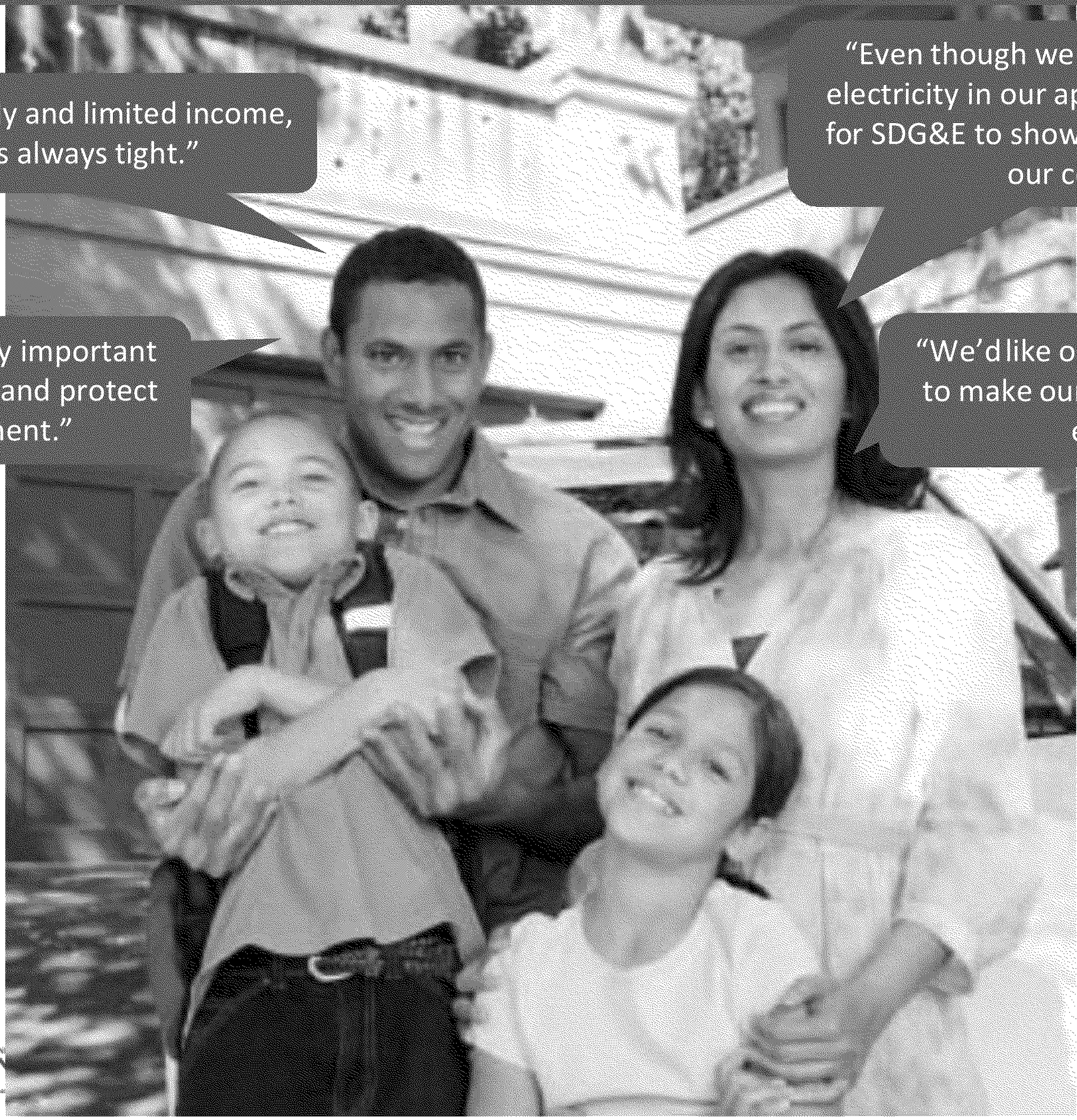
SDGE connected
A Sempra Energy utility

Residential Segment Summary

● Higher than average
◒ Average
○ Lower than average

	Engaged Green Affluents	Budget-Constrained Greens	Unconcerned Affluents	Disengaged Traditionals	Energy Indifferent Independents
	23%	27%	20%	19%	11%
Desired Relationship with SDG&E	●	●	◒	○	○
Interest in TOU rate	●	○	●	◒	○
Importance of Lowering Electricity Costs	●	●	○	●	○
Importance of the Environment	●	●	○	◒	◒
Actions taken / will take to reduce electricity use	●	●	◒	◒	○
Interest in Energy Management Tools	●	◒	◒	○	◒
Communication Preferences	• Higher for email / online channels • Lower for direct mail	• Higher for mail (info w/bill and direct mail) • Highest for personal interaction	• Generally prefer electronic channels • Lower for mail channel	• Prefer mail channel (bill info, direct mail) • Lowest for electronic and personal interactions	• Higher for email / online channels • Lower for direct mail
Median Age	47.5	43.0	46.0	60.0	38.5
Household Income	●	○	●	◒	○
Own / Rent Home	76% OWN	73% RENT	72% OWN	83% OWN	70% RENT
Average Square Footage	1984 sq ft	1086 sq ft	1981 sq ft	1676 sq ft	1125 sq ft
Average Monthly Electricity Bill	$102	$45 (58% CARE)	$135	$69	$48 (37% CARE)
Percent on MyAccount	63%	35%	63%	25%	79%

Budget-Constrained Greens



"With our family and limited income, money is always tight."

"Even though we don't use a lot of electricity in our apartment, we'd like for SDG&E to show us ways to reduce our costs."

"We believe it's very important to conserve energy and protect the environment."

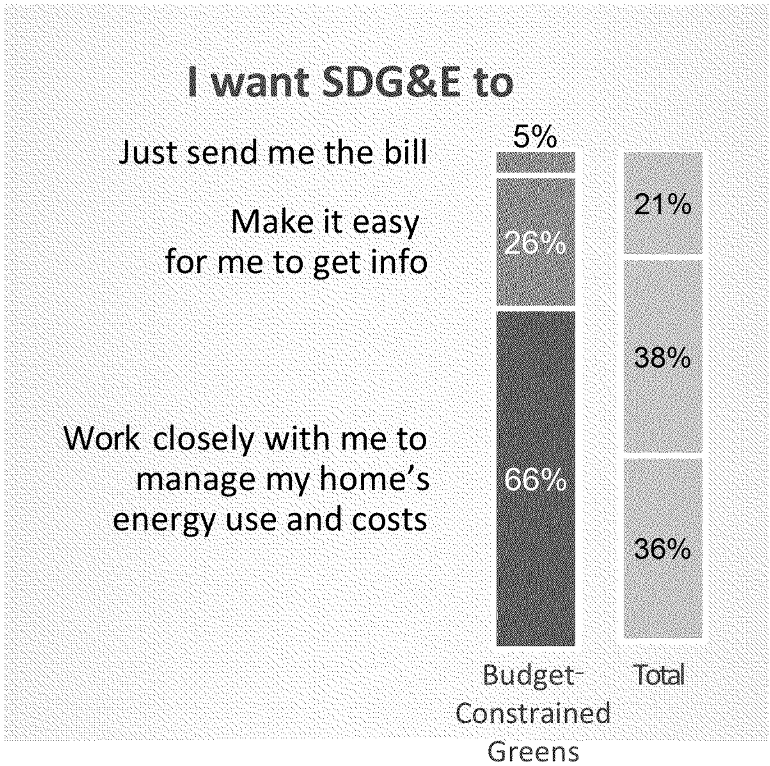
"We'd like our property manager to make our home more energy efficient."

Key Characteristics

- Key characteristics
- 27% of Residential customers
- Younger; lower HH income; less educated; 58% on CARE rate
- 73% rent; seven in ten in multi-family housing
- Lowest average square footage (1086), Lowest average monthly electric bills ($45)
- Frequent phone contact; 58% with late payment(s) in past 12 months

How They Differ

- Highest interest in engagement with SDG&E; 66% want to work closely with SDG&E (versus 36% among all Residential customers)
- Highly motivated to reduce expenses; highest on "It is very important for me to find ways to control my energy costs at home" (83% strongly agree)
- Also, very concerned about the environment and climate change
- Higher than average interest in SDG&E EE programs and energy audits
- Lower than average interest in rate choices
- Average interest levels for most energy management tools
- Higher for mail (info w/bill and direct mail)
- Highest for personal interaction



Survey questions: Q5 Shading indicates segment is significantly higher than other segments

Classification Algorithms & Database Scoring

There are two main categories of scoring algorithms being used to assign customers to segments

Database Scoring: Data from the customer database is used to project segment membership for each customer

- The research industry standard for database scoring against survey-based segmentation is to achieve classification accuracy of greater than 50% across the segments.

71.9% cross-validated correct classification

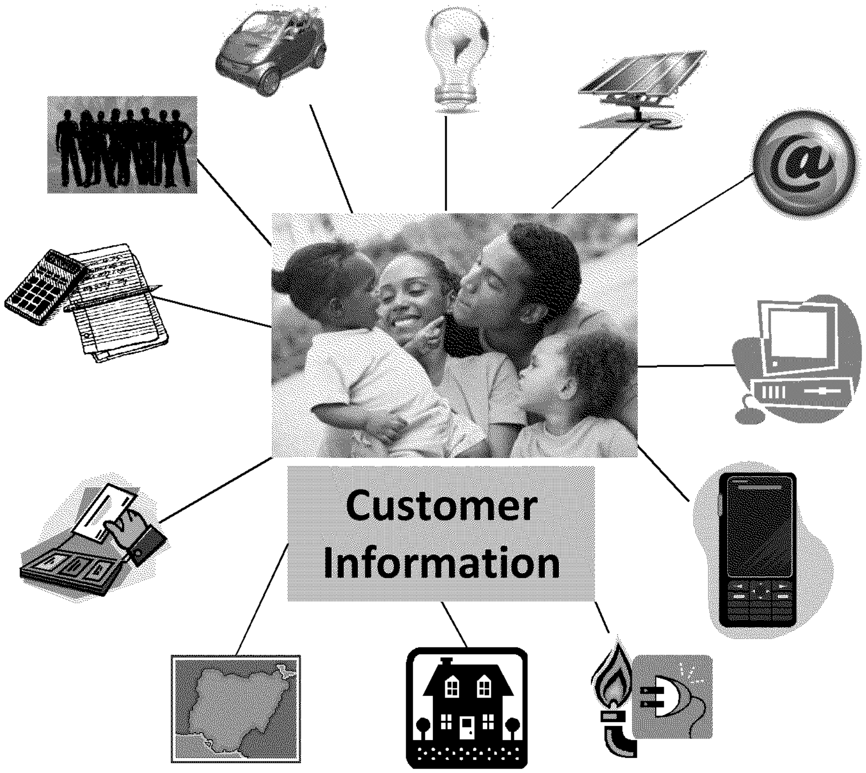
Classification Algorithm: A short list of questions from the segmentation survey used to assign future qualitative or quantitative market research participants to the study segments.

- The standard for these types of tools is to achieve a minimum overall classification accuracy of 70% across the segments.

11 questions: 78.4% cross-validated correct classification

SDGE connected
A Sempra Energy utility

Further Understanding of Customers



INTEGRATE (30+) customer data silos – create "360 View of Customer"

LEVERAGE "BIG DATA" – Harness customer value from Smart Meters

ENERGY ADVISORS – Personalize solutions - create a "recommendation model" for Call Center

CREATE SMARTER EMPLOYEES – Customer Insights "Center of Excellence" – distribute knowledge

CREATE SMARTER CUSTOMERS – Be Relevant, and engage customers HOW and WHERE they want to be engaged

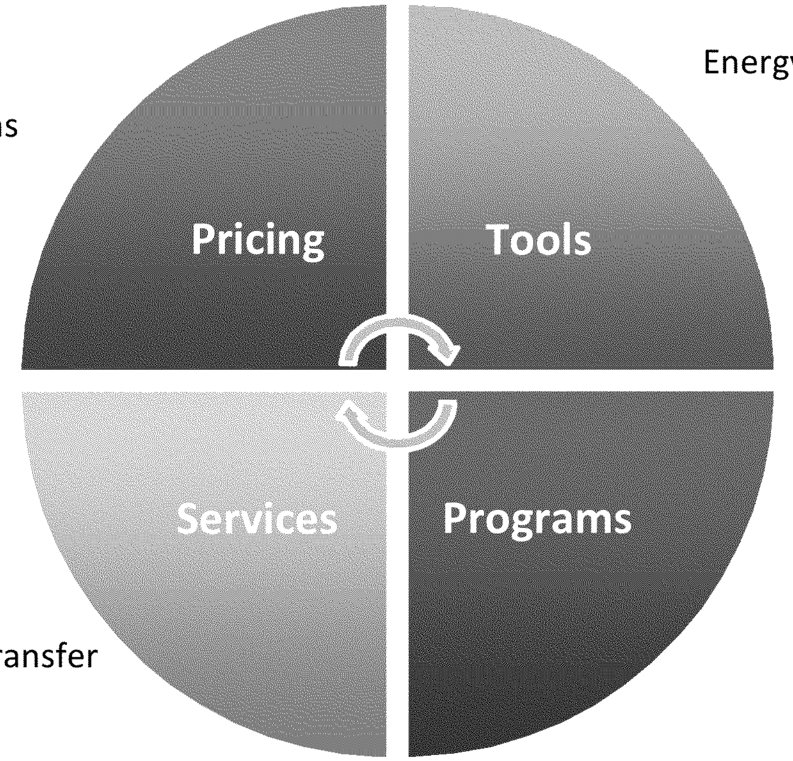
PRIVACY & SECURITY – Maintain customer trust through Privacy By Design

Enriching Segments via Further Research
Such as online customer insight panels and qualitative research

Customer Engagement Framework

Reduce Your Use
Smart Pricing Options
Solar Rates
EV
Green Rate

Energy Management Tool
Website
Mobile Apps
HAN



Workshops
Contact Center
Online Chat
Mover Services
Online Stop/Start/Transfer

Energy Efficiency &
Demand Response
Programs

*By offering the **right information** to the **right customers** through the **right channels** at the **right time**, we enable customers to make informed energy management decisions*

Segmentation Overview – S C E

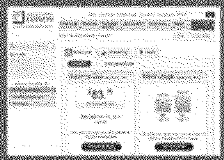
SCE Customer Engagement Framework

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

AN ENGAGED CUSTOMER ...

