

CALIFORNIA ENERGY COMMISSION

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June 26, 2009

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Mr. Doug Johnson
Senior Director, Technology
Policy & International Affairs
Consumer Electronics Association
1919 South Eads Street
Arlington, VA 22202

Dear Mr. Johnson:

This letter is a follow up from our June 24, 2009 meeting with Kevin Sloat and Kelly Jensen. While they have ably represented your preferred alternatives, we still believe our proposed regulatory approach will best reach California's energy and environmental goals. Furthermore, we seek your help in designing a set of standards and exceptions that save energy and allow for video technology advancement.

During our April 1, 2009 meeting in the Governor's Office, we agreed to take 90 days to gather additional information and had hoped for your active participation. We share your goals of promoting innovation and allowing for specialty video applications. These key issues would be best resolved with CEA and individual electronics companies informing our deliberations.

Therefore, we are requesting information about the remaining issues industry representatives brought to our attention. This letter includes several questions about the manufacturing and performance aspects of our proposed efficiency standards. The requested information will help us develop the most effective television standards. So far, we have received only limited data and information from your association.

In addition, we have included the latest draft of the proposed television efficiency standards. This version is based on new information received during two workshops and discussions with stakeholders, including CEA members. We welcome any alternatives that will increase the effectiveness and clarity of the proposed standards that are consistent with our approach.

We want to call to your special attention the difficulty we are having confirming an issue your association has repeatedly raised. The Commission's staff and consultants have found no evidence in the record to corroborate your concerns that our testing procedures (under IEC 62087) cannot accommodate the addition of new features and equipment. Please provide some technical basis to support this assertion. If possible, please quantify the amount of energy consumed by these features and provide a

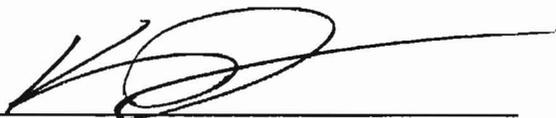
technical evaluation of this energy consumption. In addition, for each of these features please describe their ability to be turned off for testing purposes.

- a) 120 Hz and 240 Hz improved refresh rates
- b) 780p vs 1080p pixels per line
- c) Internet access
- d) 3 dimensional display
- e) IPOD docking station
- f) Extra video processing features (other than minimal functions required to display the IEC video test loop)
- g) Others (including features projected to be available in the future)

For each section of the attached draft standard, please identify any technical concerns you may have. For each concern, please be specific and tell us why the section would present an undue burden on industry. Also include alternative language or proposals which would resolve your organizations concerns. We are also interested in your views on how a de minimus volume exception could be crafted for specialty televisions of extraordinary size or performance.

We look forward to your response to this letter by July 20, 2009. As we discussed during our recent meeting, we would use any significant new information CEA or its member companies provide as the basis for a third pre-rulemaking workshop. Otherwise we will proceed to a full hearing of this important energy efficiency regulation.

Sincerely,



KAREN DOUGLAS
Chairman



ARTHUR H. ROSENFELD
Commissioner

cc: Dan Pellissier
Kelly Jensen
Kevin Sloat

Attachment A: Proposed Television Related Changes To:
CALIFORNIA CODE OF REGULATIONS, TITLE 20:
DIVISION 2, CHAPTER 4, ARTICLE 4, SECTIONS 1601-1608:
APPLIANCE EFFICIENCY REGULATIONS

Please note that proposed new language appears as underline (example) and draft deletions appear as ~~example~~. Existing language appears as plain text. Three dots or "... " represents the substance of the regulations that exist between the proposed language and current.

Section 1601. Scope.

- ...
- (v) Televisions, and Consumer audio and video equipment, which are ~~televisions,~~ compact audio products, digital versatile disc players, and digital versatile disc recorders.

...

Section 1602. Definitions.

- ...
- (v) **Televisions, and Consumer Audio and Video Equipment.**

"Automatic brightness control" means an integrated control system that automatically adjusts the brightness of a television based upon ambient lighting conditions.

~~"Color television set" means an electrical device designed to convert incoming broadcast signals into color television pictures and associated sound.~~

"Combination TV" means a system in which a television or television monitor and an additional device or devices (e.g., DVD player, HDD, VCR, etc.) are combined into a single unit and which meets all of the following criteria: the additional devices are included in the television casing; it is not possible to measure the power requirements of the components separately without removal of the television casing; and the system is powered through a single power cable.

"Component TV" means a television composed of two or more separate components (e.g., separate display device and tuner) marketed and sold as a television under one model or system designation. The system may have more than one power cord.

"Computer monitor" means an analog or digital device designed primarily for the display of computer generated signals, is "plug and play," and is not marketed for use as a television.

