
Energy Efficient Electronics Research Findings & Positioning

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***Pacific Gas and
Electric Company™***

Agenda

- Background
- Methodology
- Findings
- Opportunities & Positioning

Background

- Electronics are major energy consumers
 - 11% to 14% of consumer and almost 6% of non-residential U.S. electricity use
 - Electronics load is growing at 6% per year (compared to 1.8% growth overall)
 - In 2006, electronics consumed about 10% of all PG&E's electricity deliveries
- As a step in developing a comprehensive solution to electronics energy use, PG&E undertook research to help understand what residential and small business customers need and look for when buying electronics, and how they shop for these items

Methodology

Objectives

Understand purchase motivations and attitudes.

Examine the shopping process.

Uncover needs and considerations around EE

Recruiting criteria

Consumers who:

Are in the early shopping, active shopping or Final shopping phase for electronics
Pay for their own utility bill

Businesses that:

Employ between 5 – 100 employees
Pay for their utility bill
In the process of purchasing new computers

Methodology

Groups, “shop along” interviews and SMB in-depth interviews equally divided in San Francisco and Sacramento:

- Six (six person) consumer groups
- Six shop-along interviews conducted in Best Buy and Circuit City
- Six SMB interviews conducted in office and by phone

Findings

Electronics purchase motivators

Consumers:

- Replacement: broken, outdated
- Upgrading
- Streamlining
- Have to have it (keeping up with friends)

Business customers:

- New employees and replacements drive IT purchase
- Largely an automatic process with little consideration
- Go direct to VARs, and sometimes OEM website
 - Relationship is established
 - Satisfaction with product and support

Shopper mindset full of anticipation and excitement especially with TVs

- Imagining where the TV will fit in the home
- New entertainment options
- Sharing the experience
- Investment is justified (long time coming, worked hard, kids in home, etc)
- High ticket price = I will get exactly what I want
- People are less preconditioned to consider more practical matters, such as energy consumption

For consumers, EE is not part of the purchase consideration

- Selection criteria: performance/picture clarity, size, aesthetics, brand and price
- Energy efficiency is not a selection criteria:
 - It's beyond “ignoring” EE -- rather it's as if that puzzle piece isn't in the box
 - For many, the conversation turned on the light bulb -- awakening a consciousness
 - Room in their hearts for the EE message
- Without education, EE is not an issue
 - EE is already “built in”
 - “Sleep” = “Off”

Businesses slightly more aware of EE in computers

- The “Green IT” movement gets minimal play with average IT managers
- IT typically doesn’t pay the energy bill, Facilities Management typically doesn’t review equipment purchasing
 - Need to open communication
- Price/size/technical features are selection drivers
 - EE seen as a “nice-to-have”
- Few company-wide energy efficiency plans with small and mid-size companies

Various myths impact level of concern

- Presumptions:

- Energy consumption is minimal hence cost savings will be limited
- The louder/more visible the appliance (dishwasher, refrigerator, washer/dryer), the greater its energy consumption
- TVs/Computers are on less than other HH appliances
- EE is “built in” to next generation consumer electronics
- Sleep mode = powered off in terms of energy consumption
- Both TV and computer are “needed” for work/entertainment



Nielsen: Average US household TV viewing: **57.5 hours/week**

- Justifications:

- Reluctance to even consider EE when it comes to entertainment -- deserved “break”
- Justification that other environmentally friendly actions compensate for the absence of EE consumer electronics

Computers and TVs are not considered energy “hogs”

Energy “hogs” are:

- Big
- Noisy
- Used often
- Utilitarian
- Come with rebates

Energy is not considered when:

- Entertainment oriented
- Task oriented
- Visually stimulated
- Quiet operation
- Used less frequently

“Tools” vs. “Toys”

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ENERGY EFFICIENCY CONSIDERATION

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Household appliances (Fridge, W/D, D/W)

Computers and peripherals in a work application

Home Entertainment (TV, home theater, computer for surfing, gaming)

Tools

- Satisfaction derived from task completion
- Get tasks accomplished without interaction
- Work in the background
- Lower performance expectations

Toys

- Intrinsic satisfaction
- Entertaining and visually involving
- Focused engagement
- Experiential
- Immediate gratification