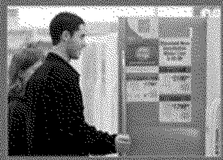
actively seeks & receives information about rate options, programs & services

optimizes enrollment in programs and services



adopts smart meter & other enabling energy management tools & technology

opts for energy-efficient products & demand response programs

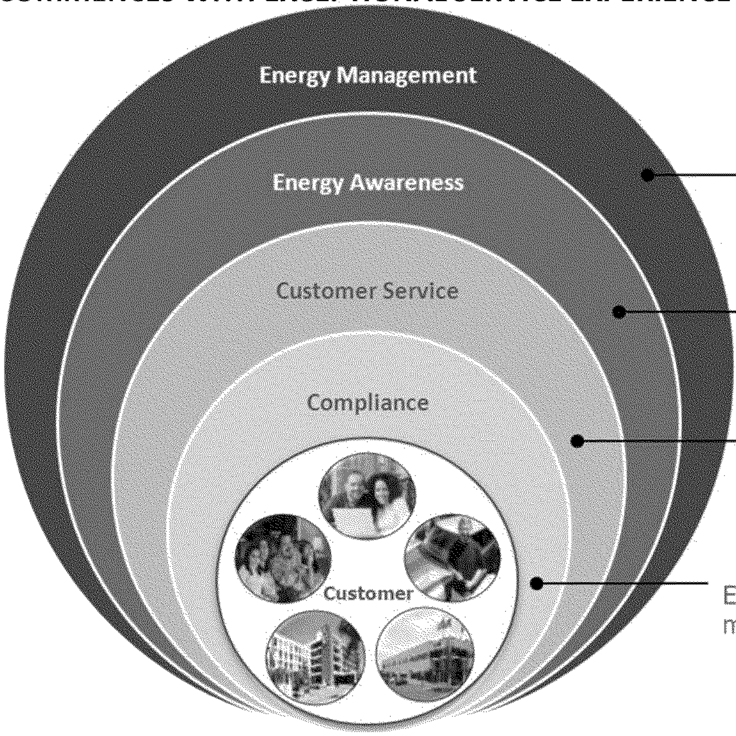


progresses to become energy management advocates

PATH TO ENGAGEMENT COMMENCES WITH EXCEPTIONAL SERVICE EXPERIENCE ...

FOCUS:

Achieving the highest level of customer satisfaction driving increased engagement and making the customer experience easy and convenient



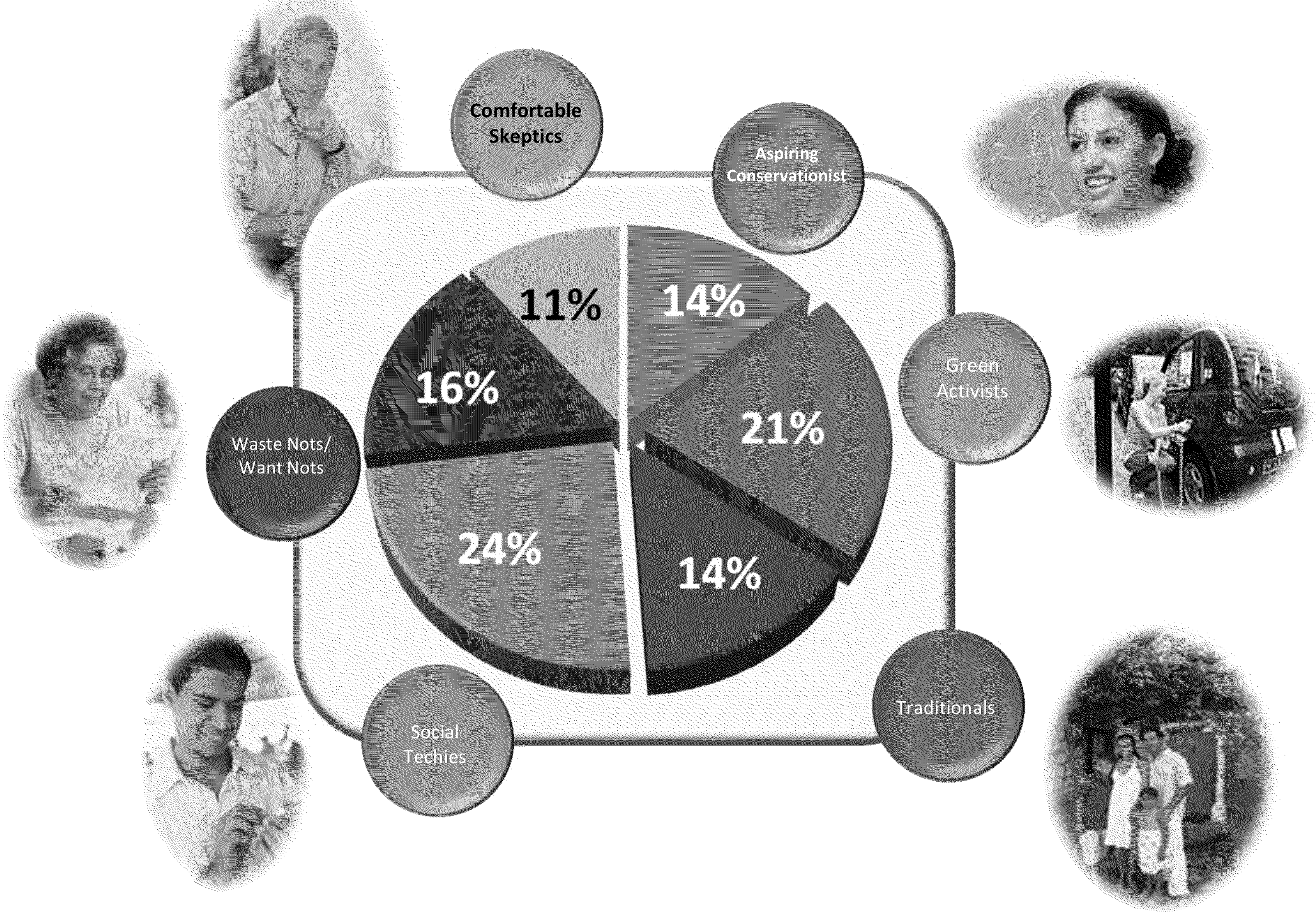
Enable participation with programs and tools to mitigate risk and meet their lifestyle goals.

Educate and motivate customers to participate in energy management

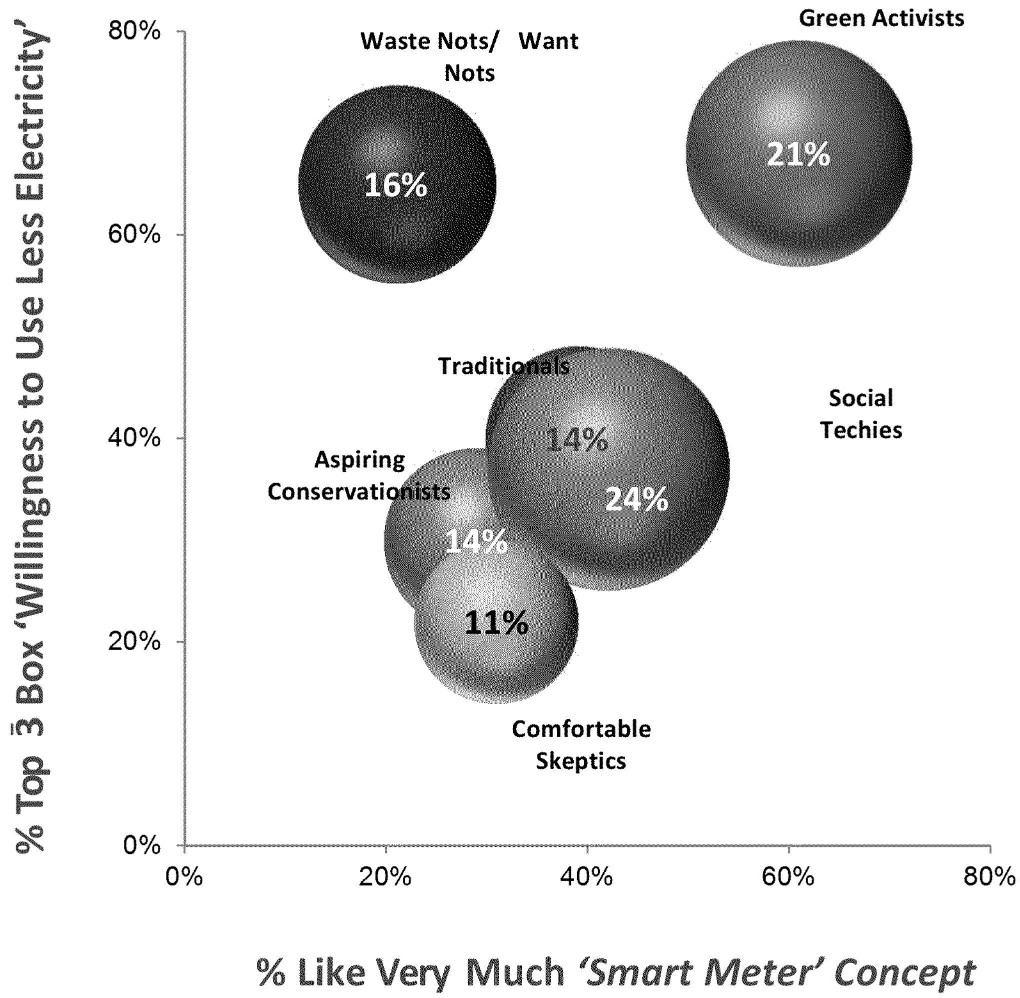
Deliver a convenient, easy-to-use service experience for basic, routine interactions, with proactive and responsive communications, enabling customer trust to proceed to the next level of engagement

Effectively inform customers about mandated/regulatory activities that impact them

2009 Residential Segment Personas



Smart Meter Concept vs. Willingness to Conserve



Bubble size proportionate to size of segment

"Living a green lifestyle is a major priority in my life. I actively pursue ways to make the environment safer and feel it my duty to give information to others less knowledgeable. I will do whatever it takes for energy conservation."

"While I use the internet to pay bills and bank online, I don't usually adopt new technologies very quickly."

"I love having the latest and greatest technology. I couldn't survive without my Blackberry! I know I could be doing more to help the environment."

"I regularly engage in activities to help the environment. My finances can be tight so I try to use less electricity . I don't think technology has made my life any easier and prefer to do things the 'old-fashioned' way"

"I want to do more for the environment, but sometimes other commitments or the inconvenience of it gets in the way. I want others to recognize me for my 'green' lifestyle."

"I'm entitled to the energy I use because I pay for it. Efforts at conservation require too much sacrifice and anyway, one person can't make a difference. Besides, global warming is a myth."

Segmentation Objectives

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

- Understand motivations for engagement with Smart Energy products and services through stages of awareness, understanding and change.
- Determine actions that different consumers will take to change their energy consumption
- Identify demographic segments that will help us understand our customers' current and future perceptions, attitudes and behaviors toward:
  - Technology Adoption
  - Demand side management
  - Electric Transportation
- Develop groundwork for testing consumer education *messaging, channel and programs and service* preferences in a post Edison SmartConnect™ deployment era
- Provide capability to "score" our customer database with segment membership

2011 Smart Energy Consumer Behavioral Segmentation

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

- Segments are based on Discrete Choice Modeling of
  - Behaviors
  - Engagement strategies
- Developed consumer profiles and tested engagement solution preferences characterized by:

What	Who	Where	How
Representative behaviors	Stage of Engagement Geo-demographics Technology adoption	Utility interactions	Service options Pricing plans

What

- No – cost energy
- Low-cost energy
- Higher cost energy
- Comfort compromise
- Manual load shifting
- Automated load shifting

Who

Stages of Engagement

1. Inactive
2. Reactive
3. Active
4. Proactive

Geodemographics

Technology Adoption

- Early Adopters
- Majority
- Laggards

Where

- Billing and payment
- EE/DSM programs
- Rate plans
- Website usage

How

Service Options

- Analysis tools
- Usage alerts
- Outage alerts
- Social incentive
- Control/Pre-pay

Pricing plans

- Flat
- Flat Plus Rebates
- Time of Use
- Set and Forget

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Energy Management and Control Behaviors

- Led through series of trade-off choices.
- Each segment described in terms of most distinguishing characteristic behaviors.

Customer Actions

- No-cost energy reduction
- Low-cost energy reductions
- Higher cost energy and environmental management
- Behaviors requiring comfort comprises
- Manual load shifting behaviors

Customer Benefits

Range of cost benefits

Range of positive environmental benefits

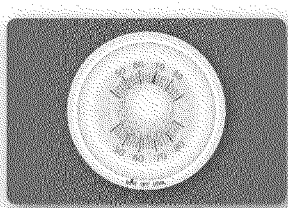
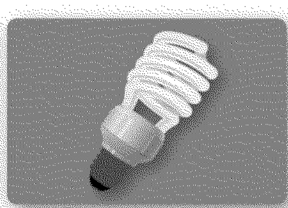
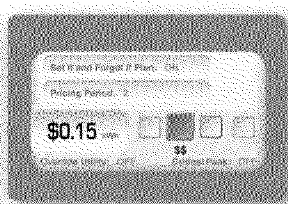
Stages of Engagement combine behavior, attitude & psychographics

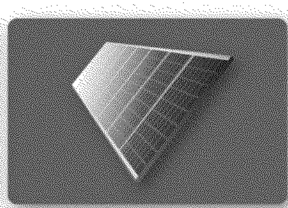
Increasing Readiness

• Stage 4: Proactive	16%	• Habitual	Participation in past / current utility programs
		• Habitual	Green consumer behavior
		• Frequent	Utility online account holder / active user
		• Yes	Solar PV owner
		• Strong	Environmental principles
		• Avid	Mobile Internet technology user
• Stage 3: Active	28%	• Occasional	Participation in past / current utility programs
		• Occasional	Green consumer behavior
		• Infrequent	Utility online account holder / active user
		• No	Solar PV owner
		• Moderate	Environmental principles
		• Moderate	Mobile Internet technology user
• Stage 2: Reactive	40%	• Seldom	Participation in past / current utility programs
		• Seldom	Green consumer behavior
		• Infrequent	Utility online account holder / active user
		• No	Solar PV owner
		• Ambivalent	Environmental principles
		• Moderate	Mobile Internet technology user
• Stage 1: Pre-Active	16%	• Never	Participation in past / current utility programs
		• Never	Green consumer behavior
		• Never	Utility online account holder / active user
		• No	Solar PV owner
		• Opposed	Environmental principles
		• Laggard	Mobile Internet technology user

