Program Planning & Design

One Approach: A California Utility Program Model for Consumer and Business Electronics

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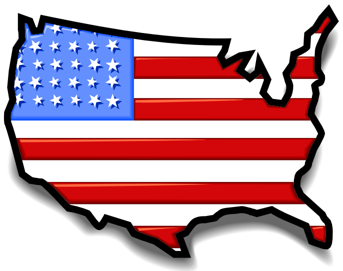
Pacific Gas and Electric Company™

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

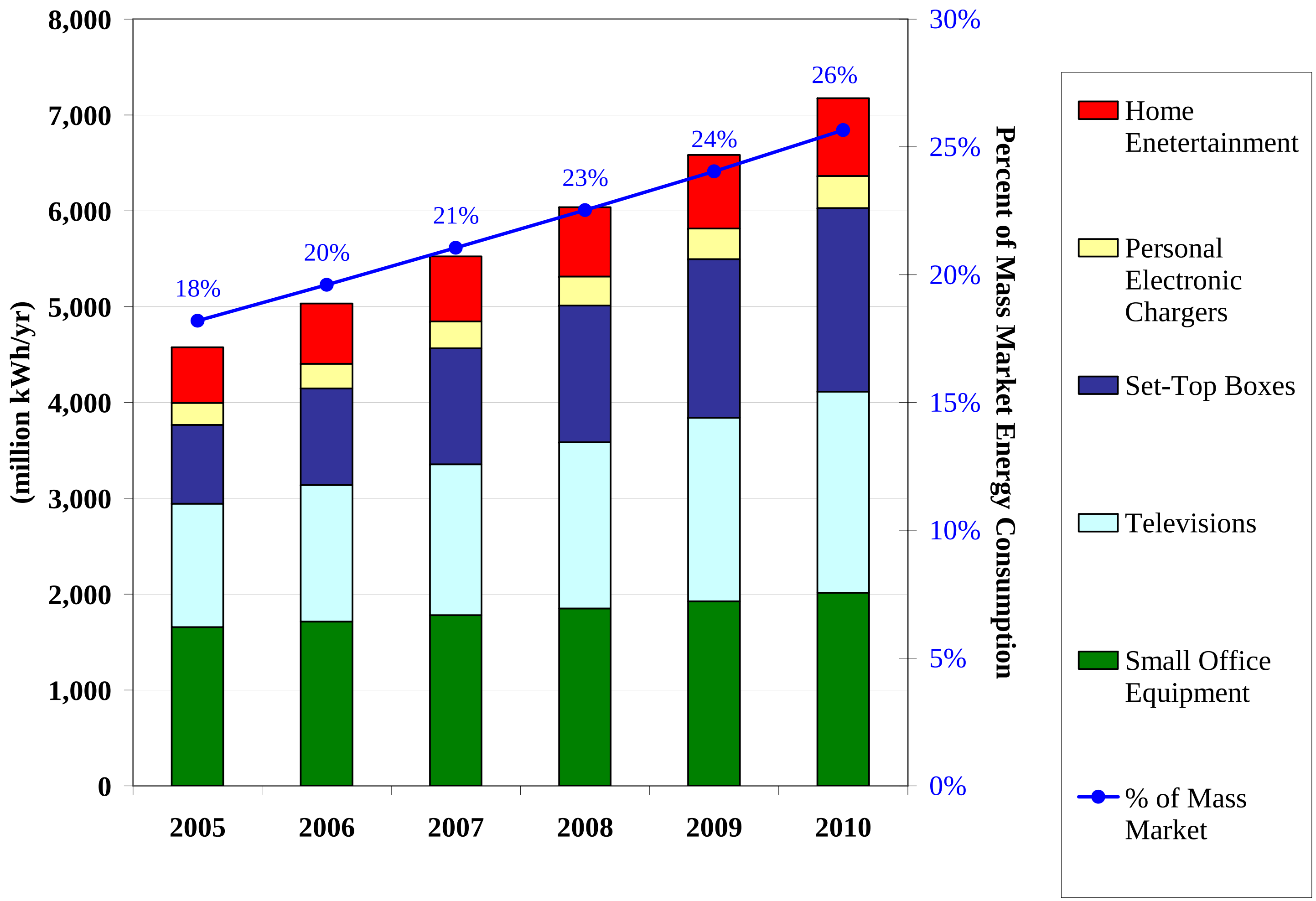
Electronics Market is Growing Rapidly

Electronics has become a major part of the global economy in our lifetime.

