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Energy Efficiency and Environmental Sustainability: Current Challenges and New Opportunities

17th Annual World Electronics Forum Meeting 18-21 April 2012 – Cebu, Philippines

Outline of Presentation

- CEA's approach to environmental sustainability
- Current activities
- New eco-labeling initiative
- Energy efficiency
 - Guiding principles for energy efficiency in networked devices





Consumer Electronics Association

- Represents more than 2,000 companies in the USD195 billion U.S. consumer electronics industry
- Membership includes component suppliers, device manufacturers, retailers, distributors, and service providers





Consumer Electronics







Environmental Sustainability: CEA Issues and Activities

- Electronics recycling
- Energy efficiency
- Chemicals and materials restrictions
- Packaging
- International CES





Comprehensive Approach

Partnerships
White Papers
Market Research
Conference & Events
Media Outreach
Consumer Education



Commissioned Studies
Industry Standards
Government Relations
Consumer Research
Online Resources
Product Demonstrations





Partnerships

 CEA, Environmental Defense Fund and InnoCentive eco-Challenge to develop compelling economic and environmentally preferable solutions for recycling old cathode ray tube (CRT) televisions and monitors





CEA Sustainability Report

- Product design
- Packaging
- Facilities
- Transport & Delivery
- Energy Efficiency
- eCycling
- Social Contributions







eCycling Leadership Initiative

 First-ever industry-wide electronics recycling initiative to recycle one billion pounds of electronics annually by 2016, more than a threefold increase over 2010







Energy Use Study

 Energy use study of consumer electronics in U.S. homes (2011)

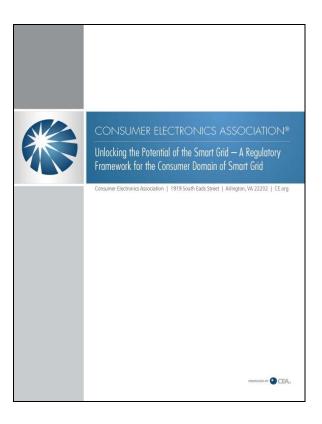






White Paper on Smart Grid

 White paper on smart grid regulatory policies for consumers (2011)







Product Demonstrations

 Sustainable consumer electronics technology demonstration in California for legislators and regulators











Online Resources

Launch of <u>GreenerGadgets.org</u>







Media Outreach

 Recent CEA satellite media tour highlighting latest in sustainable consumer electronics products

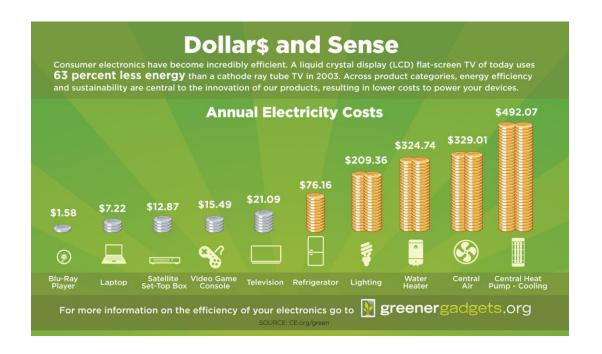






Media Outreach

Consumer-focused advertisements







Green Standards for CE

- CEA recently formed a working group on multi-attribute green standards and disclosure
- Several green standards and disclosure programs under development in U.S.
 - EPEAT/IEEE 1680, The Sustainability
 Consortium, UL Environment, ENERGY STAR





Typical Green Standards/ Disclosure Elements

- Environmentally sensitive materials
- Design for product end-of-life
- Product longevity/lifecycle extension
- Energy conservation
- Product end-of-life management
- Packaging





Challenge to Industry

- Suppliers
 - Material selection, and data
 - Design for product end-of-life
 - Energy conservation
 - Packaging
- Manufacturers All issues
- Retailers Consumer education





CEA's Energy Efficiency Activities

- Research and analysis
- Public policy
- Industry standards
- Consumer education
- Promotion and recognition





Challenges and Opportunities

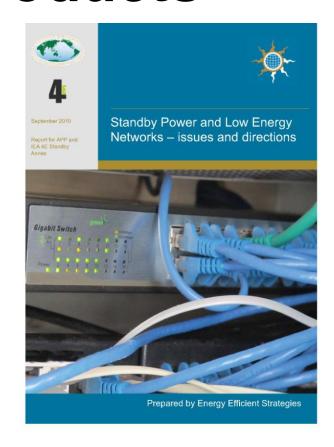
- Myth vs. reality
- Energy use disclosures
- Convergence and mobility
- Consumption vs. efficiency
- Consensus industry standard test procedures
- Harmonization





Energy Efficiency and Networked Products

- Research
- Regulatory interest
 - Asia-Pacific: AUS & NZL
 - Americas: USA
 - Europe: EU
 - Multilateral: IEA







Proposal: Guiding Principles

- "Guiding Principles for Energy Efficiency in Networked Consumer Electronics"
 - Raising global industry awareness
 - Supporting industrygovernment interaction

09 April 2012

Guiding Principles for Energy Efficiency in Networked Consumer Electronics

This is a proposal for consideration by World Electronics Forum participants during the WEF annual meeting in April 2012. The WEF member contact for this issue is Douglas Johnson, Consumer Electronics Association (CEA), djohnson@ee.org.

Background and context:

The energy consumption and efficiency of consumer electronics is continually evolving with advances in technology, product features and service. A key part of this evolution is network connectivity, which delivers new capabilities to products. Network connectivity can increase power consumption in two ways, operation of the hardware that enables communication, and time spent in higher power-consuming modes due to network activity and simply maintaining network connectivity. Also relevant to the power consumption of networked consumer electronics are the underlying technology standards for network interfaces, network protocols, and user expectations for device behavior.

Guiding principle

As leading organizations representing the consumer electronics industry around the world, we support the following guiding principles with respect to advancing energy efficiency in networked consumer electronics:

- Government and industry should support voluntary, market-oriented programs and initiatives, including industry-led standard test procedures. Emphasis should be on initiatives that support continued innovation, expanded consumer choice, and enhanced product functionality.
- Government and industry should pursue harmonized policy approaches that benefit the global marketplace for consumer electronics.
- Network technologies should actively support power management and follow generally accepted international power management principles and designs.
- Consumers should be informed about and have reasonable control over power management, including but not limited to understanding power states and how networkconnected sleep modes affect the user experience.
- To the extent possible, industry should embrace open networking standards, such as Internet Protocol, so that future audio-visual devices can interoperate with other networked devices in buildings, such as computers and lights, for functionality and energy savings.

Continued





Questions and More Information







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