

Consumer Electronics

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Working Together, Advancing Efficiency

Background

- CEE has been monitoring power supplies and standby power
- Board asked staff to begin exploring product area further
- Staff has spent past 6 months researching, assessing opportunity



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Opportunity Assessment

- Technology review
 - Test procedures
 - ENERGY STAR
 - Efficiency activity
 - Federal
 - State
 - Outside the US
 - Trends
- Potential CEE program outcomes



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Presentation Outline



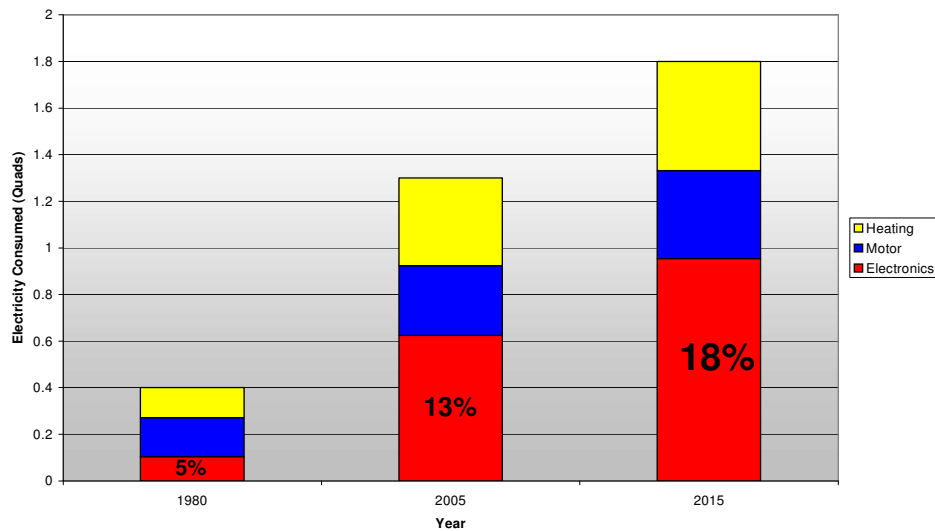
- Miscellaneous products and consumer electronics: definitions and significance
- Potential challenges for managing these products
- ENERGY STAR actions and plans
- Ideas for efficiency programs

Product Category Definition



- EIA traditionally tracks five sources of residential energy consumption:
 - Lighting
 - Major appliances
 - Water heating
 - Air conditioning
 - Space heating
- Miscellaneous products = everything not covered by above categories, including:
 - TVs
 - Mobile phones
 - Toasters
 - Home security systems
- Incredibly varied in terms of type and purpose
- Energy use comparable to energy used by five traditional categories

Product Category Significance



Potential Challenges



More challenging to manage through traditional mandatory standards due to:

- Rapid obsolescence of products
- Greater diversity in types of products within category
- New products that quickly gain in popularity, e.g., PDAs, PVRs
- Relatively low market penetration of certain products, e.g., 65% for mobile phones in the U.S.
 - But high volume sales expected until market saturated
- Wide breadth of needs served by miscellaneous products





ENERGY STAR Approaches



1. Address energy consumption through common component—power supply
2. Develop specific metrics to address Active Mode for entire product system
3. Work with international stakeholders to harmonize test procedures and specs, given global market for many products




Approaches 1 and 2: Overview



Approach 1		Approach 2
Component Specification   		 Product System Specification
EPS	BCS	
Mobile phones	Power tools	Televisions
PDA's	Small kitchen appliances	Copiers
MP3 players	Floor care	Computers
Wireless routers	Personal hygiene	DVD players

Approach 1: Power Supplies



- External power supply spec has two parts:
 - Active Mode
 - No-Load Mode
- 


 ⇒ Models must meet both to comply
- Emphasis on Active Mode where majority of energy savings realized
- EPS approach also applicable to internal power supplies and battery chargers (BCS)

Approach 2: System Active Mode



- Revised ENERGY STAR specs include criteria focused on reducing Active Mode power consumption
- Requires development of new test procedure to measure Active Mode power consumption
- More complex than Approach 1
 - ⇒ But allows greater design flexibility to meet new criteria

Approaches 1 and 2: ENERGY STAR Specs



	Product Category	Status	Effective Date
1	EPSs	Finalized	Jan. 1, 2005
	Monitors	Finalized	Jan. 1, 2006
	Imaging Equipment	Finalized	April 1, 2007
2	Computers	Under development	July 1, 2007
	DTAs	Under development	December 2007
	TVs	Under development	Feb./March 2008

Approach 3: International Harmonization



- Global market for many products
- Benefits of harmonizing test procedures & specs:
 - Allows countries to combine resources and technical knowledge
 - Applicable worldwide
- Countries with voluntary programs and/or mandatory standards include:

EU	Taiwan
Canada	Japan
Australia	China
- These countries working with EPA to harmonize respective approaches

Ideas for Efficiency Programs



- Research and field work
- Incentives for efficient electronics
- Interactive tools, e.g., ENERGYSTAR@home
- Call to action campaigns, e.g., Change A Light, Change The World campaign

CEE: Moving Forward

- CEE Board to discuss tomorrow
- Proposal to form a Program Committee to provide input to staff as exploration continues

- Lunch table discussion today!



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