- Average US household now owns **25** consumer electronics products
  - Installed base of billions of electronic devices in the home and the office
- Technological advances lead to rapidly changing features and low prices

Electronics Growth Reflected in Growth in Electricity Use

PG&E Mass Market Customers



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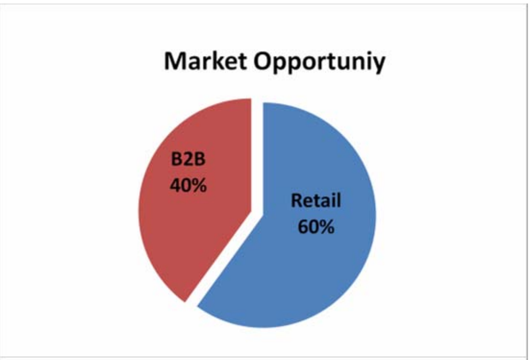
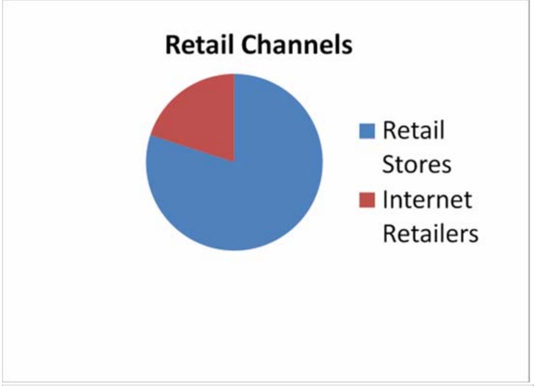
Sales Channels for Electronics

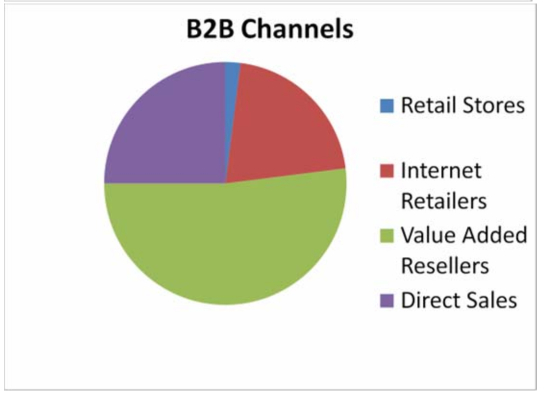
– Program targets consumers and business customers through midstream and upstream channels; consumers are 60% of the opportunity and businesses 40%

– Consumers purchase from midstream channels, such as retail stores and internet retailers, with retail stores holding about 80% of the business, but internet retailers growing

– Business customers purchase from midstream channels such and internet retailers and value added resellers and upstream channels such as manufacturer sales forces.







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Early Programs in California Addressed Small Segments of Market with More Traditional Models

- **80 Plus & ENERGY STAR® efficient desktop PCs and servers** – manufacturer program by Ecos Consulting
- **ENERGY STAR + 25% efficient LCD monitors** – retail program with Energy Solutions
- **Network PC Power Management Software** – by vendors – up to $15/PC purchaser rebate

Challenges for Electronics Program Design

- Dynamic nature of the electronics technology
- Wide variety of end-uses
- Relatively low energy consumption of each unit
- High volume sales – millions of TVs and computers in PG&E territory alone

Electronics Programs Require Different Strategies

Understanding the electronics market and its players points to an "upstream / midstream" model

- Unit energy savings potential for electronics is relatively small and unlikely to motivate most buyers' decisions
  - Dollar savings per unit for electronics are small (less than $10 per year) compared to price of electronics (e.g. $400 - $2,000 for a computer)
  - Small unit energy savings only justify small end-user rebates, which provide limited incentive and result in significant breakage
- The impact of channel actions on customer buying behavior is more important than consumer rebates
  - Manufacturers and the retailers' buying organizations decide what is stocked and sold
  - Financial incentive to channel may have significant impact on product line profitability

Midstream and Upstream Programs Have a High Impact on Market Share and are More Cost Efficient

End User

- Downstream incentive programs are **inefficient and ineffective** due to high "breakage" rates on rebates and the minimal impact that $10 - $20 rebates have on the purchase of products costing hundreds of dollars

Low Impact

Channel

- Midstream incentives **are efficient and effective** because they motivate a higher percentage of channels to sell the EE offering
- Midstream players have high market power and influence on their suppliers, thus have the ability to impact supplier behavior
- Impact the percent of products in a category that are EE
- Impact close rate through store level education
- Impact close rate through financial incentives

High Impact

Manufacturer

- Upstream incentives can be efficient and effective because they motivate manufacturers to provide an EE product
- Motivate manufacturers to price EE products more competitively
- Upstream incentives can be effective when dealing with a limited number of manufacturers