2009 SCE Personas

2011 Smart Energy Consumer Segmentation

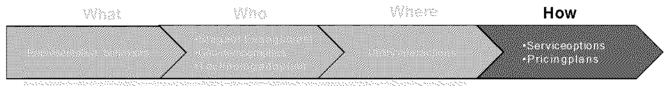





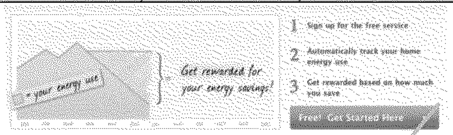


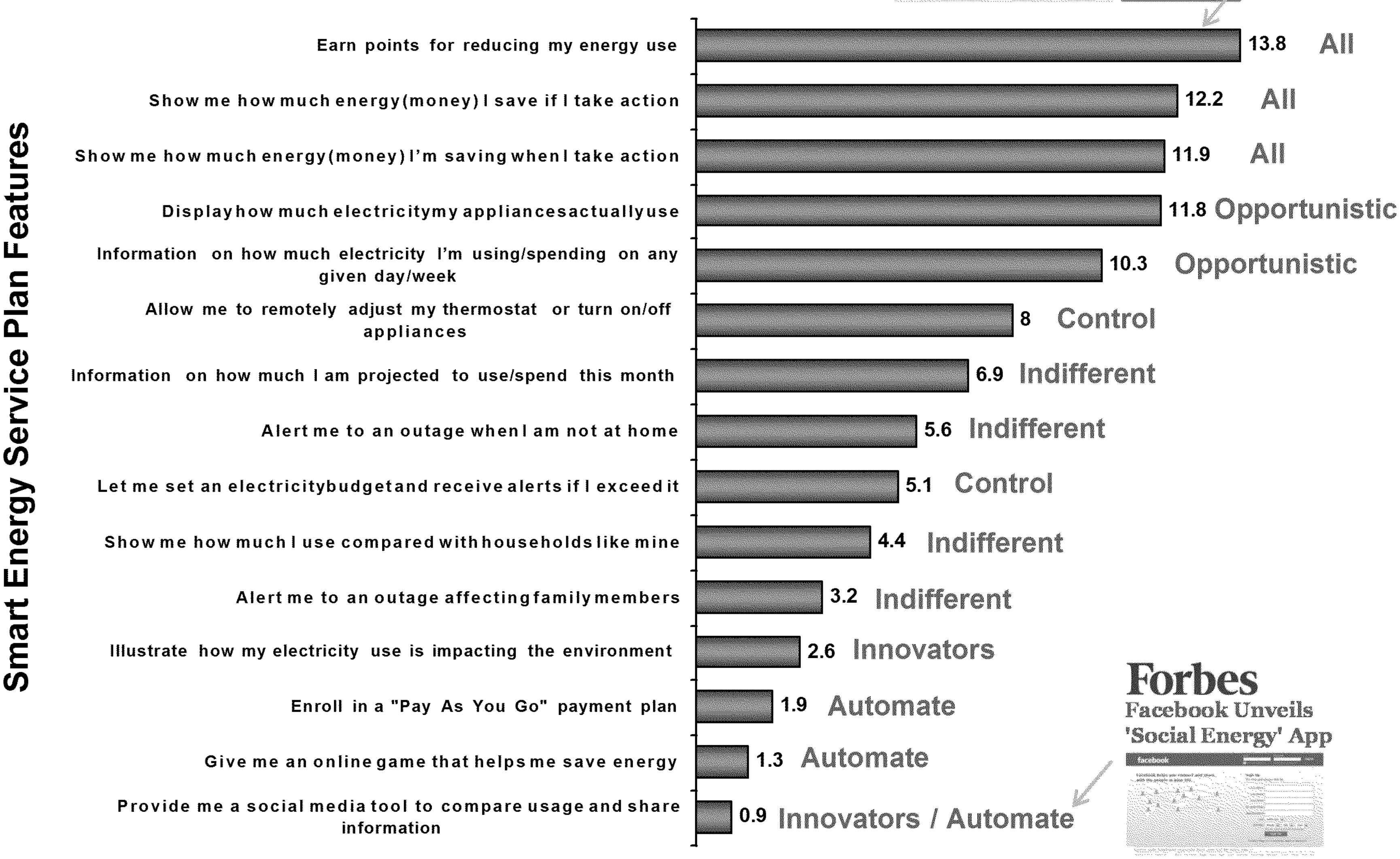
	Indifferent	Novice	Control	Opportunistic	Automate	Innovator
	7%	14%	17%	30%	18%	14%
What	Will NOT take actions	Will take no-cost actions (like lowering the water heater temperature); need education on what to do	Will proactively manage the thermostat	Will take low-cost measures (such as CFLs) that add up to savings	Will authorize utility to remotely manage energy use	Will invest in high-efficiency new appliances (including solar); already taking smaller actions
Who	Stage of Engagement: 1	Stage of Engagement: 2	Stage of Engagement: 2	Stage of Engagement: 2	Stage of Engagement: 3	Stage of Engagement: 4
	Male, smaller family, less educated, smaller town	Less-affluent female	Female, smaller home/HH size, less-affluent, more suburban	More-affluent female, higher education	Urban renter	More-affluent male in larger household / home
	Tech: Late majority/Laggards	Tech: Late majority/Laggards	Tech: Early Majority	Tech: Early Majority	Tech: Innovators/Early Adopters	Tech: Innovators/Early Adopters
Where	Check/in-person payment users	*Nothing discernible*	E-payment users	Automated debit users	Website account users	Energy-efficiency program users
How	Outage Alerts	Show me how much energy (money) I could save if I take an action	Earn points for reducing my energy use	Display how much electricity my appliances actually use	Enroll in a "Pay As You Go" payment plan	Illustrate how my electricity use is impacting the environment
	Flat Rate	Flat Rate Plus Rebate	Flat Rate Plus Rebate	Time-of-Day Rate	Set It and Forget It	Set It and Forget It
	Comfortable Skeptic	Aspiring Conservationist	Traditionalists, Waste Not/ Want Not and few others		Social Techies	Green Actives

SB_GT&S_0203094

Smart energy service plan preferences







Indifferent Segment (7%)

People that are not currently participating in any utility programs.

They want to be left along and continue their current behaviors in terms of energy usage.

Behavioral Characteristics

- No Action: The potential benefits of changing behavior are not worth the reduced comfort and convenience
- No Action: The potential bill savings are not worth changing behavior
- No Action: The potential environmental impact reduction is not worth changing behavior

Knowledge and Understanding

- Highest "Not at all familiar" with smart grid (36%)
- Highest "Very Familiar" with smart meter (8%)
- Benefits of smart meter: "*none to me, lots to Edison they will be able to track usage and then alter rates to match usage*"
- Concerns of the smart meter: "*Too much information about me being collected*"

Utility Interactions

- Current programs: Lowest enrollment
- Past programs: Lowest participation
- Usage: Higher usage
- Website usage: Lowest usage
- Payment method: In person

Engagement Level

- 56% Pre-Contemplation (Stage 1)
- 38% strongly agree it is their right to use as much energy as they wish.
- Do not believe in global warming
- Lowest scores/percentages to every question

Indifferent Segment

Technology Adoption

- 59% Late majority/Laggards
- Lowest count of high tech appliances (smartphone, HDTV, PC, tablet)
- 40% CFL lighting

Service Offering Preferences

- Alert me to an outage when I am not at home
- Information on how much I am projected to use/spend this month
- Show me how much I use compared with households like mine

Pricing Plan Preferences

- 41% Flat-rate plan

Customer Satisfaction

- Lowest satisfaction scores

Geo-Demographics

- Own: 70% (2nd highest)
- Home type: highest SF detached (53%)
- Urban/Rural: Rural/Suburban
- Age: Older (median of 56)
- Gender: 66% male
- Race: 76% Caucasian
- Education: 20% advanced degree

Applying Segmentation to Strategy: **Indifferent** Segment

Similar to: Comfortable Skeptics

Business challenge: Can we show this segment ROI for every action in order to garner participation?

	Current	Target
Segment Behavior	High usage, low program participation. Doesn't use internet much, likes to pay in person. Concerned about privacy; doesn't see the advantage of smart meters. Low technology adoption. Not engaged with SCE.	SCE provides tools to show ROI, how much electricity is used compared to neighbors. Alert me of outages, alert me about my bill (Budget Assistant)
Underlying Segment Attitudes or Beliefs	Believes they should use as much electricity as they want. Doesn't want to be told what to do. Doesn't like change. Does not respond to environmental appeals. Response to savings will depend on ROI. Not willing to compromise comfort or convenience.	Could be energy efficient as appliances are retired—show ROI. Likes to get alerts about bill amount and outages.

Insight

Engagement with this customer will be a challenge but appeal to sense of logic with ROI tools, and automated alerts via voice mail.

Customer Task Summary

Engage with Budget Assistant. Make rebates easy: at the point of sale. Have ROI tools available for appliance decisions. Use authoritative resources like Consumer Reports etc. Flat rate plan is best bet.

Identifying Key Customer Segments and Building Packages

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL® Company

- Four key segments emerge from smart energy behavioral segmentation and personas: Comfort, Saver, Green, Tech-Savvy.
- Income Qualified address a key customer group based on eligibility criteria.

- Bundling offerings that appeal to customer segments.

	Comfort	Saver	Green	Tech-Savvy	Income Qualified
Energy Use Behavior Segment SCE Persona	Indifferent Comfortable skeptic	Control/Opportunistic Traditionalists/Waste Not Want Not	Innovator Green Active	Automate Social Techie	May cross multiple personas *(may include Novice, aspiring conservationists / waste not want nots)*
Energy Use Behavior	Want to be left alone and continue to do their current behaviors in terms of energy usage. Currently do not participate in utility programs.	Will proactively manage the thermostat and / or take low-cost measures that add up to savings	Will invest in high-efficiency new appliance (including windows, solar, A/C unit). Almost always programs the thermostat.	Will authorize utility to remotely manage energy use (ie: adjust thermostat & A/C Unit)	*(Novice = will take no-cost actions such as lowering heater temperature)*
Technology Adoption	Late majority/Laggards	Early Majority	Early Adopter High tech appliances – smartphone, HDTV, PC, tablet	Early Adopter High tech appliances – smartphone, HDTV, PC, tablet	*(Novice = Late majority / Laggards)*
Service / Program Preferences	• Outage alerts	• E-Payment / Auto Debit • Appliance usage info • Budget Assistant / Alerts • Display how much electricity their appliances use • Daily/weekly energy use information	• EE Rebates • Utility website use • Remotely adjust thermostat • Outage alerts • Info on how usage is impacting the environment	• Utility website use • AC/WH Cycling • Energy Audit • Show how much money they can save by taking action • Pay As You Go payment plan • Online energy saving game • Social media tools compare usage	Have had participation in: • My Account • Online Billing • Online Payment • Medical Baseline • Energy Savings Assistant Program (aka EMA)
% SCE Customer Base *(based on JD Powers behavior segment)* *Total SCE customers approx 4.2 mill*	7%	47%	14%	18%	*14%* *CARE/FERA = 1.4 mill (33% of customer base)*

**Source: SCE Market Research Lifestyle Package Customer Program Participation CARE / FERA Customers). October 2011.*
*** Source: J.D. Power Smart Energy Consumer Behavioral Segmentation StudySM. Final Report Briefing, October 21st, 2011.*

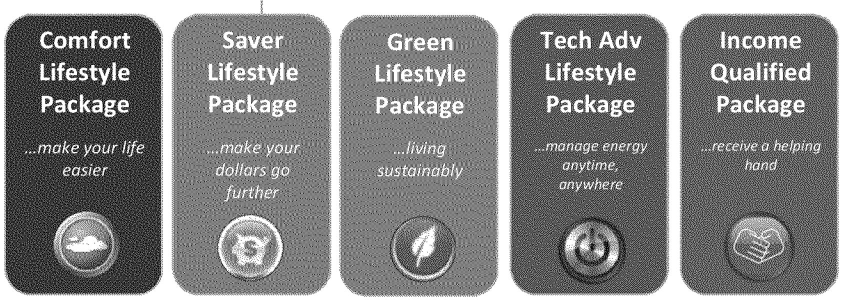
Incorporate into SCE Customer Relationship Approach: Offer Management

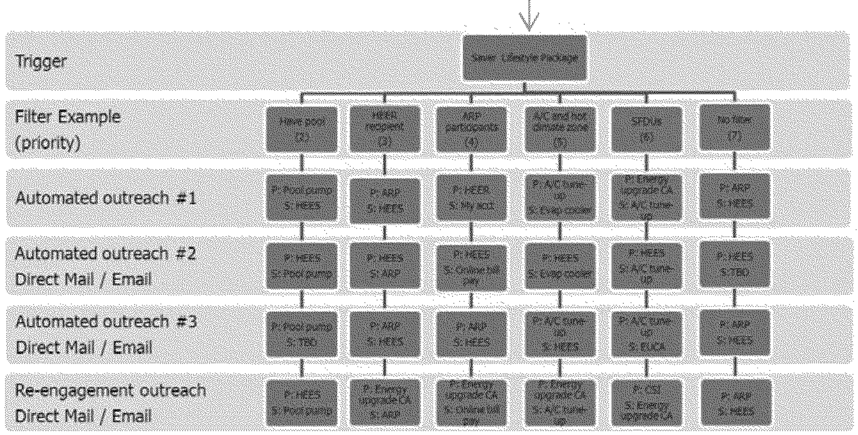
SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL® Company

Incorporate into SCE Customer Relationship Approach: Offer Management

- Lifestyle Packages
  - Primary objective: simplified choices for enrollment and participation in programs and services
  - Customers actively participate in the lifestyle packages that best suits them (raise hand)
  - Bundles DR programs and self-service tools
- Trigger Marketing
  - Primary objective: leverage momentum of handraisers with prescribed messages on hot leads for participation in programs and services
  - Customers can actively or passively trigger an event that initiates a communication curriculum
  - Bundle EE episodic programs and self service tools

Trigger marketing can be used with Lifestyle Packages to cross sell additional programs and services





SB_GT&S_0203100

Next Steps

- Score customer database
- Build algorithm “next best offer
- Expand offer management pilot

Step 1:

Customer Segmentation
- Lifestyle Segment
- Business Segment
- Program Enrollment
- Usage Info
- Customer profile

Step 2:

Predictive Analytics
- Evaluate relevant DSM programs and services for each individual customer

Step 3:

Offer Management
Based on analytics and segment (Lifestyle Package), business type and/or behaviors (Trigger Marketing) targeted solutions offered via relevant media/channels

Step 4:

Program Enrollment
Customers sign up for Lifestyle Package (simplified single enrollment for bundled DSM), business segment and /or energy savings programs and services triggered by episodic action

Step 5:

Ongoing and Fluid Customer Engagement
SCE customer database is updated and continues to the process of offering relevant DSM programs and services via relevant communication channels (e.g., email, direct mail, social media and other digital /mobile media, community outreach, CBOs, local retailer partners)

