



Behaving Ourselves

How Behavior Insights are Being Applied in Energy Efficiency Programs

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Presentation Overview

- ▶ Consortium for Energy Efficiency (CEE)
- ▶ Project background
- ▶ Current application of behavior insights
- ▶ Untapped opportunities
- ▶ Barriers
- ▶ Next steps

OUR MISSION

CEE increases the effectiveness of energy efficiency programs by enhancing communications and harmonizing approaches across programs to advance energy efficiency for the public benefit.

Project Background

- ▶ Applying behavior to energy efficiency
- ▶ Existing social science research
- ▶ Two phase effort
 - (1) Program Summary
 - (2) Behavior Insights



Methods & Caveats

▼ Program Summary

- Data collection: November 2009 (online)
- Target audience: CEE member organizations running programs (104)
- Programs with behavior-change elements: 161
 - Subjective definition of behavior
 - Not comprehensive (members only, not all members), not representative

▼ Behavior Insights

- Many behavior insights not new
- Focus on individual decision-making

The Challenge of Defining Behavior

Programs that:

- ▶ Apply strategies to ***increase the adoption and proper use of energy efficient technologies***
- ▶ Reduce energy consumption by either ***changing default practices*** of individuals and/or organizations or ***shifting cultural norms*** around energy use within communities

Sampling of Behavior Insights Currently Applied in Energy Efficiency Programs

- ▶ Social Norms
- ▶ Anchor Bias
- ▶ Feedback
- ▶ Public Commitment and Goal Setting
- ▶ Discounting the Future
- ▶ Status Quo Bias (Default Bias)
- ▶ Single Action Bias



This only scratches the surface!

Social Norms & Modeling

- ▶ People align their behavior with others' (Cialdini 2007)
- ▶ Unwritten rules (e.g. trains, this neighborhood)
- ▶ *Application*: enhanced billing
 - SMUD: 2% energy savings
 - Double edged sword!



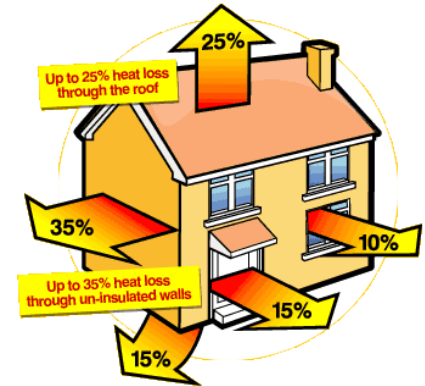
Anchor Bias

- ▶ Context and comparisons
(Thaler and Sunstein 2008)
 - Alcohol consumption
- ▶ *Application: We Energies' C&I Benchmarking*
 - Interviews key decision-makers, ranks energy management performance compared to others' (scale of 1 to 5)
 - Frame of reference



Feedback

- ▶ Provide information on energy use or related costs
- ▶ Most effective: more, soon after behavior (Abrahamse, Steg, Vlek, and Rothengatter 2005)
- ▶ Know what you're doing → change it
- ▶ *Applications*
 - *Pepco's Home Performance with Energy Audits Program*: online audit tool and home audit
 - *Salt River Project's SPATIA program*: provides real-time feedback in C&I context (power usage in multiple facilities).



Public Commitment & Goal Setting

- ▶ Committing publicly ↑ follow through (Burn & Oskamp 1986)
 - Social norms revisited
 - Telemarketing
- ▶ Particularly effective with goal setting
- ▶ *Application:* BC Hydro Team Power Smart
 - Commit to reduce energy use by 10%



Discounting the Future

- ▶ Preference for cheaper now
(Hussen 2003)
 - “No money down!”
- ▶ Efficiency’s benefits inherently long term
- ▶ *Application*: Public Service Electric & Gas
 - Utility pays upfront for efficiency measures
 - Customers repay utility at 0% interest



Status Quo Bias (Default Bias)



- ▶ Preference for default option (Samuelson & Zeckhauser 1988)
 - Retirement savings
- ▶ *Application*: opt-out only programs
 - Seattle City Light's Customized Home Energy Reports
 - 57 out of 20,000 enrolled opted out (0.3%)

Single Action Bias

- ▶ Make one change → relieves guilt → less likely to take further action (Weber 1997)
 - Recycling
- ▶ *Application:* FortisBC 20/20 Challenge
 - Request pledge for next step



Examples of Untapped Opportunities

As far as we know, these insights haven't been incorporated into CEE member programs as broadly:

- ▶ Self Efficacy
- ▶ Loss Aversion
- ▶ Reciprocity
- ▶ Reciprocal Concessions



Self Efficacy

- ▶ Can I change? Will changing have the desired result? (Bandura 1989)
- ▶ Believe change is possible
→ try to change
 - shorter showers
- ▶ *Potential application:* small changes → doable → energy and \$\$ savings



Information alone won't create self-efficacy and change behavior!

Loss Aversion



- ▶ Tendency to try to avoid losses, giving up large gains (Thaler and Sunstein 2008)
- ▶ *Potential application:* framing energy efficiency as avoided \$\$ losses, not future savings (Yates 1982)

Reciprocity

- ▶ Return favors with gift of equal or greater value (Cialdini 2000)
- ▶ Unsolicited gifts still returned
 - “Free” samples
- ▶ *Potential applications:* reward behavior change before it happens
 - In-kind gifts



Reciprocal Concessions

- ▶ Tendency to cooperate
- ▶ More likely to accept a second, more moderate request (Cialdini 2001)
 - Spirit of cooperation, but also Anchor Bias
- ▶ *Potential application*: decline participation in one EE program → counteroffer



Barriers to Applying Behavior Insights



- ▶ Variety of unfamiliar disciplines
- ▶ Access to research
- ▶ How to apply insights
 - Some insights more readily applicable to EE
- ▶ Some potentially contentious (e.g. opt-out)

Closing Thoughts & Next Steps

- ▶ This only scratches the surface!
- ▶ CEE members may view the complete Behavior Insights and Tools and related webinar
- ▶ CEE will continue to capture new applications of behavior insights in efficiency programs



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