Medium Impact

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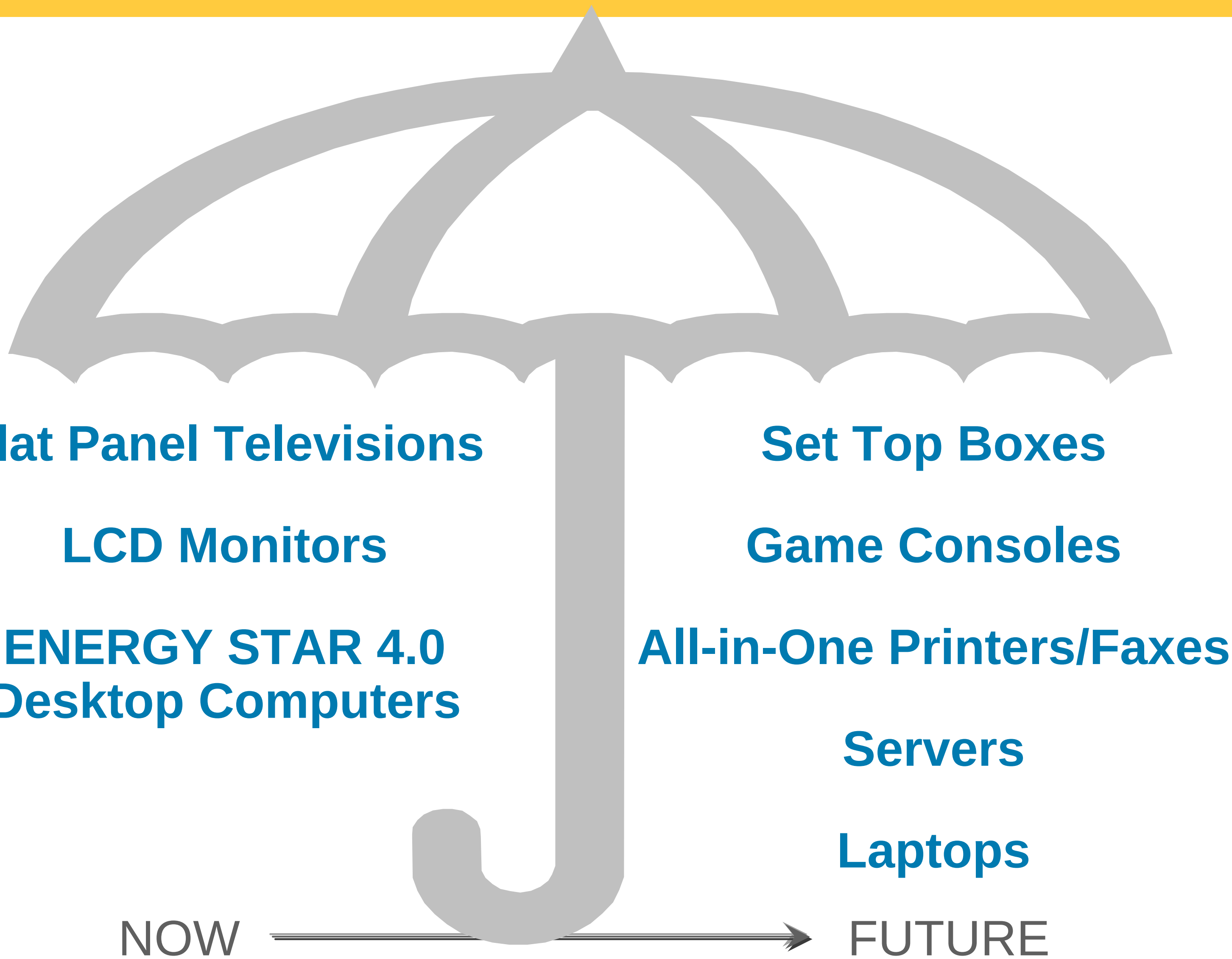
Program Includes a Portfolio of Electronic Products for Consumer and Business Markets



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Program Basics

- Contracting directly with major manufacturers and retailers to deliver upstream/midstream incentives for energy-efficient consumer electronics

Product	Incentive
Flat screen televisions exceeding ENERGY STAR specifications by 15 percent	$20 per unit
Computer monitors exceeding ENERGY STAR specifications by 25 percent	$7.50 per unit
ENERGY STAR 4.0 desktop computers	$8.35 per unit

- Provide education to end-use customers through in-store signage and other marketing vehicles

Key Success Factors for B2B and Consumer Markets

- B2B market requires execution through multiple manufacturer channels
  - Direct sales force
  - Value added resellers / distributors
  - Web channels
- Retail market success requires executing programs through large national retail chains
  - Which make product line and promotional decisions on a national basis
  - With buyers and merchandising managers who manage product lines worth hundreds of millions of dollars – and don’t have much time for anything but their core activities

Program Impact!