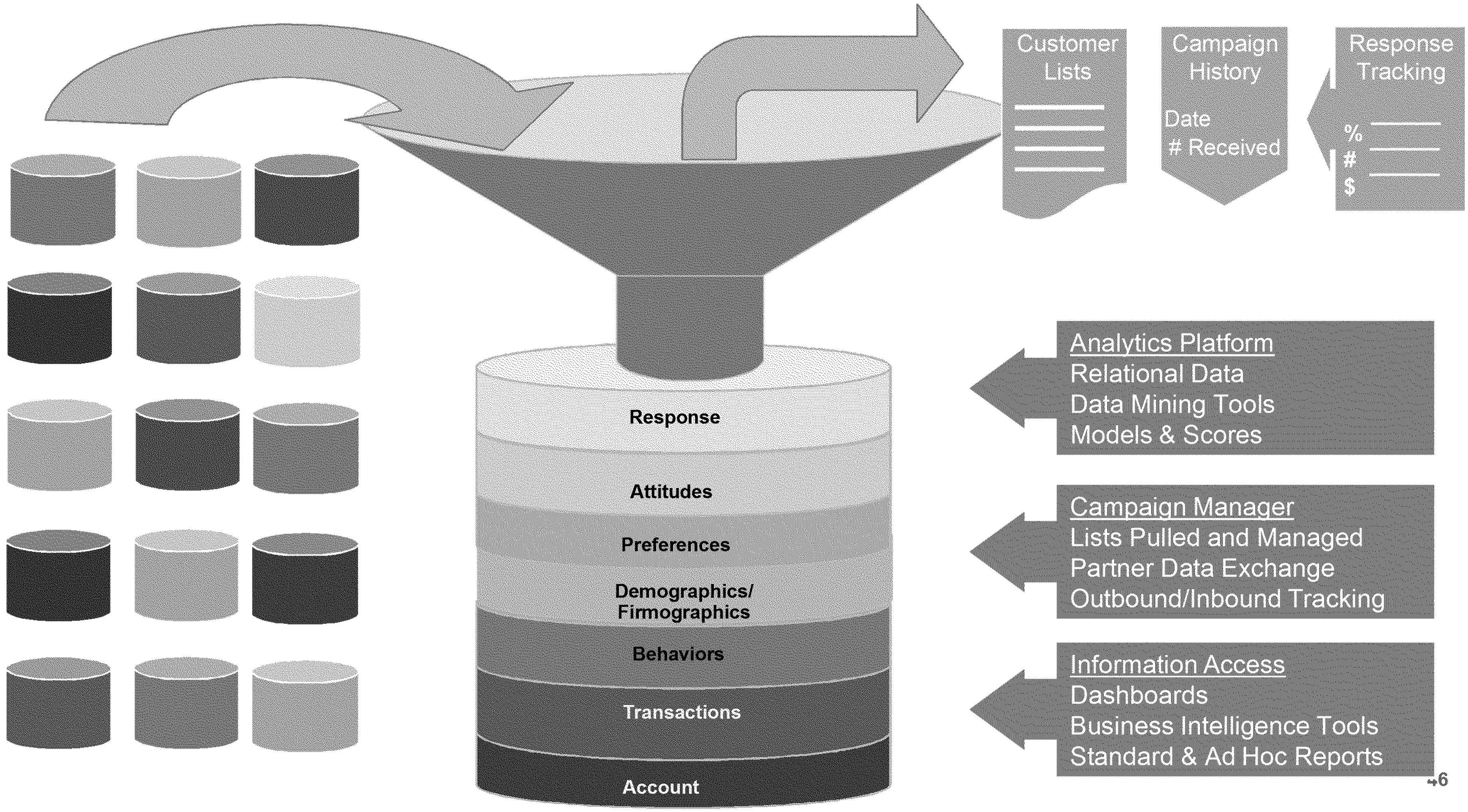
Segmentation Overview – P G & E

Pacific Gas and Electric Company®

Customer Analytical and Segmentation (CAS) Database

The technology system holds, connects, collects & manages data

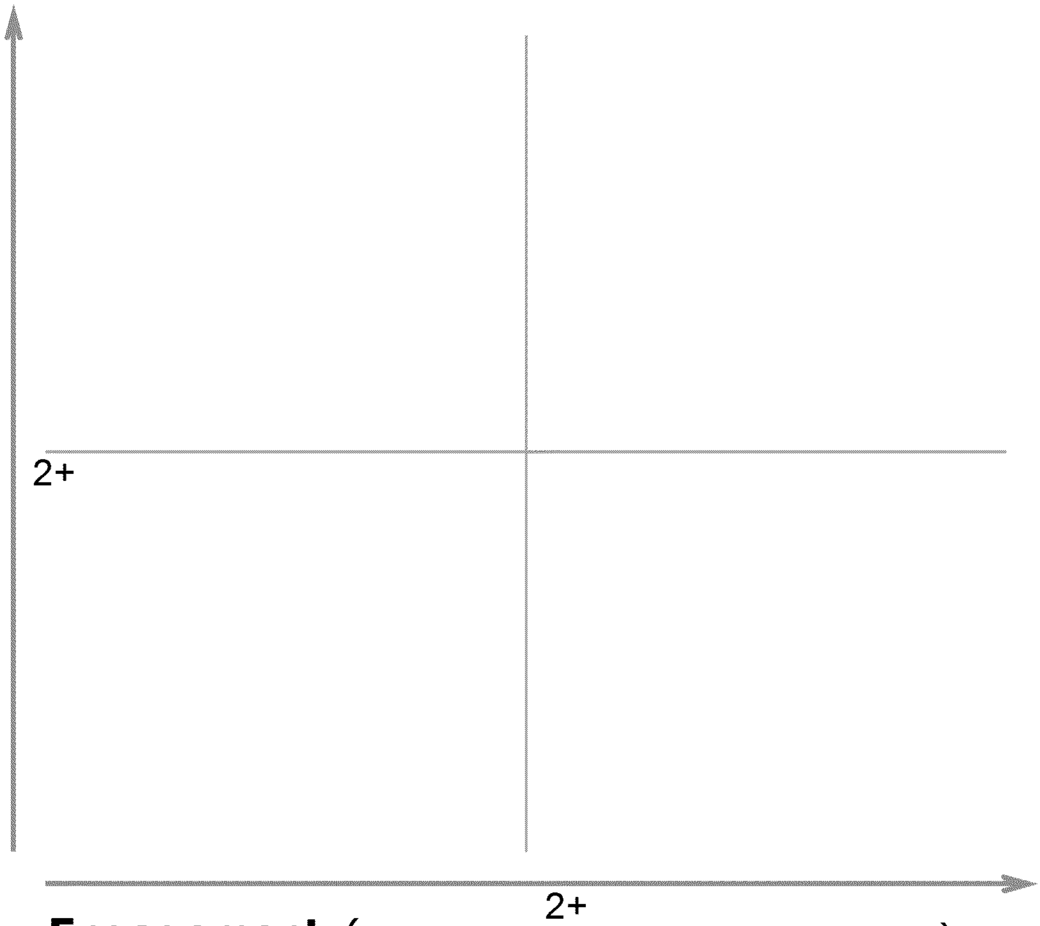
- *Data is clean and connected at the customer level*
- *Provides a holistic view of the customer info, history, responses, scores*
- *Closed-loop so customer interaction results in greater knowledge*



Residential Segmentation Framework

Attributes
(**Energy Needs, Account Needs, Attention Needs**)

- Higher Income / Large Homes
- Non-Temperate Climate
- Multiple Accounts
- Multiple Payment Methods
- Missed 20% Payments P12M
- Life Support / Medical
- Help Tickets (2+ P12M)
- Field Activities (2+)



Engagement (**Programs, Interactions, Automation**)

BPP	Rebate	Specific Rate Plan
CARE	ClimateSmart	Web Registered
FERA	Involved Pay– Auto/OEP/EFT	IVR (2+ calls)
REACH	Demand Response	

Residential Segments

High Attributes/Low Engagement **3**

18%

Profile: Upper Middle Class, Older, Large Houses, Higher Income, Valley Dwellers, Gas only, Multiple Payment Methods

Electric = $109/ Gas = $51

4 **High Attributes/High Engagement**

23%

Profile: Mixed Social Groups, Pay Online, Assistance Programs, DR, EE, Rebates, Valley Dwellers, IVR Callers

Electric = $102 / Gas = $47

Attributes

37%

Profile: Young - Middle Age, Bay Area, Smaller Households, Standard Pay Methods, Shorter Tenure with PG&E

Electric = $76/ Gas = $42

Low Attributes/Low Engagement **1**

22%

Profile: Younger, Urban, Pay Online, Auto Pay, Rebates, DR, EE, Assistance Programs

Electric = $82/ Gas = $41

2 **Low Attributes/High Engagement**

Engagement

Residential Clusters/Personas

Attributes
(Energy Needs, Account Needs, Attention Needs)

Higher Income / Large Homes

Non-Temperate Climate

Multiple Accounts

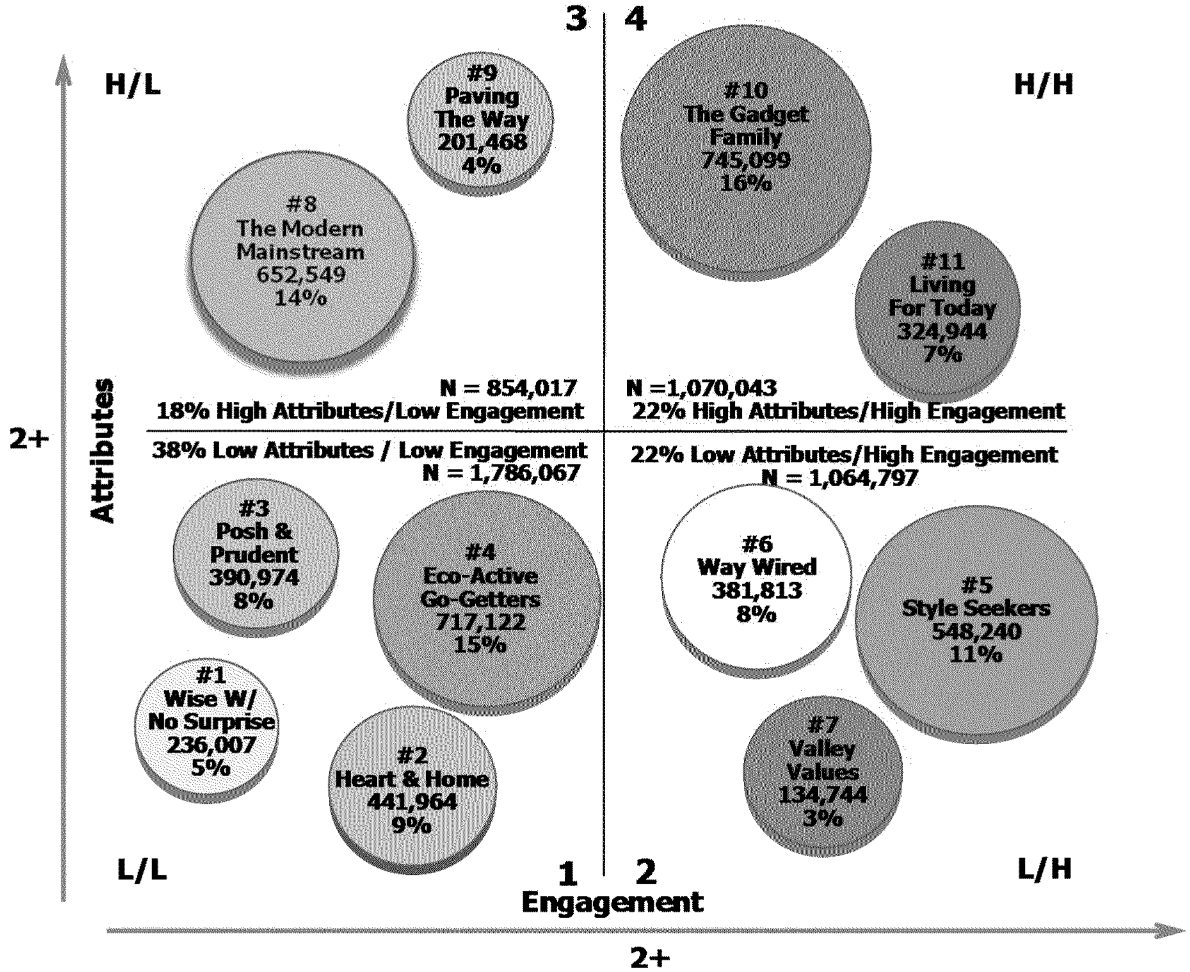
Multiple Payment Methods

Missed 20% Payments P12M

Life Support / Medical

Help Tickets (2+ P12M)

Field Activities (2+)



Engagement (Programs, Interactions, Automation)

BPP	Rebate	Specific Rate Plan
CARE	ClimateSmart	Web Registered
FERA	Involved Pay– Auto/OEP/EFT	*IVR Other (2+ calls)*
REACH	Demand Response	

SB_GT&S_0203106

Cluster #4: Eco-Active Go-Getters

Demographics (717,122 customers)
- Higher Income: $70k+
- Higher Education: College +
- Less Hispanic and African American
- More likely to be Asian
- Moderately More Professional Occupations
- Higher Home Market Values
- More Temperate/Coastal Climate (Areas 1,2,3)

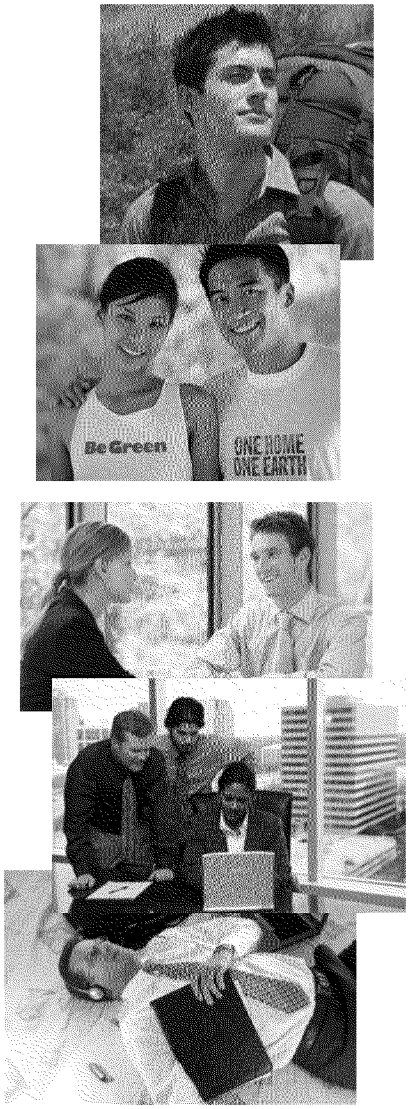
Lifestyle
- Content/Happy
- Career Driven & Financially Savvy
- Technically Savvy (Gadgets, Internet)
- Community/Environment Focused
- Unconventional Mindset
- Active & Experiential (Exercise, Outdoors)
- Cultured Consumer (Wine, Gourmet, Travel, Art)
- Frequent Traveler (Business & Leisure)

Utility Factors
- Visited pge.com
- Pay Bill through multiple electronic methods (was Auto Payers)
- Larger Homes
- Higher Bills
- Both Electric & Gas

Green Aware
- Behavioral Greens– 68%
- Think Greens – 17.7%
- Potential Greens – 10%
- True Browns – 4.1%

Fun Facts
- 14% Completed Graduate School
- More Than Half Have A Home Valued at $500k+
- 41% Are Registered Democrats
- 64% Say They Actively Seek Out News

Cluster #4: Eco-Active Go-Getters



I work hard – some people might say too hard, but I enjoy what I do. I am driven to succeed and believe you should seize all opportunities in life. **My career is an important part of how I define myself and I do like others to think that I am successful.**

But life isn't just about work – I want to feel that my existence has given back to the world in some way. **I am a bit of an altruist and I am more than willing to volunteer for a good cause**. **I believe it's everyone's duty to recycle, that pollution should be banned, that product packaging should all be recyclable and that companies should act ethically.** From a human rights perspective, I believe in equality for all, in respect for all customs and beliefs and enjoy learning about other cultures.

