



**CEA**®

Consumer Electronics Association

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*2008 Rulemaking Proceedings on Appliance Efficiency Regulations*  
*Docket No. 07-AAER-3*

## **Efficiency Committee Workshop**

*California Energy Commission*

Sacramento, CA | July 16, 2008

### ***Consumer Electronics Association (CEA)***

**Doug Johnson**  
djohnson@ce.org

**Bill Belt**  
bbelt@ce.org



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# About CEA



- CEA represents more than 2,200 companies in the \$161 billion U.S. consumer electronics industry
- Membership includes component suppliers, device manufacturers, retailers and distributors, service providers
- Most of CEA's members are small and medium-sized businesses



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# Workshop Participation

- As the CEC knows, industry conferences and commitments this week made it difficult for most of our TV-related members to attend.
- CEA and its members are committed to energy efficiency, engagement with the CEC and other California policy makers, and participating in the 2008 rulemaking.



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# CE Industry Contributions

- Committed to working with CEC and other stakeholders
- Actively engaged in efforts to “do the right thing” – improve efficiency, reduce consumption
- Supportive of market-oriented approaches that transform the market
- Introduced proposal before CEC for 2008



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# Consumer Electronics Industry Approaches & Initiatives

1. Voluntary, market-oriented programs:
  - *ENERGY STAR*
2. Research and analysis:
  - *Completed two major studies: (1) Primary energy use of CE products, and (2) Energy savings, emissions reduction benefits of using CE products for teleworking and e-commerce*



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# Consumer Electronics Industry Approaches & Initiatives, cont'd

## 3. Standards developed by industry:

- *TV power consumption measurement (IEC 62087 Ed.2)*
- *STB power consumption measurement*

## 4. Consumer education:

- *myGreenElectronics.org (energy use calculator for CE products; energy-savings tips for consumers)*



# Consumer Electronics Industry Approaches & Initiatives, cont'd

## 5. Promotion of energy-efficient products:

- *Eco-design award at CES*
- *Conference sessions*
- *Product and technology promotion*

## 6. Outreach and coordination:

- *Governments, NGOs, researchers, utilities*





# Energy Star for TVs

- Collaborative, two-year effort
- Now addresses active mode in addition to standby
- TVs tested at factory-default settings, encouraging shipment of TVs in lower energy-consuming modes



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# Energy Star for TVs

- Effective November 1, 2008
- Compliant product available for upcoming high-demand sales periods
- Tier 2 effective date built in to new specification; new specification again will be vetted through a broad stakeholder forum



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# Energy Star: Advantages

- Voluntary, market-driven and international
- Government-industry partnership
- Captures broad range of consumer electronics product categories
- Strong participation by manufacturers
- Well-recognized by consumers
- Competitive incentive for energy savings
- Consideration of active mode power in addition to standby mode power



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# Energy Star

- Growing and more active than ever
- Product specifications recently completed:
  - *Televisions*
  - *Set-top boxes*
  - *External power supplies*
- Product specifications under revision:
  - *Computers*
  - *Monitors*
  - *Imaging equipment*




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# Energy Star: Achievements

- *Electronics are an Energy Star success story*

|  ENERGY STAR | ENERGY SAVED<br>2006<br>(BILLION KWH) | EMISSIONS AVOIDED 2006<br>(MILLION METRIC TONS OF<br>CARBON EQUIVALENT) |
|---|---------------------------------------|---|
| <b>Consumer Electronics</b>   | <b>12.3</b>                           | <b>2.4</b>  |
| Residential Appliances  | 0.6                                   | 0.1   |
| <b>Residential Office<br/>Equipment</b>   | <b>6.3</b>                            | <b>1.2</b>  |
| Lighting  | 11.3                                  | 2.2   |
| Heating and Cooling   | 7.6                                   | 2.4   |
| Commercial Appliances   | 1.3                                   | 0.3   |
| <b>Office Equipment</b>   | <b>28.5</b>                           | <b>5.6</b>  |
| Commercial Lighting   | 1.7                                   | 0.3   |
| Other   | 5.5                                   | 1.0   |