Shop-along findings: Lack of support at the retail level

- EE consumer electronics are not supported by POS or salespeople
 - Even when asked, salespeople seemed uninformed (and uninterested?)
- Energy Star stickers are not prevalent
 - When the products are stickered, they're barely noticeable
- As a point of comparison, all shop-along respondents were very aware of energy efficient appliances -- many noting that was a key criteria in their purchase decision -- both for the rebate opportunity and utility bill cost savings

Household appliances paved the way for EE openness

- Quantifiable savings clearly communicated via in-store POS and sales person push
 - Several noted that the bold yellow sticker, clearly expressing the quantified savings and energy star rating, was a key driver to the education of EE and appliances
- Awareness created outside store via other communication vehicles
 - Print (newspaper, magazines, circulars)
 - EnergyStar efforts
 - OEM/Retailer partnerships (interactive, TV, radio)
- Word-of-mouth and consumer reviews contribute to favorable impressions

Utilities are credible info source

- Utilities (PG&E and SMUD specifically in this case) are credible sources of information
 - History of EE messaging and rebates
 - Utilities have a “responsibility” to communicate EE messages
 - Others believe utilities are “mandated” to communicate EE messages



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Opportunities & Positioning



Areas of Opportunity

- Directly confronting misperceptions head-on will reframe the context
- Provide a value proposition through basic benefits
- Learn from other successes (appliance category)

Positioning EE Electronics - Education

I. Educate them. The purpose of education should be two-fold.

1. Unlock the potential. The best customer response came after only a minimal amount of information and education had been conveyed about the principle of energy efficiency in the electronics category, laying the foundation for customer acceptance. It only takes a little effort to unlock consumer interest in this area. Once business customers have gotten over the “will they have the same features?” hurdle, they will opt for the energy efficient option.
2. Dispel common myths. Doing so will raise awareness of behavioral issues and create more reasons to pay attention.

Positioning EE Electronics - Education

Misperceptions:

Appliances:

- Energy hogs
- Big
- Noisy
- Used often
- Works in the background
- Utilitarian/about task completion
- Come with rebates
- No interaction
- Performance not an issue

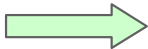
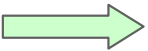
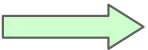
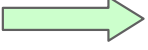
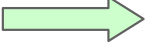
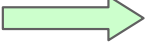
Electronics:

- Minimal energy consumption
- EE is “built in” to new electronics
- Quiet operation
- Used less frequently
- Sleep mode = powered off
- Entertainment-oriented
- Entertainment is a deserved “break” and not to be diminished in any way
- Visually stimulating

Positioning EE Electronics - Education

Reframing perceptions:

Electronics:

- Minimal energy consumption  – Can have high energy consumption
- EE is “built in”  – In reality, EE is not commonplace
- Quiet operation  – Many electronics are on 24/7
- Used less frequently  – Used far more than appliances
- Sleep mode = powered off  – Sleep mode = on
- Entertainment-oriented
- Entertainment is a deserved “break” and not to be diminished in any way  – No performance trade-offs with EE
- Visually stimulating

Positioning EE Electronics - Benefits

- II. Provide benefits.** Keeping it simple by talking about the baseline consumer benefits of energy efficiency can go a long way, especially if communicated via Energy Star.
- 1. It's easy.** EE electronics provide no performance trade-off, little cost difference and the same premium features you would expect. For business customers, it's an easy way to make a smart decision for their companies.
 - 2. Simple actions can make a big difference.** My small personal adjustment can have a significant effect when combined with the action of others (People like me do this)
 - 3. Saves money.** Opting for energy efficient electronics can save \$x a year in energy costs. For business customers, EE electronics is a smart way for companies to control their energy costs and at the same time comply with growing green initiatives.

Positioning EE Electronics - Appliances

III. Appliances. People connected Clothes Washers, Dehumidifiers, Dishwashers, Refrigerators & Freezers and Air Conditioning units with energy efficiency (and Energy Star)

1. Build off existing success. We should treat appliances not just as a successful category, but the channel by which people started thinking about energy efficiency in the home.
2. Appliances:Electronics – Apples:Apples. There was a movement towards energy efficient appliances because it was easy:
 - Quantifiable energy savings
 - Minimal cost differential
 - Top performance/no performance trade-off
 - Premium features

...get people thinking along these lines for electronics

Lessons learned

Based off this research, we know that there are a host of benefits surrounding energy efficient electronics that will create a motivating proposition for both residential and business customers alike.

PG&E is in the process of developing their own program approach, however the opportunities outlined in this presentation will help them prioritize program and communication components.

For more information...

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