I'm very technical and the Internet has had a major impact on how I work. But I also just enjoy technology. I can easily get lost for a couple hours wandering through Best Buy just looking at the different gadgets**. I'll pay anything for the electronics that I want and I keep up with technology developments in general**. **I also spend a lot of time online, visit a variety of different web sites and use web applications like streaming video.**

If I'm not at work or on the Internet, I like to keep physically active and enjoy the best of life. I like to spend time experiencing and understanding the nature that is all around me. I'll exercise regularly and go outdoors hiking and camping. I'm also a cultured consumer and enjoy art museums, the theater, gourmet foods, wine and international travel.

From a utility perspective, I like to automate my transactions online whenever possible. I live in a larger home with a higher utility bill and can afford the costs but am also environmentally conscious – so I might be interested in environmental technologies to make my home more energy efficient.

Residential Segments – 2008 vs. 2011

PG&E customers have changed their interaction with PG&E since 2008

Not only have more customers become engaged, but also there is greater engagement within the "engaged" segments

	Low Attributes/ Low Engagements		Low Attributes/ High Engagement		High Attributes/ Low Engagement		High Attributes/ High Engagement	
	2008	2011	2008	2011	2008	2011	2008	2011
Size	2,416,936	1,786,067	514,313	1,064,797	1,268,391	854,017	690,397	1,070,043
	49%	**37%**	11%	**22%**	26%	**18%**	14%	**23%**
Description	Younger, Bay Area, Smaller HHs, **Conservative,** Standard Pay Methods	**Mid. Age,** Bay Area, Smaller HHs, Standard Pay Methods, **Shorter Tenure with PG&E**	Younger, Urban, Auto Pay, Rebates	Younger, Urban, Auto Pay **+ other online tools**, Rebates **DR, EE, Assistance Programs**	Upper-Middle Class, Older, **Rural,** Large Houses, Gas Only	Upper-Middle Class, Older, **Central Valley**, Large Houses, Gas Only	Mixed Social Groups, **Pay by Phone,** Assistance Programs	Mixed Social Groups, **Pay Online**, Assistance Programs **DR, EE, Rebates,**
Average Electric Bill	$82	$76	$90	$82	$123	$109	$132	$102
Average Gas Bill	$46	$42	$50	$41	$48	$51	$55	$47

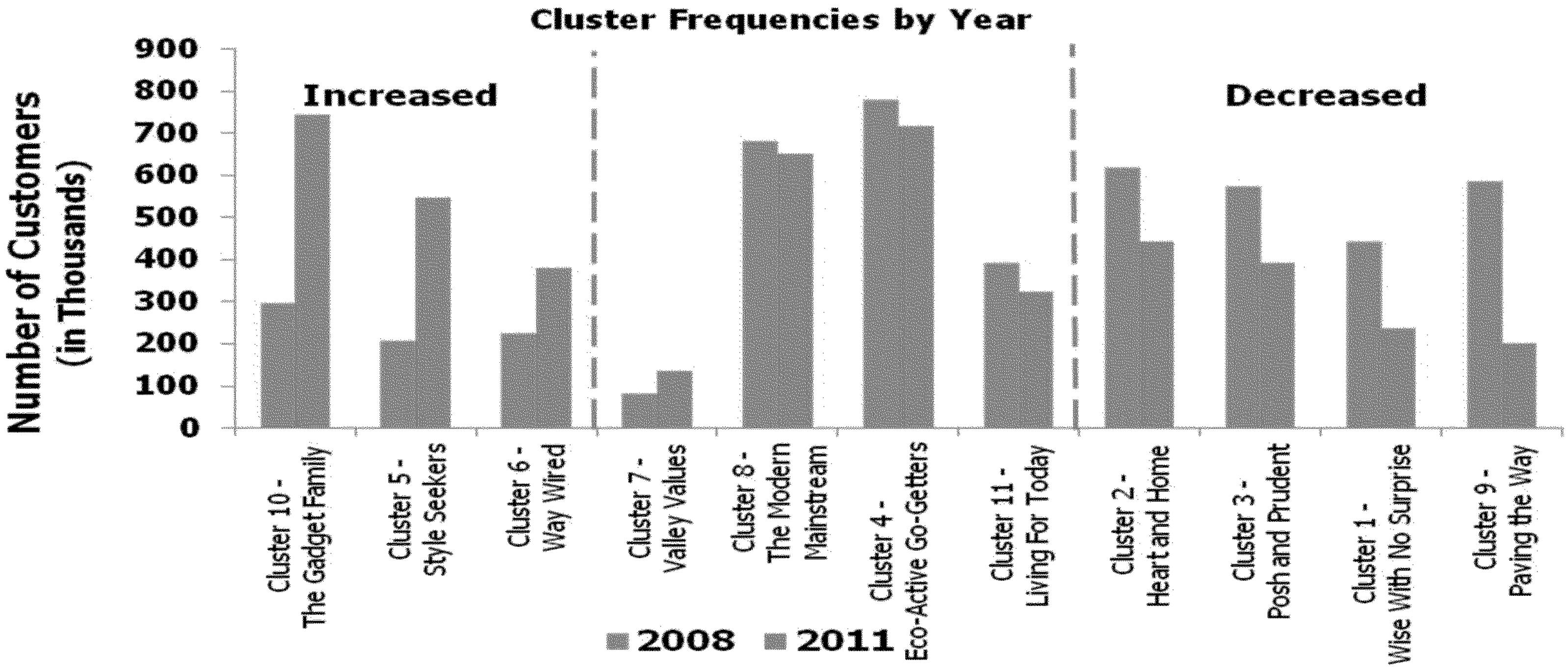
Changes from 2008 to 2011

Cluster Changes 2008 & 2011

Evaluation of the customer cluster changes between 2008 and 2011 further illustrate that customers are becoming more engaged

- Engaged clusters have become larger since 2008 (Cluster 5, 6, & 10)
- Low Engaged clusters have become smaller since 2008 (1, 2, 3 and 9)

The most sizeable shift in customer sizes have occurred in the high attributes clusters (9 and 10)



2008 vs. 2011 Cluster Changes

Most of the engaged clusters show signs of becoming even more engaged

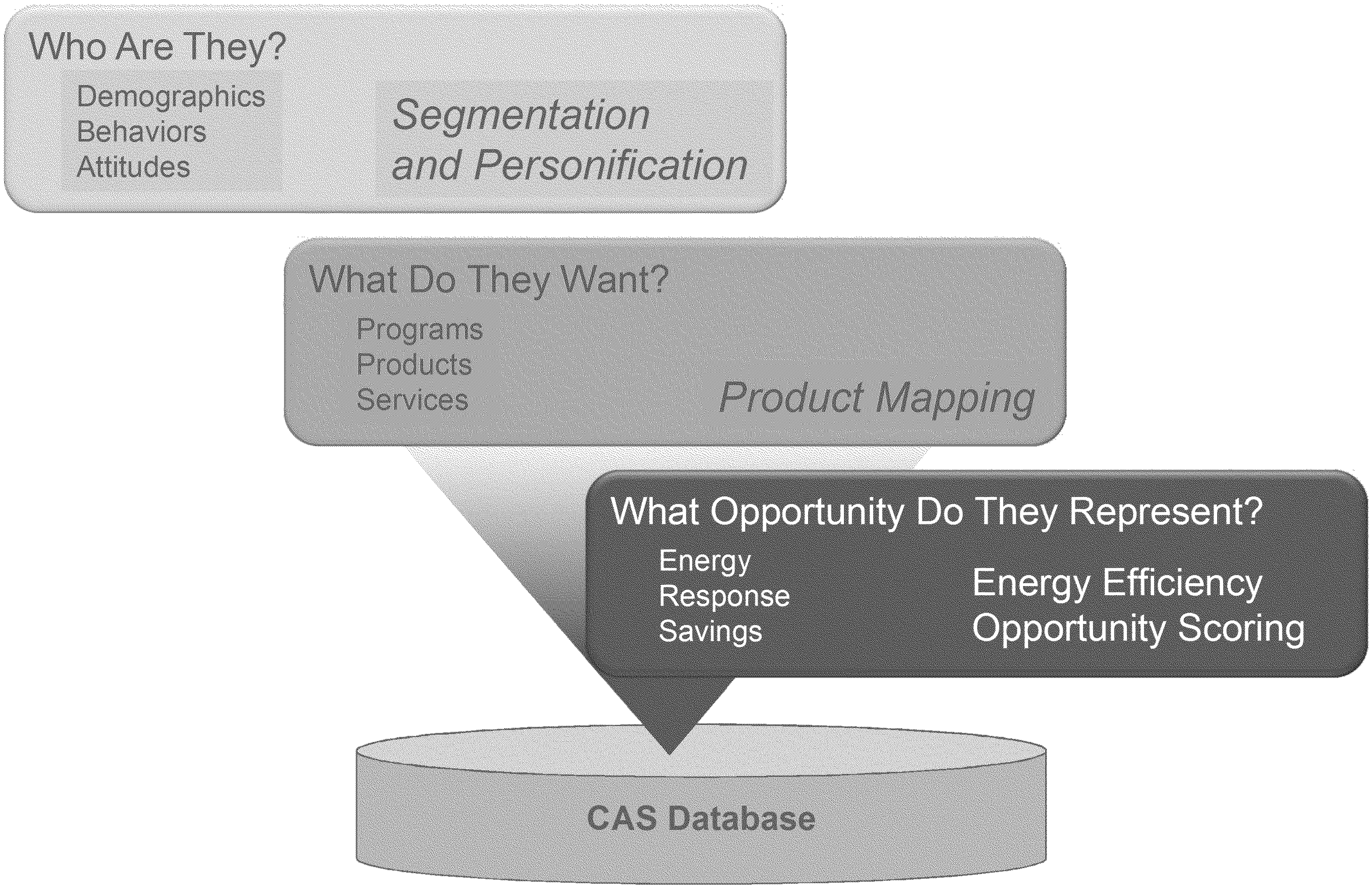
- Assistance programs are being leveraged across all low income clusters
- Online engagement (electronic billing / payments and visiting PGE.com) are being leveraged more broadly across all clusters

Customer distribution and demographic changes in clusters 9 and 10 suggest that customers in cluster 9 may be migrating to cluster 10

Changes in Cluster Profiles between 2008 and 2011

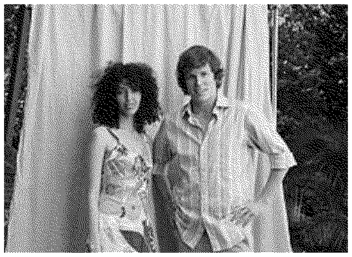
Cluster	Age	Income	Assistance Programs	DR / EE Programs	Rebates	On-Line Usage	IVR Caller	Missing Payments
#1 Wise w/ No Surprise	Older	Moderate						
#2 Heart and Home	Older	Low	+					
#3 Posh and Prudent	Middle - Older Age	All	-		-		-	
#4 Eco-Active Go-Getters	All	High				+		
#5 Style Seekers	Younger	Moderate	+			+		+
#6 Way Wired	All	High		+	+			
#7 Valley Values	Middle - Older Age	Low	+	+	+	+		
#8 The Modern Mainstream	Older	High						
#9 Paving the Way	All	Moderate (was Low)						
#10 The Gadget Family	All	Moderate (was High)		+		+		
#11 Living for Today	All	Low	+			+	+	

Customer Insights to Customer Centric Outreach



Persona Communication Factors

Eco-Active Go-Getters



Tone
Optimistic
Activist

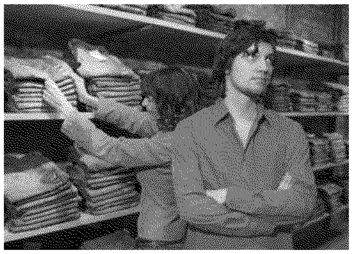
Messages
Help The Environment
Do Your Part

Hot-Buttons
Climate
Equality

Channels
Internet
SMS

Products
SmartAC
Autopay

Style Seekers



Tone
Playful
Simple

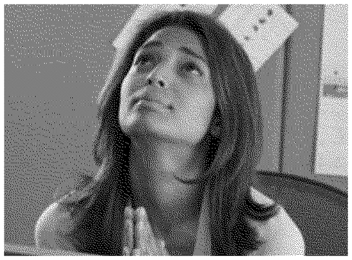
Messages
Look Good
Be Care Free

Hot-Buttons
Peer Influence
Savings

Channels
Outdoor
Magazines

Products
SmartRate

Paving The Way



Tone
Conservative
Practical

Messages
Get Ahead
Ease The Burden

Hot-Buttons
Money
Progress

Channels
Television
In-Store

Products
Balance Payment Plan

The Gadget Family

Tone
Modern
Communal

Messages
Enjoy Convenience
Enhance Quality

Hot-Buttons
Family
Finances

Channels
Internet
Mail

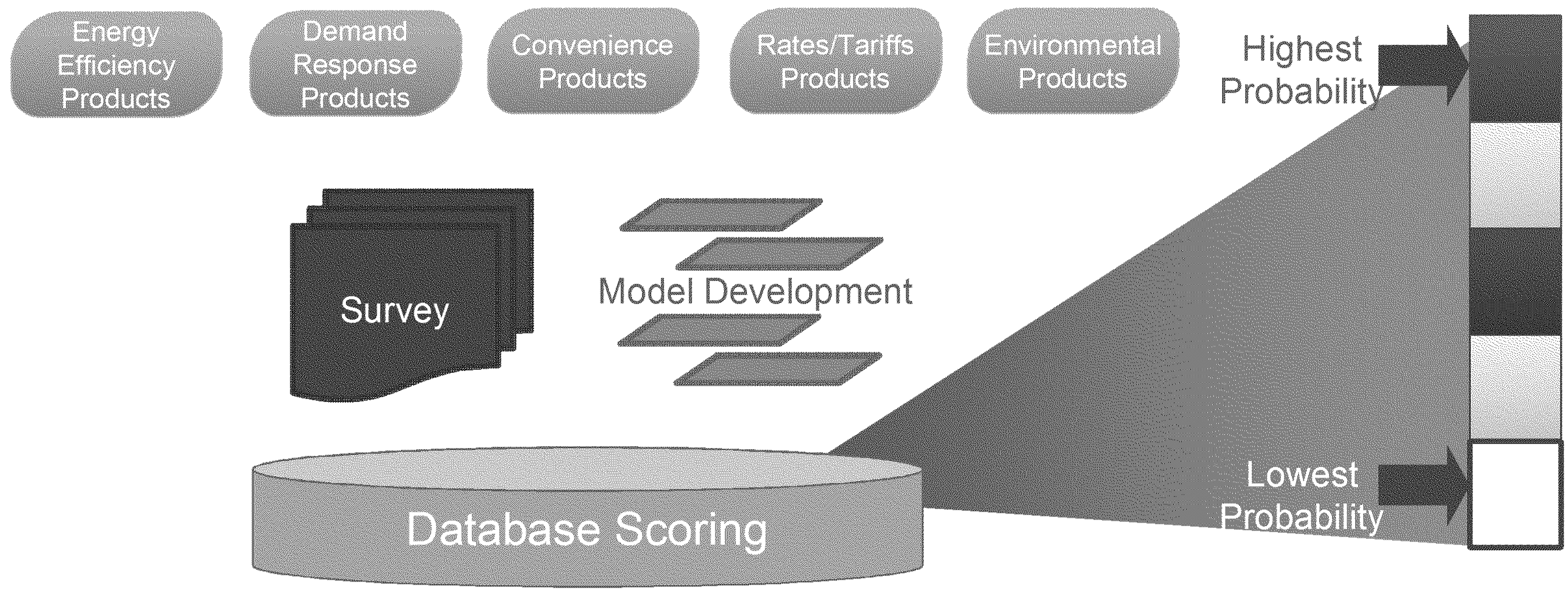
Products
Solar
SmartAC

Residential Product Mapping – Propensity Scoring

Customers have differing levels of intent across products

- *Initial set of product scores were chosen to represent range of offerings*
- *Each customer is scored for each product*
- *New product scores are being created from new response models*