Source: U.S. Environmental Protection Agency's latest ENERGY STAR Annual Report



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# Energy Star

- The Energy Star program for consumer electronics has proven to be the best and most effective approach for saving energy and reducing greenhouse gas emissions.
- The Energy Star program effectively drives energy use down to the lowest levels possible ***without harming innovation, sacrificing consumer choice, or impeding product convergence.***



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# PG&E Revised Proposal

- Does not actually provide “comprehensive technical, economic, market and infrastructure information”
- Relies on deficient data set!
- Data is neither a fair nor accurate representation of what is on the market now, let alone what will be on the market in the near or medium term

# PG&E Revised Proposal

- As PG&E admits:
  - *All of its data sets are different (many relevant variables, including display technology, test procedures, test conditions, display resolution, date of manufacture, etc.)*
  - *TV models may be represented more than once – “impossible to distinguish how many unique models”*



# PG&E Revised Proposal

- As PG&E admits:
  - *No accounting for natural market improvements (improvements in existing technology as well as introduction of new technology)*
- In addition, no accounting for impact of new ENERGY STAR Version 3.0 specification for TVs

# PG&E Revised Proposal

- Mandates arbitrary power limit for TVs in active mode
- Bans non-compliant products at the expense of innovation, convergence and consumer choice and consumer preference



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# PG&E Revised Proposal

- ENERGY STAR specification line removed from graphs in PG&E revised proposal
- Undermines the successful and popular ENERGY STAR program
  - *TV specification resulted from a broad, collaborative stakeholder effort*



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# PG&E Revised Proposal

- Has the Commission thoroughly considered all issues and implications involved in PG&E's mandatory approach?

# PG&E Revised Proposal

- Would exclude 50-65% of televisions available to consumers today
- Impacts all sizes of TVs
- Large impact on two classes of TVs: inexpensive flat panel TVs over 40" and feature-rich sets over 40"; each impact poses particular problems for the consumer market



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# PG&E Revised Proposal

- No thorough analysis or consideration of major issues such as:
  - *Negative impact on consumers*
  - *Adverse effects on retailers, independent dealers, distributors and custom installers*
  - *Adverse impact on commerce*
  - *Adverse impact on innovation*

# PG&E Revised Proposal

- Tax revenue loss impacts could be in the hundreds of millions of dollars annually over the next 10 years
  - 1.2M TVs sold in CA annually (>40")  
\$1,500 average price (>40")  
7.5% sales tax  
**\$135M** (let alone accessory sales)

# Impact of PG&E Proposal





# CEA Proposal

- CEA Proposal made July 1<sup>st</sup>
- Mandatory reporting of energy use data
- Energy use disclosures
- Educational campaign



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# CEA Proposal: Data Reporting

- Any manufacturer intending to sell a digital television in the state must submit an energy use declaration for each model prior to sale (model no., display technology, active mode power draw according to IEC 62087 Ed. 2)
  - *Improves market surveillance and understanding of energy efficiency trends; no “masking” of data*



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# CEA Proposal: Disclosures

- CEA welcomes the Commission to review and contribute to industry's recommendations and research supporting energy use disclosure requirements for televisions.



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# CEA Proposal: Education

- Partner with industry and other stakeholders on a major consumer education campaign in California designed to support and encourage consumer purchases of televisions meeting the new ENERGY STAR specification that becomes effective November 1, 2008
  - *Time is right: Major television sales periods upcoming*



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# Drivers for Market Transformation

Key drivers of energy efficiency in consumer electronics:

- 1. Innovation, technological advances*
- 2. Voluntary, market-oriented programs and initiatives*



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# Consumer Electronics Market

- Rapid innovation
- Dynamic marketplace
- Highly competitive industry
- Significant time-to-market pressures
- Significant cost pressures
- Rapid rates of market penetration
- Rapid transition from one technology to another



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# The Problems with Regulation of Technology

- Government regulation and mandatory limits never keep pace with technology
- Product definitions change
- Products converge, new product categories emerge
- Technical complexities particular to consumer electronics
- Operating modes and functions change



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