MOTIVATIONS, MESSAGING, AND CONSTRAINTS FOR DEEP SAVINGS

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With Input from Research Into Action

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What This Presentation is About

- Moving on from low-hanging fruit to fruit that is higher in the tree, we must:
  - Develop new programs designed to produce deeper savings, and
  - Develop customer targeting and messaging to bring the right customers to the program

- This presentation is about both
  - Study based on a statewide home upgrade program in California
    - Offers incentives to homeowners who complete multiple energy-saving home improvements in one integrated effort (Study from PG&E only)

- Conclusion 1: environmental motivations are not enough for expensive programs—environmental messaging should be paired with self-interest messaging

- Conclusion 2: There is a chasm between intention and behavior; it is created by:
  - Low energy-related self-efficacy
  - Financial and building constraints, especially financial
Our Interviews

- We interviewed four groups in PG&E territory:
  - Participants,
  - Late Dropouts,
  - Early Dropouts,
  - General Population,
  - Totaling 615 interviews
  - Gen Pop revealed 3 subgroups: Those
    - having no intention to do an upgrade (17%)—No Intent
    - who intend to do 2-5 upgrade projects (66%)—Limited Intent, and
    - who intend to do a full upgrade like that in the program (17%) (full Intent
Behavior Change Model: Basis for Interviews & Analysis

General Model

Awareness/Knowledge → Concern → Personal Responsibility → Intention → Behavior Change

Financial Motivation Domain e.g.

Awareness of EUC Program → I intend to make multiple home upgrades at once → I made multiple upgrades through EUC

Specific to Home Upgrade Program

Knowledge of home improvements to reduce PG&E bill → Concerned with the cost to heat/cool home → I should help lower the utility bills → I intend to look for ways to save energy → I upgraded the windows in my home

EUC Program marketing and home audit

EUC Program provides trigger

EUC Program messaging/audit provides decision heuristics

EUC Program makes it convenient to make upgrades
Mean Environmental Concern Scores for Gen Pop & Program Engaged

As Level of Intent Increases, Concern for Environment Increases but as engagement increases, the most environmentally concerned drop out.

### HOMEOWNER GEN POP

<table>
<thead>
<tr>
<th>Intent Level</th>
<th>Mean (0-10 Scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Intent</td>
<td>6</td>
</tr>
<tr>
<td>Limited Intent</td>
<td>6.5</td>
</tr>
<tr>
<td>Full Intention</td>
<td>7.9</td>
</tr>
</tbody>
</table>

### PARTICIPANTS & DROPOUTS

<table>
<thead>
<tr>
<th>Withdrawal Status</th>
<th>Mean (0-10 Scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Drops</td>
<td>7.5</td>
</tr>
<tr>
<td>Late Drops</td>
<td>7.2</td>
</tr>
<tr>
<td>Full Participation</td>
<td>7</td>
</tr>
</tbody>
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Another Way to Look at Group Differences

- Environmental concern is an important motivator, it is not sufficient to get customers through the program.
- Likely the realities of upgrade costs screen out those mostly motivated by the environment.

Concern for the Environment

<table>
<thead>
<tr>
<th>Group</th>
<th>% Highly Concerned (Score of 8-10)</th>
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</thead>
<tbody>
<tr>
<td>Gen Pop (n=264)</td>
<td>41%</td>
</tr>
<tr>
<td>Early Dropouts (n=47)</td>
<td>60%</td>
</tr>
<tr>
<td>Late Dropouts (n=64)</td>
<td>53%</td>
</tr>
<tr>
<td>Participants (n=240)</td>
<td>48%</td>
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- Can’t Afford Upfront Costs

Customer Decision
One Concept that Predicts Who Remains through All Stages

- As energy-related self-efficacy goes up, likelihood of continuing through the program increases
Multinomial Logit Results

- What predicts getting through the program once engaged is:
  Lack of constraints (financial & building) and energy-related self-efficacy
Multinomial Logit Results

- Combination of Concern with Environment plus Comfort predicts:
  - Intent, program engagement, and program completion
Path to participation is blocked by constraints and low self-efficacy

Intend to Install Whole House Upgrades

Driven by Concerns with Comfort, Bills, & Environment

Actually Make the Upgrades – Participate in EUC Program

Chasm Created by Financial Constraints & Low Self-Efficacy

Target Population 5.5
Participant 0.9
Financial and Structural Constraints

Target Population 6.1
Participant 1.7
Low Energy-Related Self-Efficacy

Opinion Dynamics

Carried Thru by Financial Resources
High Self-Efficacy, & Environment + Comfort Motivation
Promotion: Address Constraints in Messaging and Design, Lead with Home Comfort - But Add Environment as a Combined Message

- Financial constraints are the largest reason for not being able to take action.
  - **Recommendation**: Make customers aware of financial support (incentives and financing).

- Self-efficacy and perceived behavioral control related to saving energy are lower amongst intent customers.
  - **Recommendation**: Communicate that the program is easy and anyone can do it. Include instructions or testimonials about how participating customers accomplished it.

- Individually, comfort is the dominant motivator, but the combination of comfort and environment was the greatest predictor of level of intent, program engagement, and program completion.
  - **Recommendation**: Emphasize comfort and the environment in program messaging.