A combination of qualitative and quantitative studies ranked customers based on their propensity to be interested in and use products



Energy Evaluation Opportunity Score (EEOS)

Not every residential customer consumes energy equally

- *Same home, family, income, climate, etc. and yet energy use is different*
- *Could be behavioral, inefficient equipment, or more*
- *Shows where energy is more readily saved*

Energy Evaluation Opportunity Score: A modeled score applied to each customer on their energy savings opportunity as compared to their peers. If the customer is less efficient than others that look like him/her then there is a larger opportunity to improve their EE behavior.

Both John & Others that look like him have the following characteristics:

Dwelling: Single Family Residence

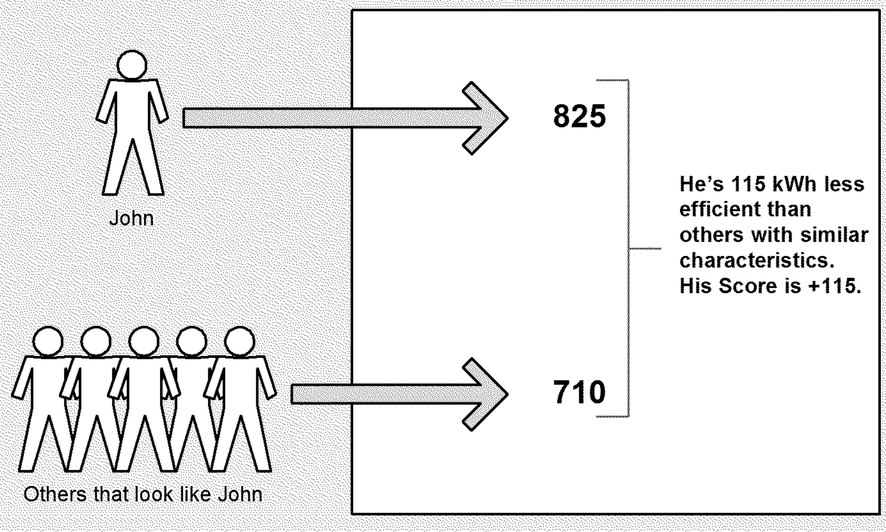
House Square Footage: 4000 Sq. Ft.

House Year Built: 1985

# of People in Home: 4

Climate: Non-Temperate

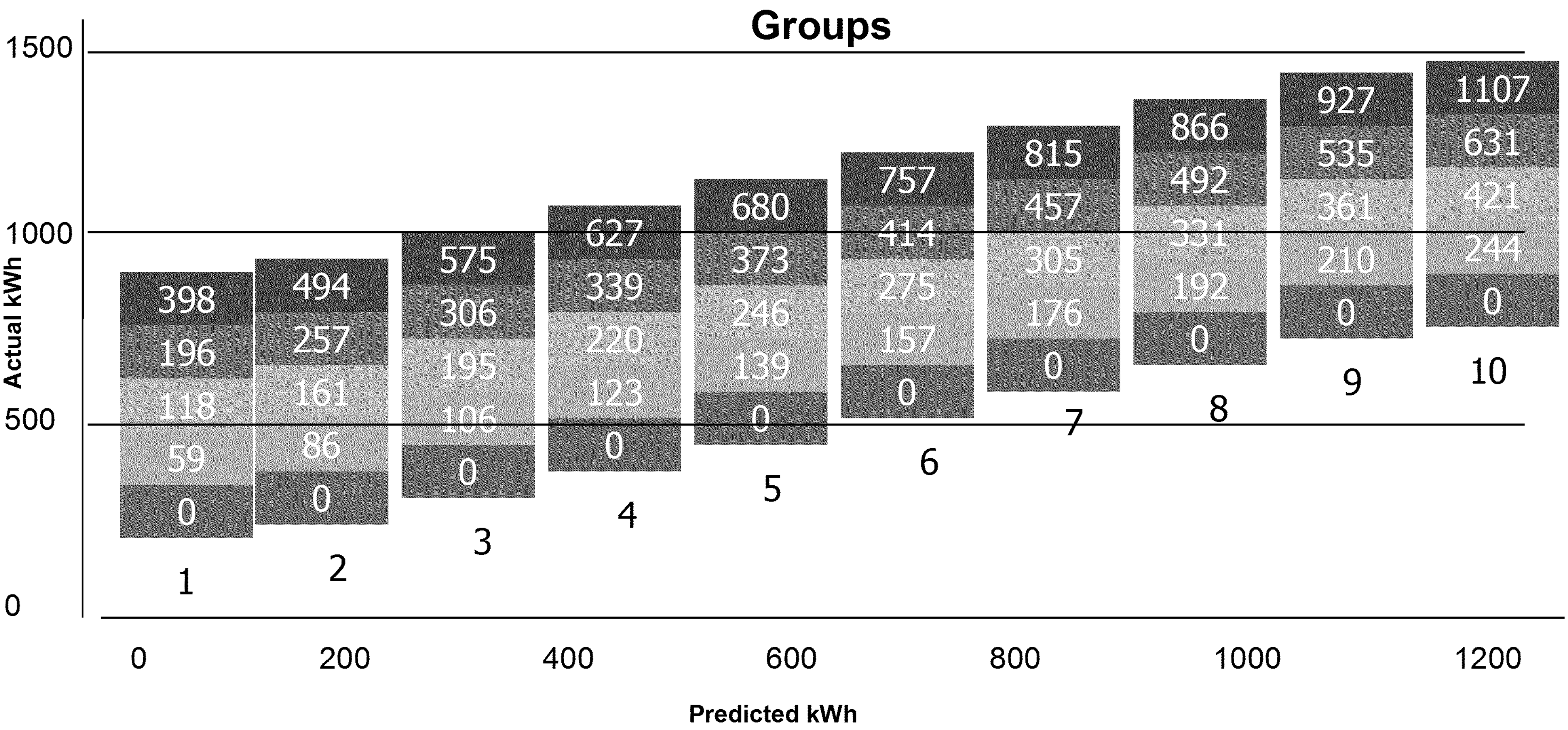
But John uses 825kwh/month in Electricity and Others that look like him use 710kwh/month on average:



SB_GT&S_0203115

EEOS – Scores by Group & Quintile

The resulting score was assigned to each customer in the CAS database to reflect the degree of energy efficiency that customer represents.

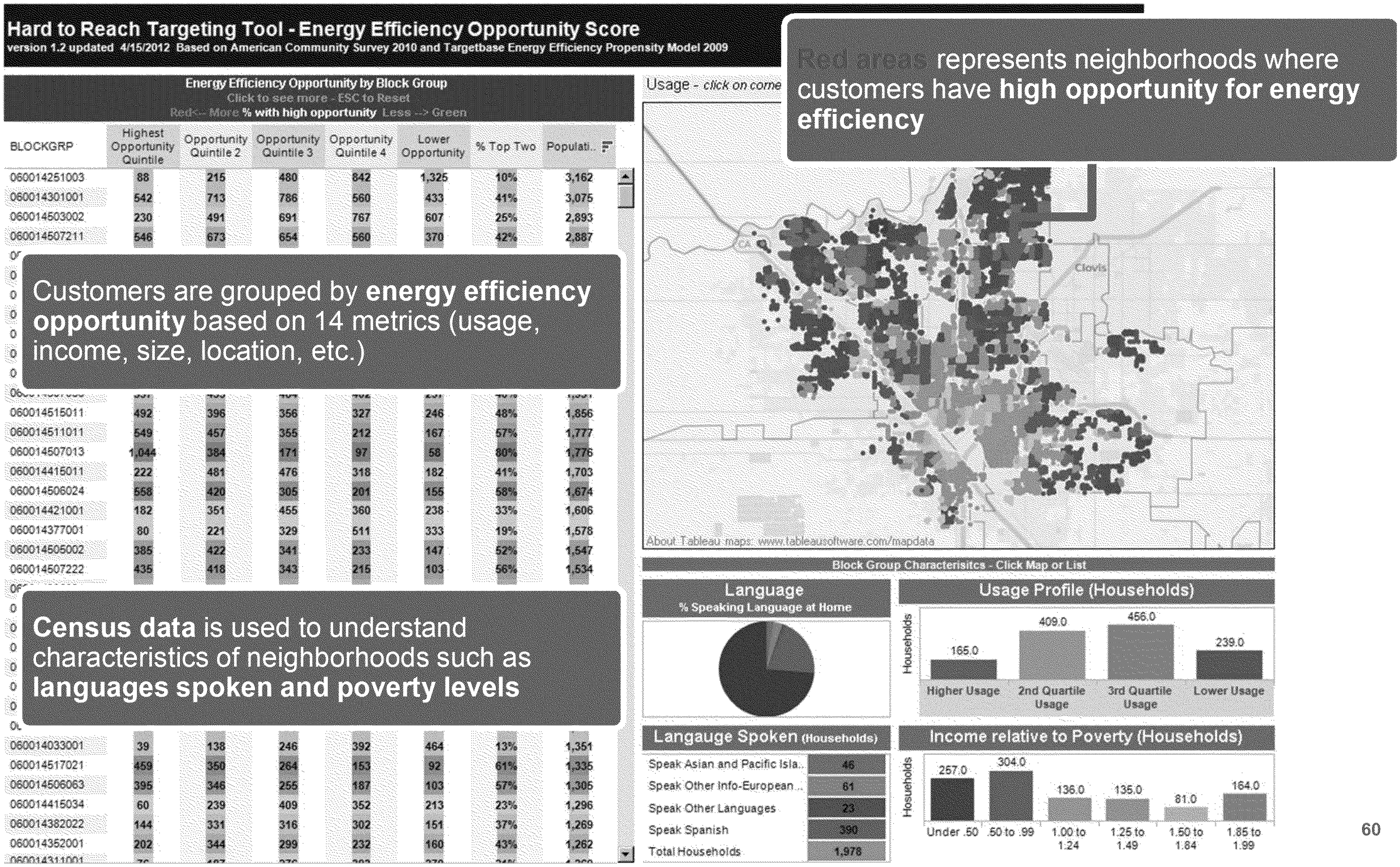


SB_GT&S_0203116

Residential energy efficiency propensity model highlights customers with high opportunity for energy efficiency

PG&E

The Residential Opportunity Tool is used by program managers and shared with local governments implementing residential energy efficiency programs



Red areas represents neighborhoods where customers have **high opportunity for energy efficiency**

Customers are grouped by **energy efficiency opportunity** based on 14 metrics (usage, income, size, location, etc.)

Census data is used to understand characteristics of neighborhoods such as **languages spoken and poverty levels**

Combining Residential Propensity Scores with EEOS

Interested customers who can also use less energy

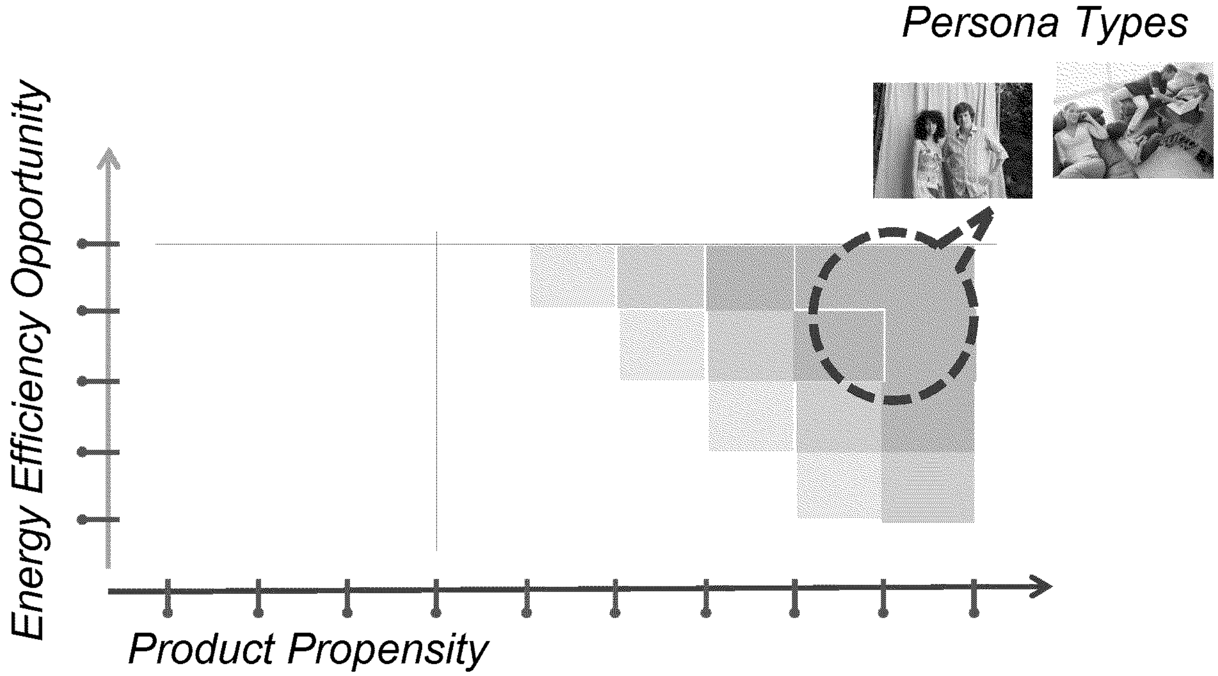
- *Helps meet transactional and energy saving goals*
- *Can guide investments toward smaller groups of very actionable customers*

The EEOS has been used in conjunction with our product propensity scores to identify customers with both an inclination to use products plus have a higher amount of energy to save.