"Download acquisition mode (DAM)" or "Standby-Active mode" means the product is connected to a power source, produces neither sound nor a picture, and is downloading channel listing information according to a defined schedule for use by the electronic programming guide, monitoring for emergency messaging/communications and/or otherwise communicating through a network protocol. The power use in this mode is typically greater than the power requirement in standby-passive mode and less than that in On Mode.

"Forced menu" means a menu which requires the selection of a display mode by a user upon their first use after the manufacture of the television.

"Native vertical resolution" means the physical pixel count for the vertical axis of the television. For example a television with a screen resolution of 1920 x 1080 would have a native vertical resolution of 1080.

~~"Monochrome television set" means an electrical device designed to convert incoming broadcast signals into monochrome television pictures and associated sound.~~

"On mode" and "Active mode" means the product is connected to a power source and produces sound and a picture. The power requirement in this mode is typically greater than the power requirement in Standby and Download Acquisition Modes.

"Selected input mode" means the input port(s) selected which the television is using as a source to produce a visible and or audible output. These modes are required for televisions with multiple possible inputs such as but not limited to coaxial, RCA, S-Video, HDMI, and component connectors.

"Television (TV)" means an analog or digital device designed primarily for the display and reception of a terrestrial, satellite, cable, Internet Protocol TV (IPTV), or other broadcast or recorded transmission of analog and/or digital video and audio signals. TVs include Combination TVs, Television Monitors, Component TVs, and any unit that is marketed to the consumer as a TV. "Television (TV)" does not include computer monitors.

~~"Television (TV) set" means a color television set or a monochrome television set.~~

"Television monitor" means a TV that does not have an internal tuner/receiver or playback device.

"TV standby-passive mode" means the product is connected to a power source, produces neither sound nor ~~vision~~ picture but can be switched into another mode with the remote control unit or an internal signal.

“Viewable screen area” means the continuous total area of a television in square inches which displays a digital or analog video signal and is viewable to a consumer.

Section 1604. Test Methods for Specific Appliances.

...

(v) Televisions, and Consumer Audio and Video Equipment.

(1) The test method for standby-passive mode for televisions and consumer audio and video equipment is International Electrotechnical Commission (IEC) 62087:2002(E) – “Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment.”

(2) The active mode and power factor test method for televisions shall be International Electrotechnical Commission (IEC) 62087, Edition 2.0 – “Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment.” Televisions shall be tested using section 11.6.1, “On mode (average) testing with dynamic broadcast-content video signal.”

(A) The power factor of the television shall be measured during the on mode test and the reported value shall be the average of power factor measurements taken at one minute intervals simultaneous to 11.6 active mode wattage measurements. The measurement of power factor must be accurate to a tenth of a percent.

(B) A television shall be tested as manufactured without any modifications to screen settings with the exception of televisions manufactured with a forced menu. Televisions manufactured with a forced menu shall be adjusted and tested under the following conditions 1 or 2.

1) The on mode measurement of a television with a forced menu shall be tested in the “home” mode or the manufacturer’s recommended mode for home use. In addition the on mode of a television shall be measured in the most energy consumptive mode available in the forced menu.

2) If neither a “home” mode nor a manufacturer’s recommended mode for home use are available the television shall be tested in the most consumptive mode available in the forced menu to measure the on mode power.

(C) The on mode power consumption for televisions with and without forced menus and incorporating automatic brightness controls shall be calculated as follows :

$$P_{a1 \text{ broadcast}} = 0.55 * P_{o \text{ broadcast}} + 0.45 * P_{abc \text{ broadcast}}$$

Where $P_{o \text{ broadcast}}$ is the result of the on mode power test with 300 lux entering the light sensor, and $P_{abc \text{ broadcast}}$ is the result of the on mode power test with 0 lux entering the light sensor.

Section 1605.3. State Standards for Non-Federally-Regulated Appliances.

(v) Televisions, and Consumer Audio and Video Equipment.

(1) Consumer Audio and Video Equipment. The power usage of consumer audio and video equipment manufactured on or after the effective dates shown shall be not greater than the applicable values in Table V-1. For equipment that consists of more than one individually powered product, each with a separate main plug, the individually powered products shall each have a power usage not greater than the applicable values shown in Table V-1.

**Table V-1
Standards for Consumer Audio and Video Equipment**

<i>Appliance Type</i>	<i>Effective Date</i>	<i>Maximum Power Usage (Watts)</i>
Compact Audio Products	January 1, 2007	2 W in Audio standby-passive mode for those without a permanently illuminated clock display 4 W in Audio standby-passive mode for those with a permanently illuminated clock display
Televisions	January 1, 2006	3 W in TV standby-passive mode
Digital Versatile Disc Players and Digital Versatile Disc Recorders	January 1, 2006	3 W in Video standby-passive mode

(2) Televisions. All televisions manufactured on or after the effective dates shall meet the requirements shown in Table V-2.