Efforts to date generating positive response…..

"Good news in support of this program I have picked up our first ENERGY STAR desktop. …the program is leading to some real changes."

Computer Buyer - national retailer

"We made a decision to move forward with an engineering change on our LCD TVs for changing to an "eco" panel from a different panel fabricator. A significant factor in making this decision was our desire to ensure this size of television is compliant with the California Utility program."

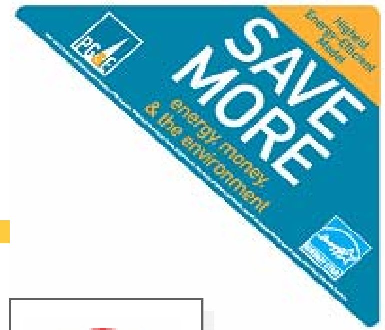
VP / GM - national retailer

Channel Partners

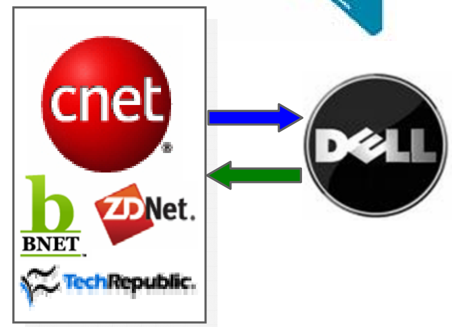
- Developing channel partners requires working with the key decision-makers
  - Buyers in retail; product managers / market segment managers in manufacturing
- Most organizations do not have a person who has utility program coordination as a responsibility
  - This requires that program offerings be easy to execute and take a minimal amount of organization time
- But, this program approach is working….

In Contracts or conversations With…

Marketing and Education



- Program Web Portal with CNET to educate consumers
  - Program messaging, content
  - Search Vendor partners' qualified products
    - (CNET content)
  - Logo placement & cross-link with Vendor and Retailer sites
  - Drive traffic to partners and promote the program



25M+ unique visitors/mo. to CNET sites.

- Media Events
  - Media events to promote the program and participants

- Premium Retail Services (Detailers)
  - Execute merchandising and educate sales support
    - Launch visit (communicate with store employees)
    - Quarterly detail service (up to 1 hour per visit)

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EM&V Influences All Elements of Program Design

- Documentation of per unit energy savings for energy-efficient electronics prior to launch of new measure
- Data collection and reporting needs for EM&V in an “upstream” model
  - Channels need to maintain customer confidentiality with sales data
  - Tracking of sales at zip code level amenable to partners and there is regulatory precedence
  - Out-of-territory and/or prior year sales data as benchmarks
  - Most partners have data systems in place to satisfy measurement requirements
- Participation agreements contain data and reporting requirements
- Attribution studies at channels verify program impact; investigating the necessity of end-user attribution

Program Acceptance is Widespread

- Widespread involvement of major manufacturers and retailers
- But success makes evaluation and attribution to specific programs challenging
- If interested—baseline quick; otherwise hard to know what accomplished
- Important to be involved at time of decision-making—ie, Sep- Oct sets Sp/Summer; more critical is Jan-Mar impacts Fall and Dec holiday season where 60% of yrs sales takes. Get into their buying cycles (6-12 mo ahead)
- Can still impact what will move in stores via marketing; stocking more important

Near-term Program Objectives

1. Launched computer OEM and retail channel for computers, monitors and televisions in November of 2008

2. Broaden program channels, products and participating utilities in 2009
   - Add internet retailers, more manufacturers and retailers
   - Add products – in the retail and B2B space
   - The more utilities that join, the more effective and efficient the program – maximizing impact and value for the channel partners
     - NEEA has joined the program and is implementing this spring
     - Others are evaluating the program

Benefits of Utility Collaboration

- Collaborators can optimize their efforts
  - Fewer points of contact
  - More unified programs across utilities
  - Economies of scale
- Utilities can increase benefit to cost ratios
  - Shared learning reduces costs
  - Consistent programs boost participation by partners and increase sales

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Lessons Learned

- Entering into this space may take longer than you expect - make sure you have your engineering, measurement and evaluation, marketing, sourcing and law all on board before making external commitments to industry
- Difficult to create contract that requires retailers to utilize incentive dollars for product marketing
- Difficult to plan program before ENERGY STAR specification is released
  - Manufacturers are reluctant to share information before specification is released
- Requires frequent updates in product standards to keep up with manufacturer's frequent product line changes
- Challenge to get everybody on the same page on implementation &/or products. Regulatory, corporate agendas – finding the win-win for all not easy

Take the plunge…Join Us!

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