Propensity Deciles		EE Opportunity Level 1	2	3	4	5
1-3	Freq	225,793	191,695	240,292	262,254	297,246
	Percent	5.9%	5.0%	6.3%	6.8%	7.8%
	Opportunity	0	130	248	399	793
	Propensity	0.69	0.68	0.69	0.69	0.69
	Score	**-0.03**	**88.39**	**170.98**	**275.23**	**547.51**
4-6	Freq	236,089	205,887	224,578	231,727	243,068
	Percent	6.2%	5.4%	5.9%	6.0%	6.3%
	Opportunity	0	126	247	398	788
	Propensity	0.48	0.48	0.48	0.48	0.49
	Score	**-0.02**	**60.54**	**118.56**	**191.20**	**386.12**
7-10	Freq	304,357	367,941	301,410	271,578	228,940
	Percent	7.9%	9.6%	7.9%	7.1%	6.0%
	Opportunity	0	117	245	396	753
	Propensity	0.28	0.28	0.28	0.28	0.28
	Score	**-0.07**	**32.22**	**68.73**	**110.88**	**210.94**

Customer-Centric Outreach

Putting It All Together



Right Customer ⟶ Energy Efficiency Opportunity Score

Right Product ⟶ Product Mapping

Right Message ⟶ Personification/Segmentation

Statewide Segmentation

2009 Statewide ME&O Segmentation

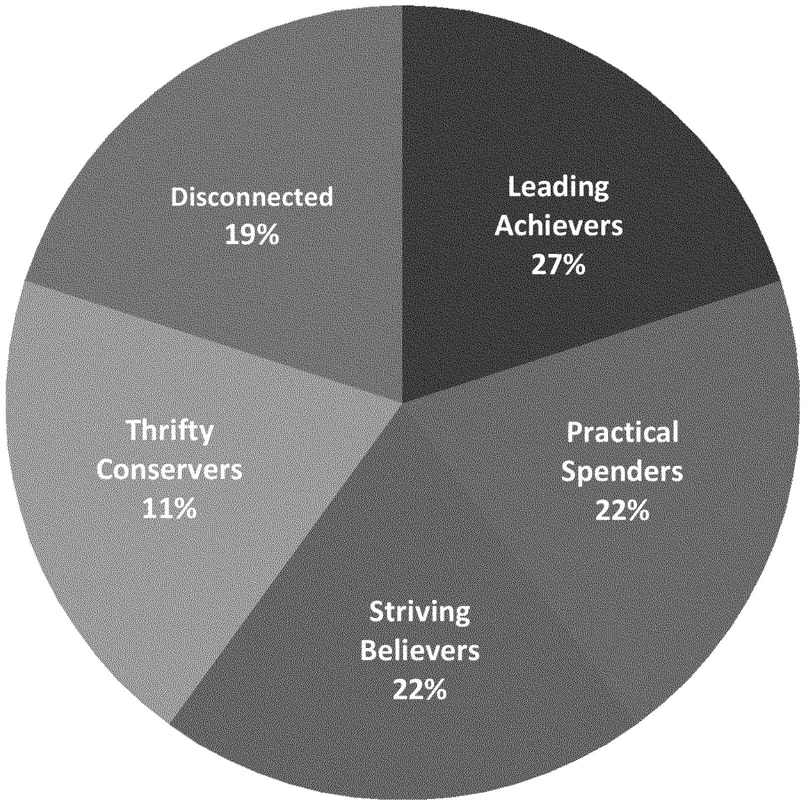
- Conducted by Opinion Dynamics on Behalf of the CPUC
- Rationale: Attend to Strategic Plan direction for the SW ME&O program & address evaluation recommendations from the 2006-08 Process and Indirect Impact Evaluations
- Purpose: Segment population to develop a range of outreach strategies, messages & channels to better connect with specific groups of customers

2009 Statewide ME&O Segmentation

Areas Examined

- **Attitudes / concerns regarding EE**
- **Low/No cost behaviors**
- **Higher cost behaviors**
- **EE program Participation**
- **Barriers**
- **Demographics**

Segments



SB_GT&S_0203122

2009 Statewide ME&O Segmentation

Five Unique Segments— Smart Energy Practices And Demographics

Meet...	Alex The Leading Achiever	Betty The Striving Believer	Carlos The Practical Spender	Donna The Thrifty Conserver	Eric The Disconnected
% Pop/Sample	20%	24%	18%	21%	17%
Efficiency Practices	**High**	Low	**High**	Low	Low
Conservation Practices	Low	**High**	Low	**High**	Low
Concern for Convenience & Comfort	Lower	Lower	**Higher**	**Higher**	**Higher**
Age	35 - 64	25 - 54	55+	25 - 34 & 65+	18 - 34
Income	$75k+	$50k - $100k	$30k-$75k	< $50k	< $50k
Owner/ Renter	**Owner**	Renter	**Owner**	Renter	Renter
% Ethnicity per Segment	White 76% Hispanic 13% AA 3% Asian 5% Other 2%	White 61% Hispanic 18% AA 8% Asian 11% Other 2%	White 54% Hispanic 29% AA 6% Asian 10% Other 2%	White 49% Hispanic 35% AA 4% Asian 11% Other 1%	White 29% Hispanic 50% AA 14% Asian 8% Other 3%
% of Segment Residing in IOU Territory*	PG&E 42% SCE 40% LADWP 4% SDG&E 10% Other 3%	PG&E 40% SCE 35% LADWP 11% SDG&E 12% Other 3%	PG&E 34% SCE 50% LADWP 2% SDG&E 8% Other 5%	PG&E 37% SCE 40% LADWP 8% SDG&E 7% Other 6%	PG&E 32% SCE 45% LADWP 9% SDG&E 7% Other 6%

Source: Opinion Dynamics Corporation, 2009   ** Population distribution by IOU: PG&E 40%, SCE 40%, SDG&E 10%, Other 10%*

SB_GT&S_0203123

2009 Statewide ME&O Segmentation

- SW ME&O segmentation emphasized EE program participation interests and behaviors.

- While relevant in near-term and the segments have recently been duplicated in a 2012 General Population Study.

- A consolidated version of the IOU's unique segmentation efforts offers relatively current and IOU customer-specific information.

Common IOU Segments

Common Segment Characteristics Across IOUs

	Uninterested	Entrant	Basic Conservationist	Comfortables	Budget Conscious	Engaged Affluents
SDGE	Disengaged Traditionalists (19%)	Budget-Constrained Greens (27%)	n/a	Unconcerned Affluents (20%)	Energy Indifferent Independents (11%)	Engaged Green Affluents (23%)
Edison	Indifferent (7%)	Aspiring Conservationist (14%) Novice (14%)	Traditionalists (14%) Waste Not/ Want Not (16%) Control (17%)	Comfortable Skeptics (11%) Opportunistic (30%)	Social Techies (24%) Automate (18%)	Green Actives (21%) Innovator (14%)
Pacific Gas and Electric Company	Wise with No Surprise Heart & Home (14%)	Style Seekers (11%)	Paving the Way (4%)	Posh & Prudent Modern Mainstream (22%)	Valley Values Living for Today (10%)	Gadget Family Way Wired (24%)

Note: PG&E's Eco-Active Go -Getter segment doesn't fit into one of these 6 segments as it is an unengaged, high income, high bill but no needs Bay Area segment. This segment makes up 15% of PG&E"s residential customer base.

All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches. The IOUs segment percentages are specific to each IOU and can't be rolled up into a statewide percentage without additional analysis.

Uninterested Profile

"Will not take action and have low engagement"

Stage of Engagement
- Low

Demographics
- Older, 55+
- Low to mid-income range
- More Multi-Family, Renters, Mobile Homes (PG&E)
- More Single Family Homeowners (SCE/SDG&E)
- Low to average home size

Lifestyle
- More Traditional
- More Home Oriented
- Less Internet Savvy

Utility Factors
- Low average bill
- High Likelihood to be on standard rate plans

Channels
- Prefer Bill Inserts and Direct Mail
- TV Advertising (PG&E)
- Pay through the mail
- Low utility website usage

Program Participation
- Lower than Average Program Participation

Green Concern
- Low to Average Green Behaviors

SDGE connected A Sempra Energy utility | Southern California EDISON An EDISON INTERNATIONAL Company | PG&E Pacific Gas and Electric Company

Note: All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches.

Entrant Profile

"Will take no cost actions but need more education"

Stage of Engagement
- Low to Medium

Demographics
- Younger, under 45
- Low to mid income range
- More Hispanic and African American
- More Multi-Family and Renters

Lifestyle
- More Family Oriented
- Less Internet Savvy
- Less Financially Savvy

Utility Factors
- Higher Likelihood for Late/Missed Payments
- Low average bill
- Higher Likelihood to be on Low Income Rate Plan
- Want to work closely with utility to manage energy costs

Channels
- Prefer Bill Insert and Direct Mail
- Low utility website usage

Program Participation
- CARE
- FERA, E-BPP, Lighting Rebates (PG&E in addition to CARE)

Green Concern
- Average to Above Average Green Behaviors

Note: All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches.

Basic Conservationist Profile

"Will proactively manage my thermostat"

SDG&E doesn't have this Segment

Stage of Engagement
- Low to Medium

Demographics
- Over 35
- Mid income range
- More African American (PG&E)
- Moderate Home Value
- Homeowners

Lifestyle
- More Family Oriented
- More Traditional
- Less Technology Savvy
- Less Financially Savvy

Utility Factors
- Mid to High bill
- Multiple Payment Methods (PG&E)
- Higher Likelihood of Missed Payments (PG&E)
- More help tickets (PG&E)

Channels
- Pay electronically

Program Participation
- Lighting Rebates (PG&E)
- Average Program Participation (SCE)

Green Concern
- Low Green Behaviors

SDGE connected A Sempra Energy utility · Southern California EDISON An EDISON INTERNATIONAL Company · PG&E Pacific Gas and Electric Company

Note: All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches.

Comfortables Profile

"Will take low cost measures but not at the cost of comfort"

Stage of Engagement
- Low to Medium

Demographics
- 45+
- Homeowners
- Moderate to High Home Value
- Higher income range
- More Retirees
- Smaller Family Size

Lifestyle
- More Family Oriented
- More Traditional/Conservative
- More Community Focused (PG&E)

Utility Factors
- High average bill
- Longer tenure with utility (PG&E)

Channels
- Less Ad Receptive (PG&E)
- Pay through the mail or check (PG&E)
- Online, e-mail, self service (SDG&E)

Program Participation
- Lighting Rebates (PG&E)
- Lower than average interest in EE Programs (SDG&E)

Green Concern
- Low to Average Green Behaviors

Note: All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches.

Budget Conscious Profile

"Will participate in programs that lower my bill"

Stage of Engagement
- Medium to High (PG&E/SCE)

Demographics
- Skews Younger
- Low to mid income range
- Low to lower home value (PG&E)
- More Renters

Lifestyle
- Less Technology Savvy (PG&E)
- More Technology Savvy (SDG&E/SCE)
- More Approval Seeking (PG&E)
- More Image Conscious (PG&E)
- More Traditional/Conservative (PG&E)

Utility Factors
- Higher Likelihood to be on Low Income Rate Plan
- Low to average bill
- Multiple Payment Methods (PG&E)
- High website usage (SCE)

Channels
- Pay online/electronically

Program Participation
- CARE, ESA, SmartRate, Lighting Rebates, BPP, SmartAC (PG&E)
- Higher CARE participation (SDG&E)
- AC Cycling Participation (SCE)

Green Concern
- Average Green Behaviors

SDGE connected A Sempra Energy utility SOUTHERN CALIFORNIA EDISON An EDISON INTERNATIONAL Company PG&E Pacific Gas and Electric Company

Note: All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches.

Engaged Affluents Profile

"TechSavvy and will invest in EE appliances and solar"

Stage of Engagement
- High

Demographics
- Middle Aged
- Mid to high income range
- Moderate to Large Sized Homes
- Skews Asian

Lifestyle
- More Technology/Internet Savvy
- Active/Outdoorsy
- Upscale Living
- Financially Savvy
- Early Adopters of Technology

Utility Factors
- Visited utility website and My Account
- Multiple Payment Methods
- Mid to High Bill

Channels
- Less Ad Receptive (PG&E)
- Pay Electronically
- Online /E-mail

Program Participation
- Solar, higher than average interest in Energy Efficiency, Demand Response and audit programs

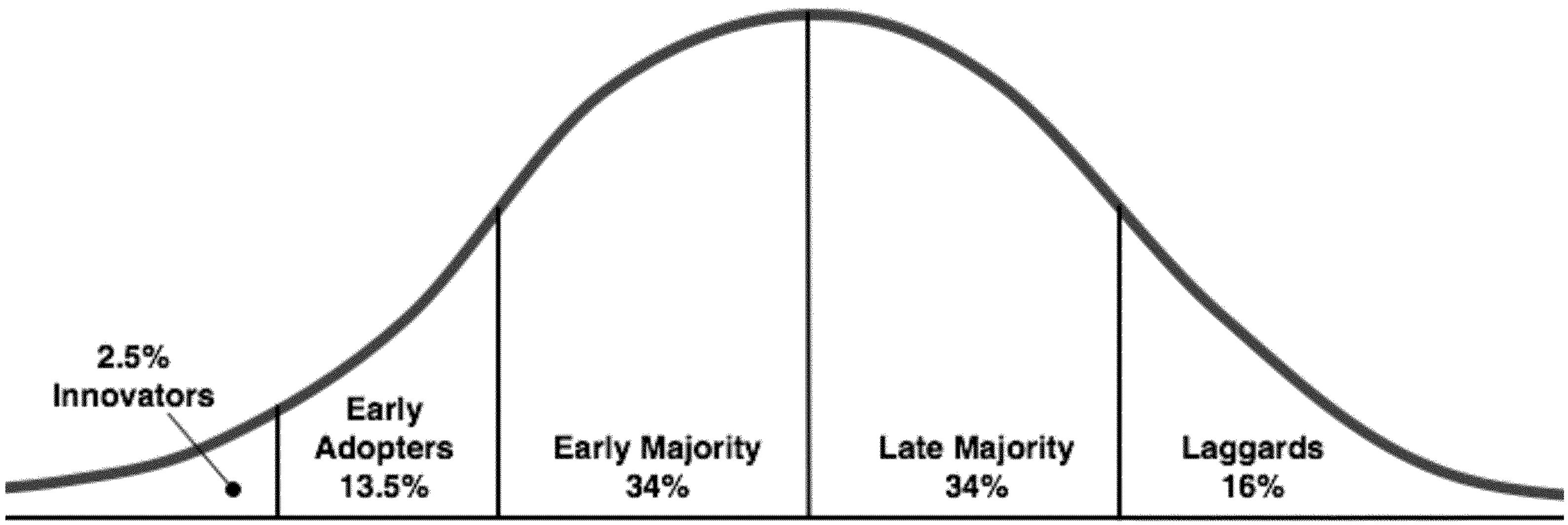
Green Concern
- Average to Above Average Green Behaviors

SDGE connected A Sempra Energy utility · Southern California EDISON An EDISON INTERNATIONAL Company · PG&E Pacific Gas and Electric Company

Note: All IOUs made their best judgment to map their segments to these common statewide segments, however, these are not exact matches.

