Achieving Persistent Energy Savings
Customer Engagement

Approach and Learnings from the
Cape Light Compact Pilot
BECC November 17, 2009
Summary: Persistence and Technology

- Insights from the social science literature on behavior and the environment

- How we translated these insights into our products

- Preliminary Anecdotes and Patterns
  - Early indications of high levels of savings
  - Achieving significant engagement
Customizable Suite of Energy Management Tools

Data Sources
- GP Monitor
- AMR & Smart Meters
- Utility Server

GP App Servers
- Analysis
- Feedback
- Goals
- Social Interaction

Display Channels
- Web / Email / Mobile
- Home Displays
- Mail

Home Area Network and Web-based Software,
Creating Persistent Energy Savings

- Feedback is not enough
- Information is not enough
- Technology is not enough

The early approaches are a good start - but Energy Displays, Social Marketing and Messaging create change but not persistence
Persistent Behavior

• Self-sustaining

• New behaviors become habits

• Attitudes shift to accommodate new behaviors

• Shift from extrinsic to intrinsic motivation
How Do You Create Persistent Behavior Change

• The combination of four factors
  – Goal Setting
  – Meaningful Action
  – Feedback
  – Social Environment
Goal Setting

- Goals increase performance
- Active, participative contributes to durability of behavior
- Commitment to pledge or promise creates lasting change

Action

- Skills and resources to change behaviors
- Self- Efficacy
- Actions easy to perform and convenient
Feedback

- Increase sense of self-efficacy
- Internalization of feedback and learning
- Feedback linked to goals improves performance

Social Environment

- social norms and social interactions
- Common group identity can lead to improved performance
- Adoption influenced by more by interaction with neighbors and friends
- Supportive environment increases persistence
Applied Behavior Framework
Dashboard

Personalization, Participation, Feedback and Incentives
Feedback
Personalization
Participation

Public snapshots

Alternative Septic System Uploaded by libbitso 5 days ago
Tags: Enclosed septic system with pumps 1 Comment

Space Heater Uploaded by emilyw 9 days ago
Type: Misc Appliances 0 Comments

Clothes dryer cycle Uploaded by Scott 10 days ago

Post a comment or ask an expert 1 Comment

emilyw posted 5 days ago
This septic system does use a lot of energy. I estimate it uses close to 3 kWh a day. This also applies to an old system. Unfortunately, if this is required for your living situation, you might need to reduce this number. The best way to reduce the energy usage is to properly maintain it, verify that it is running efficiently, and consider replacing it with a more efficient system.
Incentives

Monthly Summary

- Nov Goal: 465 kWh
- Nov Projected: 333 kWh
- Nov So Far: 118 kWh

You are going to reach your goal for November at your current daily rate of 11 kWh

Leaderboard - Top point earners

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<th>Rank</th>
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Learn more about how this is calculated
Early Observations: Engagement and Savings

• Use Ranges from 2-5 months, average 2.5 months
• Reasonable cross-section of users
• High level of engagement
  – 95% filled out profile
  – Average 2.5 logins a week
• High Level Early Savings
  – Range from 0 – 35%
Two Participants

rowellkp's Story
10/07/2009
view rowellkp's profile

It has been very interesting to be able to see on a day to day basis where I am using energy at home. When I was younger I really wasn’t as concerned about energy consu today. I learned a lot going thro a number of them. I changed it don’t leave them on as much a check in and see if we are still managing our energy consumd changes that make a difference is cleaning the filter in my cloth pull it out and shake it, but now reducing the number of times I the size of the loads in both ap using less energy than I used t

jptreiber's Story
10/07/2009
view jptreiber's profile

I really like seeing my electricity use on the graph and learning about the energy saving ideas. I find myself running around at the end of the month switching appliances and lights off and doing what we can to reach our goal. It’s great to get some feedback on what we’re doing. I like being able to be proactive and have some control over how I spend money. There are things that I hadn’t thought of and hadn’t done, like address phantom power. The TV’s, stereos, PCs, etc. I had been baffled as to what I was going to do about it. I thought I would have to just shut things off, by diving behind a desk every time. I was able to find some power strips with timers through the actions on the website that met my goals and were easy to implement, and it made a difference. I also love the points system because I am competitive, I like winning and saved alot in the first month of use.
Using Technology to Enable and Engage Customers

Smart Consumers
Smart Communities

Residential, Small Commercial and Municipal