Behavior Change Approaches for Energy Conservation
March 10th, 2015  1:15 – 2:15 pm
Session Format

- Speakers:
  - Behavior Change 101
  - MVEC’s Energy Competition
  - Volt-A-more the Energy Villain: A cautionary tale
- Speaker Q & A
- Apply Behavior Change to Your Work
Alexis Troschinetz

- Behavior Change and Metrics Coordinator
- 7 years in environmental consulting: stormwater, remediation, energy mgmt systems, sustainability
- BS & MS Environmental Engineering from Michigan Technological University
Ryan Hentges

- VP Corporate Services
- 9 years at MVEC
- Design & implementation of a number of smart grid technologies and a variety of demand response programs
- Law degree from the University of St. Thomas School of Law
- MBA from the University of Nebraska at Omaha
Jothsna Harris

- Education Coordinator
- 2013-14 MN GreenCorps Energy Conservation Member
- Executive Board for the Minnesota Green Schools Coalition
- Master of Liberal Studies in Innovation & Sustainability at the University of Minnesota
Behavior Change 101

Alexis Troschinetz
Clean Energy Resource Teams
CERTs 2015 Conference
March 10th, 2015  1:15 – 2:15 pm
Today’s Chat

- Behavior Change Frameworks
- Behavior Change Science
  - Audience
  - Behavior
  - Barriers/Benefits
  - Strategies/Tools
- CERTified Campaigns
Behavior Change Frameworks

Community-Based Social Marketing
1. Select Behavior
2. Identify Barriers & Benefits
3. Develop Strategy
4. Pilot Campaign
5. Broadly Implement & Evaluate Campaign

Six Key Principles of Influence
- Reciprocity
- Scarcity
- Commitment & Consistency
- Liking
- Authority
- Social Proof

Social Change 2.0
- Disseminate
- Collaborate
- Innovate
- Transform
- Empower

Fogg Behavior Model
- High Motivation
- Low Motivation
- Hard to Do
- Easy to Do
- ability
- triggers
Behavior Change Science

- Applying concepts from social science and psychology fields to understand why we do (or don’t) take action
- Identifying what...
  - motivates us
  - stands in the way
Why Behavior Change Science?

- Info-only not effective
- Economic self-interest
  - Assumes: rational thinking
  - Reality: impulse & convenience
- Knowledge → Attitudes → Behavior
  - Not always true
  - Not needed to spur behavior change
Demographics
- Shared circumstances/obstacles
- Geographic area
- Existing networks
- “In-community”: live, work, play
- Meet people where they are
- Online, In-person, Both

Leverage Partners!
Types of People

Innovation Diffusion Strategy

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Adopters</td>
<td>15%</td>
</tr>
<tr>
<td>Early Majority</td>
<td>35%</td>
</tr>
<tr>
<td>Late Majority</td>
<td>35%</td>
</tr>
<tr>
<td>Laggards</td>
<td>15%</td>
</tr>
</tbody>
</table>

American Climate Change Perspectives

- Alarmed
- Concerned
- Cautious
- Disengaged
- Doubtful
- Dismissive

Source: D. Gershon

Source: C. Manning
Why Audience is So Important

- Sub-groups
- Relevant messaging
- Tailored actions
- Evaluation

Diagram:
- Low-Income Households
  - Families
  - Fixed-Income
  - College students
Behavior

- One-time vs. repeat
- End-state
- Non-divisible
Behavior vs. Technology

Source: K. Ehrhardt-Martinez
Select Behavior

Energy savings (kW, kWh) → Impact → Likelihood of taking action → Probability → Opportunity → Proportion not doing it

Overall Effectiveness
Identifying Barriers/Benefits

- Research
- Observation
- Focus Groups
- Surveys

<table>
<thead>
<tr>
<th>Specific Behavior</th>
<th>Barriers</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Discourage</td>
<td>↑</td>
<td>↓</td>
</tr>
</tbody>
</table>

What prevents your target audience from engaging in this behavior? What do they find challenging about it?

What does your target audience perceive as the benefit of engaging in this behavior? What do they like about it?
Effectively Use Strategies

- Incentives
- Competitions
- Convenience
- Commitments
- Social Modeling
- Social Norms
- Education
- Feedback
- Prompts

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Benefits</th>
</tr>
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<tbody>
<tr>
<td>Low Social Norms</td>
<td>Low Education</td>
</tr>
<tr>
<td>High Social Norms</td>
<td>High Feedback Prompts</td>
</tr>
<tr>
<td>Low Incentives</td>
<td>Low Convenience Commitments</td>
</tr>
<tr>
<td>High Incentives</td>
<td>High Convenience Commitments</td>
</tr>
</tbody>
</table>

Source: W. Schultz
Strategies/Tools

Behavior change tools that affect barriers & benefits:

- Attitudes
- Authority
- Branding
- Communication
- Commitment & Consistency
- Framing
- Goal Setting
- Liking
- Reciprocity
- Scarcity
- Social Diffusion
- Social Proof

Stack Strategies!
CERTified Campaigns

Behavior Change Science in Action!

Right Light Guide for General Use Bulbs

www.mncerts.org/Lighting

LIGHT UP YOUR STATION & SAVE

GET READY TO Gobble UP SAVINGS!

www.mncerts.org/LEDCanopy

www.mncerts.org/Turkeys
Six Key Principles of Influence

- **Liking** - Easily persuaded by people we like.
- **Social Proof** - People do things they see others doing.
- **Authority** - People tend to obey authority figures.
- **Reciprocity** - People tend to return a favor.
- **Commitment and Consistency** - Likely to honor commitments; want to be consistent with self-image.
- **Scarcity** - Perceived scarcity generates demand and interest.
## Select Behavior

<table>
<thead>
<tr>
<th>Behaviors for Residential Households</th>
<th>Already engaged (0-100%)</th>
<th>Opportunity (100 Minus Engaged)</th>
<th>Energy Savings per household per year</th>
<th>Likelihood (0-4)</th>
<th>Relative Score or Weight</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase green power</td>
<td>3%</td>
<td>97 X</td>
<td>8700 X</td>
<td>2.15</td>
<td>1,814,385</td>
<td>1</td>
</tr>
<tr>
<td>Cold water wash</td>
<td>38%</td>
<td>62 X</td>
<td>450 X</td>
<td>3.09</td>
<td>86,211</td>
<td>3</td>
</tr>
<tr>
<td>Increase use of clothes line</td>
<td>8%</td>
<td>92 X</td>
<td>200 X</td>
<td>3.07</td>
<td>56,488</td>
<td>3</td>
</tr>
<tr>
<td>Install 10 CFLs</td>
<td>23%</td>
<td>7 X</td>
<td>700 X</td>
<td>3.03</td>
<td>163,317</td>
<td>2</td>
</tr>
<tr>
<td>Install low-flow showerhead</td>
<td>61%</td>
<td>39 X</td>
<td>215 X</td>
<td>2.5</td>
<td>20,963</td>
<td>3</td>
</tr>
</tbody>
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