Program Adoption Curve Examples

Standard Product Diffusion Curve



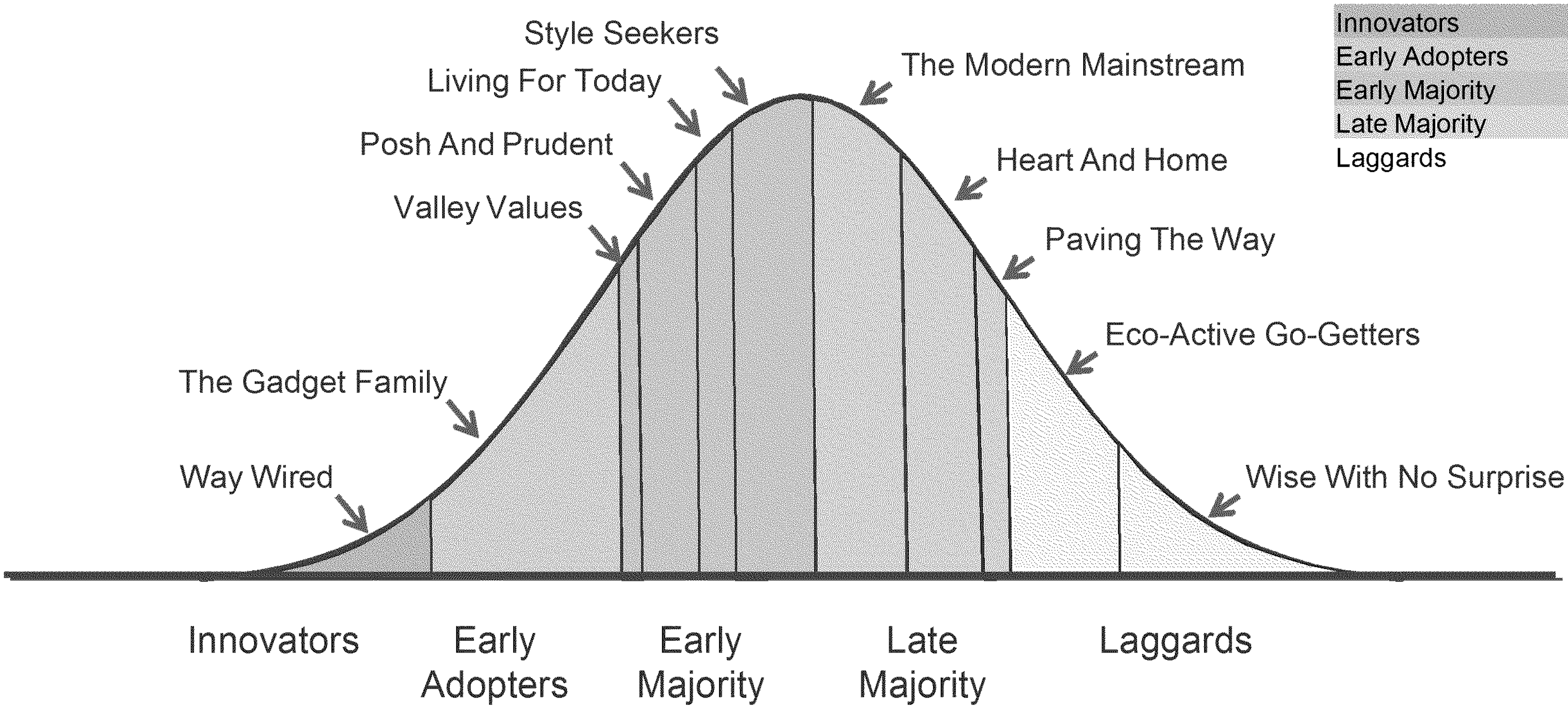
Source: Everett Rogers Diffusion of Innovations model

Rebates (2012)

	Base Size (2012)	Rebate (2012)	
Way Wired (6)	8%	67.9%	Innovators
The Gadget Family (10)	16%	34.8%	Early Adopters
Valley Values (7)	3%	22%	Early Majority
Posh and Prudent (3)	8%	15.5%	Early Majority
Living For Today (11)	7%	9.5%	Early Majority
Style Seekers (5)	11%	9.4%	Early Majority
The Modern Mainstream (8)	14%	6.3%	Late Majority
Heart and Home (2)	9%	2.9%	Late Majority
Paving the Way (9)	4%	1.6%	Late Majority
Eco-Active Go-Getters (4)	15%	0.4%	Laggards
Wise With No Surprise (1)	5%	0.3%	Laggards

The personas have been mapped to a standard product diffusion curve based on the persona estimated rate of adoption tendencies (first looking at the product penetration within the persona and then by the base size).

Innovators	8%
Early Adopters	16%
Early Majority	29%
Late Majority	27%
Laggards	20%

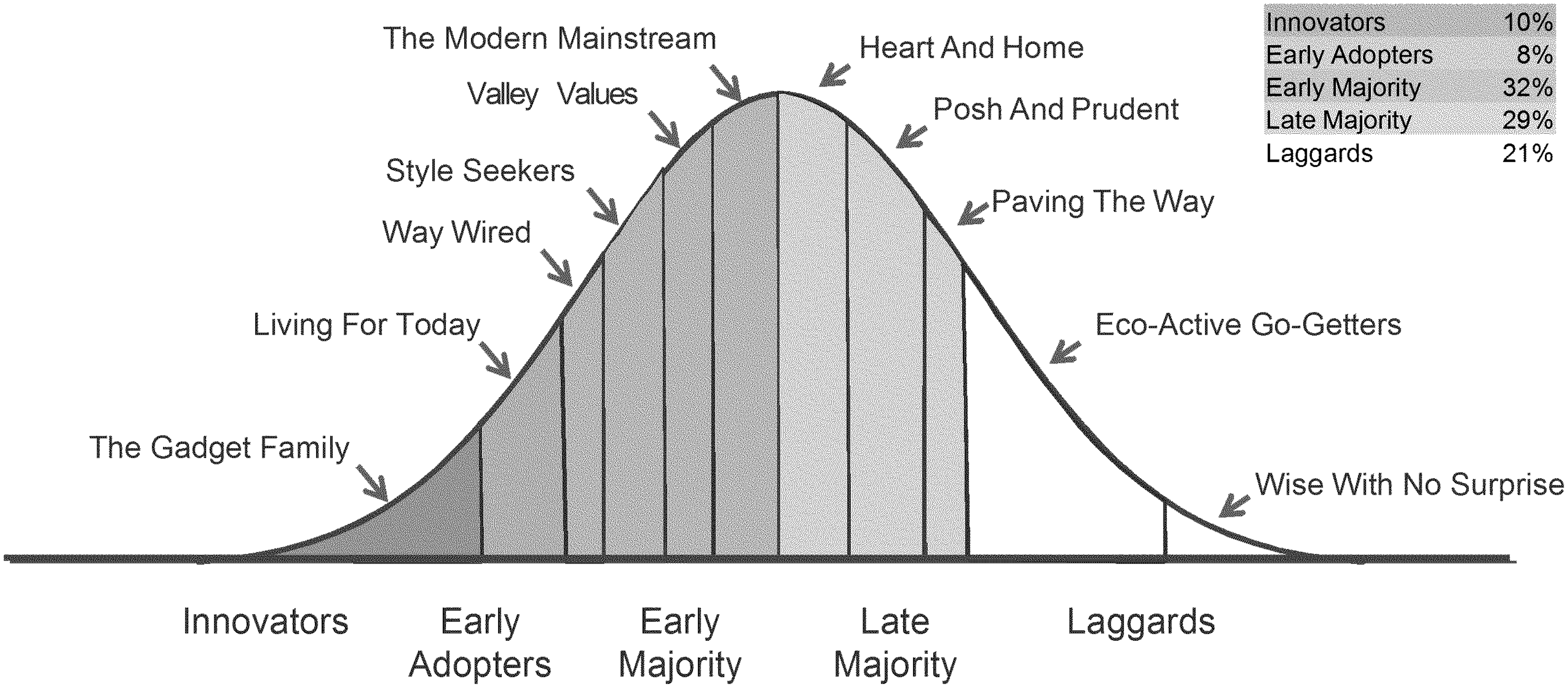


*Rebate data from 2004 to present.

SmartAC (2009)

	Base Size (2009)	SmartAC (2009)	
The Gadget Family (10)	10%	31.4%	Innovators
Living For Today (11)	8%	17.6%	Early Adopters
Way Wired (6)	7%	14.7%	Early Majority
Style Seekers (5)	10%	9.1%	Early Majority
Valley Values (7)	2%	8.6%	Early Majority
The Modern Mainstream (8)	13%	6.3%	Early Majority
Heart and Home (2)	11%	4.9%	Late Majority
Posh and Prudent (3)	11%	4.0%	Late Majority
Paving the Way (9)	7%	2.4%	Late Majority
Eco-Active Go-Getters (4)	15%	1.0%	Laggards
Wise With No Surprise (1)	6%	0.1%	Laggards

Innovators	10%
Early Adopters	8%
Early Majority	32%
Late Majority	29%
Laggards	21%

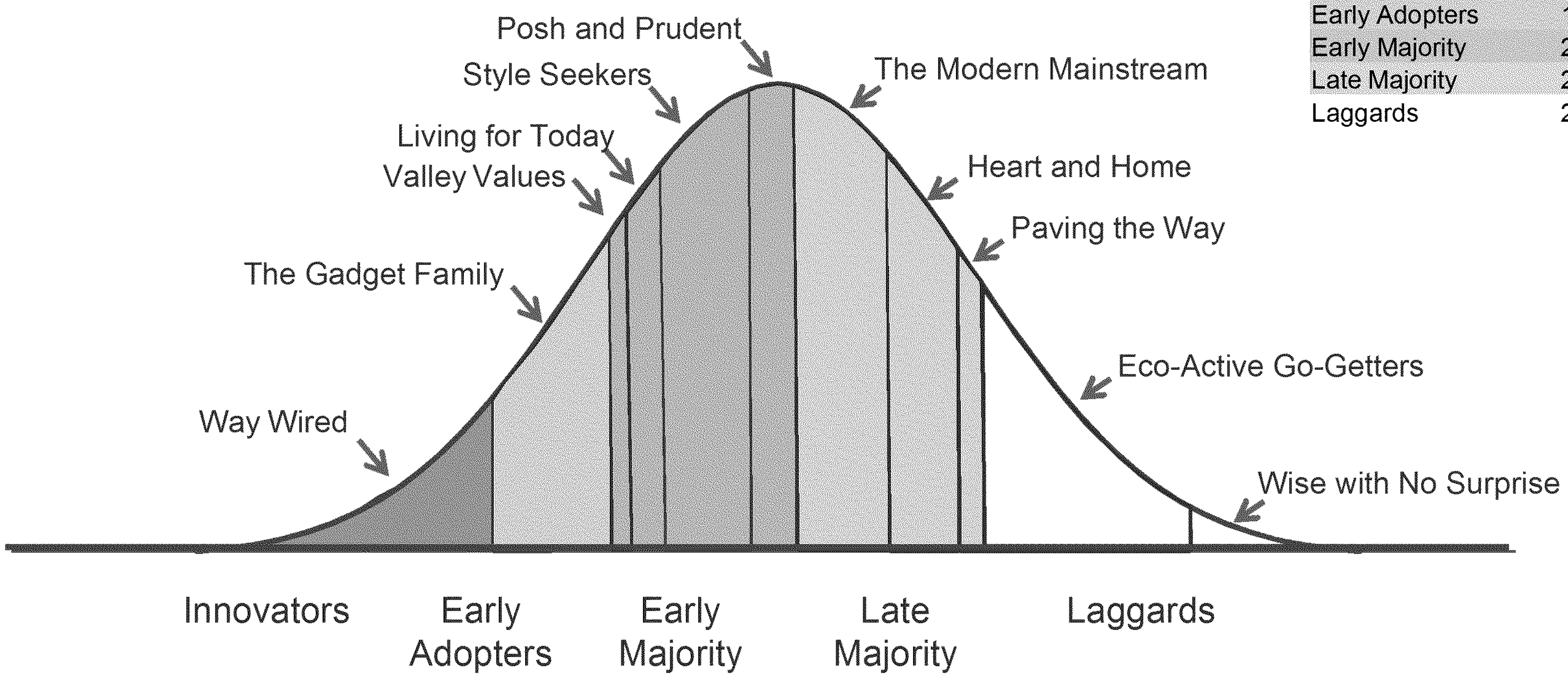


SB_GT&S_0203136

SmartAC (2012)

	Base Size (2012)	SmartAC (2012)	
Way Wired (6)	8%	18.0%	Innovators
The Gadget Family (10)	16%	13.5%	Early Adopters
Valley Values (7)	3%	12.8%	Early Majority
Living For Today (11)	7%	7.1%	Early Majority
Style Seekers (5)	11%	4.7%	Early Majority
Posh and Prudent (3)	8%	3.7%	Early Majority
The Modern Mainstream (8)	14%	3.4%	Late Majority
Heart and Home (2)	9%	2.7%	Late Majority
Paving the Way (9)	4%	2.3%	Late Majority
Eco-Active Go-Getters (4)	15%	1.6%	Laggards
Wise With No Surprise (1)	5%	0.9%	Laggards

Innovators	8%
Early Adopters	16%
Early Majority	29%
Late Majority	27%
Laggards	20%



*SmartAC data from 2009 to present.

Next Steps
Discussion and Brainstorming

Contact Information

- Jodi Stablein – Director, Customer Insight & Strategy - Pacific Gas and Electric Company 415-973-3688 - jzsv@pge.com

- Gail Malone - Manager, Market Research - Southern California Edison 626.302.0851 - Gail.Malone@sce.com

- Dana Santana – Customer Research Manager – San Diego Gas & Electric 858-637-3784 - dsantana@semprautilities.com