(3) In addition, televisions manufactured on or after July 1, 2010 (Note: this date will change to a date no earlier than one year after adoption). shall meet the requirements shown in Sections 1605.3(v)(2)(A) and 1605.3(v)(2)(B) and 1605.3(v)(2)(C) of this Article.

A. A television shall automatically enter standby-passive mode after a maximum of 15 minutes without video and/or audio input on the selected input mode.

B. A television shall enter standby-passive mode when turned off by remote or integrated button/switch.

C. A television manufactured with a forced menu shall not be capable of more than 20% additional power measured in the most energy consumptive

mode available in the forced menu than the reported on mode power usage. The following equation describes this limitation:

Most energy consumptive mode power < or = 1.2 x Reported On Mode Power as tested and submitted for certification in Table X part V

Table V-2

Standards for Televisions

<u>Effective Date</u>	<u>Maximum TV Standby-passive Mode Power Usage (watts)</u>	<u>Maximum On Mode Power Usage (Watts)</u>	<u>Minimum Power Factor</u>
<u>January 1, 2006</u>	<u>3 W</u>	<u>No standard</u>	<u>No standard</u>
<u>July 1, 2010 (Note: date will change to no earlier than one year after adoption)</u>	<u>1 W</u>	<u>0.20* Screen Area (in²) + 32</u>	<u>0.9</u>
<u>January 1, 2012</u>	<u>1 W</u>	<u>0.12* Screen Area (in²) + 25</u>	<u>0.9</u>

...

Section 1606. Filing by Manufacturers; Listing of Appliances in Database.

...

Table X Continued - Data Submittal Requirements

	Appliance	Required Information	Permissible Answers
V	<u>Televisions</u>	<u>Type</u> ²	CRT, Plasma, LCD, DLP, Rear Projection, Laser, OLED, LCOS
		<u>Standby-Passive Mode Power</u> [?]	
		<u>On Mode Power</u> ²	
		<u>Maximum On Mode Power</u> ²	
		<u>Power Factor</u> ²	
		<u>Viewable Screen Area</u> [?]	
		<u>Viewable Screen Height</u> [?]	
		<u>Viewable Screen Width</u> [?]	
		<u>Television Depth</u> ²	
		<u>Automatic Brightness Control</u> [?]	Yes, No
		<u>Forced menu</u> ²	Yes, No
		<u>Native Vertical Resolution</u> [?]	
		<u>Aspect Ratio</u> [?]	

* "Identifier" information as described in Section 1602(a).

1 = Voluntary for federally-regulated appliances

2 = Voluntary for state-regulated appliances

(4) Declaration

(A)

5. all units of the appliance are marked as required by Section 1607, and, for the following appliances are marked as follows:

...

- j. for televisions, each package containing a television is marked, permanently and legibly on an accessible and conspicuous place on the package, in characters no less than 1/2" showing the active mode power as certified by the manufacturer under the requirements found in Section 1606(a) of this Article; OR each television shall display the on mode power consumption as tested under Section 1604(v) of this Article and as certified by the manufacturer under the requirements found in Section 1606(a) of this Article;
- k. for televisions, the last characters of a television model number shall be equivalent to a dash followed by the on mode power consumption as certified by the manufacturer under the requirements found in Section 1606(a) of this Article; OR any publication, website, document, or retail display that is used for sale or offering for sale a television manufactured after July 1, 2010 and includes a description of the physical dimensions of the television shall include the on mode power consumption reported in Table X part V immediately following and in the same font and same font size as the description of the physical dimensions.

...

Section 1607. Marking of Appliances.

...

(d) Energy Performance Information.

...

Televisions. Televisions must be labeled as described in the following sections (A) and (B)

A)

- i) Each package containing a television shall be marked, permanently and legibly on the packaging in an accessible and conspicuous place, in

characters no less than 1/2" showing the active mode power as reported as specified in Subsection V of Table X in Section 1606 of this Article.

OR

- ii) Each television shall display the on mode power consumption as tested and submitted for certification in Table X part V within the televisions built in menu, in a font of equal size to the largest font used within the menu screen.

B)

- i) The last characters of a television model number shall be equivalent to a dash followed by the on mode power consumption reported in Table X part V.

OR

- ii) Any publication, website, document, or retail display that is used for sale or offer of sale of a television manufactured after July 1, 2010 and includes a description of the physical dimensions of the television shall include the on mode power consumption reported in Table X part V immediately following and in the same font and same font size as the description of the physical dimensions.